# Proficy HMI/SCADA - CIMPLICITY 2022

## Runtime

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doc@ge.com

# Chapter 1. CIMPLICITY Runtime Login

## *About CIMPLICITY Runtime Login*

CIMPLICITY provides a runtime login requirement as one of its runtime security features.

When the project is running and the first time a user attempts to access any of the CIMPLICITY runtime applications, a CIMPLICITY® Login dialog box displays asking for the User ID and password.

After the user successfully enters a User ID and password and gains access to the runtime, feature, the level of available runtime privileges is determined by the user's role.

- Login requirements and privileges configuration.
- Runtime login procedure.
- Use the CIMPLICITY® Login dialog box.

**Note:** The runtime login is a counterpart to configuration security, which requires a user to login to do configuration.

## *Login Requirements and Privileges Configuration*

By assigning privileges to roles and roles to users , you, the system administrator, can allocate privileges for CIMPLICITY runtime applications.

You can enter the required User ID and password when you configure users. During runtime a user will have to enter the correct User ID and password in the CIMPLICITY® Login dialog box in order during the first time attempt to enable a runtime application.

Review additional login configuration information for:

- CimView.
- Alarm Viewer (stand alone).
- Alarm Viewer (OCX Control).

- Clients.

# *Runtime Login Procedure*

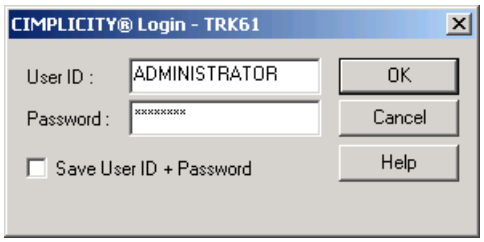
A user will be asked to login to any of the following applications when it is the first time that an application is opened during a runtime session. Once the user is logged into that session access is available to all of the runtime features for which the user role has privileges.

| Runtime Application | CIMPLICITY® Login Dialog Box Displays when a user: |
|---|---|
| CimView | Tries to open a CimView screen that contains points. |
| Alarm Viewer (stand alone) | Clicks Login! on the Alarm Viewer menu bar. |
| Alarm Viewer (OCX Control) | Tries to open an Alarm Viewer CimView screen. |
| Alarm Sound Manager | Tries to add a project. |
| Point Control Panel | Tries to add points. |
| Show users | Tries to open a project. |
| Process Control | Tries to connect to a project. |
| PRT_UI | Tries to open the window. |
| RCOUI | Tries to open the window. |

**Note:** Login for CIMPLICITY remote access, such as Terminal Services, depends on the system administrator's configuration.

# *CIMPLICITY® Login Dialog Box*

1. Enter your User ID.
2. Enter your user Password.



You can now access the CIMPLICITY runtime features for as long as you are working in (and logged into) the current runtime session.

When you walk away from your computer you can easily log out of CIMPLICITY if you need to protect your runtime usage privileges.

**CAUTION:** If you check Save User ID + Password you do not have to log into any CIMPLICITY runtime features as long as your user ID is logged into Windows. However, use this option very carefully, particularly if you have more privileges than other users who may have access to your computer while you are logged into the Windows environment.

# Chapter 2. Login Panel

## *About the Log in Panel*

The Log in Panel is an interactive process that lets you monitor the state of remote or local projects you are logged into or attempting to log into on your computer. The Login Panel shows the status of projects for which there is an active connection. An active connection is made by an application on your computer that is collecting point or alarm data.

You can use this process to:

- Log out of a CIMPLICITY project.
- Override the current log in.
- Change your CIMPLICITY user password.
- Manage your saved log ins.

These actions do not require that you exit from any applications that are currently running. For example, if you are a supervisor, you can override the log in and privileges of an operator, log out, and return the system back to the operator's logged in state.

When you log out of a project, data collection and background processing continues. However, any open CIMPLICITY screens will no longer show point status.

**Tip:** CimLogin and CimLogout Basic Control Engine API's are available for use in CimView, e.g. to have a logout button on the screen.

## *Steps for Using the Login Panel*

### *Login Panel Usage Steps*

Following are steps to monitor log ins.

| | |
|---|---|
| Step 1 *(page 11)* | Start the Login Panel. |
| Step 2 *(page 13)* | Administer the Login Panel. |

| | |
|---|---|
| Step 3 *(page 16)* | Log out of a project through the Login panel. |
| Step 4 *(page 17)* | Log back into a project through the Login panel. |

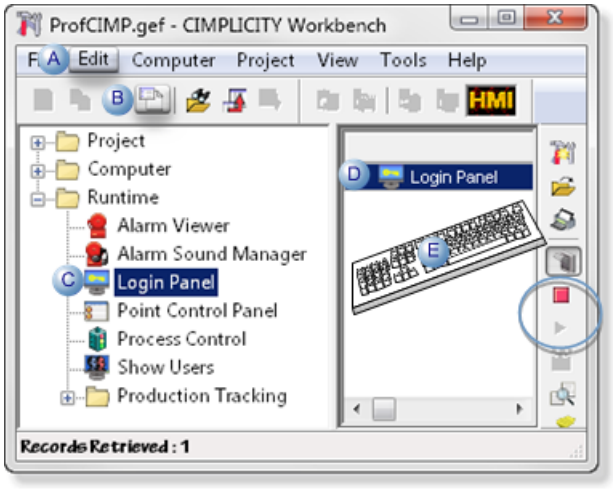
**Important:** CIMPLICITY does not support Windows XP Fast user Switching.

## *Step 1. Open the Login Panel*

1. Make sure at least one CIMPLICITY project is running.
2. Use one of the following.
   - Workbench
   - Start menu

   Workbench

3. Select **Runtime>Login Panel** in the Workbench left pane.
4. Do one of the following.




| | | |
|---|---|---|
| A | Click Edit>Properties on the Workbench menu bar. | |
| B | Click the Properties button on the Workbench toolbar. | |
| C | In the Workbench left pane: | |
| | Either | Or |
| | Double click **Login Panel**. | a. Right-click **Login Panel**.<br>b. Select Properties on the Popup menu. |
| D | In the Workbench right pane: | |

| | Either | Or |
|---|---|---|
| | Double click **Login Panel**. | a. Right-click **Login Panel**.<br>b. Select Properties on the Popup menu. |
| E | Press Alt+Enter on the keyboard. | |

Start menu

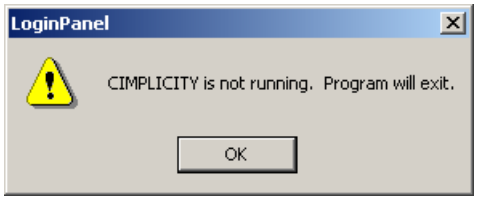
5. Right-click **Login Panel**.
6. Select Properties on the Popup menu.
7. Right-click **Login Panel**.
8. Select Properties on the Popup menu.
9. Click Start on the Windows task bar.
10. Select (All) Programs>Proficy HMI SCADA - CIMPLICITY version> Login Panel.

    Results

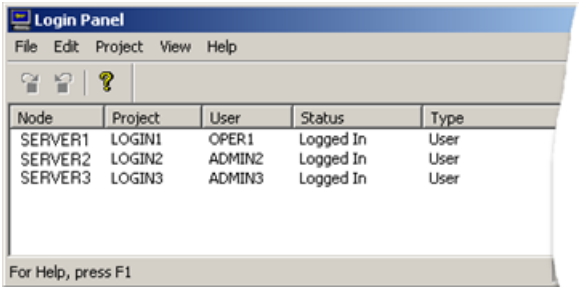
    • If no CIMPLICITY project is running

11. The Login Panel opens.
12. A message reports that

    CIMPLICITY is not running. Program will exit.




13. The Login Panel closes.
    • If at least one project is running.
14. The Login Panel window opens.
15. For each project that users on this computer are logged into the Login Panel displays the:
    • Node ID for the project
    • Project ID
    • User name
    • Log in status
    • Type




**Note:** If no users are logged in, the Login Panel window will be blank.

## *Step 2. Administer the Login Panel*

### Step 2. Administer the Login Panel

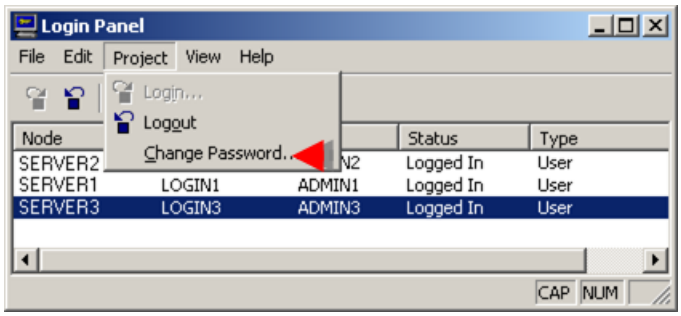
You can use the Login Panel to:

| | |
|---|---|
| Step 2.1 *(page 13)* | Change a user password for a project. |
| Step 2.2 *(page 14)* | Add/remove a saved CIMPLICITY log in. |

### Step 2.1. Change a User Password for a Project

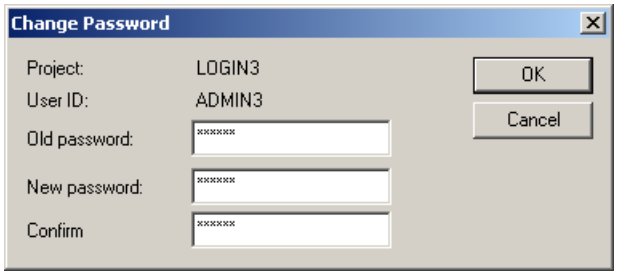
**Note:** In a Server Redundancy configuration, changing the password is only supported when the primary and secondary computer are on line.

1. Select a user in the Login Panel that has a logged in status.
2. Select Project>Change Password on the Login Panel menu bar.




The Change Password dialog box opens displaying the selected project and user ID.

3. Enter the following to change the password.




| Field | Description |
|---|---|
| Old password | Password the user is currently using to log into the project. |
| New password | Password the user will use for the next and future logins. |
| Confirm | New password repeated. |

4. Click either:

| | |
|---|---|
| OK | Accepts the new password |
| Cancel | Keeps the old password. |

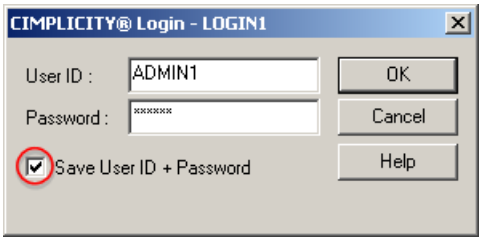
Either the password is changed to the new password you have entered or the change is cancelled.

## Step 2.2. Add/Remove a Saved Log in

- CIMPLICITY® Login dialog box.
- Saved Logins dialog box.

### CIMPLICITY® Login dialog box

Check Save User ID + Password in any CIMPLICITY® Login dialog box.



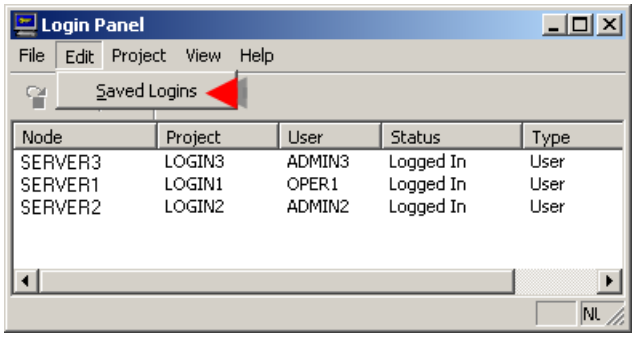

Result: The user name and password information are saved in the Registry.

Whenever you open any CIMPLICITY screen that requires that user name and password, you are automatically logged in to CIMPLICITY software.

Use the Saved Logins dialog box *(page 16)* to remove the user from the saved log ins list.

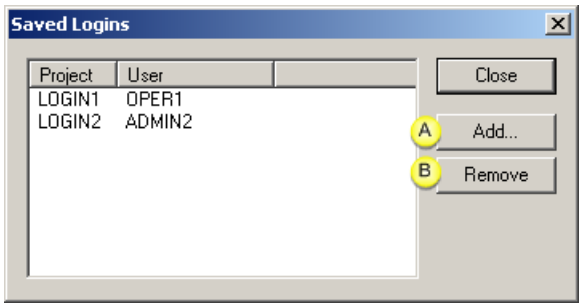
Saved Logins dialog box

1. Select Edit>Saved Logins on the Login Panel menu bar.




   The Saved Logins dialog box opens displaying a list of users with saved log ins.

2. Click either of the following.

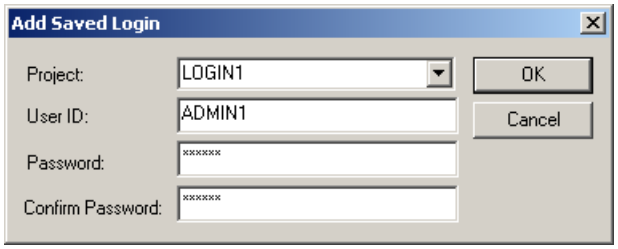



rect 248, 67, 355, 91 *(page 15)*
rect 248, 89, 355, 118 *(page 16)*

| | |
|---|---|
| A | Add |

   An Add Saved Login dialog box opens.

   a. Enter the following.



| Field | Description |
|---|---|
| Project | Project that has the user ID to be saved. **Tip:** Use the drop-down list button to display the list of available projects in your enterprise. |
| User ID | User ID to be saved. |
| Password | User's log in password. |
| Confirm Password | User's log in password. |

a. Click either:

| | |
|---|---|
| OK | Accepts the new password |
| Cancel | Keeps the old password. |

The new entry appears in the Saved Logins list. After you activate the new saved login, whenever you open a screen in this project; you are automatically logged in to the project.

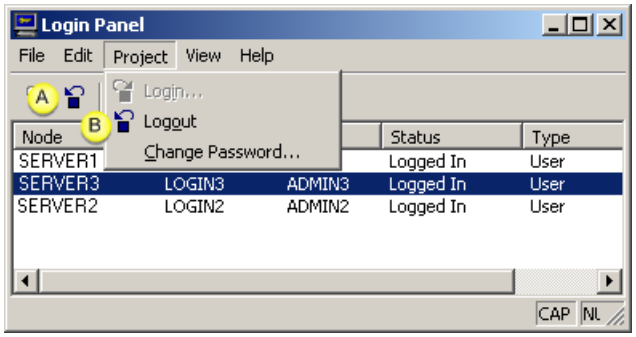
| | |
|---|---|
| B | Remove |

1. Select a user in the saved Log ins list.
2. Click Remove.

The user is removed from the saved log ins list. The next time the user attempts to access or open a feature that requires a log in, the CIMPLICITY® Login dialog box will open for a user name and password.

## *Step 3. Log out of a Project through the Login Panel*

1. Select a user in the Login Panel that has a Logged in status.
2. Do one of the following.




| | |
|---|---|
| A | Click the Log out button on the Login Panel toolbar. |
| B | Select Project>Logout on the Login Panel menu bar. |

CIMPLICITY software logs out the user.

- If you have runtime applications open, the:
- User line remains in the Login Panel and
- Status changes to Logged Out.

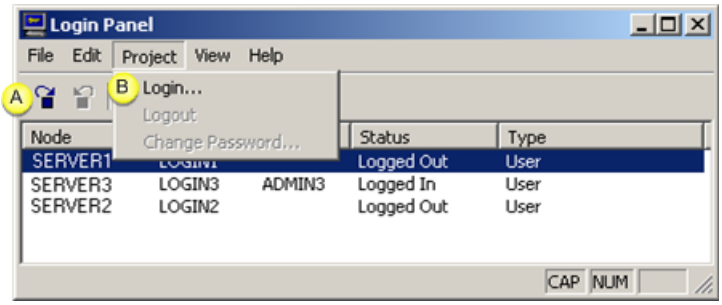
All runtime applications that you are logged into will be no longer update data. For example, all CimView screens that have animation objects that use points from this project will disable the objects.

- If you are not logged into any runtime application, the:

Login Panel removes the User from the list.

## *Step 4. Log Back into a Project through the Login Panel*

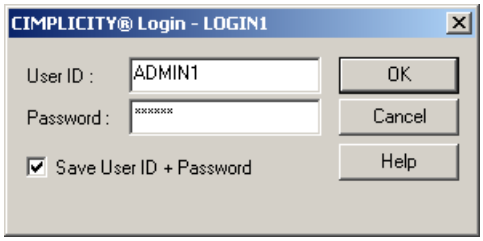
1. Select a user in the Login Panel that has a Logged in status.
2. Do one of the following.




| | |
|---|---|
| A | Click the Log in button on the Login Panel toolbar. |
| B | Select Project>Login on the Login Panel menu bar. |

A CIMPLICITY Login dialog box opens.

3. Enter your user ID and password for logging into the project.



CIMPLICITY software logs you back into the project. The status changes to Logged in.

All runtime applications to which you have been logged in that are still open will resume updating data. All CimView screens connected to this project will now have their animation objects enabled.

**Note:**

- The screen itself may change if visibility animation has been enabled for objects and keyed to User ID and Role ID information.
- If the user ID is a saved login, the Save user ID + Password box will be checked when the CIMPLICITY® Login dialog box opens.

# *Login Panel Menu and Tools*

## *Login Panel Menu and Tools*

Providing you with the capability to easily use the Login Panel are its:

- Menu
- Toolbar

## *Login Panel Menu Options*

You can use the menu options to open a project, toggle the Toolbar and Status bar displays; change display attributes, and access Help.

The menu options are:

- File
- Edit
- Project
- View
- Help

### File menu


The File menu functions are:

| | |
|---|---|
| Exit | Exits the Login Panel. |

## Edit menu


The Edit menu functions are:

| | |
|---|---|
| Saved Logins | Opens the Saved Logins dialog box. |

## Project menu


The Project menu functions are:

| | |
|---|---|
| Login | Opens the Login dialog box for the selected project. |
| Logout | Logs you out of the selected project. |
| Change Password | Enables you to change your password for the selected project. |

## View menu


The View menu functions are:

| | |
|---|---|
| Toolbar | Enables/disables the display of the Toolbar. |
| Status Bar | Enables/disables the display of the Status bar. |

## Help menu


The Help menu functions are:

| | |
|---|---|
| Help Topics | Opens the Help window for the Login Panel. |
| About Login Panel | Displays the current version number for the Login Panel utility. |

# *Login Panel Toolbar Buttons*

The Toolbar buttons available to you are:

| | | |
|---|---|---|
|  | Login | Opens the Login dialog box for the selected project. |

| | | |
|---|---|---|
|  | Logout | Logs you out of the selected project. |
|  | About | Displays the title, version number and copyright information for the Login Panel |

# Chapter 3. Show Users

## *About Show Users*

Show Users is an interactive process that lets you show the users on the various CIMPLICITY projects running on your network.

## *Show Users Steps*

### *Show Users Steps*

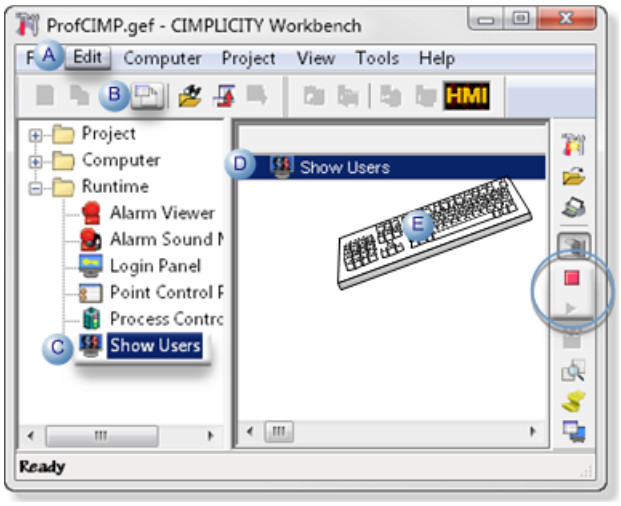
Following are steps to get CIMPLICITY user information:

| | |
|---|---|
| Step 1 *(page 21)* | Start Show Users. |
| Step 2 *(page 23)* | Change Show Users view options. |
| Step 3 *(page 24)* | Open a Project in Show Users. |
| Step 4 *(page 27)* | Search for user information. |
| Step 5 *(page 28)* | Close a project view in Show Users. |

### *Step 1. Open the Show Users Window*

1. Select **Runtime>Show Users** in the Workbench left pane.
2. Select **Show Users** in the Workbench right pane.
3. Do one of the following.
    - Workbench
    - Start menu

Workbench




| | | |
|---|---|---|
| A | Click Edit>Properties on the Workbench menu bar. | |
| B | Click the Properties button on the Workbench toolbar. | |
| C | In the Workbench left pane: | |
| | Either | Or |
| | Double click **Show Users**. | a. Right-click **Show Users**.<br>b. Select Properties on the Popup menu. |
| D | In the Workbench right pane: | |
| | Either | Or |
| | Double click **Show Users**. | a. Right-click **Show Users**.<br>b. Select Properties on the Popup menu. |
| E | Press Alt+Enter on the keyboard. | |

Start Menu

a. Click Start on the Windows task bar.
b. Select (All) Programs>Proficy HMI SCADA - CIMPLICITY version>**Show Users** .

Result:

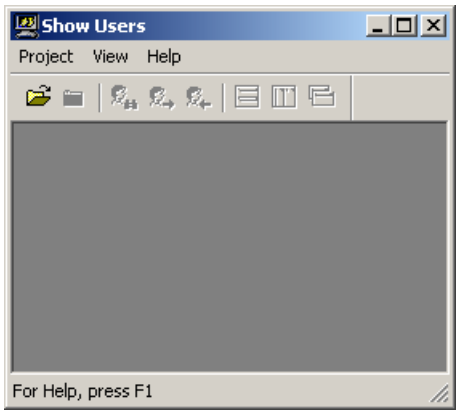
- If no project or more than one project is running.

The appropriate Select CIMPLICITY® Project dialog box opens.

Select the CIMPLICITY project for the Show Users window.

- When a project is running:

The Show Users window opens.




Using the Show Users window, you can:

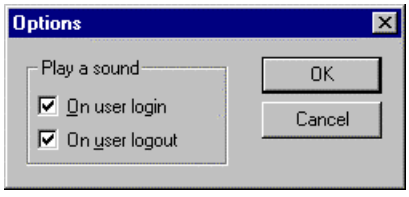
- Select all projects or a particular project to display.
- Search for users.
- Access Help.

4. Right-click **Show Users**.
5. Select Properties on the Popup menu.
6. Right-click **Show Users**.
7. Select Properties on the Popup menu.

## *Step 2. Change the Show Users View Options*

1. Click View on the Show Users window menu bar.
2. Select Options.

   The Options dialog box opens.




3. Select the options as follows:
   - If you check the **On user login** check box, a sound plays whenever a user logs in to any CIMPLICITY project that you are viewing.

   If you uncheck the check box, no sound plays when users log in to CIMPLICITY projects that you are viewing.

- If you check the **On user logout** check box, a sound plays whenever a user logs out of any CIMPLICITY project that you are viewing.

If you uncheck the check box, no sound plays when users log out of CIMPLICITY projects that you are viewing.

4. Either:
   - Click **OK** to close the dialog box and save your changes, or
   - Click **Cancel** to close the dialog box without implementing any changes.

## *Step 3. Open A Project in Show Users*

### Step 3. Open A Project in Show Users

A project that you open in the Show Users window displays in a Show Users sub-window. You can open more than one project in the Show Users window. Each project has its own sub-window.

For every CIMPLICITY user who is logged in to a project, the project's sub-window displays the:

- User ID,
- Role,
- Node and
- Process ID.

The information in the sub-window updates as users log in and out of the project.

The method for opening a Show Users project varies depending on whether or not a project was recently opened.

| | |
|---|---|
| Option 3.1 *(page 24)* | Open a project that was recently opened. |
| Option 3.2 *(page 25)* | Open a project that was not recently opened. |

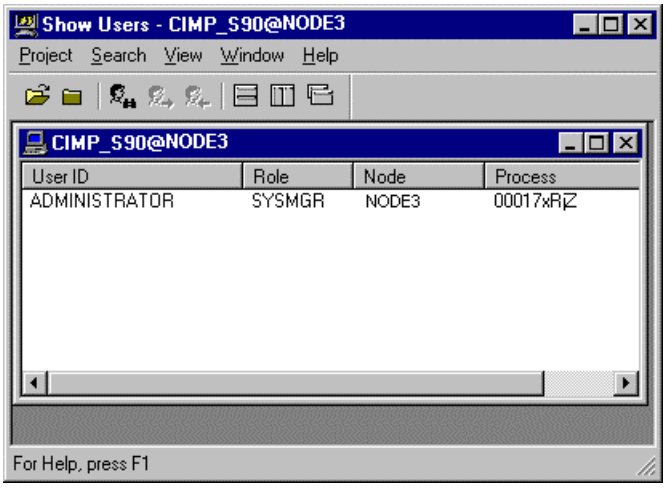
### Option 3.1. Open a Project in the Show Users Window that was Recently Opened

1. Click Project on the Show Users window menu bar.
2. Click the project you want from the recently opened list.

   A login dialog box displays.

3. Log into the project.

A project sub-window displays in the Show Users window.




## Option 3.2. Open a Project in the Show Users Window that was not Recently Opened

1. Do one of the following:

   Method 1

   a. Click Project on the Show Users window menu bar.
   b. Select Open.

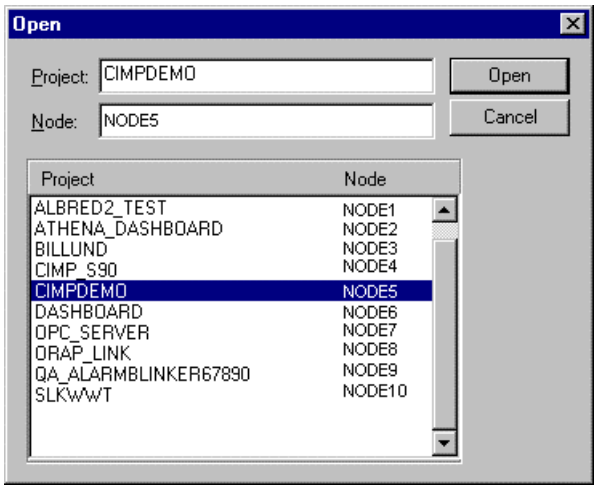
   Method 2

   Press **Ctrl+O** on the keyboard.

   Method 3

   Click the **Open** button on the Show Users window toolbar.

   The Open dialog box opens displaying a list of currently running projects that are broadcasting.




2. Do one of the following.

   Method 1

   a. Select the project you want to open.
   b. Click **Open**.

   Method 2

   Double-click the project you want to open.

   Method 3

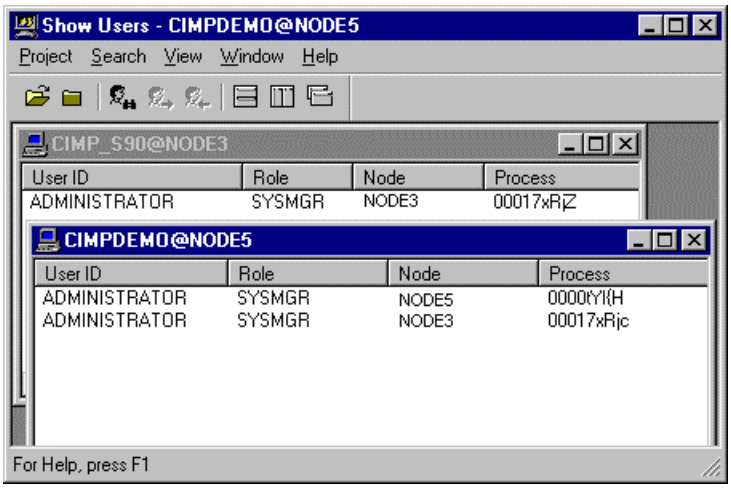
   a. Enter a project name in the **Project** field.
   b. Enter a node name in the **Node** field.
   c. Click **Open**.

   A Login dialog box opens.

3. Log into the project.

A project sub-window displays in the Show Users window. The title bar for the sub-window displays the project name and node name of the computer on which the project is running.

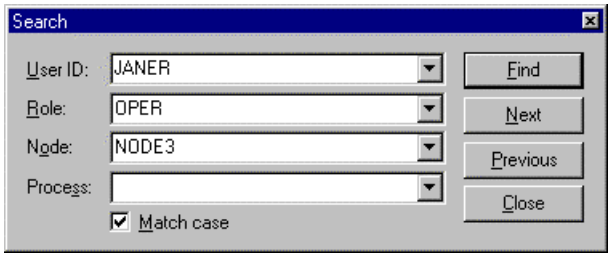
**Note:** If a project is already open the newly opened project displays in a second sub-window.




## *Step 4. Search for User Information*

1. Do one of the following:
   - Select Search... on the Search menu,
   - Click the **Search** button on the Show Users window toolbar.
   - Press **Ctrl+S** on the keyboard.

   The Search dialog box opens displaying the last search criteria that were entered.




2. Fill in any single or combination of fields to search the list of users in a project.
   - User ID,
   - Role,
   - Node, and/or
   - Process.

   **Note:** You can use the drop-down list buttons to the right of each field to display and select previous search filters.

3. Click **Find**.

   The first user that matches the criteria in the active sub-window's list is highlighted.

4. Use the Search dialog box navigation buttons or quick keys to search for items that match the criteria as follows.

| Button (key) | Moves the selection in the active sub-window to the: |
|---|---|
| Next (Ctrl+N) | Next item that matches the search criteria. |
| Previous (Ctrl+P) | Previous item that matches the search criteria. |

### *Step 5. Close A Project View in Show Users*

1. Select the project's sub-window.

2. Do one of the following:
   - Select Close on the Project menu.
   - Double-click on the **Control** button for the project.
   - Click the **Close** button on the Show Users window toolbar.

# *Show Users Window Menu and Tools*

## *Show Users Window Menu and Tools*

Providing you with the capability to easily use Show Users are the Show Users window:

- Menu

- Toolbar

- Shortcut keys

## *Show Users Menu Options*

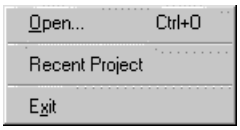
You can use the menu options to open a project, toggle the Toolbar and Status bar displays; change display attributes, and access Help.

The menu options are:

- Project menu
- View menu
- Help menu
- Search menu

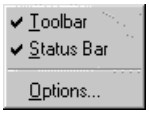
- Window menu

## Project Menu



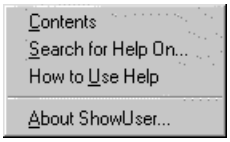

| Feature | Description |
|---|---|
| Open | Opens a new project on the network. |
| Recent Project | Displays the list of recently opened projects and lets you select one. |
| Exit | Exits Show Users. |

## View Menu




| Feature | Description |
|---|---|
| Toolbar | Enables/disables the display of the Toolbar. |
| Status Bar | Enables/disables the display of the Status bar. |
| Options... | Selects options from the Options dialog box. |

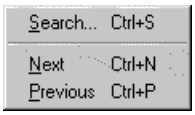
## Help Menu




| Feature | Description |
|---|---|
| Contents | Opens the Contents tab in the Show Users help dialog box. |
| Search for Help On | Opens the Index tab in the Show Users help dialog box. |
| How to Use Help | Opens the Index tab in the Show Users help dialog box. |
| About ShowUser... | Displays the current version number for the Show Users utility. |

## Search Menu

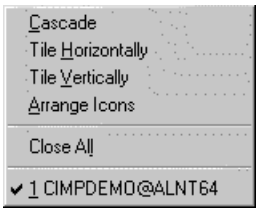
**Note:** When you have one or more projects open in this window, the Search menu is available.




| Feature | Description |
|---|---|
| Search | Displays the Search dialog box. |
| Next | Displays the next line of user information that meets the search criteria. |
| Previous | Displays the pr evious line of user information that meets the search criteria. |

## Window Menu

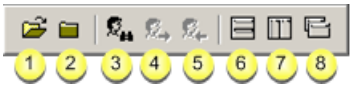
When you have one or more projects open in this window, the Window menu is available. When you select the Window menu, the following drop-down list displays:




| Feature | Description |
|---|---|
| Cascade | Cascades the currently open project windows. |
| Tile Horizontally | Tiles the currently open project windows horizontally. |
| Tile Vertically | Tiles the currently open project windows vertically. |
| Arrange Icons | Arranges the icons for all minimized project windows. |
| Close All | Closes all project windows. |
| Open Projects | Displays the list of all opened projects in Show Users. To activate the display of a project in this list, just click on it. |

# *Show Users Toolbar Buttons*

Show Users toolbar buttons are as follows.




| | | |
|---|---|---|
| 1 | Open | Open a project |
| 2 | Close | Closes the active sessions. |
| 3 | Search | Searches for a user. |

| | | |
|---|---|---|
| 4 | Search Next | Searches for the next user. |
| 5 | Search Previous | Searches for the previous sure. |
| 6 | Tile Windows | Tiles windows horizontally. |
| 7 | Tile Windows | Tiles windows vertically. |
| 8 | Cascade Windows | Cascades windows. |

## *Show Users Shortcut Keys*

You can use the following shortcut keys to initiate commonly used functions:

| Shortcut Key | Function |
|---|---|
| Ctrl+O | Opens a project. |
| Ctrl+S | Opens the Search dialog box. |
| Ctrl+N | Finds the next entry that matches the criteria in the Search dialog box. |
| Ctrl+P | Finds the previous entry that matches the criteria in the Search dialog box. |
| Alt+Print Screen | Captures the contents of the current window to the clipboard. |
| F1 | Opens the Help window. |
| Shift+F1 | Invokes the Help cursor. |
| Alt+F4 | Closes the current window. You will be prompted to save any changes. |
| Ctrl+Esc | Opens the Start Menu on the task bar. |

# Chapter 4. Alarm Viewers

## *About Alarm Viewers*

1. System events, such as device failures, program terminations, system startups and system shutdowns.

   You create and modify system event alarms in the Alarm Definition dialog box .

   **Note:** CIMPLICITY comes with several configured Event alarms.

2. Points that are in an alarm state, created in the Point Properties dialog box. You can modify them in the Point Properties dialog box or the Alarm Definition dialog box.

   CIMPLICITY includes the following Alarm Viewers:

   a. Alarm Viewer OCX Control (AMV Control).
   - AMV Control overview.
   - AMV Control configuration.

   a. Stand-alone Alarm Viewer (stand-alone AMV).
   - Stand-alone AMV overview.
   - Stand-alone AMV configuration

   Both alarm viewers provide the capabilities to:

   - Configure alarm views.
   - Display current alarms.
   - Modify the state of existing alarms.
   - Enter comments about an existing alarm.
   - Receive instructions to resolve alarm conditions.
   - Filter the alarm list to display only those alarms that have certain characteristics.
   - Display alarms in a static view.

   In Static view, a user opens a CIMPLICITY Alarm Viewer a current list of alarms displays. This list remains in the window until a user:

   - Acknowledges or resets alarms that are configured to be deleted on acknowledge or reset.
   - Clicks **Refresh** to display an updated list of alarms when the alarm count changes to the **Unseen Alarm Count** color.
   - Display alarms in a dynamic view.

In Dynamic view, the alarm display is updated automatically whenever a new alarm that passes a filter (or unfiltered) list is generated or when the status of an existing alarm changes.

# *CIMPLICITY AMV Control Overview*

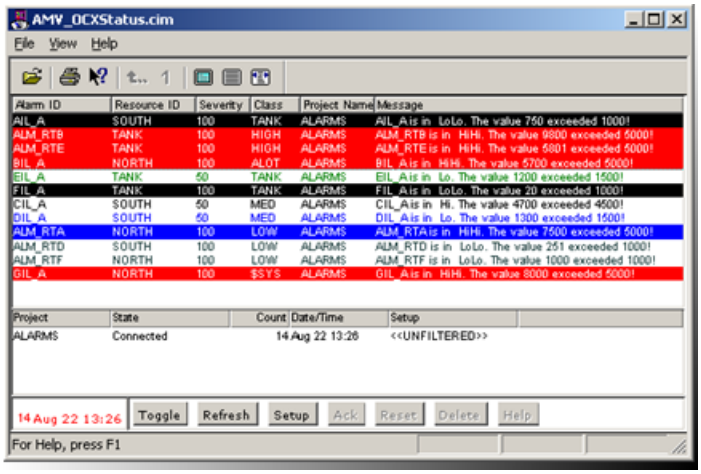
A CIMPLICITY AMV Control is an Active X object that you embed in a CimEdit screen.

The AMV Control provides a powerful tool for you to:

- Fully integrate the Alarm Viewer capability with your other CimEdit screens.

For example, you can configure the CimEdit screens so operators can easily move back and forth between other CimView screens and the Alarm Viewer.

- Exercise more control (than for the stand-alone AMV) over user configuration capability during runtime. For example, you can specify whether or not a user, during runtime, can:
- Configure the control.
- Sort fields.
- Choose from all buttons to display for dynamic view. (The stand-alone AMV provides only the Setup *(page 111)* and Toggle *(page 130)* buttons for dynamic view.)
- Take advantage of CimView features, e.g. the zoom screen capability.



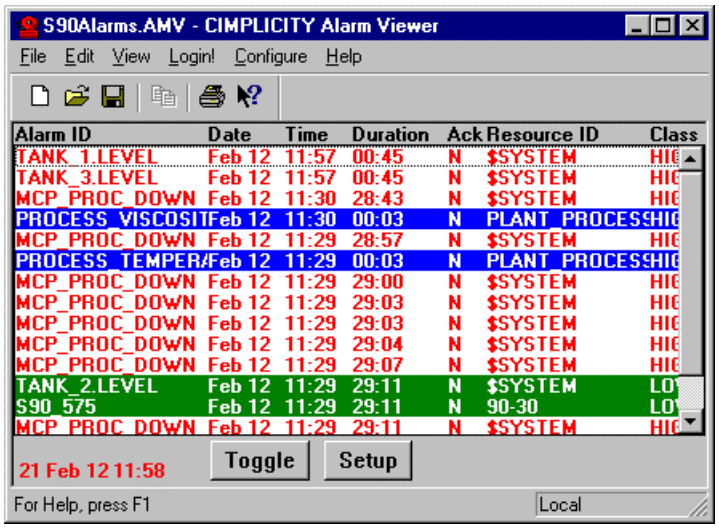

# *CIMPLICITY Stand-alone AMV Overview*

1. Open the stand-alone AMV or a stand-alone AMV file,

2. Start CIMPLICITY if it is not already started, and
3. Login.

   Alarms that pass a default alarm filter setup display in the stand-alone AMV window.

   A user can immediately respond to alarms and/or change the configuration as required.




# *AMV Control Configuration*

## *AMV Control Configuration*

Steps to configure the AMV Control include:

| | |
|---|---|
| Step 1 *(page 35)* | Place an AMV Control on a CimEdit screen. |
| Step 2 *(page 36)* | Resize a new Alarm Viewer OCX Control. |
| Step 3 *(page 38)* | Open the CIMPLICITY AMV Control dialog box. |
| Step 4 *(page 39)* | Configure the AMV Control alarm count layout. |
| Step 5 *(page 41)* | Configure the AMV Control fonts and colors. |

| | |
|---|---|
| Step 6 *(page 46)* | Specify the AMV Control sort properties. |
| Step 7 *(page 51)* | Specify AMV Control display properties. |
| Step 8 *(page 53)* | Specify the AMV Control user configuration privileges. |
| Step 9 *(page 57)* | Specify the projects the AMV Control will monitor. |
| More *(page 91)* | Steps to configure Alarm Viewer fields and buttons. |

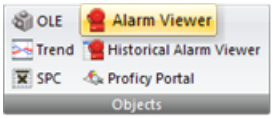
## *Step 1. Place an AMV Control on a CimEdit Screen*

Do any of the following to place an AMV control on a CimEdit screen.

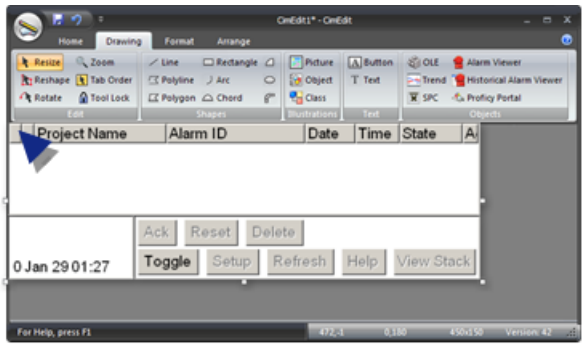
- Click the Alarm Viewer OCX button.
- Click the OLE button.

Click the Alarm Viewer OCX button.

Click Alarm Viewer on the in the Drawing>Objects group on the CimEdit Ribbon bar.

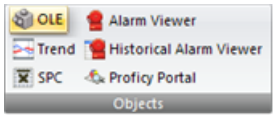



Result: An AMV OCX Control is placed on the CimEdit screen. The top left corner is located at the top left corner of the screen.




Click the OLE button

1. Click **OLE** in the Drawing>Objects group on the CimEdit Ribbon bar.

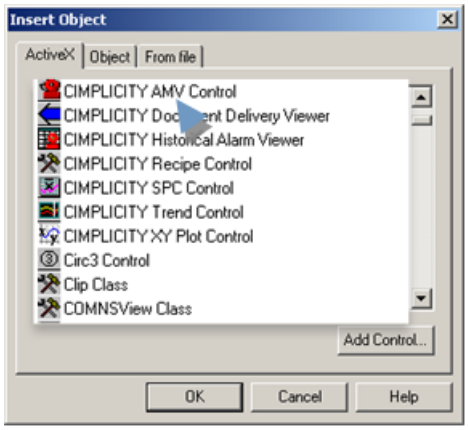



   An ActiveX Placement cursor displays on the CimEdit screen.

2. Place the ActiveX Placement cursor where you want the top left corner of the control to be located.

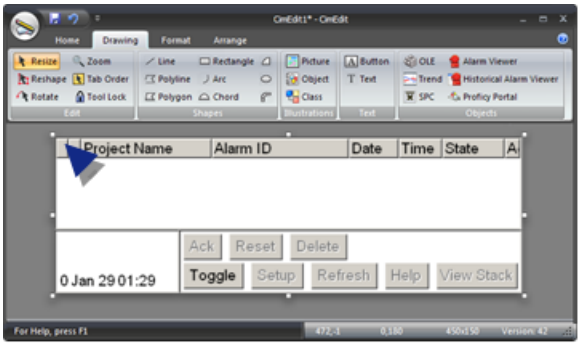
   The Insert Object dialog box opens

3. Select CIMPLICITY AMV Control.




4. Click **OK**.

A new Alarm Viewer control is placed on your CimEdit screen in the location you selected.



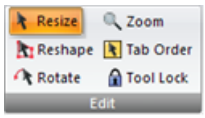

## *Step 2. Resize a new Alarm Viewer OCX Control*

Do one of the following.

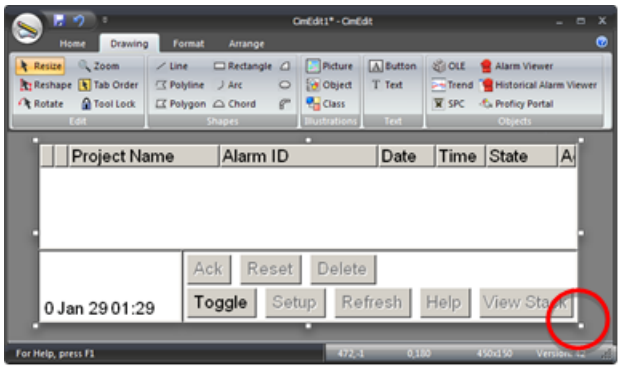
- Quickly resize the AMV Control.
- Enter precise dimensions for the AMV Control.

## Quickly resize the AMV Control

1. Click Resize in the Drawing>Edit group on the CimEdit Ribbon bar.

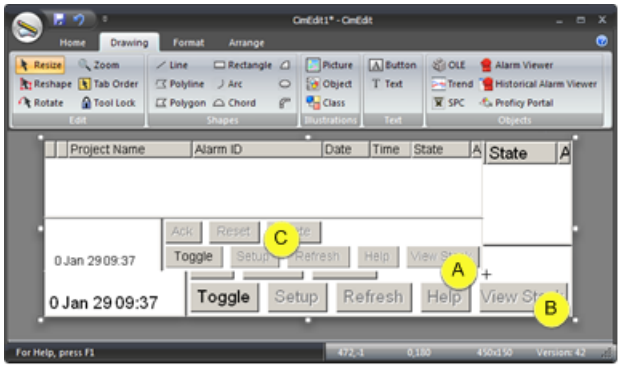



2. Click one of the object's handles and move it to enlarge or reduce the AMV Control size.




3. Hold the mouse button down while you move the handle.

   **Note:** The screen displays the following.



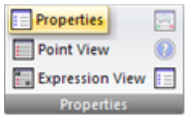

| | |
|---|---|
| A | The handle that is being dragged changes to a crosshair. |
| B | The original size displays within the original handles during the re-sizing process. |
| C | The Alarm Viewer's new size display follows the cursor. |

4. Release the mouse button.

   Result: The Alarm Viewer control displays in the new size.

Precise dimensions for the AMV Control

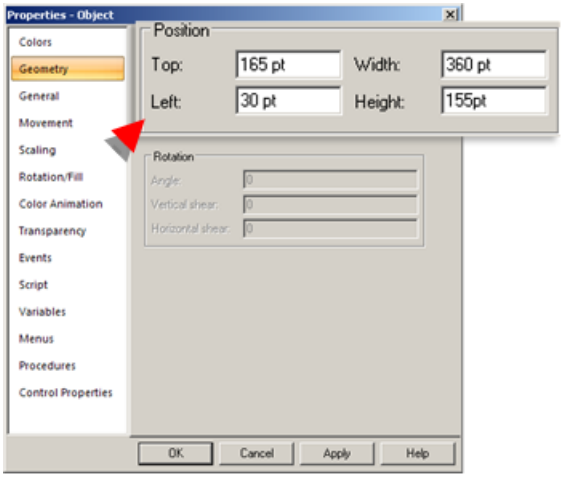
5. Select the Alarm Viewer control.
6. Do one of the following.
   - Click Properties in the Home>Properties group on the CimEdit Ribbon bar.




   - Click the right-mouse button on the Alarm Viewer control; select Properties on the Popup menu.

   The CimEdit Properties - Object dialog box opens when you use either method.

7. Select **Geometry**.
8. Enter the following.

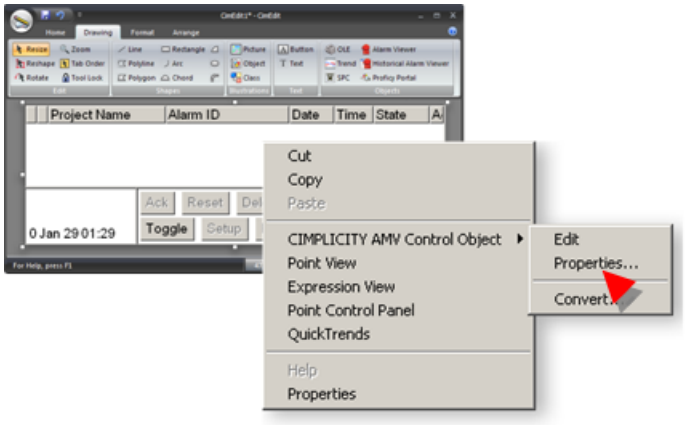



| Field | Description |
|---|---|
| Top | Number of points starting from the bottom of the screen where the AMV Control top is located. |
| Width | Width of the object in points. |
| Left | Number of points starting from the left of the screen where the left side of the AMV Control is located. |
| Height | Height of the object in points. |

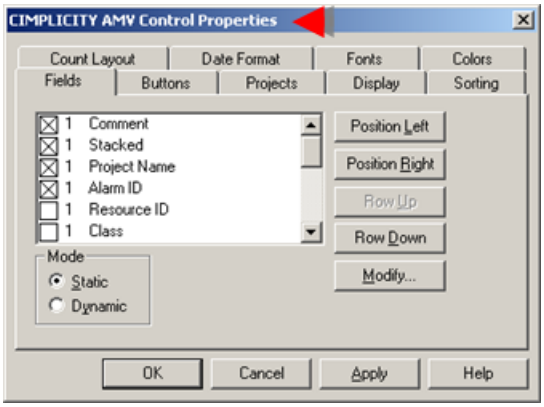
The AMV Control enlarges/ reduces and moves to the size you specify.

## *Step 3. Open the CIMPLICITY AMV Control Dialog Box*

1. Right-click the Alarm Viewr chart
2. Select CIMPLICITY AMV Control Object>Properties on the Popup and extended Popup menus.



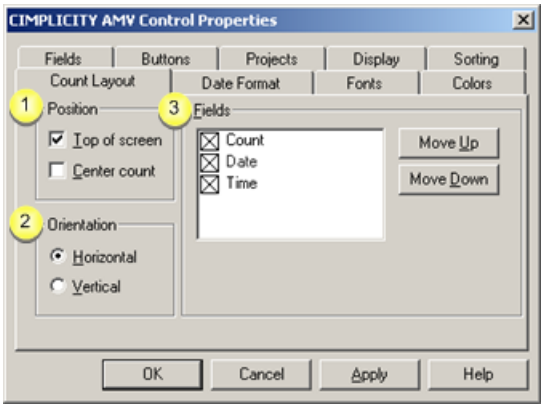

The CIMPLICITY AMV Control Properties dialog box opens when you use any method.




## *Step 4. Configure the AMV Control Alarm Count Layout*

Select the Count Layout tab in the CIMPLICITY AMV Control Properties dialog box.

Count fields selections are as follows.

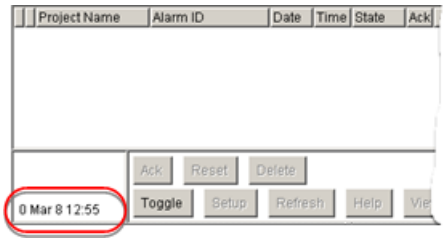
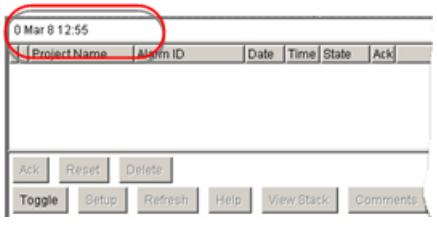


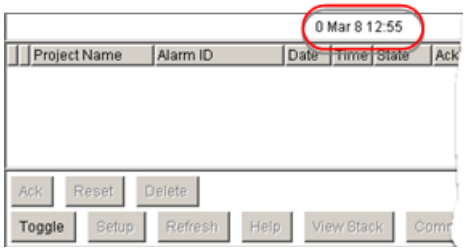

rect 5, 50, 99, 116 *(page 40)*
rect 4, 122, 109, 197 *(page 41)*
rect 100, 52, 316, 169 *(page 41)*

| | |
|---|---|
| 1 *(page 40)* | Position |
| 2 *(page 41)* | Orientation |
| 3 *(page 41)* | Fields |

| | |
|---|---|
| 1 | Position |

Check the Position check boxes to specify the fields' position in the AMV Control as follows.

| Position of fields in the AMV Control | Top of screen | Center count |
|---|---|---|
| Bottom left-hand corner of the AMV Control.   | Clear | Clear |
| Upper left-hand corner of the AMV Control.   | Check | Clear |

| | | |
|---|---|---|
| Centered at the top of the AMV Control.<br>  | Check | Check |
| **Note:** Center count is enabled when you check Top of screen. | | |

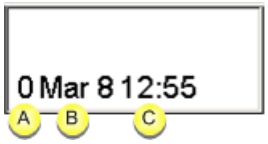
| | |
|---|---|
| 2 | Orientation |

Choose one of the following.

| | |
|---|---|
| Horizontal | Side by side in the order you specify. |
| Vertical | One on top of the other in the order you specify. |

| | |
|---|---|
| 3 | Fields |

The following fields, when checked, display the following in the Alarm Control.




| | | |
|---|---|---|
| A | Count | Alarm count |
| B | Date | Date the alarm was generated. |
| C | Time | Time the alarm was generated. |

The following buttons move the fields to the left or right in the AMV Control.

| | |
|---|---|
| Move Up | Moves the field to the left. |
| Move Down | Moves the field to the right. |

Result: The alarm count information displays according to your specifications.

## *Step 5. Configure the AMV Control Fonts and Colors*

- AMV Control fonts.
- AMV Control colors.

AMV Control Fonts

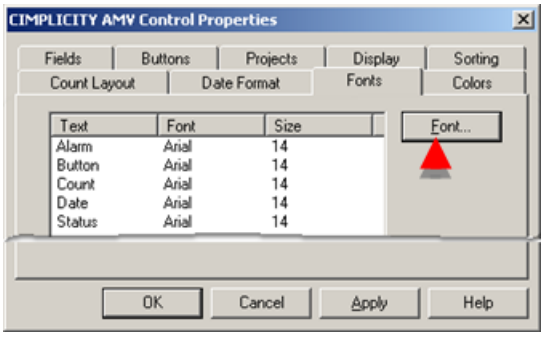
1. Select the Fonts tab in the CIMPLICITY AMV Control Properties dialog box.

   Fonts can be configured for the following AMV Control features.

   - Alarm
   - Button
   - Count
   - Date
   - Status

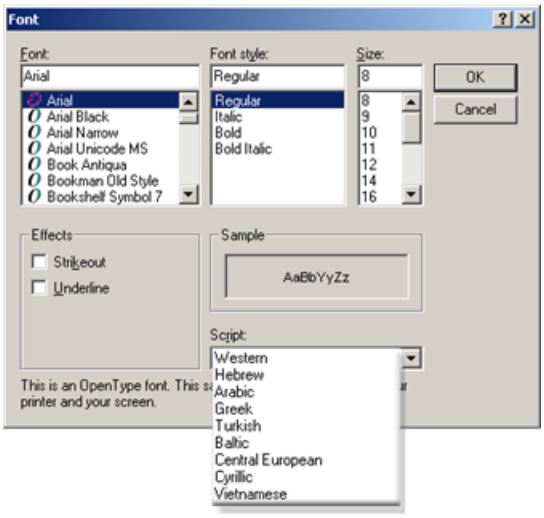
2. Select a feature.

3. Click Font...




   The font dialog box opens.

4. Make the customary font selections.




   If an alarm message that needs to use non-Western characters (e.g. Cyrillic, Chinese) displays ???? instead of the message, changing the **Script** selection in the Font dialog box may correct the issue.

The Script drop-down list will display the character types available for the selected font.

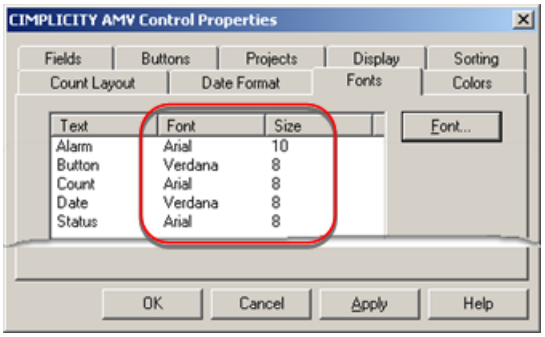
**Note:** The stand-alone Alarm Viewer displays only the language selected for the operating system.

5. Click OK.

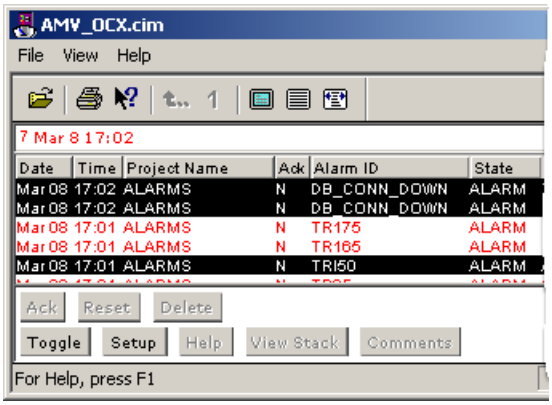
   The new specifications display for that selected feature.

6. Repeat the procedure if you want to configure the font for other features.

7. Click Apply.



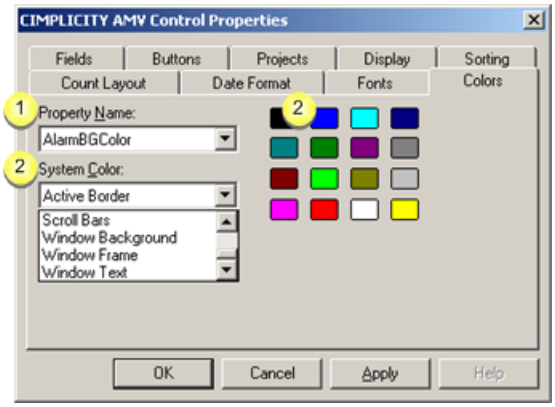

The selected fonts and sizes display in the AMV Control.




AMV Control Colors

You can select colors for each of the AMV Control properties.

Selections are as follows.




| | |
|---|---|
| 1 *(page 44)* | Property name |
| 2 *(page 44)* | Color for selected property |

| | |
|---|---|
| 1 | Property name |

Select a property in the **Property Name** drop-down list.

Selections are as follows.

| Listed Property | Property |
|---|---|
| AlarmBGColor | Alarm list background |
| ButtonBGColor | Button background |
| CountAlarmColor | Alarm count text |
| CountBGColor | Count background |
| CountNormalColor | Normal count text |
| StatusBGColor | Status background |
| StatusTextColor | Status text. |

| | |
|---|---|
| 2 | Color for selected property |

Do either of the following to select a color for the selected property.

Select a system color

1. Select a color in the **System Color** drop down list.

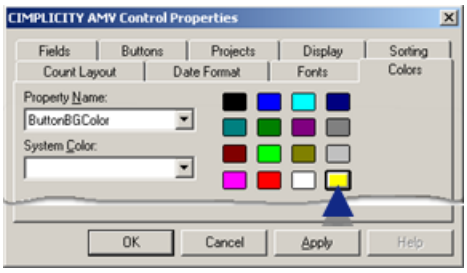
Available selections are as follows.

| | |
|---|---|
| • Active Border | • Highlighted Text |
| • Active Title Bar | • Inactive Border |
| • Active Title Bar Text | • Inactive Title Bar |
| • Application Workspace | • Inactive Title Bar Text |
| • Button Face | • Menu Bar |
| • Button Highlight | • Menu Text |
| • Button Shadow | • Scroll Bars |
| • Button Text | • Window Background |
| • Desktop | • Window Frame |
| • Disabled Text | • Window Text |
| • Highlight | |

1. Click Apply.

Select a color in the palette

1. Click a color in the palette.




1. Click Apply.

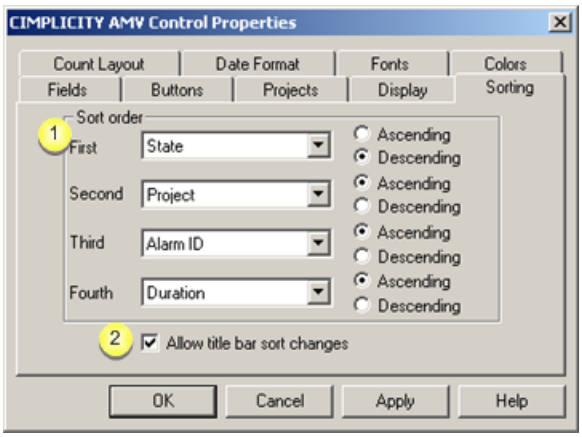
The selected properties will display during runtime in the selected colors.

**Note:** The Alarm font colors are selected in the Alarm class configuration.

## *Step 6. Specify AMV Control Sort Properties*

Select the Sorting tab in the CIMPLICITY AMV Control Properties dialog box.

Sorting options are as follows.




| | |
|---|---|
| 1 *(page 46)* | Sort order. |
| 2 *(page 50)* | Allow title bar sort changes. |

1 Sort order

The Alarm Viewer Control enables you to sort by four keys.

Sort order is, as labelled.

First

Second

Third

Fourth

Sort keys are:

| Field | Description | |
|---|---|---|
| None | The primary sort is not used.<br>If the secondary key is used, it acts as the primary sort. | |
| Project | Alphabetically by Project Name. | |
| | Ascending | A is first. |
| | Descending | A is last. |
| Class | Sort order assigned to each Alarm Class in the Order field on the Alarm Class tab in the Alarm Class Configuration dialog box.. | |
| | Ascending | Highest level first. |
| | Descending | Highest level last. |
| Resource | Resource ID alphabetical order. | |
| | Ascending | A is first. |
| | Descending | A is last. |
| State | A combination of their State and Ack Status. | |

Ascending

1. All unacknowledged alarms in ALARM state are first.
2. All unacknowledged alarms in NORMAL state are next.
3. All acknowledged alarms in ALARM state are last.

Descending

1. All unacknowledged alarms in ALARM state are last.

1. All unacknowledged alarms in NORMAL state are next.

1. All acknowledged alarms in ALARM state are first.

| | | |
|---|---|---|
| Time | Time of the alarm occurrence. | |
| | Ascending | Most recent first. |
| | Descending | Most recent last. |
| | Ascending | A is first. |
| | Descending | Z is first. |
| Message | Alarm message contents alphabetical order. | |
| Ack state | Acknowledgement state. | |
| | Ascending | Acknowledged alarms are last. |
| | Descending | Acknowledged alarms are first. |
| Stacked | Sorted/grouped by presence/absence of stacked alarms. | |
| | Ascending | Stacked alarms are last. |
| | Descending | Stacked alarms are first. |
| Comment | Sorted/grouped by presence/absence of comments. | |
| | Ascending | Commented alarms are last. |
| | Descending | Commented alarms are first. |
| Alarm ID | Alarm ID alphabetical order. | |
| | Ascending | A is first. |
| | Descending | A is last. |
| Duration | In dynamic display mode, alarms are sorted by duration.<br>Note: This value is not available in static display mode, so alarms are sorted by time if this item is selected. | |
| | Ascending | Longest duration is last. |
| | Descending | Longest duration is first. |
| Reference | Reference value alphabetical order. | |
| | Ascending | A is first. |
| | Descending | A is last. |
| Category | Category value alphabetical order. | |
| | Ascending | Discrete, Level, System |
| | Descending | System, Level, Discrete |
| Condition | Condition alphabetical order. | |
| | Ascending | Level, System, Trip |
| | Descending | Trip, System, Level |
| Sub-condition | Level condition | |

| | | |
|---|---|---|
| | Ascending | Unavailable |
| | | Normal |
| | | Alarm Low |
| | | Warning Low |
| | | Warning High |
| | | Alarm High |
| | | Out of Range |
| | Descending | Out of Range |
| | | Alarm High |
| | | Warning High |
| | | Warning Low |
| | | Alarm Low |
| | | Normal |
| | | Unavailable |
| | Trip condition | |
| | Ascending | Unavailable |
| | | Normal |
| | | Warning High |
| | | Alarm High |
| | | Out of Range |
| | Descending | Out of Range |
| | | Alarm High |
| | | Warning High |
| | | Normal |
| | | Unavailable |
| | System conditions | |
| | There is no sort order for System conditions (only one sub-condition). | |
| Severity | Level of severity. | |
| | Ascending | Most severe is last. |
| | Descending | Most severe is first. |

| | | |
|---|---|---|
| Last Comment | Last comment in alphabetical order | |
| | Ascending | A is first. |
| | Descending | A is last. |
| Ack User | Users who acknowledged the alarms in alphabetical order. | |
| | Ascending | A is first. |
| | Descending | A is last. |
| Default | Time descending<br>If an order is not established between two alarms after applying the selected key criteria, Time descending will be used to try to establish an order. | |

Result: The alarms will be sorted in the order you specify when a user opens the AMV Control during runtime.

Important: Make sure the sort fields that you select on the Sort tab are selected on the Fields tab. If not, the alarms will be sorted according to your specifications. However, a CimView Alarm Viewer user will not be able to evaluate the sort.

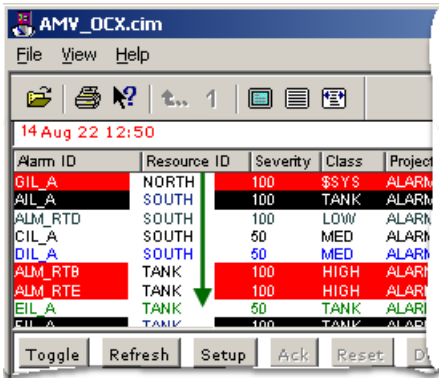
You can specify whether or not the user has the privilege to change the sorted order.

2 Allow title bar sort changes.

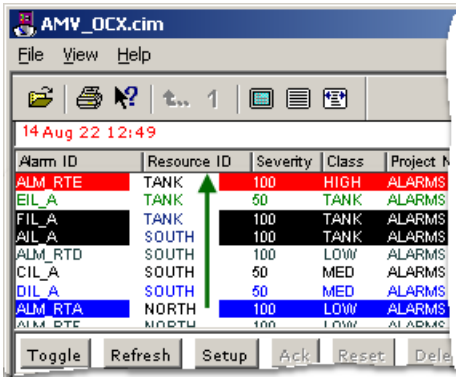
Check Allow title bar sort changes to enable an operator to sort a selected column during runtime by clicking on the column heading.

One click can:

Sort a selected column (ascending).




Sort a selected column (descending).




More information

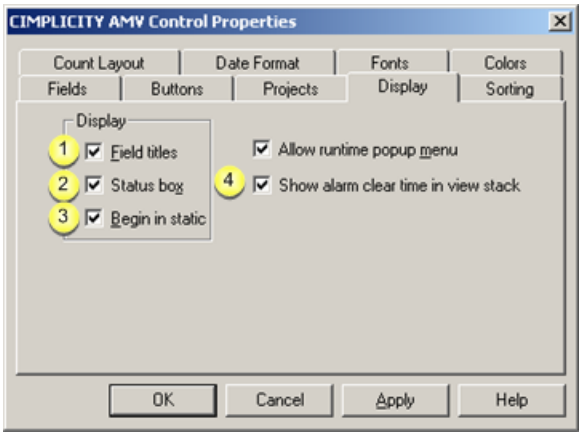
| | |
|---|---|
| AMV Alarm Fields *(page 98)* | AMV Alarm fields. |
| AMV Control Configuration *(page 34)* | AMV Control configuration. |

## *Step 7. Specify AMV Control Display Properties*

Check any of the check boxes in the **Display** box to display the feature in the AMV Control during runtime.

- Check boxes.
- Runtime display example.

## Check boxes



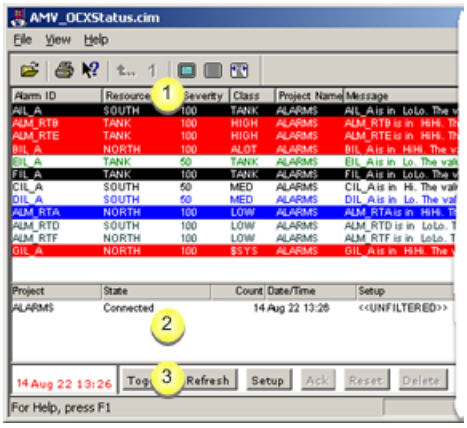

rect 24, 78, 120, 99 *(page 52)*
rect 25, 99, 121, 120 *(page 52)*
rect 24, 119, 132, 148 *(page 52)*
rect 147, 75, 323, 102 Step 8. Specify AMV Control User Configuration Privileges *(page 53)*
rect 131, 101, 344, 127 *(page 52)*

| | | | |
|---|---|---|---|
| 1 | Field titles | Display column titles. The column titles must display in order to allow users to sort by title during runtime, if enabled. | |
| 2 | Status box | Display a status box that provides information about the:<br>• Project(s)<br>• (Connected) State<br>• (Alarm) Count per project,<br>• Date/Time and<br>• Setup (Filter being used). | |
| 3 | Begin in Static | Static mode (at startup). | |
| 4 | Show alarm clear time in view stack | | |
| | | Select when to provide a timestamp as follows. | |
| | | Check | Provides time for when a value:<br>• Goes into Alarm state.<br>• Goes into Normal state (is cleared). |
| | | Clear | Provides the time for when a value goes into Alarm state. |
| | | | |

## Runtime display example

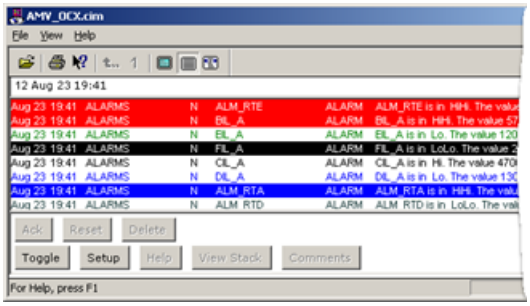
Following are examples of how the AMV Control displays based on your selections.

- AMV Control with all display features selected




rect 1, 51, 248, 68 *(page 52)*
rect 4, 175, 279, 225 *(page 52)*
rect 88, 226, 149, 243 *(page 52)*

- AMV Control with no display features selected

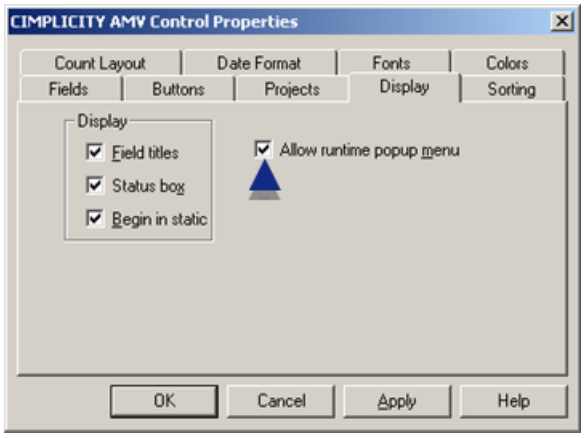



## *Step 8. Specify AMV Control User Configuration Privileges*

- Configuration for runtime configuration access.
- Runtime configuration features.

Configuration for runtime configuration access

1. Select the Display tab in the CIMPLICITY AMV Control Properties dialog box.
2. Do one of the following in the Allow runtime popup menu checkbox.



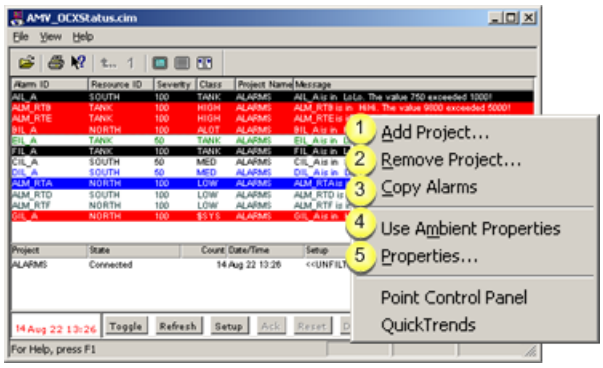

| | |
|---|---|
| Check | Users will be able to display a Configuration Popup menu during runtime. |
| Clear | Users will not be able to display a Configuration Popup menu during runtime. |

Result: Users will have access to Alarm Viewer Control configuration.

Runtime configuration features

**Note:** Viewing the Popup menu, Point Control Panel and/or Quick Trends through the Alarm Viewer OCX is available if the role assigned to your user ID has authorization.

Runtime configuration features are as follows.




rect 213, 67, 372, 86 Option 9.1. Add Projects and Default Filters to the AMV Control *(page 57)*
rect 213, 84, 372, 103 Option 9.2. Delete Projects from the AMV Control List *(page 61)*
rect 213, 101, 372, 120 *(page 55)*
rect 213, 129, 372, 148 *(page 55)*
rect 213, 146, 372, 165 *(page 56)*

| | |
|---|---|
| 1 *(page 55)* | Add Project. |

| | |
|---|---|
| 2 *(page 55)* | Remove Project. |
| 3 *(page 55)* | Copy Alarms |
| 4 *(page 55)* | Use Ambient Properties |
| 5 *(page 56)* | Properties... |

| | |
|---|---|
| 1 | Add Project |

Projects can be added to the Alarm Viewer Control before and during runtime *(page 60)*.

| | |
|---|---|
| 2 | Remove Project |

Projects can be removed from the Alarm Viewer Control before and during runtime *(page 61)*.

| | |
|---|---|
| 3 | Copy Alarms |

3. Select one or more alarms in the AMV Control.
4. Display the Popup menu.
5. Select Copy Alarms.

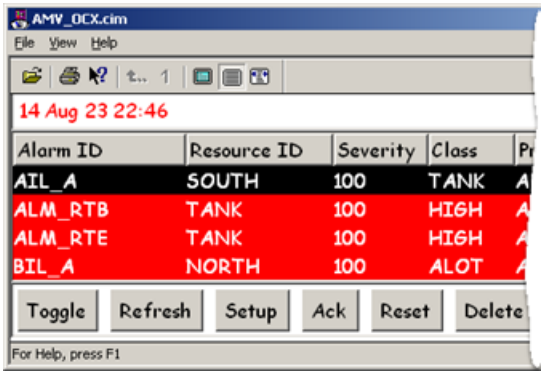
   The selected alarms and details are copied.

6. Paste the alarms and details in any text file.

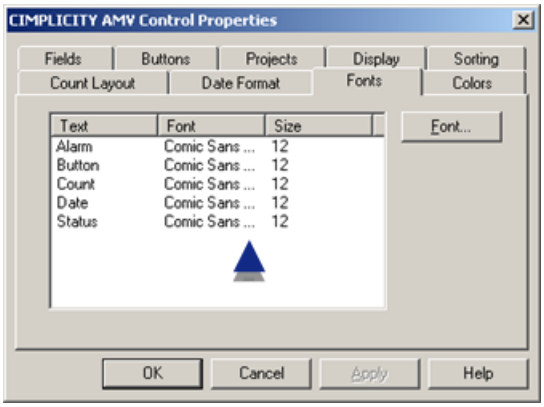

| | |
|---|---|
| 4 | Use Ambient Properties |

Select Ambient Properties on the Popup menu.

The AMV Control display uses the CimEdit Ambient properties.




The Ambient Properties will be in the CIMPLICITY AMV Control Properties dialog box during this runtime session.



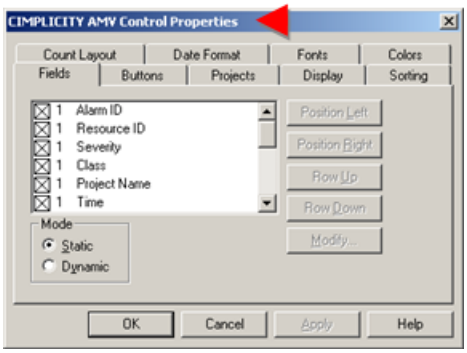

However, this setting is temporary. The next time the AMV Control is opened, the properties configured for the AMV control will display again.

| | |
|---|---|
| 5 | Properties... |

7. Display the Popup menu.
8. Select Properties...

The CIMPLICITY AMV Control Properties dialog box opens.

The user has full access to the Alarm Viewer control configuration.




## *Step 9. Specify the Projects the AMV Control will Monitor*

### Step 9. Specify the Projects the AMV Control will Monitor

During configuration, you can select and delete projects to be included in the AMV Control display.

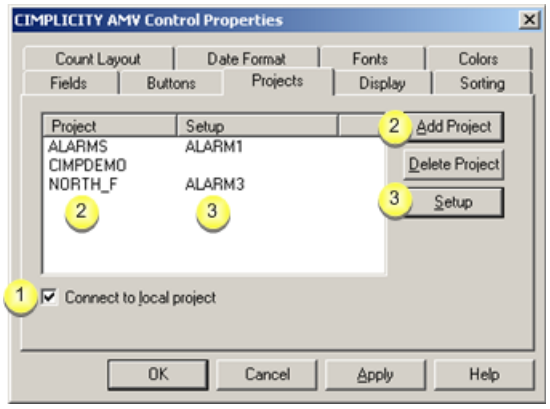
**Note:** Runtime users can also perform these functions if the runtime AMV Control Popup menu is enabled *(page 53)*.

| | |
|---|---|
| Option 9.1 *(page 57)* | Add projects and default filters to the AMV Control. |
| Option 9.2 *(page 61)* | Delete projects from the AMV Control list. |

### Option 9.1. Add Projects and Default Filters to the AMV Control

- Add projects during configuration.
- Add projects during runtime.

1. Select the Projects tab in the CIMPLICITY AMV Control Properties dialog box.
2. Options to add projects are as follows.




rect -5, 169, 151, 197 *(page 58)*
rect 19, 65, 103, 156 *(page 58)*
rect 228, 64, 312, 89 *(page 58)*
rect 105, 65, 189, 156 *(page 59)*
rect 231, 110, 315, 135 *(page 59)*

| | |
|---|---|
| 1 *(page 58)* | Connect to local project |
| 2 *(page 58)* | Add project |
| 3 *(page 59)* | (Optional) Select setup |

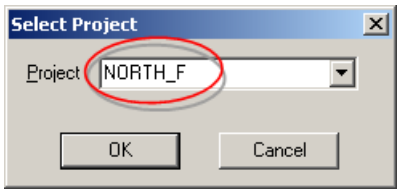
| | |
|---|---|
| 1 | Connect to local project |

Check to do the following.

When a user opens the CimView screen containing this Alarm Viewer control, the control automatically connects to the currently running local project and opens the CIMPLICITY Login dialog box for user login.

| | |
|---|---|
| 2 | Add Project |

Opens the Select Project dialog box.




3. Do one of the following.
    a. Select a project from the available projects in the drop-down menu.

**Note:** If the server is connected to a network, the Project drop down menu displays all of the running projects that are being broadcast on the network.

a. Enter any of the following.
- Project name
- Node name
- IP address
- Cluster name
- Cluster IP address

**Important:** If cabling redundancy is configured on a server and you attempt to connect by cluster name or IP address, the connection will fail.

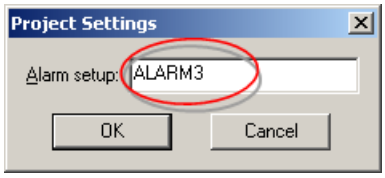
4. Click OK to add the project to the list in the Projects tab.

5. Repeat the procedure until all of the required projects have been selected.

Result: The projects display in the Projects list.

| | |
|---|---|
| 3 | (Optional) Select Setup |

Opens the Project Settings dialog box in which you can enter the default alarm setup.




6. Enter the default alarm filter

**Note:** You configure alarm filters when you configure the AMV Control buttons *(page 116)*. The default is <<UNFILTERED>>.

7. Click **OK**.

The entered setup displays in the Setup column in the selected project's row.

Result: When a user opens the CimView AMV Control screen:

- If the selected setup (filter) exists the alarms display adheres to the setup's specifications.
- If the alarm setup does not exist, an error message displays when the CimView AMV Control screen is opened.


When **OK** is clicked, an unfiltered alarm list appears.

If the setup is created during the session, it will be the default the next time the CimView Alarm Viewer screen is opened.

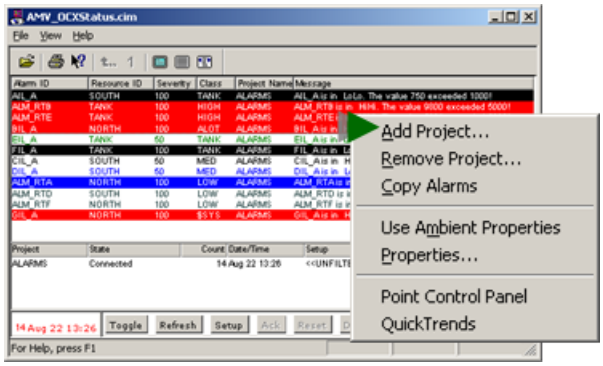
Add projects during runtime

During runtime a user can quickly add projects by right-clicking the Alarm Viewer control

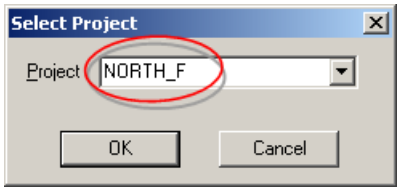
8. Right-click *(page 54)* the Alarm Viewer OCX.

   A Popup menu opens.

9. Select Add Project.




   The Select Project dialog box opens.




10. Do one of the following.

    Select one of the running projects from the **Project** field.

    Enter one of the following.

    - Project name
    - Node name

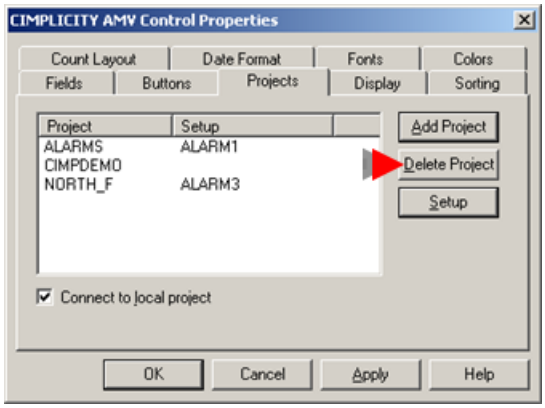
- IP address

11. Click OK.

## Option 9.2. Delete Projects from the AMV Control List

- Delete projects during configuration.
- Remove projects during runtime.
- Delete projects during configuration

1. Select the Projects tab in the CIMPLICITY AMV Control Properties dialog box.
2. Select the project to delete.
3. Click Delete Project.




The project is deleted from the list.

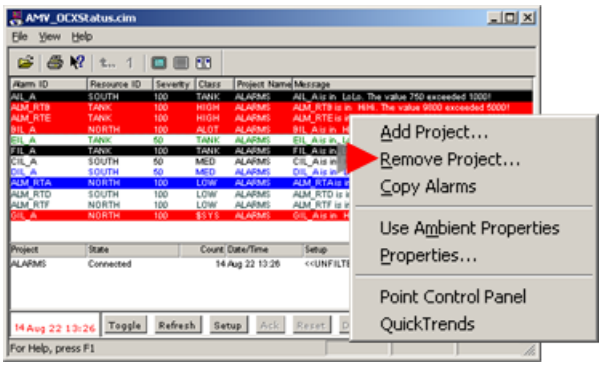
4. Repeat until all of the projects are selected.
   Remove projects during runtime

   During runtime a user can quickly remove projects by right-clicking the Alarm Viewer control

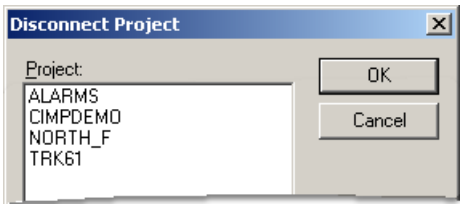
5. Right-click *(page 54)* the Alarm Viewer OCX

   A popup menu appears.

6. Select Remove Project.




The Disconnect Project dialog box opens displaying a list of projects attached to the Alarm Viewer control.




7. Select the project to disconnect.
8. Click **OK**.

# *Stand-alone AMV Configuration*

## *Stand-alone AMV Configuration*

Steps to configure the stand-alone AMV are:

| | |
|---|---|
| Step 1 *(page 63)* | Start the stand-alone AMV. |
| Step 2 *(page 68)* | Select an AMV file. |
| Step 3 *(page 71)* | Configure the alarm count layout. |
| Step 4 *(page 77)* | Select the alarm list font and background color. |

| | |
|---|---|
| Step 5 *(page 81)* | Work with the Stand-alone AMV. |
| Step 6 *(page 86)* | Specify how a Stand-alone AMV file will connect to a project. |
| Step 7 *(page 90)* | Configure AMV fields and buttons. |
| Step 8 *(page 90)* | Exit the Stand-alone AMV. |
| More *(page 91)* | Steps to configure Alarm Viewer fields and buttons. |

# *Step 1. Start the Stand-alone AMV*

## Step 1. Start the Stand-alone AMV

Steps to start the stand-alone AMV are:

| | |
|---|---|
| Step 1.1 *(page 63)* | Open the stand-alone AMV. |
| Step 1.2 *(page 66)* | Login to the stand-alone AMV. |

## Step 1.1. Open the Stand-alone AMV

*Step 1.1. Open the Stand-alone AMV*

Because Stand-alone AMV is a runtime application, you can open it on either a:

| | |
|---|---|
| Option 1.1.1 *(page 63)* | Configuration server/viewer, or |
| Option 1.1.2 *(page 65)* | Runtime server/viewer. |

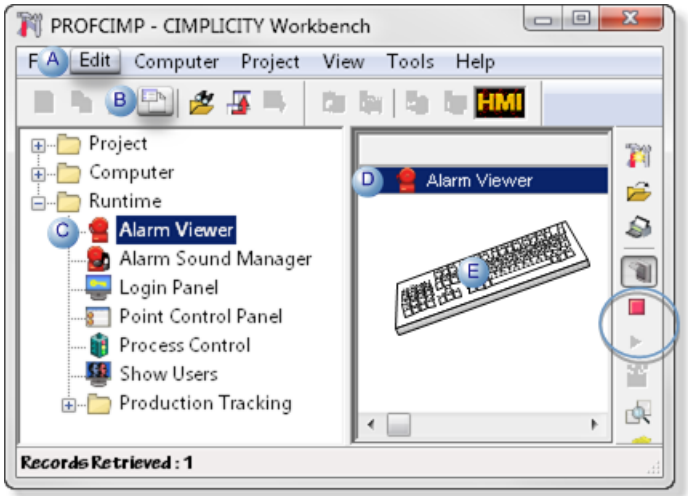
*Option 1.1.1. Open the stand-alone AMV on a Configuration Server or Viewer*

Open the Alarm Viewer through the:

- Workbench.
- Start Menu.

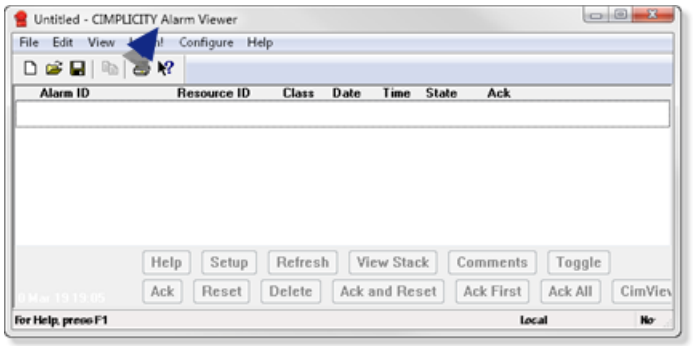
Workbench

1. Make sure the CIMPLICITY project is running.
2. Select **Runtime>Alarm Viewer** in the Workbench left pane.
3. Do one of the following.




| | | |
|---|---|---|
| A | Click Edit>Properties on the Workbench menu bar. | |
| B | Click the Properties button on the Workbench toolbar. | |
| C | In the Workbench left pane:<br>a. Right-click **Alarm Viewer**.<br>b. Select Properties on the Popup menu. | |
| D | In the Workbench right pane: | |
| | Either | Or |
| | Double click Alarm Viewer. | a. Right-click Alarm Viewer.<br>b. Select Properties on the Popup menu. |
| E | Press Alt+Enter on the keyboard. | |

a. Result: An untitled, empty Stand-alone AMV window displays when you use any method.

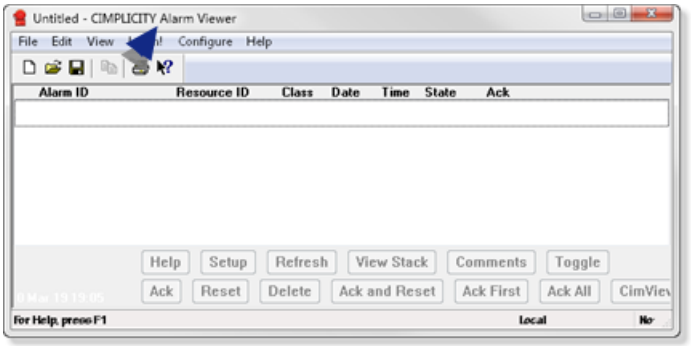



Start Menu

4. Right-click **Alarm Viewer**.
5. Select Properties on the Popup menu.
6. Right-click Alarm Viewer.
7. Select Properties on the Popup menu.
8. Click Start on the Windows task bar.
9. Select All Programs>HMI SCADA - CIMPLICITY <version>Alarm Viewer 

.

An untitled, empty Stand-alone AMV window displays.




**Tip:** Once you have configured an Alarm Viewer file you can create a shortcut for the Windows desktop or Start menu. A user can then double-click the shortcut and display both the stand-alone AMV and alarms in the connected project in one or two easy steps. The exact steps depend on you specifications for connecting the file to a project.

*Option 1.1.2. Open the Alarm Viewer on a Runtime Server or Viewer*

A system administrator can control how Alarm Viewer opens and what alarms it displays on a runtime server or viewer.

Very commonly, the Alarm Viewer that is embedded in a CimView screen starts when the runtime server or viewer is booted.

Also commonly, an operator can click an icon on the Windows desktop to open a pre-configured Alarm Viewer.

In other instances, the Alarm Viewer can be started through the Windows Start menu.

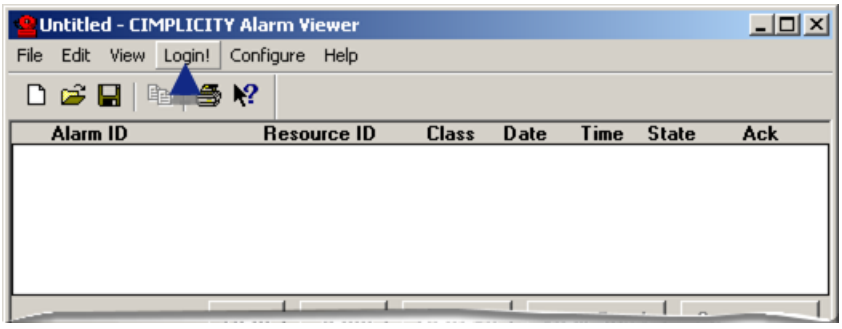
**Note:** If the user has not logged in a CIMPLICITY® Login dialog box displays and the user must log in before the CimView screen can be enabled.

## Step 1.2. Login to the Alarm Viewer

| | |
|---|---|
| 1 *(page 66)* | Start the Log in. |
| 2 *(page 66)* | (If the router is not running) start the router. |
| 3 *(page 67)* | Log into the Alarm Viewer. |

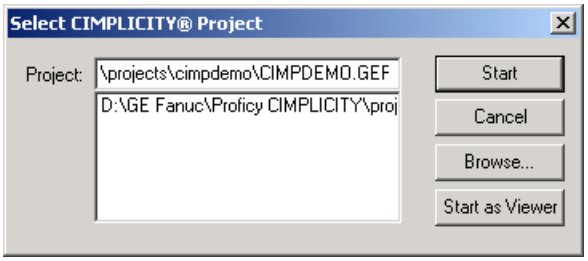
1. Start the Log in.

Click Login! on the Alarm Viewer menu bar.




1. Start the router.

If the router is not running a Select a CIMPLICITY Project dialog box opens when you click Login!. The dialog box displays available projects.

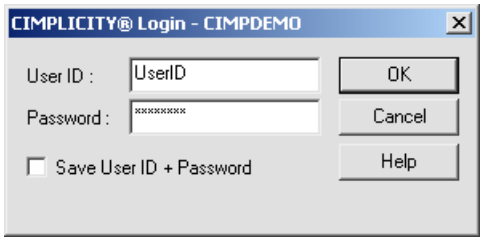



1. Select any project to which you have access.

   **Note:** The project does not have to be the one that displays in the active Workbench.

2. Click Start (or Start as Viewer).
   a. Log into the Alarm Viewer.

   (If logging in is required) a CIMPLICITYâ Login dialog box opens.



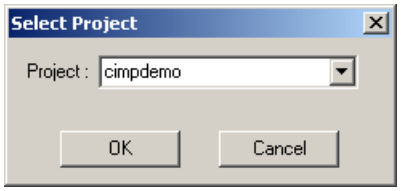

3. Enter your **User ID** and **Password**.

4. Click OK.

   (When opened through the Start menu) a Project dialog box opens.

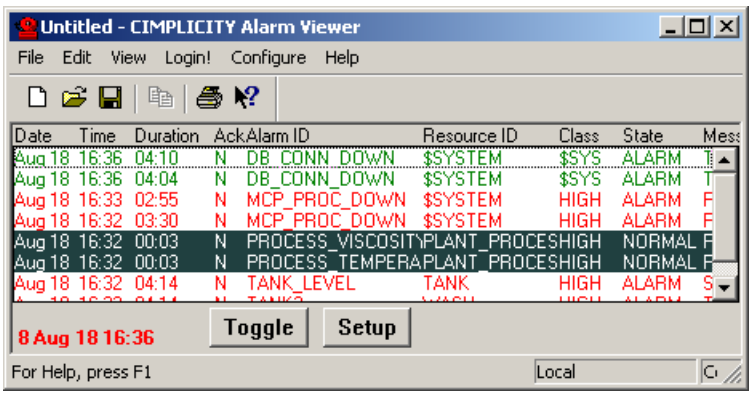
   a. Enter any of the following.
   - Project name
   - Server name
   - IP address
   - Cluster name
   - Cluster IP address

   **Important:** If cabling redundancy is configured on a server and you attempt to connect by cluster name or IP address, the connection will fail.




   a. Click OK.

The project starts after you have entered your User ID and password, if they are required. When the project has started its active Alarm IDs display in the Alarm Viewer.




**Note:** If the CIMPLICITY project that displays in the Workbench is running, the Alarm Viewer displays the alarms in that project when Login! is clicked on the Alarm Viewer menu bar–even if more than one project is running.

## *Step 2. Select an Alarm Viewer File*

### Step 2. Select an Alarm Viewer File

You can select an Alarm Viewer file that contains the setup you want to use to review alarms.

Options include:

| | |
|---|---|
| Option 2.1 *(page 68)* | Display a new Alarm Viewer file. |
| Optiion 2.2 *(page 69)* | Open an existing Alarm Viewer file. |

**Note:** You can also simply view the configuration that displays when you open the stand-alone AMV.

### Option 2.1. Display a new Alarm Viewer File

Do one of the following.

Method 1

1. Click File on the Alarm Viewer menu bar.
2. Select New.

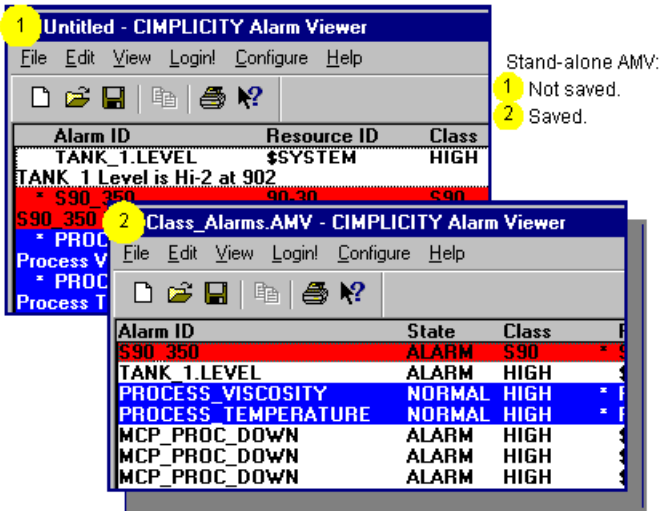
Method 2

Double-click the **New** button on the Alarm Viewer toolbar.

Method 3

Press **Ctrl+N** on the keyboard.

The File name that appears on the existing stand-alone AMV title bar displays as **Untitled**. The next time you save the file, you will be prompted to name it.




## Option 2.2 Open an existing Alarm Viewer File

*Option 2.2. Open an existing Alarm Viewer File*

If a saved Alarm Viewer file (AMV) contains the configuration you need for dealing with alarms you can open it and connect to the appropriate project according to the specifications made when the project was saved.

The Alarm Viewer enables you to easily:

| | |
|---|---|
| Option 2.2.1 *(page 70)* | Open a recently used Alarm Viewer file. |
| Option 2.2.2 *(page 70)* | Open any existing Alarm Viewer file. |

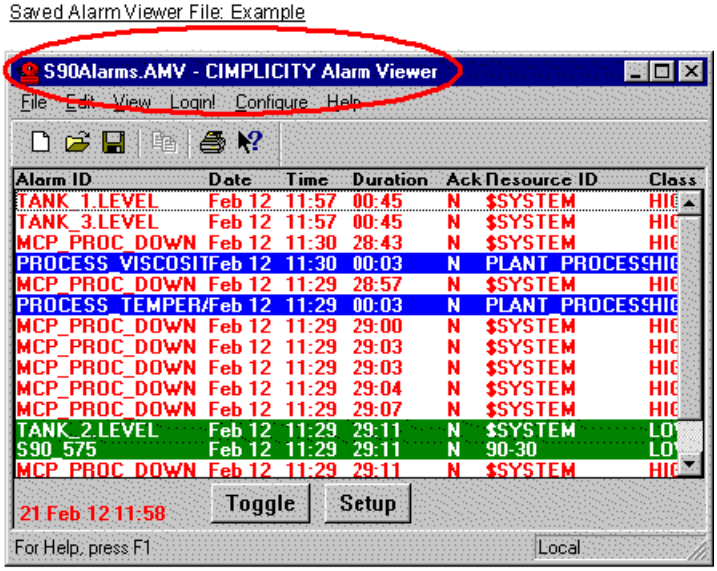
**Tip:** You can also create a shortcut to open an Alarm Viewer file. This is an efficient way of making the correct Alarm Viewer configuration available to users.

*Option 2.2.1. Open a Recently Used Alarm Viewer File*

1. Click File on the **Alarm Viewer** menu bar.
2. Select any of the files listed on the File menu.

The file displays in the stand-alone AMV with the configuration you saved.

Saved Alarm Viewer File: Example




*Option 2.2.2. Open any Existing Alarm Viewer File*

1. Open the Open dialog box.

   Method 1

   a. Click File on the stand-alone AMV menu bar.
   b. Select Open.

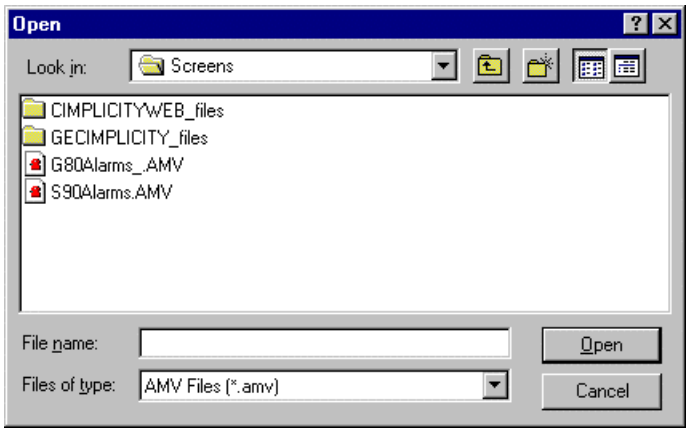
   Method 2

   Double-click the **Open** button  on the stand-alone AMV toolbar.

   Method 3

   Press **Ctrl+O** on the keyboard.

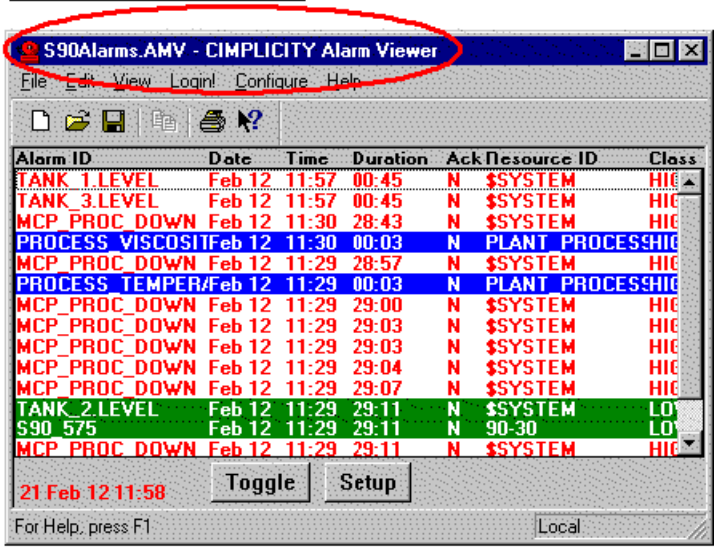
   The Open dialog box opens when you use any method.




2. Find and select the .PPL file you want.

The file displays in the stand-alone AMV with the configuration you saved.

Saved Alarm Viewer File: Example




## *Step 3. Configure the Alarm Count Layout*

Step 3. Configure the Alarm Count Layout

The Alarm Count display tells you how many alarms have been generated and the time and date of the most recently generated alarms. You have complete flexibility with how to display this information on the Alarm Viewer screen.

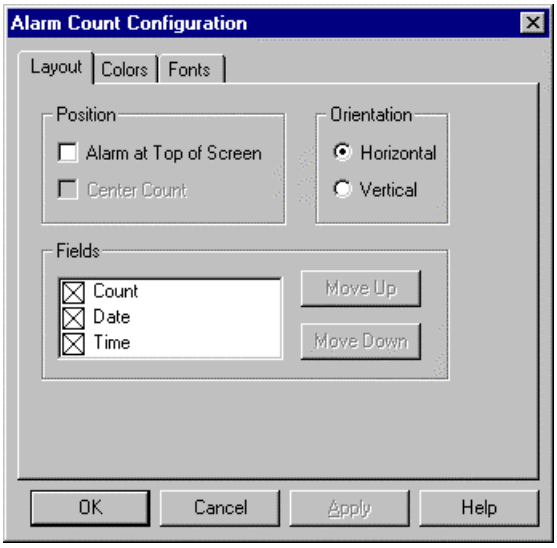
Configuration includes:

| | |
|---|---|
| Step 3.1 *(page 72)* | Open the Alarm Count Configuration dialog box. |
| Step 3.2 *(page 72)* | Specify the layout of the count information. |
| Step3.3 *(page 74)* | Select the alarm count colors. |
| Step 3.4 *(page 75)* | Select the alarm count fonts. |

## Step 3.1. Open the Alarm Count Configuration Dialog Box

1. Click Configure on the Alarm Viewer menu bar.
2. Select Count Layout.

The Alarm Count Configuration dialog box opens.



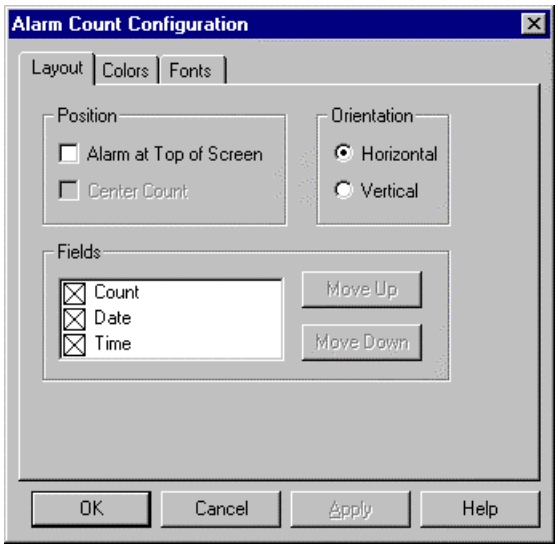

## Step 3.2. Configure the Alarm Count Layout

1. Click Configure on the Alarm Viewer menu bar.
2. Select Count Layout…

   The Alarm Count Configuration dialog box appears.

3. Select the Layout tab.

The Layout tab displays the current selections.




4. Do one of the following in the Position box:

| Action | For Position |
|---|---|
| Clear both check boxes | Bottom left-hand corner of the Alarm Viewer. |
| Check Alarm at Top of Screen | Upper left-hand corner of the Alarm Viewer. |
| Check both check boxes | Centered at the top of the Alarm Viewer. |

5. Check one in Orientation box:

| Check | Display Fields |
|---|---|
| Horizontal | Side by side in the order you specify. |
| Vertical | One on top of the other in the order you specify. |

6. Check which fields to display in the Fields box. Options include alarm:
   - Count.
   - Date.
   - Time.

7. Specify the order in which the information should display as follows.
   a. Select an information field.
   b. Click either:
   - **Move Up** to move the field to the left or
   - **Move Down** to move the field to the right.

The alarm count information displays during runtime according to your specifications.

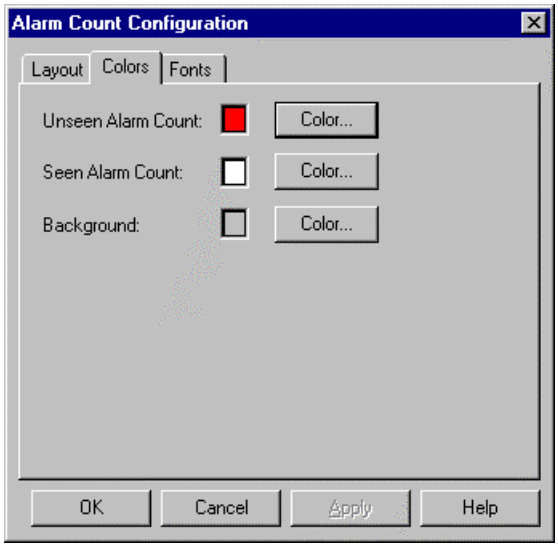
## Step 3.3. Configure Alarm Count Colors

1. Click Configure on the Alarm Viewer menu bar.
2. Select Count Layout…

   The Alarm Count Configuration dialog box appears.

3. Select the Colors tab.

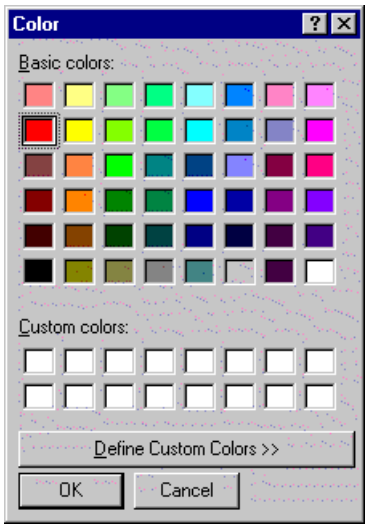
   The Colors tab displays the currently selected colors.




4. Click **Color** to the right of any option whose color you want to change.

| Option | Changes the Color of the: |
|---|---|
| Unseen Alarm Count | Alarm count when new alarms are generated and you have not yet viewed them. |
| Seen Alarm Count | Alarm count after you have viewed the current set of alarms. |
| Background | Background color for the alarm count display. |

   A Color palette opens when you click any of the **Color** buttons.




5. Select the color you want.
6. Click **OK**.

The color you selected will replace the existing color for the selected option.

**Note:** Click Define Custom Colors to expand the palette and create additional colors.

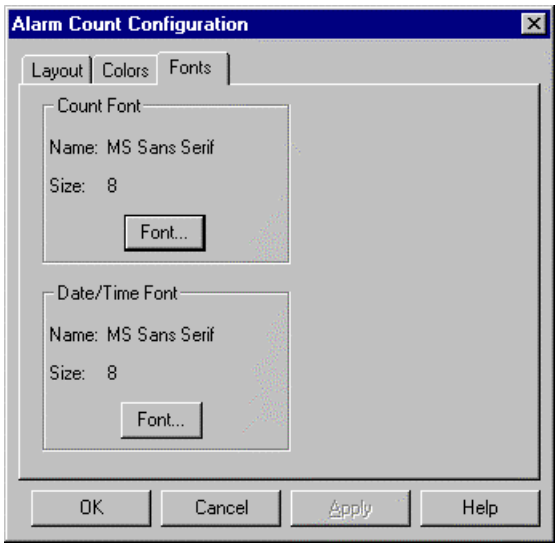
## Step 3.4. Select the Alarm Count Fonts

1. Click Configure on the Alarm Viewer menu bar.
2. Select Count Layout…

   The Alarm Count Configuration dialog box appears.

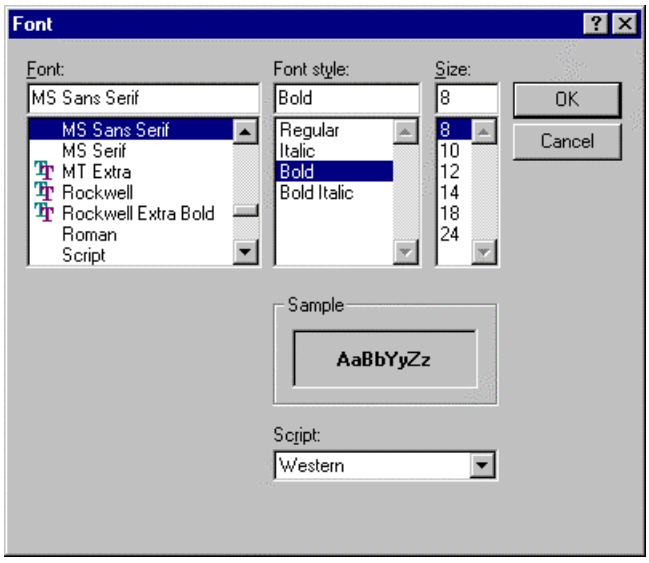
3. Select the Fonts tab.

   The Fonts tab displays the currently selected fonts and size.




4. Click **Font** in the Count Font box to change the font specifications for the alarm count display.

   A Font dialog box opens in which you can make your changes.




   a. Select the Font, Font style and size.
   b. Click **OK**.

   The Fonts tab re-displays.

5. Click **Font** in the Date/time Font box to change the font specifications for the date and time.

   A Font dialog box opens in which you can make your changes.

   a. Select the Font, Font style and size.
   b. Click **OK**.

The Fonts tab re-displays.

## *Step 4. Select the Stand-alone AMV Alarm List Font and Background Colors*

### Step 4. Select the Stand-alone AMV Alarm List Font and Background Colors

You can specify the

- Font type, style, and size used for the Alarm List and
- Alarm Viewer background color. This color displays where there are no alarms. The background color for the alarms is selected in the Alarm Class Configuration dialog box.

Steps include:

| | |
|---|---|
| Step 4.1 *(page 77)* | Select the font type for the alarm list.. |
| Step 4.2 *(page 79)* | Select the stand-alone AMVa background color. |
| Step 4.3 *(page 80)* | Select the button area background color. |

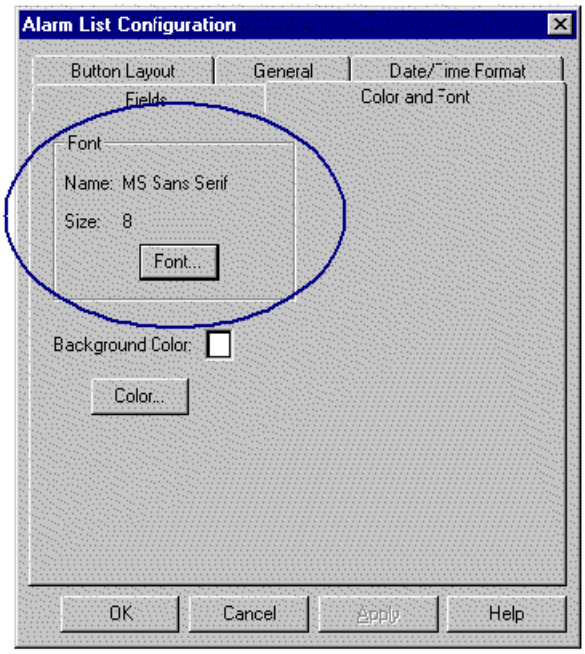
### Step 4.1. Select the Font Type for the Alarm List

1. Click Configure on the Alarm Viewer menu bar.
2. Select List Layout…

   The Alarm List Configuration dialog box appears.

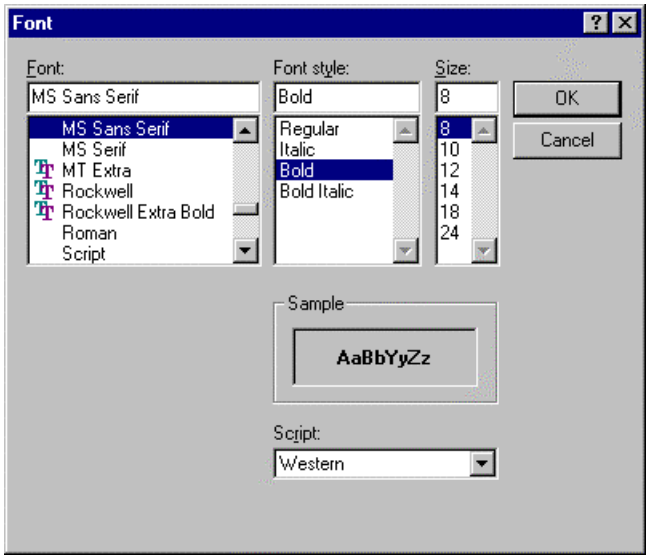
3. Select the Color and Font tab.

   The Color and Font tab displays the currently selected font and size.




4. Click **Font** in the Count Font box to change the font specifications for the alarm count display.

   A Font dialog box opens in which you can make your changes.




5. Select the Font, Font style and size.
6. Click **OK**.

   The Color and Fonts tab reappears.

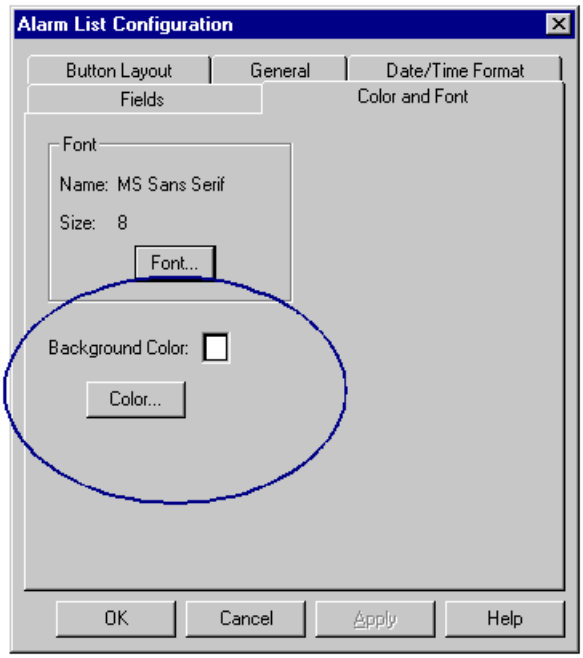
7. Click **OK**.

When alarms display in the Alarm Viewer the text for the alarm list and field headings will display in the font you specify.

## Step 4.2. Select the Stand-alone Alarm Viewer Background Color

1. Click Configure on the Alarm Viewer menu bar.
2. Select List Layout.

   The Alarm List Configuration dialog box appears.

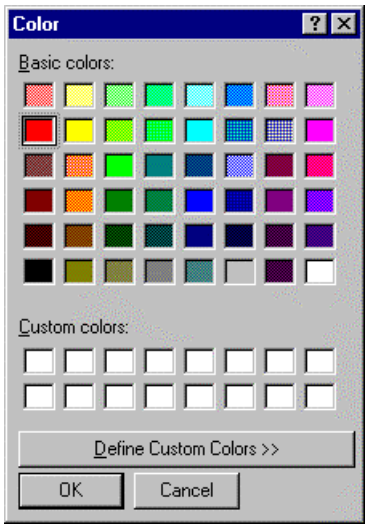



3. Select the Color and Font tab.

   The Color and Font tab displays the currently selected background color.

4. Click Color.

   A Color palette opens.




5. Select the color you want.
6. Click OK.

The color you selected will replace the existing background color.

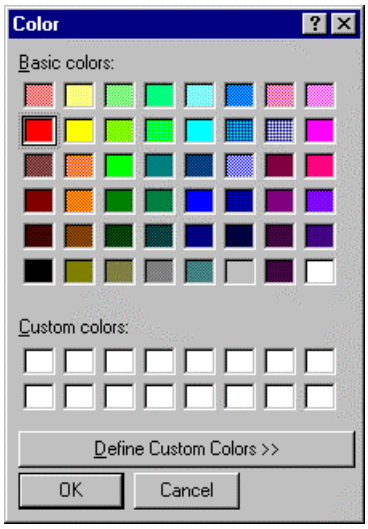
## Step 4.3. Select the Button Area Background Color

1. Select the Button Layout tab in the Alarm List Configuration dialog box.

   The color that displays in the **Background Color** box is the color that currently displays in stand-alone AMV button area.

2. Click **Color**.

   A Color Palette displays.




3. Select the color you want to use.
4. Click **OK** or **Apply**.

The button area background changes to the color that you selected.

## *Step 5. Work with the Stand-alone AMV*

### Step 5. Work with the Stand-alone AMV

The CIMPLICITY Alarm Viewer has several features that enable a stand-alone Alarm Viewer user to report, review and/or save alarms and/or an Alarm Viewer configuration.

Options include:

| | |
|---|---|
| Option 5.1 *(page 81)* | Copy an alarm to another document. |
| Option 5.2 *(page 82)* | Print an Alarm Viewer document. |
| Option 5.3 *(page 84)* | Save an Alarm Viewer file. |

### Option 5.1. Copy an Alarm to another Document

1. Select the alarm or alarms in the Alarm Viewer that you want to copy.

**Note:** Hold down the **Shift** key to select more than one alarm.

2. Do one of the following:

   Method 1

   Click Edit on the Alarm Viewer menu bar.

   Select Copy.

   Method 2

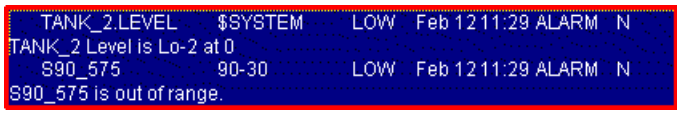
   Press **Ctrl+C** on the keyboard.

3. Open the document in which you want to paste the data.
4. Press **Ctrl+V** (in almost all applications) on the keyboard.

   The data is copied to the new document as text.

   **Example**

   Data for Two Alarms Selected in the Alarm Viewer




   The Alarms Pasted in Word

   TANK_2.LEVEL $SYSTEM LOW Feb 12 11:29 ALARM N

   TANK_2 Level is Lo-2 at 0

   S90_575 90-30 LOW Feb 12 11:29 ALARM N

   S90_575 is out of range.

## Option 5.2. Print a Stand-alone AMV Document

*Option 5.2. Print a Stand-alone AMV Document*

You can easily preview and print an Alarm Viewer file.

The Alarm Viewer enables you to:

| | |
|---|---|
| Option 5.2.1 *(page 83)* | Preview a document before it is printed. |
| Option 5.2.2 *(page 83)* | Specify the printer and setup. |
| Option 5.2.3 *(page 84)* | Print the document. |

*Option 5.2.1. Preview Stand-alone AMV Printed Document*

1. Open the stand-alone AMV Print Preview window as follows.

   Method 1

   a. Click File on the stand-alone AMV menu bar.
   b. Select Print Preview.

   Method 2

   Press **Alt+F+V** on the keyboard.

   The stand-alone AMV Print Preview window opens when you use either method.

2. Review the print preview using the stand-alone AMV tools:

| To | Action |
|---|---|
| Zoom in | Right-click the mouse, or |
| | Click **Zoom in** on the toolbar. |
| Zoom out | **Press** Alt **and Right-click the mouse, or** |
| | Click **Zoom out** on the toolbar. |
| Go to the previous page | Click **Prev Page** on the toolbar |
| Go to the next page | **Click Next Page on the toolbar** |
| Display one page | Click **One Page**. This button is active when two pages are displaying. |
| Display two pages | Click **Two Pages**. This button is active when one page is displaying. |
| Print | Click **Print**. |

*Option 5.2.2. Specify the Print Setup for the Stand-alone AMV*

Do one of the following.

Method 1

1. Click File on the Alarm Viewer menu bar.
2. Select Print Setup.

   Method 2

   Press **Alt+F+R** on the keyboard.

   The Print Setup dialog box opens when you use either method.

   **Note:** You can also change the printer specifications before you print the document.

*Option 5.2.3. Print a Stand-alone AMV Document*

Method 1

1. Click File on the stand-alone AMV menu bar.
2. Select Print.

   Method 2

   Click **Print** in the stand-alone AMV Print Preview window.

   Method 3

   Press **Crtl+P** on the keyboard.

The Print dialog box opens when you use any method. You can continue with printing in the same manner as you do with any Windows document.

## Option 5.3. Save a Stand-alone AMV File

*Option 5.3. Save a Stand-alone AMV File*

When you display a configuration that you think you will use again, you can

| | |
|---|---|
| Option 5.3.1 *(page 85)* | Save the original stand-alone AMV file. |
| Option 5.3.2 *(page 85)* | Save a copy of an stand-alone AMV file. |

*Option 5.3.1. Save the Original Stand-alone AMV File*

1. Do one of the following:

   Method 1

   a. Click File on the stand-alone AMV menu bar.
   b. Select Save.

   Method 2

   Double-click the Save button  on the stand-alone AMV toolbar.

   Method 3

   Press **Ctrl+S** on the keyboard.

   If the file has been saved previously the saved version is updated.

   If the file is being saved for the first time, the Save As dialog box opens.

2. Enter a name for the file in the folder where you keep stand-alone AMV files for the project.
3. Click **Save**.

A new stand-alone AMV file is saved for future use.

**Note:** By default, stand-alone AMV documents are placed in the Screens directory for the CIMPLICITY project that is being used. However, you can select another directory.

*Option 5.3.2. Save a Copy of Stand-alone AMV File*

1. Click File on the Alarm Viewer menu bar.
2. Select Save As…

   The Save As dialog box opens.

3. Enter a name for the file in the folder where you keep stand-alone AMV files for the project.
4. Click **Save**.

A copy of the existing stand-alone AMV file is saved for future use.

# *Step 6. Specify how a Stand-alone AMV File will Connect to a Project*

## Step 6. Specify how a Stand-alone AMV File will Connect to a Project

When you create a stand-alone AMV file you need to specify how the stand-alone AMV will determine what project to connect to when the stand-alone AMV file is opened. You make the specification on the General tab in the Alarm List Configuration dialog box.

| | |
|---|---|
| Step 6.1 *(page 86)* | Select the project that will be connected. |
| Step 6.2 *(page 88)* | Specify the placement of the stand-alone AMV window. |
| Step 6.3 *(page 89)* | (Optional) Install a shortcut of the stand-alone AMV file. |

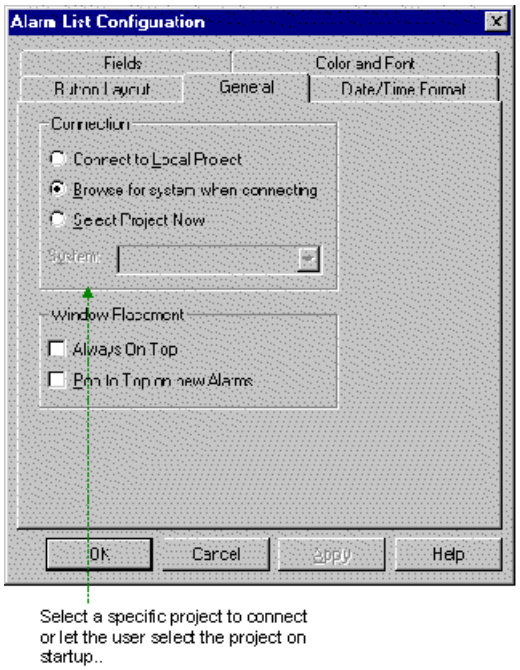
## Step 6.1. Select the Project that will be Connected

1. Click Configure on the stand-alone AMV menu bar.
2. Select List Layout…

   The Alarm List Configuration dialog box opens.

3. Select the General tab.

   The General tab displays the current selection.




4. Select one of the following connection types to determine how the stand-alone AMV will connect to a project.
   - Connection 1.
   - Connection 2.
   - Connection 3.

   Connection 1

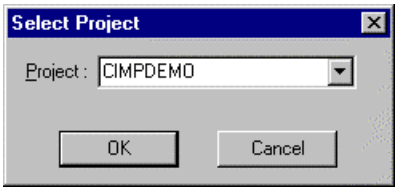
   Check **Connect to Local Project** if you want the stand-alone AMV file to automatically display alarms for the project, in which the stand-alone AMV file is located, when the project is running.

If the local project is running, the alarms display immediately when the file is opened.

Connection 2

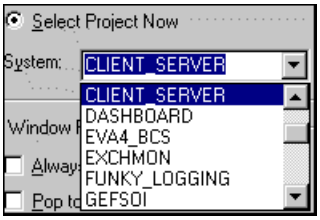
Check **Browse for systemwhen connecting** if you want the user to select the connected project.

When a user opens the AMV file a dialog box appears with a drop down list of projects in the system. If the selected project is running and the user has access, its alarms appear in the Alarm Viewer.



Connection 3

Check **Select Project Now** if you want the stand-alone AMV to connect to a specific project that is not the project in which the AMV file is located.




When a user opens the AMV file, alarms for the selected project appear, if the project is running.

**Note:** In all instances, when no project is running, a Select CIMPLICITYâ Project dialog box appears. The user selects which project to start and the alarms for that project will display.

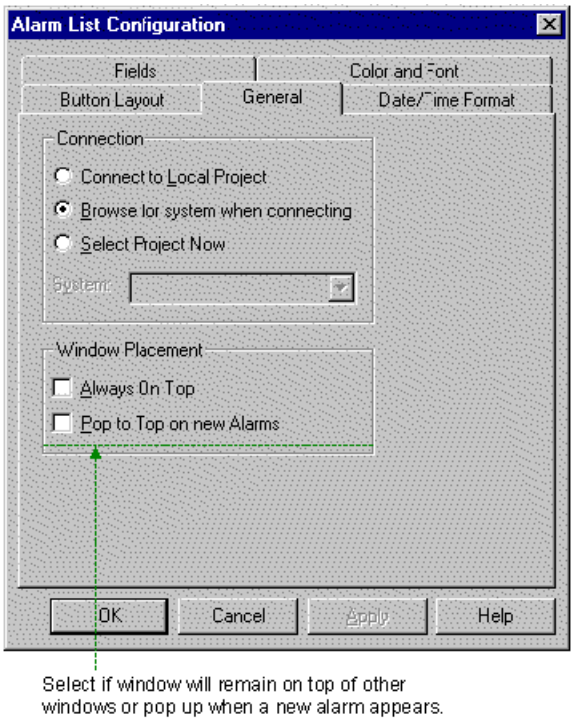
## Step 6.2. Specify the Placement of an Alarm Viewer Window

1. Click Configure on the stand-alone AMV menu bar.
2. Select List Layout…

   The Alarm List Configuration window opens.

3. Select the General tab.

   The General tab displays the current selection.




4. Check either:

| Check Box | The stand-alone AMV will: |
|---|---|
| Always on Top | Always be on top, no matter what other windows are open. |
| Pop to Top on new Alarms | Pop to the top when new alarms are received. |

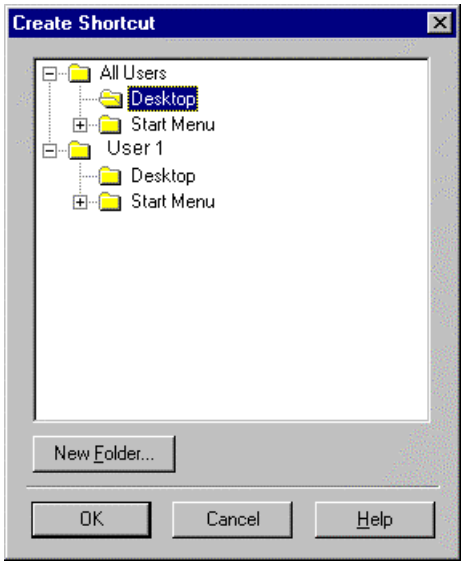
5. Click **OK**.

The stand-alone AMV will be positioned according to your specifications.

## Step 6.3. Install a Shortcut of a Stand-alone AMV File

1. Click File on the stand-alone AMV menu bar..
2. Select Install.

   A Create Shortcut dialog box opens.




3. Select the folder in which the shortcut should appear, e.g., Desktop.
4. Click **OK**.

The shortcut is created where you specified, e.g. 

.

If you open the shortcut when the project is not running a Select CIMPLICITY Project dialog box opens to let you easily start the project.

**Important:** Specify how the Alarm Viewer file should connect to a CIMPLICITY project when the shortcut is double-clicked. If one or more projects are running, your specification will guide the project selection. You do this on the General tab in the Alarm List

**Tip:** : Select **Browse for systemwhen connecting** on the General tab in the Alarm List Configuration dialog box to make sure a user can connect to a project no matter where the shortcut is placed.

## *Step 7. Configure the Alarm Viewer Fields and Buttons.*

The stand-alone AMV fields and buttons configuration *(page 91)* is similar to configuration for the AMV Control.

## *Step 8. Exit the Stand-alone AMV*

1. Do one of the following.

Method 1

a. Click File on the stand-alone AMV menu bar.
b. Select Exit.

Method 2

Press **Alt+F+X** on the keyboard.

Method 3

Click the **Window Close** button .

If you made unsaved changes, a stand-alone AMV message box appears asking you if you want to save them.

2. Click either:
   a. **Yes** to save the changes, or
   b. **No** to discard the changes, or
   c. **Cancel** to return to the stand-alone AMV .

The stand-alone AMV will close or re-appear based on your selection.

# *Alarm Viewer Fields and Buttons Configuration*

## *Alarm Viewer Fields and Buttons Configuration*

The core configuration for both the stand-alone AMV and AMV OCX is the fields and buttons.

| | |
|---|---|
| Step 1 *(page 91)* | Select the AMV Control/AMV alarm list fields. |
| Step 2 *(page 99)* | Select the button display for the AMV Control/AMV. |
| Step 3 *(page 110)* | Work with AMV Control/AMV buttons. |

## *Step 1. Select the AMV Control/Stand-alone AMV Alarm List Fields*

Step 1. Select the AMV Control/Stand-alone AMV Alarm List Fields

Use the Alarm List Configuration dialog box to configure the Alarm List for the Static Alarm list view and the Dynamic Alarm list view.

Steps include:

| | |
|---|---|
| Step 1.1 *(page 92)* | Display the Fields tab (in the AMV Control/AMV Properties dialog box). |
| Step 1.2 *(page 93)* | Select fields for static view. |
| Step 1.3 *(page 94)* | Select fields for dynamic view. |
| Step 1.4 *(page 95)* | Configure the field display order for each view. |
| Step 1.5 *(page 95)* | Specify field column widths and titles. |
| Step 1.6 *(page 96)* | Set the alarm message date/time format. |

## Step 1.1. Display the Fields Tab

*Step 1.1. Display the Fields Tab*

How you display the Fields tab depends on whether you are working in the AMV Control or the AMV.

| | |
|---|---|
| Option 1.1.1 *(page 92)* | Display the Fields tab in the CIMPLICITY AMV Control Properties dialog box (AMV Object). |
| Option 1.1.2 *(page 93)* | Display the Fields tab in the Alarm List Configuration dialog box (stand-alone Alarm Viewer). |

*Option 1.1.1. Display the Fields Tab in the CIMPLICITY AMV Control Properties Dialog Box*

1. Double-click the AMV Control.

   The CIMPLICITY AMV Control Properties dialog box opens.

2. Select the Fields tab.

The list of fields you configure will depend on whether you are configuring a static or dynamic alarm list.

**Note:** If any field titles have been modified, the modified title appears in parentheses to the right of the field name. For example, (**Ack),** the new name, appears to the right of **Ack State**, the previous name.

*Option 1.1.2. Display the Fields tab in the Alarm List Configuration Dialog Box*

1. Click Configure on the Alarm Viewer menu bar.
2. Select List Layout...

   The Alarm List Configuration dialog box appears.

3. Select the Fields tab.
4. Check **Display Field Titles** if you want the titles to display in the Alarm Viewer in either static or dynamic view.

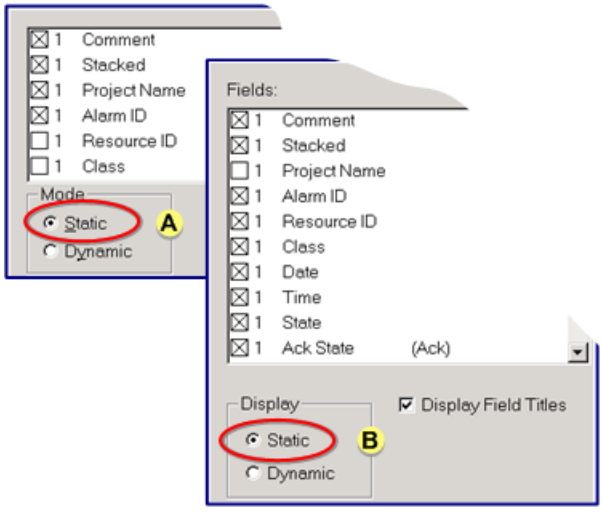
The list of fields you configure will depend on whether you are configuring a static or dynamic alarm list.

**Note:** If any field titles have been modified, the modified title appears in parentheses to the right of the field name. For example, (**Ack)** appears to the right of **Ack State**.

## Step 1.2. Select Fields for Static View

1. Check **Static** in the Display box on the Fields tab.

   The available fields display in the Fields box. The fields describe specifications made for the point, e.g., Resource ID, as well as current alarm status, e.g., State.



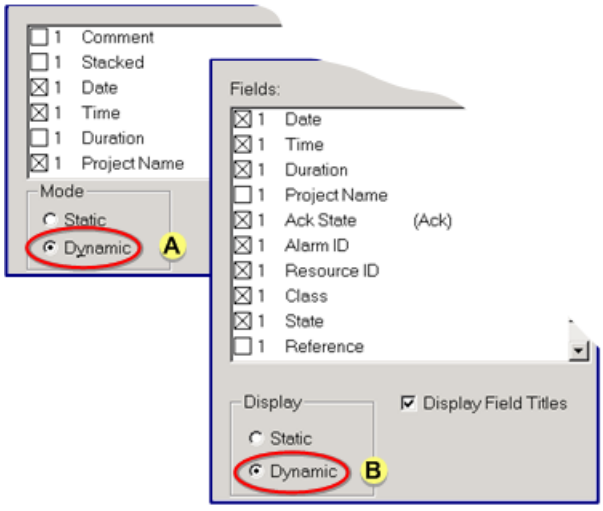

| | |
|---|---|
| A | CIMPLICITY AMV Control Properties dialog box |
| B | Alarm List Configuration dialog box |

2. Check the fields you want displayed.

## Step 1.3. Select Fields for Dynamic View

1. Check **Dynamic** in the Display box on the fields tab.

   The available fields display in the Fields box. The fields describe specifications made for the point, e.g., Resource ID, as well as current alarm status, e.g. State.




| | |
|---|---|
| A | CIMPLICITY AMV Control Properties dialog box |

| | |
|---|---|
| B | Alarm List Configuration dialog box |

2. Select the fields you want displayed.

### Step 1.4. Configure the Field Display Order for Each View

1. Select a field when you are in either mode.

   The field's static to other fields determines which buttons (to the right of the Fields box) are enabled.

2. Click the buttons according to where you want the field to display in the Alarm Viewer. The buttons that are enabled might change as the field moves.

| Button | Each Click Moves the Field |
|---|---|
| Position Left | One column left. |
| Position Right | One column right. |
| Row Up | Up one row, to the furthest left position in an alarm's message area. **Note:** The button will only be active if there is a row above the one in which the field is placed. Example You:<br>• Start with two rows for each alarm message.<br>• Select Alarm ID, which currently is in the second row.<br>• Click **Row Up** once.<br>The Alarm ID appears in the first row, furthest left position of each alarm's message. **Row Up** is no longer active when Alarm ID is selected. |
| Row Down | Down a row in the message. The field will be placed at the start of the message row. (The maximum row number is 10.) Example You<br>• Start with two rows for each alarm message.<br>• Select Alarm ID, which currently is in the first row.<br>• Click **Row Down** twice.<br>The Alarm ID appears in the third row of each alarm's message. |

### Step 1.5. Specify Field Column Widths and Titles

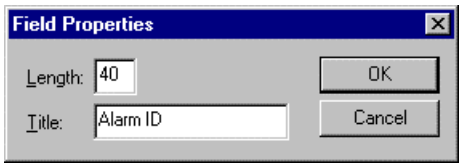
Columns in the AMV Control/AMV adhere to the width and display the titles that you specify for the fields that are in the first row. You can associate a title and length with any field that will be used whenever that field is positioned in the first row of the alarm message.

**Note:** Column titles appear in the AMV Control only if you check **Field titles** on the Sort/ Display tab in the CIMPLICITY AMV Control Properties dialog box.

1. Select a field in either Static or dynamic view.

2. Click **Modify…**

The Field Properties dialog box for the select field opens.




3. Change the maximum field length in for the Alarm Viewer in the **Length** field if it should be different from the current length that displays.

4. Enter a new title for the Alarm Viewer field in the **Title** Field if it should be different from the current title that displays.

   If you change the title of a field, its original title appears next to the check box in the Fields list, and the modified title appears to the right in parentheses.

5. Click either:
   - **OK** to accept the changes.
   - **Cancel** to retain the current settings.

The Alarm List Configuration dialog box appears. The field is changed (or not) according to your specifications.

**Tip:** Field length is based on the average size of characters in the font you have chosen. Thus, a length of **6** may be sufficient to display the string **IIIIII**, but may be too short to display **WWWWWW**. To ensure that the length is always adequate, select a fixed pitch font (such as Courier New) for your alarm page display.

## Step 1.6. Set the Alarm Message Date/Time Format

1. Do one of the following:

   For the AMV Control

   Select the Date Format tab in the CIMPLICITY AMV Control Properties dialog box.

   For the stand-alone AMV

   Select the Date/Time Format tab in the Alarm List configuration dialog box.

   The Date Format or Date/Time Format tab displays a sample of the current format selection.

2. Either:
   - Select one of the date format options in the **Format** list or
   - Construct your own format in the (Date) **Format** field.

Acceptable entries are:

| | |
|---|---|
| **m** | Numeric month with no leading zero. |
| **mm** | Numeric month with leading zero. |
| **mmm** | Short text month. |
| **mmmm** | Long Text month. |
| **d** | Numeric day with no leading zero. |
| **dd** | Numeric day with leading zero. |
| **ddd** | Short text day of the week. |
| **dddd** | Long text day of the week. |
| **y** | Last two digits of year. For digits 00 through 09, only the last digit is displayed. |
| **yy** | Last two digits of year. For digits 00 through 09, both digits are displayed. |
| **yyyy** | All four digits of year |

You can use spaces, dashes, slashes or any other delimiter of your choice to separate the date fields.

**Example**

If you enter **dddd dd mmmm yyyy**, the sample date will be **Saturday 05 March 1994**.

3. Either:
   - Select one of the time format options in the Time list or
   - Construct your own format in the (Time) **Format** field.

   Acceptable entries are:

| | |
|---|---|
| **H** | Hours based on a twelve-hour clock with no leading zero. |
| **HH** | Hours based on a twelve hour clock with leading zero. |
| **HHH** | Hours based on a 24-hour clock with no leading zero. |
| **HHHH** | Hours based on a 24-hour clock with leading zero. |
| **M** | Minutes with no leading zero. |
| **MM** | Minutes with leading zero. |
| **S** | Seconds with no leading zero. |
| **SS** | Seconds with leading zero. |
| **TT** | Hundredths of seconds with leading zeros. |
| **T** | Thousandths of seconds with no leading zero. |

| | |
|---|---|
| **TTT** | Thousandths of seconds with leading zeros. |
| **P, A, p**, or **a** | AM/PM indicator. |

You can use colons, spaces or any other delimiter of your choice to separate the date fields.

**Example**

If you enter **HHHH:MM:SS:TTT p**, the sample time will be **13:05:06:085 PM**.

## AMV Alarm Fields

Each of the AMV Alarm fields that can appear as columns in the AMV OCX Control or AMV Stand-alone alarm viewer are listed below.

| Field/ Column | Description |
|---|---|
| Comment | The number of operator comments on an alarm. |
| Stacked | The number of retained occurrences for an alarm that is generated more than once before an operator deletes it. When the designated number is reached, the system deletes the oldest alarm occurrence as each new alarm is generated. |
| Project Name | Name of the CIMPLICITY project generating the alarm. |
| Alarm ID | Identifier of the alarm. |
| Resource ID | Identifier of the factory resource identifier for the alarm, used to control its routing. |
| Class | Class of the alarm. |
| Date | Alarm generation date. |
| Time | In the stand-alone Alarm Viewer, the time is the:<br>• Alarm generation time.<br>• In the Alarm Viewer OCX, the time is either the:<br>◦ Alarm generation time<br>◦ Alarm generation time and Alarm cleared (Normal) time<br>**Tip:** Select what time will display on the Display *(page 51)* tab in the CIMPLICITY AMV Control Properties dialog box. |
| State | Current State of the alarm. |
| Ack State (Ack) | Boolean value that indicates whether an alarm has been acknowledged or not. |
| Ack User | The user who acknowledged the alarm.<br>**Note:** Available only in the Alarm Viewer control in CimEdit. |

| Field/ Column | Description | |
|---|---|---|
| Last Comment | The latest comment entered for the alarm.<br>**Note:** Available only in the Alarm Viewer control in CimEdit. | |
| Reference | Reference identifier for the alarm, used to distinguish to identical alarms. | |
| Severity | A number that indicates the importance of the alarm; the higher the Severity the more severe the state. CIMPLICITY treats more severe alarms with a higher priority. | |
| Category | (AMV Control Properties only) The name of the general category for the generated alarm: Level, Discrete, or System.<br>• **Level** is generated by non Boolean point alarms.<br>• **Discrete** is generated by Boolean point alarms.<br>• **System** is generated by all alarms not generated by points. | |
| Condition | (AMV Control Properties only) The condition for the generated alarm's Category. Each Category currently has a Condition that qualifies the type of alarm. | |
| | **Condition** | **Generated for** |
| | Level | Level alarms |
| | Trip | Discrete alarms |
| | System | System alarms |
| Subcondition | (AMV Control Properties only) A specific Subcondition that further qualifies the alarm's Condition. For Level and Trip conditions, the Subcondition column displays a state string associated with the alarm's State. For the System condition, this column displays "System." | |
| Message | The alarm Message. This message contains the fixed text for the alarm and optional information for the run-time parameters.<br>This field normally appears as the first field in the list area below the column headers in the AMV. | |
| Description | The description of the alarm.<br>For Point Alarms, this is the Point Description.<br>For Event Alarms, this is the Alarm Definition Description. | |

## *Step 2. Select the Button Display for the AMV Control or Stand-alone AMV*

Step 2. Select the Button Display for the AMV Control or Stand-alone AMV

The Alarm Viewer provides a user with several buttons to deal with alarms. For example, a user can acknowledge, reset or delete an alarm, if you select to display the button for those actions.

Dynamic View updates alarms whenever there is a change.

Dynamic view buttons:

- In the AMV Control, function the same as they do in static view.
- In the AMV, enable you to filter the list of alarms and toggle back to Static View.

Static View updates alarms when an operator clicks the **Refresh** button.

Static view buttons provide the user with the capability to respond to alarms.

- You can select which buttons you want to display and, as a result, control the actions a user can take when an alarm displays.
- You do the configuration on the Button Layout tab in the Alarm List Configuration dialog box.

Steps for handling buttons include:

| | |
|---|---|
| Step 2.1 *(page 100)* | Display the Buttons or Button Layout tab (for AMV Control or AMV). |
| Step 2.2 *(page 102)* | Select buttons for static view. |
| Step 2.3 *(page 103)* | Select buttons for dynamic view. |
| Step 2.4 *(page 103)* | Create custom buttons. |
| Step 2.5 *(page 108)* | Configure the button display order for each view. |
| Step 2.6 *(page 109)* | Specify the button caption, description and command string. |

## Step 2.1. Display the Buttons or Button Layout Tab

*Step 2.1. Display the Buttons or Button Layout Tab*

Whether you display the Buttons tab or the Button Layout tab depends on whether you are working in the AMV Control or the stand-alone AMV.

| | |
|---|---|
| Option 2.1.1 *(page 101)* | AMV Control. |

| | |
|---|---|
| | Display the Buttons tab in the CIMPLICITY AMV Control Properties dialog box. |
| Option 2.1.2 *(page 101)* | Stand-alone Alarm Viewer. |
| | Display the Button Layout tab in the Alarm List Configuration dialog box |

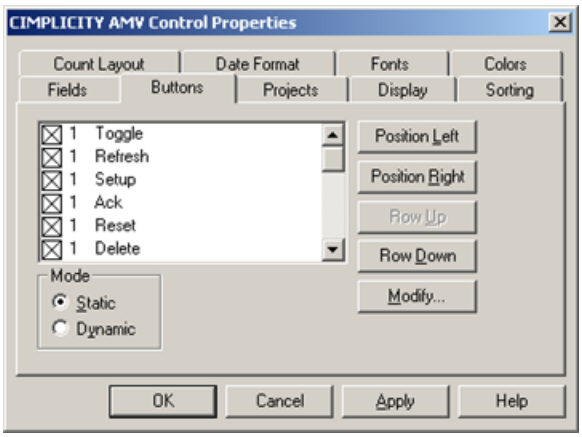
*Option 2.1.1. Display the Buttons Tab in the CIMPLICITY AMV Control Properties Dialog Box*

1. Right-click the Alarm Viewer control.
2. Select CIMPLICITY AMV Control Object>Properties.

   The CIMPLICITY AMV Control Properties dialog box opens.

3. Select the Button Layout tab.

The Buttons tab initially displays the buttons selected for the static view.



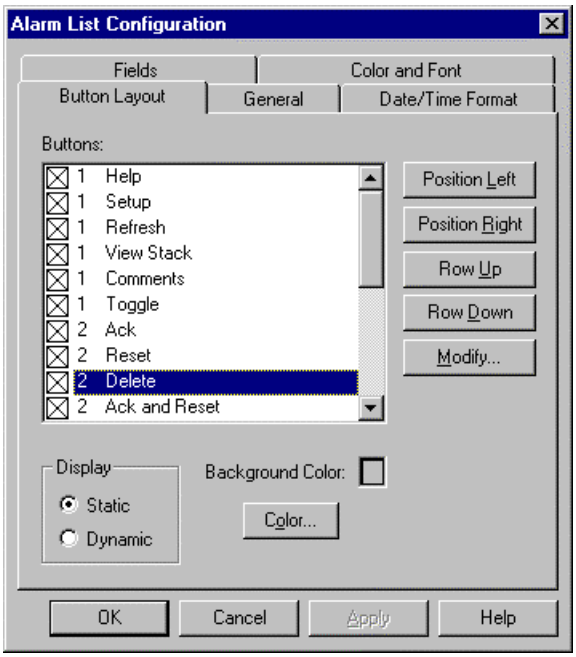

*Option 2.1.2. Display the Button Layout Tab in the Alarm List Configuration Dialog Box*

1. Click Configure on the Alarm Viewer menu bar.
2. Select List Layout...

   The Alarm List Configuration dialog box appears.

3. Select the Button Layout tab.

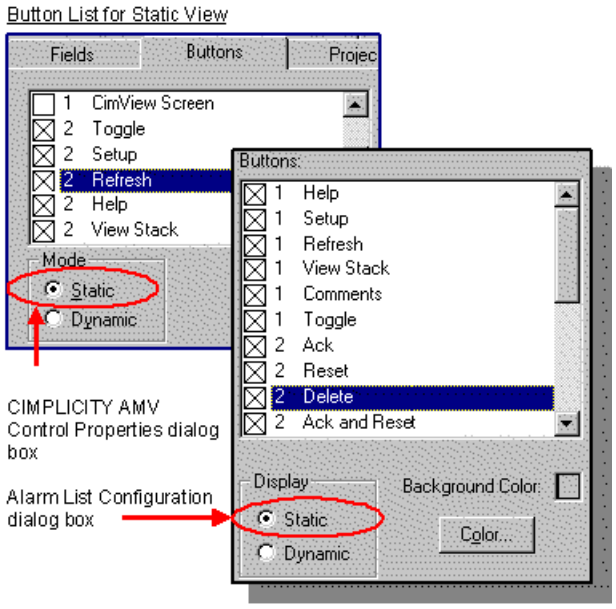
The Button Layout tab initially displays the buttons selected for the static view.




## Step 2.2. Select Buttons for Static View

1. Check **Static** in the Display box on the Button Layout tab.

   The available buttons display in the Buttons box.



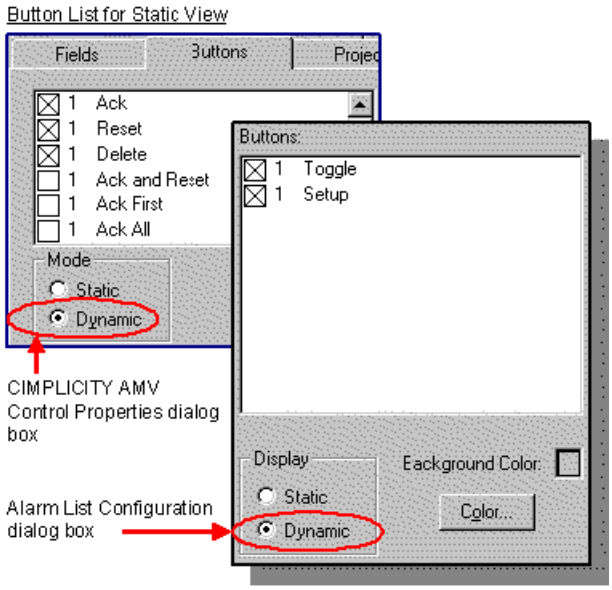

2. Check the buttons you want users to display.

## Step 2.3. Select Buttons for Dynamic View

1. Check **Dynamic** in the Display box on the Button Layout tab.

   The available buttons display in the Buttons box.

   **Note:** The AMV Control has all buttons available for dynamic view; the AMV has **Toggle** and **Setup** only.




2. Check the buttons you want users to display.

   Once you have selected the buttons for display in the alarm list, you can configure which button row the button will be placed in, where in the row it will be placed, and what caption will be displayed.

## Step 2.4. Create Custom Buttons

*Step 2.4. Create Custom Buttons*

Both the stand-alone alarm viewer and AMV control provide the option to create custom buttons.

There are two types of custom buttons that can be added:

- Stand-alone AMV and AMV control custom button.
- AMV control only CustomButton event.

Stand-alone AMV and AMV control custom button

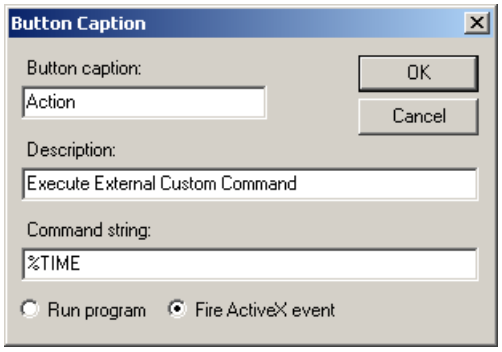
Custom buttons are available in both the stand-alone Alarm Viewer and AMV Control.

A custom button additional functionality to make sure the Alarm Viewer meets your system's requirements. Custom buttons can be configured to trigger command strings that perform several functions, such as run a program, create a set of long term notes that describe the historical conditions surrounding past alarm conditions in a factory or, for the AMV Control, fire an ActiveX event.

1. Select a Custom<N> button to customize.
2. Click Modify....

   The Button Caption dialog box opens for the selected custom button.

   Options are as follows.




| Field | Description |
|---|---|
| Button Caption | Caption that will display on the button |
| Description | Brief description of the button purpose. |
| Command string | Command string that will be executed when the button is clicked. **Note:** Check Run program in the AMV Control Button Caption dialog box. |
| Run program | Check to run the command string when the button is clicked. |
| Fire ActiveX event | (Alarm Viewer Control only) Use a CustomButton *(page 138)* event. |

3. Click OK.

The configured action will occur when a user clicks the customized button in the Alarm Viewer.

*Parameters for Alarm Viewers*

**Parameters for substitution in Alarm Viewers**

You may include any of the following parameters, which will be substituted with characteristics of the selected alarm, in your command:

| Parameter | Value |
|---|---|
| %ACK | **Y** or **N**, if selected alarm is acknowledged |
| %CATEGORY | OPC Category *(page 98)*: Level, Discrete, or System (AMV Control only) |
| %CONDITION | OPC Condition *(page 98)*: Level, Trip, or System (AMV Control only) |
| %DATETIME | Alarm Generation date and time |
| %DT | same as %DATETIME |
| %DATE | Alarm Generation date |
| %TIME | Alarm Generation time |
| %ID | Alarm Identifier of the selected alarm |
| %CLASS | Alarm class of the selected alarm |
| %RESOURCE | Factory resource of the selected alarm |
| %RES | same as %RESOURCE |
| %REFERENCE | Alarm reference identifier for the selected alarm |
| %REF | same as %REFERENCE |
| %MESSAGE | Alarm message for the selected alarm |
| %MSG | same as %MESSAGE |
| %LastCommentText | Latest comment entered for the alarm |
| %AckUser | User who acknowledged the alarm. |
| %SCREEN | (Alarm Viewer Control only) Provide access to the screen associated with an alarm so the user can run CimView using that screen and any additional options. |
| %STATE | Current alarm state of the selected alarm |
| %SUB CONDITION | OPC Subcondition *(page 98)* (AMV Control only). |

## Parameter for a selected alarm

(AMV Control only) The following parameter provides a user access to other CimView screens.

| Parameter | Value |
|---|---|
| %SCREEN | Provide access to the screen associated with an alarm so that the user can run CimView using that screen and any additional options they wish. |

## Parameters in Alarm Viewer that don't require a selected alarm

The following additional parameters do not require the user to select an alarm:

| Parameter | Value |
|---|---|
| %% | An embedded percent sign |
| %USER | User ID of the user invoking the command |
| %PRODUCT | CIMPLICITY distribution directory |
| %CIM | same as %PRODUCT |
| %DIRECTORY | CIMPLICITY project directory |
| %DIR | same as %DIRECTORY |
| %PROJECT | CIMPLICITY project name |
| %PRJ | same as %PROJECT |

*Example. Create a Run a Message Program Custom Button*

1. Open the Basic Control Engine Program
2. Enter the following script in the CIMPLICITY Program Editor.

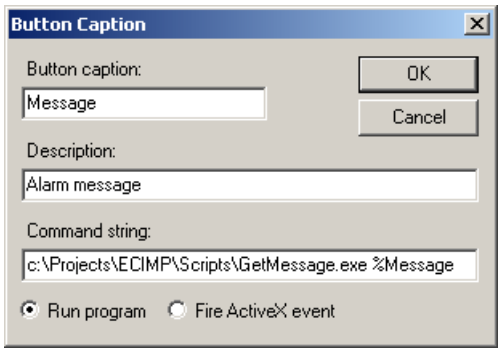
```
Sub Main()

    MsgBox Command$

End Sub
```

3. Create the script as a program in the project's scripts directory.

   Example

   C:\Projects\ECimp\Scripts\GetMessage.exe.

4. Open a Button Caption *(page 103)* dialog box for a Custom Button in either of the Alarm Viewers.
5. Enter the following.



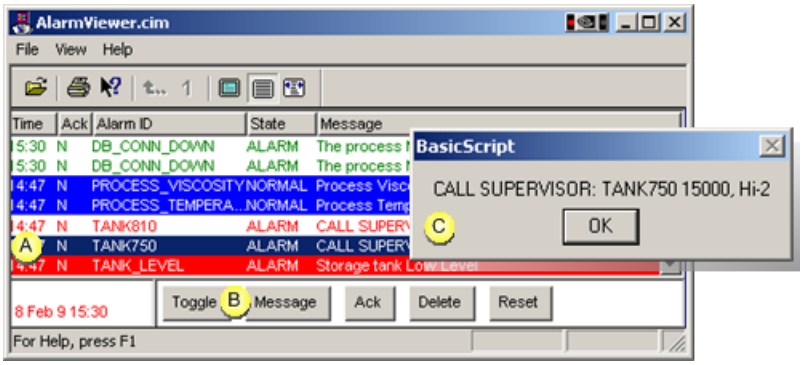

| Field | Enter |
|---|---|
| Button caption | Message. |
| Description | Alarm message |
| Command string | `...\`<project path>`\`<project name>`\Scripts\GetMessage.exe %Message` Where <project path> is the full path to the project. <project name> is the project's name %Message is the Alarm Viewer Message *(page 104)* parameter. |

6. Check Run program.
7. Click OK.

   A Message button is added to the Button bar.


8. Test the button in runtime.

The message associated with the selected alarm displays in a message box.




| | |
|---|---|
| A | Select an alarm ID. |
| B | Click Message. |

| | |
|---|---|
| C | A Basic Script message box displays the message specified for the alarm in the **Alarm Message** field. |

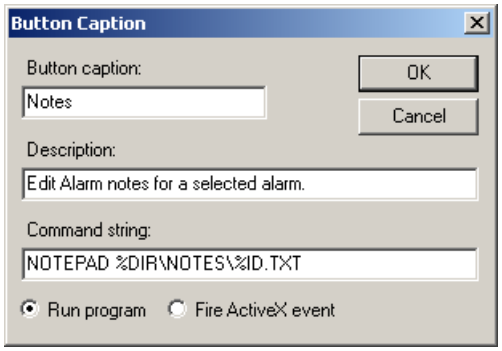
*Example. Use a Custom Button to Create a Set of Long-term Notes*

1. Select a Custom<N> button to customize.

   Example

   ☒ 2 Custom1

2. Enter the following.




| Field | Enter |
|---|---|
| Button caption | Notes. |
| Description | Edit Alarm notes for a selected alarm. |
| Command string | `NOTEPAD %DIR\NOTES\%ID.TXT` |

3. Click OK.

When a user clicks this button, a new Notepad will be executed for a file in the Notes sub-directory of the CIMPLICITY project directory. The Alarm ID of the selected alarm determines the filename.

## Step 2.5. Configure the Button Display Order for each View

1. Select a button in either view.

   The buttons to the right of the Buttons box activate based on what position the button is currently in.

2. Click the following buttons according to where you want the button to display in the Alarm Viewer.

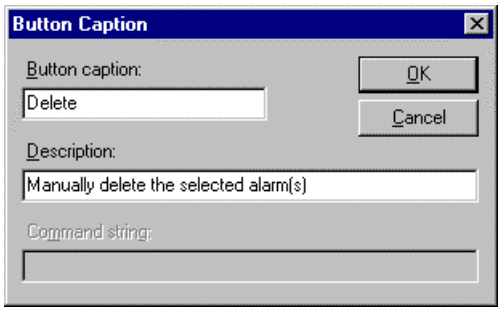
| Button | Each Click Moves the Button |
|---|---|
| Position Left | One button left. |
| Position Right | One button right. |
| Row Up | Up one row. The button will only be active if there is a row above the one in which the button is placed. |
| Row Down | Down one row. |

## Step 2.6. Specify the Button Caption, Description and Command String

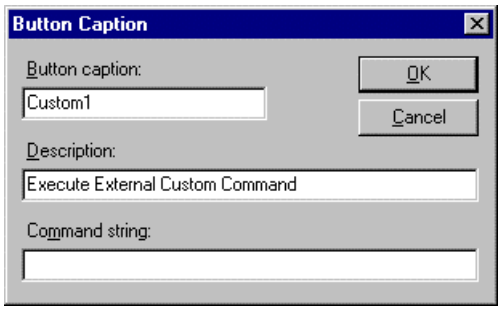
1. Select a button in the list of buttons.
2. Click **Modify...**.

   The Button Caption dialog box opens.

   If you are modifying a CIMPLICITY AMV Control or stand-alone AMV button, the Button Caption dialog displays the default entries in the **Button Caption** and **Description** field. The **Command String** field is dimmed.




   If you are creating a custom button all three fields are available for entry.

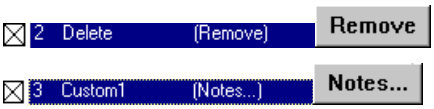



3. Enter the new caption that will appear on the button in the **Button Caption** field. You may enter up to 100 characters.

4. Enter a description in the **Description** field.
5. (For a custom button) Enter the command string, in the **Command String** field, that you want to be executed when the button is clicked.
6. Click **OK**.

The new button name appears in parentheses next to the original button name or Custom 1, 2, 3, etc.

If the buttons are selected to display, the new names appear on them immediately.




## *Step 3. Work with the AMV Control/Stand-alone AMV Buttons*

Step 3. Work with the AMV Control/Stand-alone AMV Buttons

| | |
|---|---|
| Option 3.1 *(page 111)* | Setup button: Configure AMV Control/Stand-alone AMV Alarm setups. **Note:** And **Setup** icon in the Workbench. |
| Option 3.2 *(page 126)* | Ack and/or Reset buttons: Acknowledge and Reset alarms. |
| Option 3.3 *(page 129)* | Help button: Using customized help. |
| Option 3.4 *(page 130)* | Refresh button: Refresh the Alarm Viewer list. |
| Option 3.5 *(page 130)* | Toggle button: Toggle between Alarm Viewer static and dynamic view. |
| Option 3.6 *(page 131)* | View Stack button: Viewing the alarm stack. |
| Option 3.7 *(page 132)* | Comments button: View alarm comments. |
| Option 3.8 *(page 136)* | CimView screen button: View an alarm's CimView screen. |
| Option 3.9 *(page 137)* | Delete button: Delete an alarm. |

# Option 3.1. Setup Button: Configure AMV Control/Stand-alone AMV Alarm Setups

*Option 3.1. Setup Button: Configure AMV Control/Stand-alone AMV Alarm Setups*

Normally, all alarms for the roles assigned to your CIMPLICITY User ID are displayed on the Alarm Viewer screen.

Alarm filtering, which is configured in a Modify Setup dialog box, enables a user to filter the list by displaying certain subsets of alarms.

Authorized users can open the Modify Setup dialog box through the Workbench, the Alarm Viewer control or the Alarm Viewer. The procedure to open the Modify Setup dialog box and its setup options are slightly different based on the application through which it is opened.

Steps to open the Modify Setup dialog box and create alarm filter setups include:

| | |
|---|---|
| Step 3.1.1 *(page 111)* | Select a filter to load or to modify. |
| Step 3.1.2 *(page 114)* | Modify the Alarm Viewer setup class list. |
| Step 3.1.3 *(page 115)* | Modify the Alarm Viewer setup resource list. |
| Step 3.1.4 *(page 116)* | Configure the AMV setup time, state and sort. |
| Step 3.1.5 *(page 121)* | Modify the Alarm Viewer Setup String Filters |
| Step 3.1.6 *(page 122)* | Create a new alarm filter setup. |
| Step 3.1.7 *(page 125)* | Delete an alarm filter setup. |
| Step 3.1.8 *(page 125)* | Select the default alarm filter setup. |

**Note:** Only users who have been granted the Modify Alarm Setups privilege in the Role Properties dialog box can save a new setup, load a different setup or make the current setup the default.

*Step 3.1.1. Select a Filter Setup to Load or to Modify*

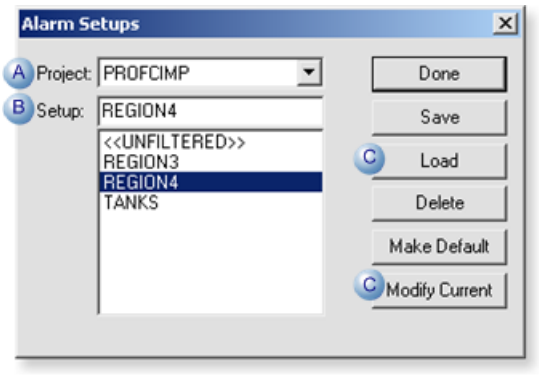
- Alarm Viewer Control Setup button.
- Alarm Viewer Setup button.
- Workbench Alarm Setups icon (modify a setup)
- Alarm Sound Manager Setup field

Alarm Viewer Control Setup Button

1. Click **Setup** Setup in an Alarm Viewer:

   The Alarm Setups dialog box opens.

2. Select a setup to modify as follows.



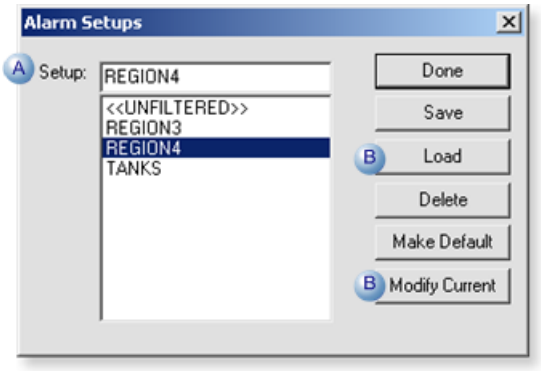

| | | |
|---|---|---|
| A | Select the project to which the Alarm Viewer control will be connected. | |
| B | Select the alarm setup that will be loaded or modified. The setup name displays in the **Setup** field. | |
| C | Click one of the following buttons. | |
| | Load | The setup loads in the Alarm Viewer. The Alarm List is re-filtered and re-displayed. |
| | Modify Current | The Modify Setup dialog box opens. Continue to Step 3.1.2 *(page 114)*. |

Alarm Viewer Setup Button

3. Click **Setup** Setup in an Alarm Viewer:

   The Alarm Setups dialog box opens.

4. Select a setup to modify as follows.



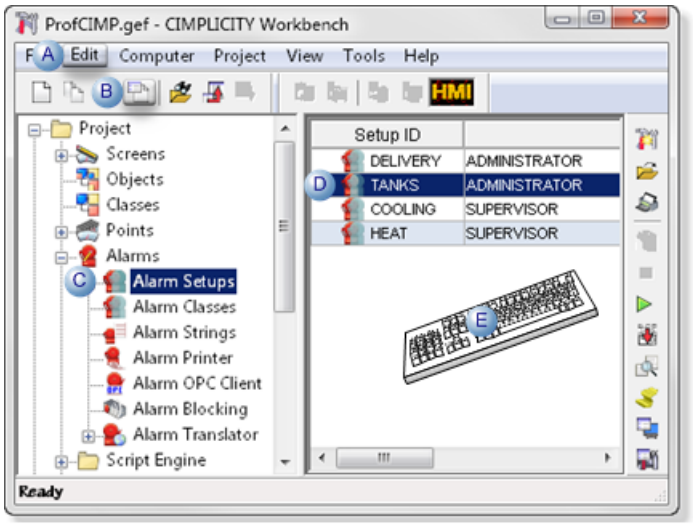

| | | |
|---|---|---|
| A | Select the alarm setup that will be loaded or modified. The setup name displays in the **Setup** field. | |
| B | Click one of the following buttons. | |
| | Load | The setup loads in the Alarm Viewer. The Alarm List is re-filtered and re-displayed. |
| | Modify Current | The Modify Setup dialog box opens. Continue to Step 3.1.2 *(page 114)*. |

Workbench Alarm Setups Icon (Modify a Setup)

**Note:** An authorized user can open a Modify Setup dialog box to modify an existing setup. The project does not have to run to open the Modify Setup dialog box through the Workbench.

5. Select a Setup ID in the Workbench right-pane.

6. Do one of the following.




| | |
|---|---|
| A | Click Edit>Properties on the Workbench menu bar. |
| B | Click the Properties button on the Workbench toolbar. |
| C | In the Workbench left pane: |

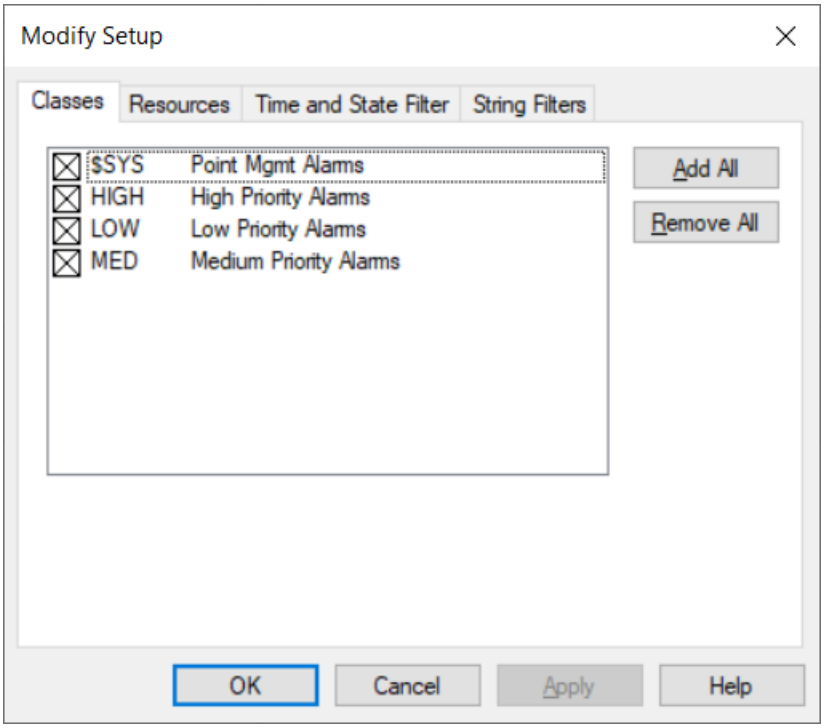
| | | |
|---|---|---|
| | a. Right-click **Alarm Setups**.<br>b. Select Properties on the Popup menu. | |
| D | In the Workbench right pane: | |
| | Either | Or |
| | Double click the Setup ID | a. Right-click the Setup ID.<br>b. Select Properties on the Popup menu. |
| E | Press Alt+Enter on the keyboard. | |

7. Right-click **Alarm Setups**.
8. Select Properties on the Popup menu.
9. Right-click the Setup ID.
10. Select Properties on the Popup menu.

*Step 3.1.2. Modify the Alarm Viewer Setup Class List*

The Classes tab displays the currently available and selected classes.

Select the Classes tab and do the following.




| | | |
|---|---|---|
| A | Do one of the following for each class to include it in/exclude it from the setup. | |
| | Check | Include in the setup. |

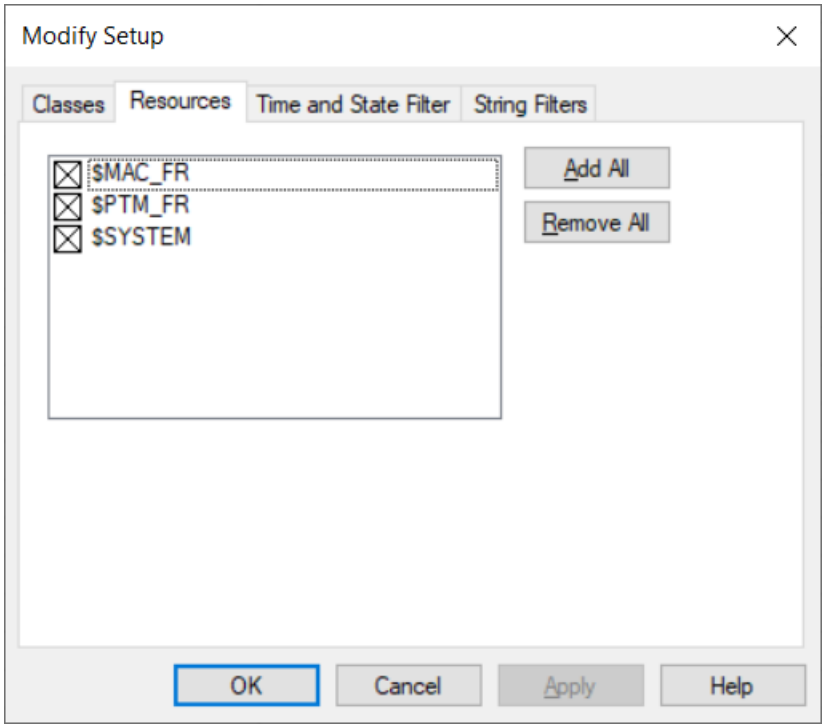
| | | |
|---|---|---|
| | Clear | Exclude from the setup. |
| B | (Optional) Click one of the following to make global changes. | |
| | Add All | Selects all classes |
| | Remove All | De-selects all classes. |
| C | Click OK, Cancel or Apply to apply or cancel your changes. | |

*Step 3.1.3. Modify the Alarm Viewer Setup Resource List*

1. Select the Resources tab.

   The Resources tab displays the currently available and selected resources.

2. Do the following.




| | | |
|---|---|---|
| A | Do one of the following for each resource to include it in/exclude it from the setup. | |
| | Check | Include in the setup. |
| | Clear | Exclude from the setup. |
| B | (Optional) Click one of the following to make global changes. | |
| | Add All | Selects all resources |
| | Remove All | De-selects all resources. |

| | |
|---|---|
| C | Click OK, Cancel or Apply to apply or cancel your changes. |

*Step 3.1.4. Configure the AMV Setup Time, State and Sort*

*Step 3.1.4. Configure the AMV Setup Time, State and Sort*

Configuration options include:

| | |
|---|---|
| Option 3.1.4.1 *(page 116)* | (For the AMV Control or Alarm Sound Manager *(page 162)*) Configure time/state criteria. |
| Option 3.1.4.2 *(page 118)* | (For the stand-alone AMV) Configure time/state/sort criteria. |

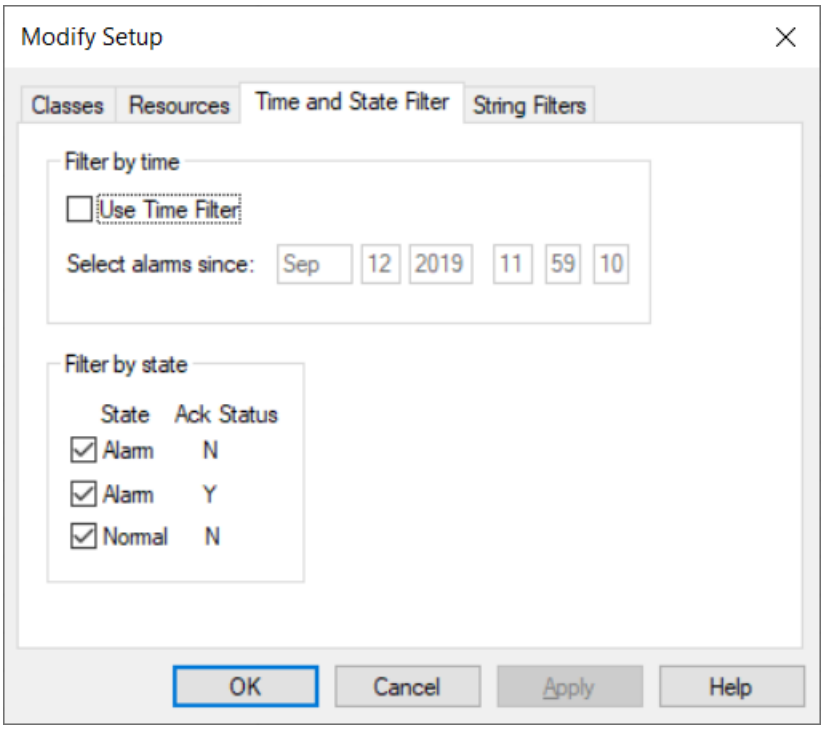
*Option 3.1.4.1. AMV Control Setup Time and State*

Select the Time and State Filter tab.

- Time and State filter.
- Sorting.

## Time and State Filter

Time and state filter options are as follows.




rect 125, 269, 144, 288 *(page 118)*
rect 4, 131, 23, 150 *(page 118)*
rect 6, 49, 25, 68 *(page 117)*

| | |
|---|---|
| A *(page 117)* | Filter by time. |
| B *(page 118)* | Filter by state. |
| C *(page 118)* | Buttons |

| | |
|---|---|
| A | Filter by time |

Check or clear the Use Time filter checkbox to select whether or not alarms will be filtered by time.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Check | The **Select alarms since** field is enabled and displays the current date and time. Enter the date and time that is the start criteria for displaying alarms as follows. | | | | | | |
| | Select alarms since | Month | Day | Year | Hour | Minutes | Seconds |
| | **Important:** Enter hours as 1-23. There is no AM/PM specification.<br>The AMV control displays alarms that were generated starting at the entered date. | | | | | | |
| Clear | Alarms will display regardless of when they occurred. Alarms that have not been removed from the list by other means, e.g. acknowledge and reset, display, regardless of when they occurred. | | | | | | |

| B | Filter by state |
|---|---|

Check the options in the Filter by State box to limit the alarms displayed on the Alarm List to only those that occur in the state you select.

The options are:

| State | Ack Status | Check to |
|---|---|---|
| Alarm | N | Display points in Alarm State that have not been acknowledged. |
| Alarm | Y | Display points in Alarm State that have been acknowledged. |
| Normal | N | Display points that have returned to a normal state but have not been acknowledged. |

| C | Buttons |
|---|---|

Click OK, Cancel or Apply to apply or cancel your changes.

## Sorting

| | Sorting in the AMV control can be selected: |
|---|---|

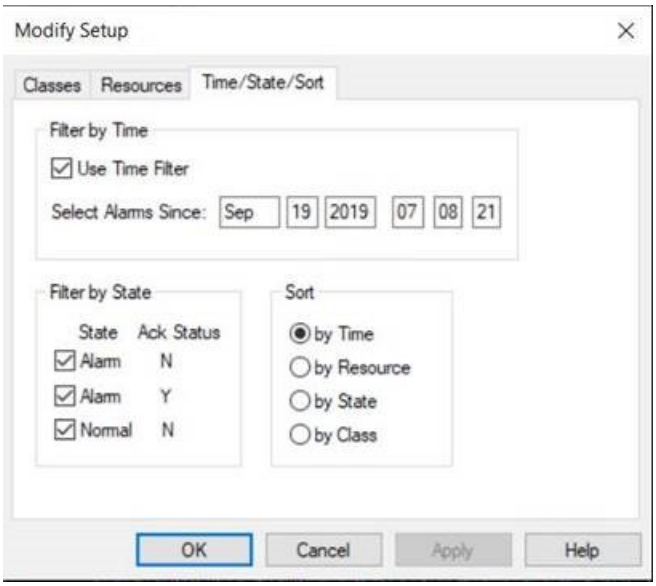
- On the Sorting tab in the CIMPLICITY AMV Control Properties dialog box when the Control is configured.
- By clicking the title bar in any of the columns.

**Note:** Sorting needs to be permitted in the CIMPLICITY AMV Control Properties dialog box.

*Option 3.1.4.2. Modify the Stand-alone AMV Setup Time, State and Sort*

Select the Time/State/Sort tab.

Time and state filter options and sort options are as follows.




rect 125, 269, 144, 288 *(page )*
rect 4, 131, 23, 150 *(page 120)*
rect 6, 49, 25, 68 *(page 119)*

| | |
|---|---|
| A *(page 119)* | Filter by time. |
| B *(page 120)* | Filter by state. |
| C *(page 120)* | Buttons. |
| D *(page 120)* | Sort. |

| | |
|---|---|
| A | Filter by time. |

Check or clear the Use Time filter checkbox to select whether or not alarms will be filtered by time.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Check | The **Select alarms since** field is enabled and displays the current date and time. Enter the date and time that is the start criteria for displaying alarms as follows. | | | | | | |
| | Select alarms since | Month | Day | Year | Hour | Minutes | Seconds |
| | **Important:** Enter hours as 1-23. There is no AM/PM specification.<br>The AMV control displays alarms that were generated starting at the entered date. | | | | | | |
| Clear | Alarms will display regardless of when they occurred. Alarms that have not been removed from the list by other means, e.g. acknowledge and reset, display, regardless of when they occurred. | | | | | | |

| B | Filter by state |
|---|---|

Check the options in the Filter by State box to limit the alarms displayed on the Alarm List to only those that occur in the state you select.

The options are:

| State | Ack Status | Check to |
|---|---|---|
| Alarm | N | Display points in Alarm State that have not been acknowledged. |
| Alarm | Y | Display points in Alarm State that have been acknowledged. |
| Normal | N | Display points that have returned to a normal state but have not been acknowledged. |

| C | Sort |
|---|---|

## Sorting

Select the option in the Sort box to select the primary sort parameter for the Alarm list.

**Note:** Sort options are not available in the Modify Setup window that is opened through the Workbench. A user who has authority to modify an existing setup must access the Modify Setup window through the Alarm Viewer to change the alarm list.

The sort options are:

| Option | Select to Sort Alarms |
|---|---|
| Class | In the selected classes, alarms are sorted, lowest to highest, in the sort order assigned to each Alarm Class when it was created. |
| Resource | In the selected resources, alarms are sorted alphabetically, lowest to highest, by Resource ID. |
| State | According to a combination of their State and Ack Status in the following order:<br>All unacknowledged alarms in Alarm state<br>All unacknowledged alarms in Normal state<br>All acknowledged alarms in Alarm state |
| Time | (Default) Alarms are arranged according to the time of their occurrence, with the most recent first.<br>The default sort key is Time. If a category other than Time is selected as the primary sort key, the secondary sort key is Time. |

| D | Buttons |
|---|---|

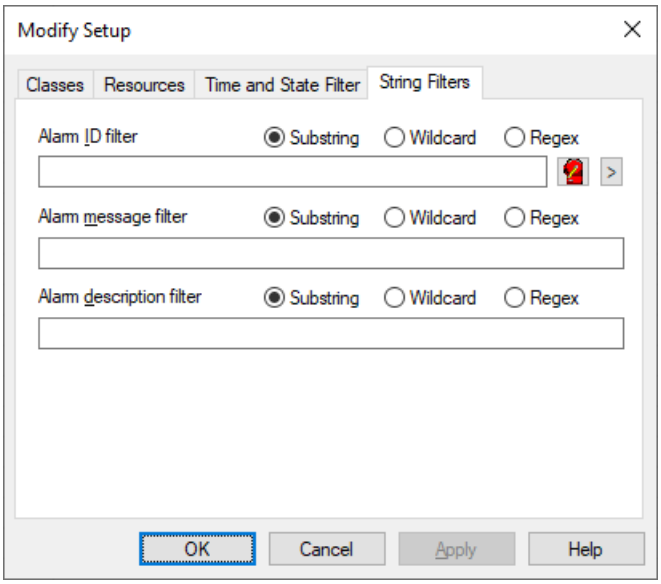
Click OK, Cancel or Apply to apply or cancel your changes.

*Step 3.1.5. Modify the Alarm Viewer Setup String Filters*

You can use string filters to filter alarm IDs, messages, or descriptions using substrings, wildcards, or regular expressions.

Select the **String Filters** tab.

The String Filter options are as follows.




### String Filters

| Item | Description |
|---|---|
| Alarm ID filter | Enter the ID of the alarm that you want to filter using one of the string formats described below. |
| Alarm message filter | Enter the message of the alarm that you want to filter using one of the string formats described below. |
| Alarm description filter | Enter the description of the alarm that you want to filter using one of the string formats described below. |

### String Filter Formats

| Item | Description |
|---|---|
| Substring | Enter a substring based on which the alarm filter will be applied.<br>**Example**<br>If you wish to display all alarms that contain the substring ABC in their IDs, in the **Alarm ID filter** box, select the **Substring** option, and enter ABC.<br>All the alarms containing the substring ABC in their IDs will be displayed. |

| Item | Description |
|---|---|
| Wildcard | Enter a string containing a wildcard character based on which the alarm filter will be applied.<br><br>**Example**<br><br>If you wish to display all alarms that contain the string ABC as the first three characters in their message, in the **Alarm message filter** box, select the **Wildcard** option, and enter ABC*.<br><br>All alarms containing the string ABC as the first three characters in their message will be displayed. |
| Regex | Enter a string containing a regular expression based on which the alarm filter will be applied. The regular expression grammar supported is ECMAScript.<br><br>**Example**<br><br>If you wish to display all alarms that contain the strings ABC1, ABC2, and ABC3 as their description, in the **Alarm description filter** box, select the **Regex** option, and enter ABC[1-3].<br><br>All alarms containing the strings ABC1, ABC2, and ABC3 as their description will be displayed. |

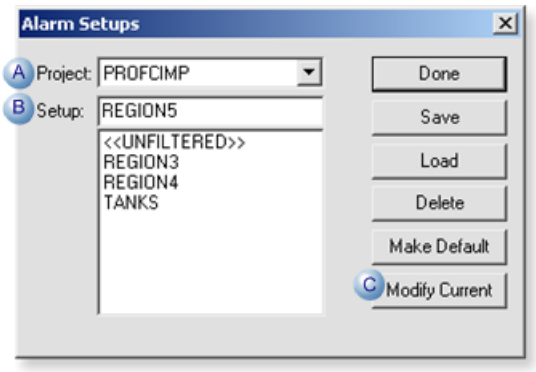
*Step 3.1.6. Create a new Alarm Filter Setup*

This task describes how to create a new alarm filter. It mentions the Alarm Viewer Control Setup button, Alarm Viewer Setup button, Workbench Alarm Setups icon, Alarm Sound Manager Setup field, and the Global setup name.

### Alarm Viewer Control Setup Button

1. Click **Setup** 

in an Alarm Viewer. The Alarm Setups dialog box opens.
2. Create a new setup as follows.




| | |
|---|---|
| A | Select the project to which the Alarm Viewer control will be connected. |
| B | Enter a new setup name in the **Setup** field. |
| C | Click Modify Current. |

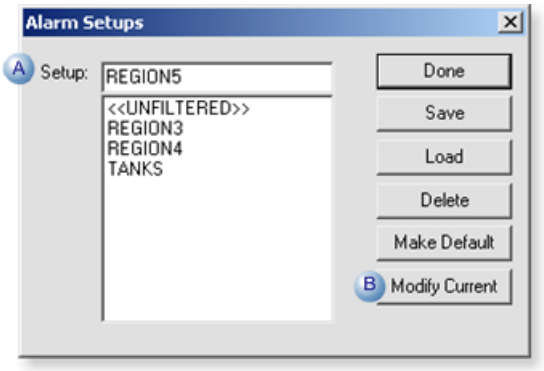
| | |
|---|---|
| | The Modify Setup dialog box opens. Continue to Step 3.1.2 *(page 101)*. |

**Alarm Viewer Setup Button**

3. Click **Setup**  in an Alarm Viewer. The Alarm Setups dialog box opens.



4. Create a new setup as follows.



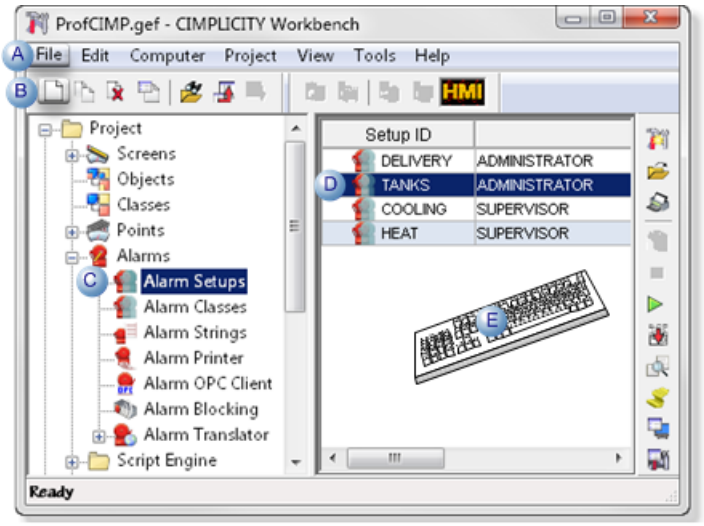

| | |
|---|---|
| A | Enter a new setup name in the **Setup** field. |
| B | Click Modify Current. |
| | The Modify Setup dialog box opens. Continue to Step 3.1.2 *(page 114)*. |

**Workbench Alarm Setups Icon**

**Note:** The project does not have to run to open the Modify Setup dialog box through the Workbench.

5. Select a Setup ID in the Workbench right-pane.

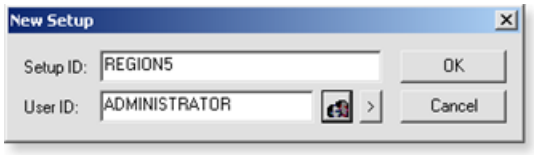
6. Do one of the following.




| | | |
|---|---|---|
| A | Click File>New>Object on the Workbench menu bar. | |
| B | Click the New button on the Workbench toolbar. | |
| C | In the Workbench left pane: | |
| | Either | Or |
| | Double click **Alarm Setups**. | a. Right-click **Alarm Setups**.<br>b. Select New on the Popup menu. |
| D | In the Workbench right pane: | |
| | a. Right-click the Setup ID.<br>b. Select Properties on the Popup menu. | |
| E | a. Press Ctrl+N on the keyboard. | |

A New Setup dialog box opens when you use any method.

7. Enter the following.




| Field | Description |
|---|---|
| Setup ID | A new setup name. |
| User ID | User who will be associated with the setup. The assigned can modify the setup at any time, whether or not their role has been assigned the Modify alarm setups privilege in the Roles dialog box. |

8. Click OK.

The Modify Setup dialog box opens for the new setup.

**Alarm Sound Manager Setup Field**

An Alarm Setups dialog box can also be opened through the CIMPLICITY© Alarm Sound Manager *(page 162)* . This dialog box opens the same Modify Setup dialog box that is opened through the Alarm Viewers or the Workbench.

**Global Setup Name**

Use the prefix $ to make the setup global, available to all project users.

**Example**

| Prefix | Setup Name | Description |
|---|---|---|
| $ | $Setup1 | The setup is available to all project users. |
| | Setup1 | The setup is available only to the user who configured it. |

*Step 3.1.7. Delete an Alarm Filter Setup*

1. Select the setup name in the list.

   The name appears in the **Setup** field.

2. Click **Delete**.

The setup name is removed from the list.

**Note:** Any user created Alarm Viewer setup can be deleted. System created setups require the **Modify alarm setups** privilege.

*Step 3.1.8. Select the Default Alarm Filter Setup*

1. Select the setup in the list that will be the default.

   The setup name appears in the **Setup** field.

2. Click **Make Default**.

The next time the Alarm Viewer file opens the selected setup will be loaded.

One setup in the list is the default setup, which loads when the Alarm Viewer file opens.

When you install CIMPLICITY software, the default setup is **<<UNFILTERED>>**. However, you can choose any setup to be the default.

**Note:** For the AMV Control, you can also select the default filter in the CIMPLICITY AMV Control Properties dialog box.

## Option 3.2. Ack and/or Reset Buttons: Acknowledge and Reset Alarms

*Option 3.2. Ack and/or Reset Buttons: Acknowledge and Reset Alarms*

Whether or not an operator can (or needs to) acknowledge and/or reset and/or delete alarms depends on a variety of factors including:

- Deletion requirements for each alarm are specified on the Alarm Options tab in the
- Point Properties dialog box or
- Alarm Definition dialog box.
- Automatic actions are specified on the same tabs.
- Manual reset allowed is also specified on the same tabs.
- An operator's deletion privilege is specified on the Privileges tab in the Roles Properties dialog box.

Available buttons include:

| | Button | | Description |
|---|---|---|---|
| Option 3.2.1 *(page 127)* | Ack *(page 127)* | Ack | Acknowledge a selected alarm. |
| Option 3.2.2 *(page 127)* | Reset *(page 127)* | Reset | Reset a selected alarm. |
| Option 3.2.3 *(page 128)* | Ack First *(page 128)* | Ack First | Acknowledge the first alarm in the list. |
| Option 3.2.4 *(page 128)* | Ack All *(page 128)* | Ack All | Acknowledge all alarms. |
| Option 3.2.5 *(page 128)* | Ack and Reset *(page 128)* | Ack and Reset | Acknowledge and reset a selected alarm. |

How the Alarm Viewer responds to each of the qualified user's actions depends on the specifications made during alarm configuration.

1. Do one of the following, depending on the alarm being configured.

Method 1. Configure a system alarm.

a. Select **Project>Alarms** in the Workbench left pane.
b. Double-click the appropriate Alarm ID in the Workbench right pane.

The Alarm Definition dialog box opens.

Method 2. Configure a point alarm.

a. Select **Project>Points** in the Workbench left pane.
b. Double-click the appropriate point ID in the Workbench right pane.

The Point Properties dialog box opens.

2. Select the Alarm Options tab.

3. Select the options required for the alarm.

4. Click OK.

AMV Control/AMV responses may include changing the font color, resetting the Alarm state to Normal or automatically deleting the Alarm ID. The exact response depends on these specifications static to the button that is clicked.

*Option 3.2.1. Ack Button: Alarm ID Acknowledged*

A user can acknowledge an alarm to inform other users that the alarm has been seen and, if necessary, the condition that set off the alarm is being investigated and worked on.

How the Alarm Viewer responds when a user clicks **Ack**, depends on what was configured on the Alarm Options tab in the Alarm Definition (or Point Properties) dialog box.

| On Alarm Options | In Alarm Viewer | Alarm ID |
|---|---|---|
| Reset is required | **Reset** is not clicked and No auto reset | Font color changes |
| | **Reset** is clicked or Auto reset | Is deleted |
| Reset is not required | | Is deleted |

*Option 3.2.2. Reset Button: Alarm ID Reset*

If manual reset is enabled, a user can manually reset an alarm to indicate to the system that the alarm condition is being manually overridden. The alarm will not be triggered again until the situation returns to the configured acceptable range and then goes back out of the acceptable range.

Manual reset is enabled on the Alarm Options tab of the Alarm Definition (or Point Properties) dialog box.

The system automatically resets an alarm if the condition that triggered the alarm returns to within acceptable limits.

How the Alarm Viewer responds when a user clicks **Reset**, depends on what was configured on the Alarm Options tab in the Alarm Definition dialog box.

| On Alarm Options | In Alarm Viewer | Alarm ID |
|---|---|---|
| Ack is required | **Ack** is not clicked and No auto acknowledge | Font color changes |
| Ack is required | **Ack** is clicked or Auto acknowledged | Is deleted |
| Ack is not required | | Is deleted |

*Option 3.2.3. Ack First Button: First Alarm Acknowledged*

A user can acknowledge the first alarm in an alarm list.

How the Alarm Viewer responds when a user clicks **Ack First**, depends on what was configured on the Alarm Options tab in the Alarm Definition (or Point Properties) dialog box.

| On Alarm Options | In Alarm Viewer | First Alarm ID |
|---|---|---|
| Reset is required | **Reset** is not clicked and No auto reset | Font color changes |
| Reset is required | **Reset** is clicked or Auto reset | Is deleted |
| Reset is not required | | Is deleted |

*Option 3.2.4. Ack All: All Alarms Acknowledged*

A user can acknowledge all the alarms in an alarm list.

How the Alarm Viewer responds when a user clicks **Ack All**, depends on what was configured on the Alarm Options tab in the Alarm Definition (or Point Properties) dialog box.

| In Alarm Options | In Alarm Viewer | All Alarm IDs |
|---|---|---|
| Reset is required | **Reset** is not clicked and No auto reset | Font colors change |
| Reset is required | **Reset** is clicked or Auto reset | Are deleted |
| Reset is not required | | Are deleted |

*Option 3.2.5. Ack and Reset: Alarm Acknowledged and Reset*

If manual reset is enabled, a user can simultaneously acknowledge and manually reset an alarm.

The alarm will not be triggered again until the situation returns to the configured acceptable range and then goes back out of the acceptable range.

When **Ack and Reset** is clicked:

How the Alarm Viewer responds when a user clicks **Ack and Reset**, depends on what was configured on the Alarm Options tab in the Alarm Definition (or Point Properties) dialog box.

Manual Reset is not Enabled

| On Alarm Options | In Alarm Viewer | Alarm ID |
|---|---|---|
| Reset is required | **Ack and Reset** is clicked | Font color changes |
| Reset is required | Auto acknowledged and reset | Is deleted |
| Reset is not required | **Ack and Reset** is clicked or Auto acknowledged and reset | Is deleted |

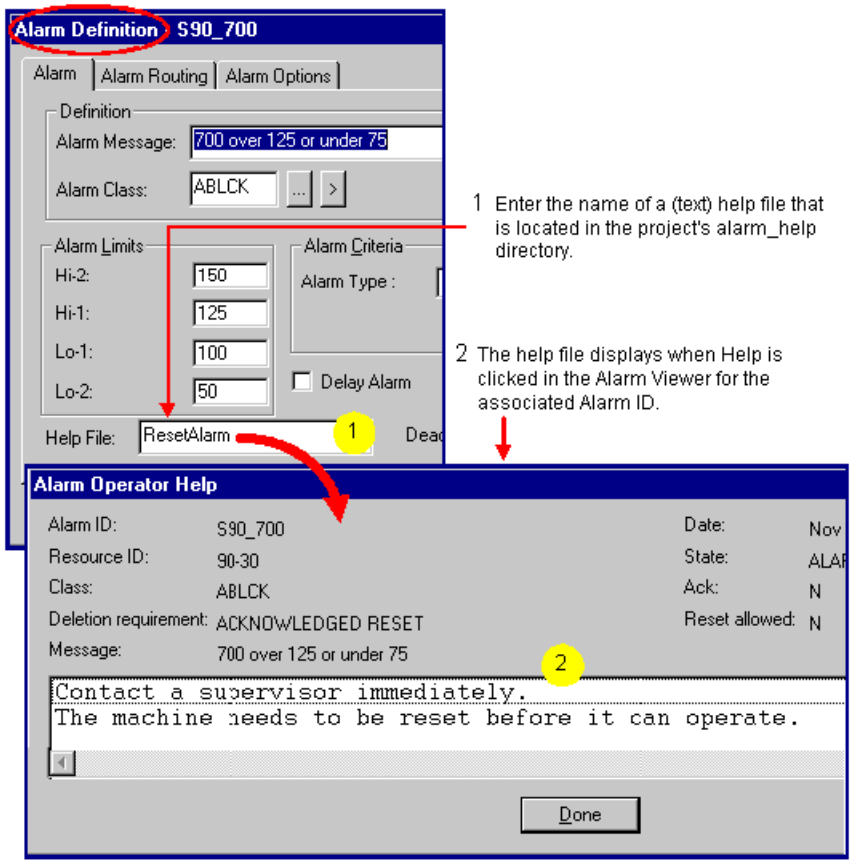
Manual Reset is Enabled

| In Alarm Options | In Alarm Viewer | Alarm ID |
|---|---|---|
| Reset is required | **Ack and Reset** is clicked or Auto Ack and reset | Is deleted |
| Reset is not required | **Ack and Reset** is clicked or Auto acknowledged and reset | Is deleted |

## Option 3.3. Help Button: Using Customized Help

When a user clicks **Help** an alarm help file displays if one was assigned to the Alarm ID on the Alarm tab of the Alarm Definition dialog box.

Alarm Definition Dialog Box: Help File Specified for Alarm Viewer Help




## Option 3.4. Refresh Button: Refresh the Alarm Viewer List

When the Alarm Viewer is in static view, a user needs to refresh the screen in order to view alarms that have occurred since the last time the screen was refreshed.

The **Refresh** button enables the user to refresh the screen.

## Option 3.5. Toggle Button: Toggle Between Alarm Viewer Static and Dynamic View

A user may want to keep the Alarm Viewer in dynamic view in order to see alarms as they occur.

In the Alarm Viewer the user will have to switch to static view in order to deal with the alarm.

The **Toggle** button enables the user to switch back and forth.

When the user clicks:

| | |
|---|---|
| Toggle in Static View | Dynamic View displays |
| Toggle in Dynamic View | Static View Displays. |

## Option 3.6. View Stack Button: Viewing the Alarm Stack

An alarm can be configured so the states it passes through can be kept or stacked.

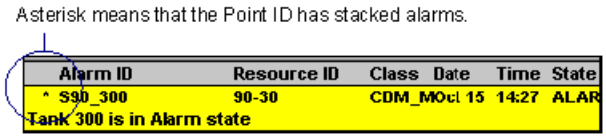
If the number of states exceeds the maximum number configured for the alarm's stack, the oldest occurrences are eliminated.

**Note:** The maximum stack number is specified on the Alarm Options tab in the Point ID's Point Properties dialog box.

If an alarm has stacked occurrences, and the **Stacked** field is being displayed, a user will see an asterisk (*****) in the **Stacked** field.

When an alarm is deleted, all occurrences of the stacked alarm are deleted.

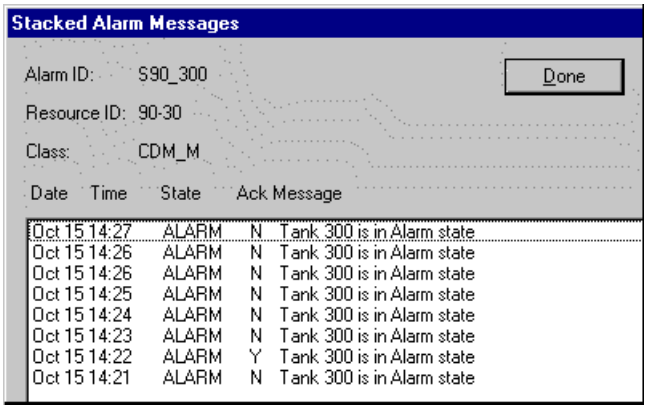
Example




**To view stacked alarm messages:**

1. Click **View Stack**.

   A Stacked Alarm Messages window opens displaying the date, time, state, message, and acknowledged state of each alarm.




2. Click **Done.**

The Stacked Alarm Messages window closes. The Alarm Viewer screen reappears.

# Comments Button: View Alarm Comments

*Option 3.7. Comments Button: View Alarm Comments*

A comment is a line of text that can be entered by any user who can view the alarm.

Up to 20 comments can be associated with a current alarm.

If an alarm has comments, and the **Comments** field is being displayed, a user will see a **C** in the **Comments** field.

**Example**


You can specify that comments will be available for viewing in the Project Properties dialog box. Comments can be:

- Available only while an Alarm ID appears in the Alarm Viewer. When the Alarm ID has been reset, deleted, or automatically removed, the comment ceases to exist, or
- Stored until 20 comments have been listed for one Alarm ID, regardless of whether the alarm has been acknowledged, reset, deleted, etc. When 20 comments have accumulated, the first comment entered is deleted to make room for the newest comment.

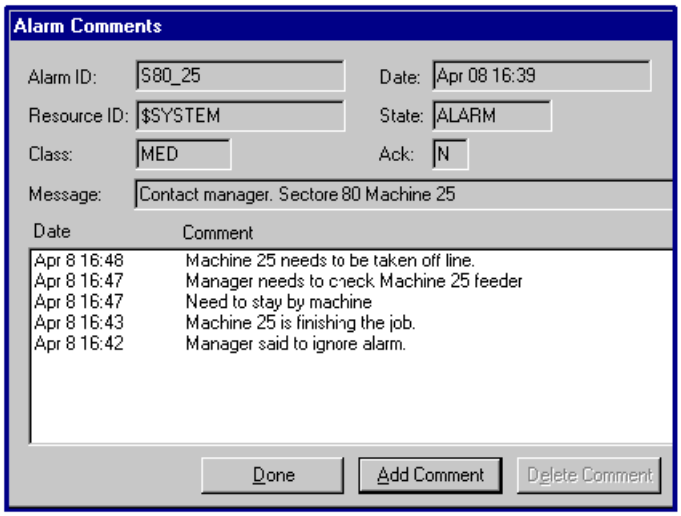
Options for comments include:

| | |
|---|---|
| Option 3.7.1 *(page 132)* | View comments. |
| Option 3.7.2 *(page 133)* | Add comments. |
| Option 3.7.3 *(page 134)* | Add a comment for multiple alarms |
| Option 3.7.4 *(page 135)* | Store comments. |
| Option 3.7.5 *(page 136)* | Delete comments. |

*Option 3.7.1. View Comments for an Alarm*

1. Click **Comments**.

   An Alarm Comments window displays existing comments for the alarm.




2. Click either:
   - **Done** when you finish reading the comments.

   The Alarm Comments dialog box closes.

   - Click **Add Comment** to add a comment.

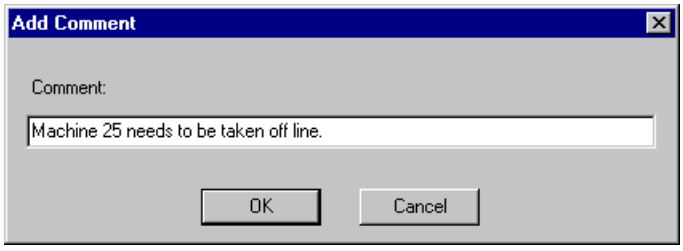
   The Add Comment dialog box opens.

*Option 3.7.2. Add Comments for an Alarm*

1. Click **Add Comment** in the Alarm Comments dialog box.

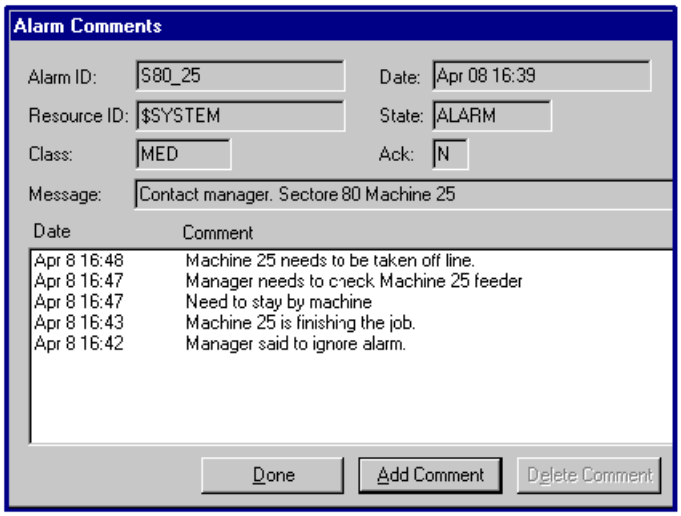
   An Add Comment dialog box opens.

2. Enter a comment.




3. Click **OK**.

The comment appears at the top of the list of comments in the Alarm Comments dialog box.



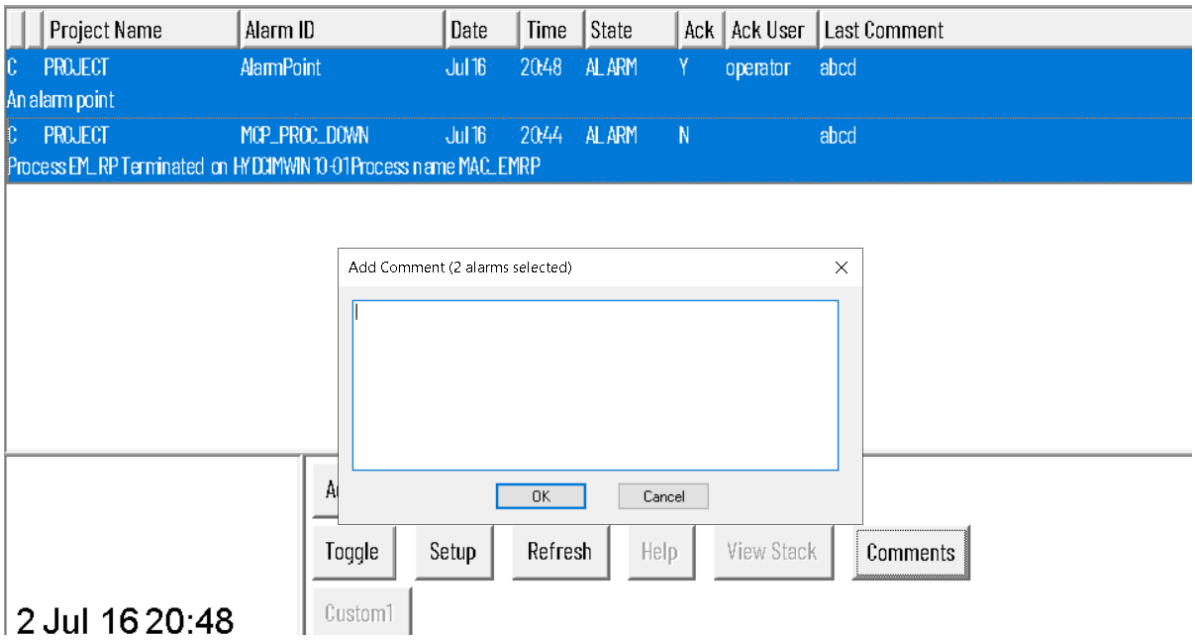

4. Click **Done**.

A **C** appears next to the Alarm ID indicating that the alarm has comments.

If you configured the **Last Comment** column in Alarm Viewer control from CimEdit, the latest comment entered for an alarm appears in the **Last Comment** column of Alarm Viewer .

*Option 3.7.3. Add a Comment for Multiple Alarms*

1. In the Alarm Viewer, select the Alarms for which you want to add a comment.
2. Select **Comments**.



The **Add Comment** window appears displaying the number of alarms selected.

3. Enter a comment.
4. Click **OK**.

The comment appears in **Last Comment** column of the selected alarms.

*Option 3.7.4. Store up to 20 Alarm Comments*

Alarms can be temporarily stored in either of two ways:

- Only while an Alarm ID appears in the Alarm Viewer.

When the Alarm ID has been reset, deleted, or automatically removed, the comment ceases to exist.

- Until 20 comments have been listed for one Alarm ID, regardless of whether the alarm has been acknowledged, reset, deleted, etc.

When 20 comments have accumulated, the first comment entered is deleted to make room for the newest comment.

1. Click Project>Properties on the Workbench menu bar.

   The Project Properties dialog box opens.

2. Select the Settings tab.
3. Select Alarms.
4. Click **Settings**.

   The Alarm Properties dialog box opens.

5. Check **Store alarm comments** to store up to 20 comments for an Alarm ID.


6. Click **OK**.
7. Update the project configuration.

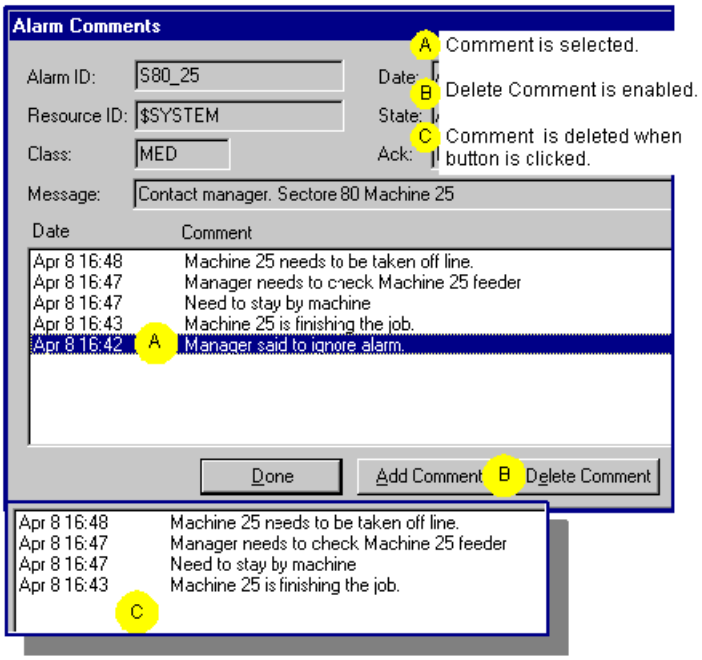
The next time the project starts comments will be stored according to your specifications.

*Option 3.7.5. Delete an Alarm's Comments*

1. Select a comment in the Add Comments dialog box.

   The Delete Comments button is enabled.

2. Click the Delete Comments button.




The comment is deleted and is no longer visible in the Alarm Comments dialog box.

## Option 3.8. CimView Screen Button: View an Alarm's CimView Screen

1. (If not already configured) associate the involved Point ID with a CimView screen.
   a. Open the Point Properties dialog box for selected Point ID that has a configured alarm.
   b. Click **Advanced** on the General tab.
   c. Select the View tab that appears.
   d. Select a Screen from the selection in the drop down menu. Your options include CimView screens that are in the project directory.
   e. Update the project's configuration.

2. Open the Alarm Viewer while the project is running.

3. Select the Alarm ID when the point is in Alarm State and appears in the Alarm Viewer.

4. Click **CimView Screen**.

   The associated CimView screen opens.

   **Note:** If no screen is defined for the alarm, an appropriate message display.

## Option 3.9. Delete Button: Delete an Alarm

Alarms are automatically deleted once they have been successfully acknowledged and/or reset, as long as their deletion requirements have been met.

When and if an alarm can be manually deleted depends on two factors.

Specified alarm conditions must be met, or

A user is given the privilege to override the specified conditions.

1. Specify deletion requirements:
   a. Do one of the following, depending on the alarm being configured.
      - Method 1. Configure a system alarm.
        i. Select Project>Alarms in the Workbench left pane.
        ii. Double-click the appropriate Alarm ID in the Workbench right pane. The **Alarm Definition** dialog box opens.
      - Method 2. Configure a point alarm.
        i. Select the **Points** icon.
        ii. Double-click the appropriate Point ID in the right pane of the Workbench. The Point Properties dialog box opens.

   b. Select the **Alarm Options** tab.
   c. Check **Acknowledge** to require acknowledgement before an alarm can be deleted.
   d. Check **Reset** to require resetting before an alarm can be deleted.
2. Specify user privileges.
   a. Open the **Role Properties** dialog box for each role that should have alarm deletion privileges.
   b. Select the **Privileges** tab.
   c. Check **Delete Alarms**.
3. Open the Alarm Viewer.
4. Click **Delete**.

If the specified conditions are met, the alarm will be deleted.

**Note:** In Alarm viewer, when you delete an alarm that has the **Last Comment** column configured, and **Store Alarm Comments** option enabled in the **Alarm Properties** for the project, the last comment of the alarm appears in the Alarm Viewer the next time the point goes into an alarm state.

# *AMV Control ActiveX Events*

## *AMV Control ActiveX Events*

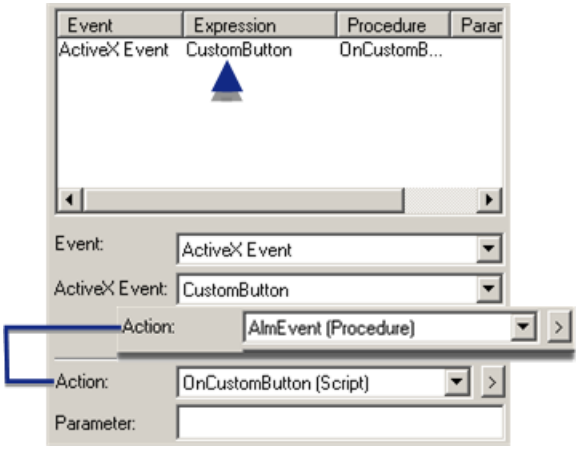
1. Right-click the Alarm Viewer control.
2. Select Properties on the Popup menu.
3. Select the Events tab.
4. Configure any of the available Alarm Viewer control ActiveX events.

| |
|---|
| CustomButton |
| NewAlarm |
| AlarmItemClick |

## *CustomButton*

### CustomButton

CustomButton triggers a procedure or script when a user clicks a custom button in the Alarm Viewer control.




| Field | Description |
|---|---|
| Event | ActiveX Event provides the CustomButton expression. |
| ActiveX Event | CustomButton is included in the drop-down list. |

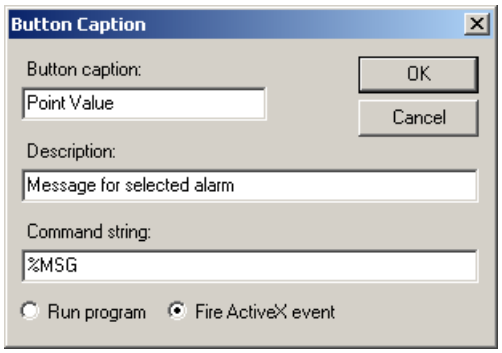
| Field | Description | |
|---|---|---|
| Action | Contains a drop-down list of existing procedures and scripts. Use either of the following. | |
| | Procedure | Create or use an existing procedure. |
| | Script | Create or use an existing script. |
| Parameter | Can be used if the event invokes a script directly or through a procedure. The default code begins as follows. Private cimOleObj As AMVOCXLib.IAmvOcx Sub OnCustomButton(ButtonNumber As Long, ButtonString As String) Where parameters are: | |
| | ButtonNumber | Number assigned to the custom button, e.g. 1 for Custom1. |
| | ButtonString | Value returned when a command string *(page 103)* is executed. |

## Example: Create an ActiveX Event Custom Button

1. Open a Button Caption *(page 103)* dialog box for a Custom Button in the CIMPLICITY AMV Control Properties dialog box.

   **Note:** The mode on the Buttons tab can be Static or Dynamic.

2. Enter the following.




| Field | Enter |
|---|---|
| Button caption | Point Value. |
| Description | Message for selected alarm. |
| Command string | %MSG |

3. Check Fire ActiveX event.

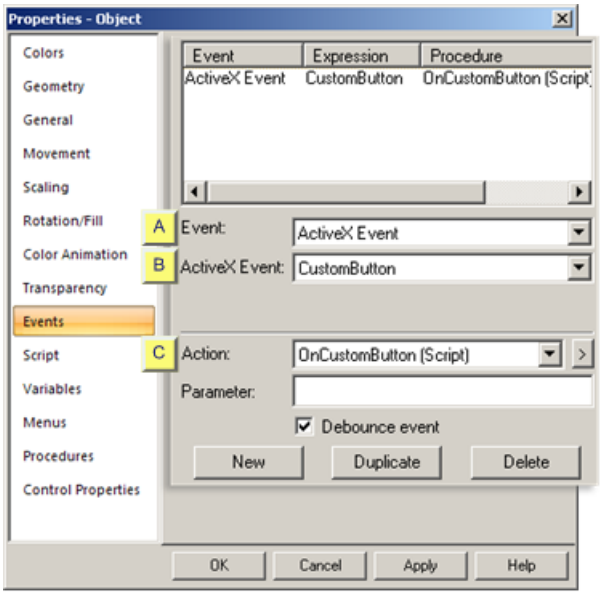
4. Click OK.

5. Repeat 1-4 for either the Static or Dynamic mode, whichever still needs the button, so the button will display in both modes.

6. Close the CIMPLICITY AMV Control Properties dialog box.

   A PointValue button displays in the Button bar.


7. Open the Properties - Object dialog box (Alt+Enter).
8. Select **Events**.
9. Configure a CustomButton event as follows.




rect 81, 121, 110, 152 *(page 140)*
rect 79, 150, 113, 181 *(page 140)*
rect 75, 202, 117, 233 *(page 140)*

| | |
|---|---|
| A | Event |

Select ActiveX Event.

| | |
|---|---|
| B | ActiveX Event |

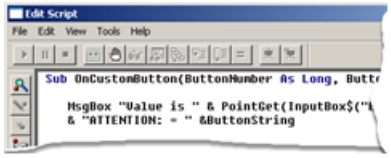
Select `CustomButton`.

| | |
|---|---|
| C | Action |

Create a new script.

For this example:

a. Copy the `PointGet (function)` script example from the Basic Control Engine documentation into the Script editor to create message boxes that will display the value for a specified point.
b. Include the `ButtonString` *(page 139)* parameter value in the message.



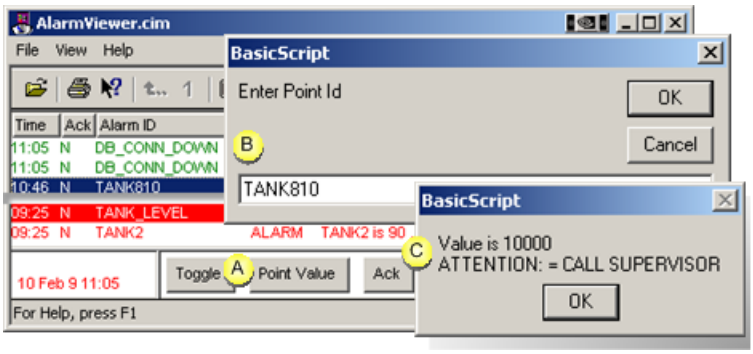

The script is as follows.

```
Sub OnCustomButton(ButotonNumber As Long, ButtonString As String)
   MsgBox "Value is " & PointGet(InputBox$("Enter Point Id") ) & ebCRLF
 _
   & "ATTENTION: = " &ButtonString
End Sub
```

10. Click OK.

11. Test the PointView button.

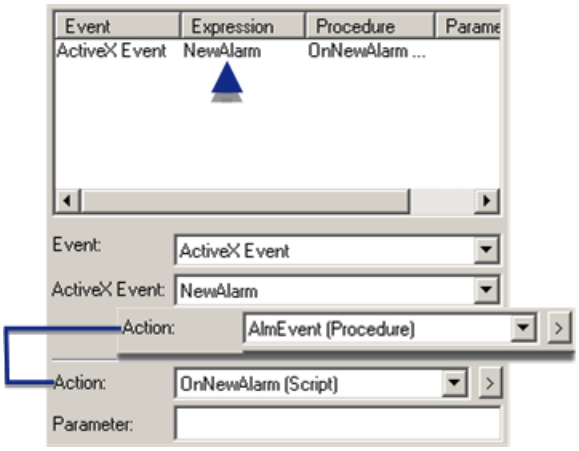
When a user clicks Point Value, a message box displays for a Point ID; the specified point ID value and the alarm message are returned.




| | |
|---|---|
| A | Click Point Value. A BasicScript message box opens. |
| B | Enter a Point ID in the message box field. |
| C | A Basic Script message box displays the:<br>• Point value.<br>• Message for the selected alarm. |

## *NewAlarm*

NewAlarm triggers a procedure or script when a new alarm is received or when an existing alarm has a state change.

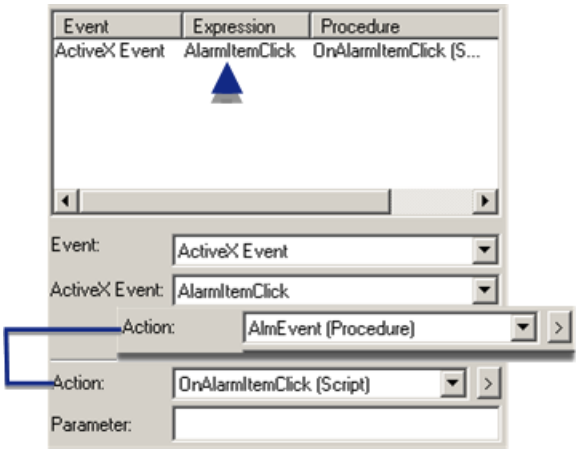



| Field | Description | |
|---|---|---|
| Event | ActiveX Event provides the NewAlarm expression. | |
| ActiveX Event | NewAlarm is included in the drop-down list. | |
| Action | Contains a drop-down list of existing procedures and scripts. Use either of the following. | |
| | Procedure | Create or use an existing procedure. |
| | Script | Create or use an existing script. |
| Parameter | Can be used if the event invokes a script directly or through a procedure. The default code begins as follows. Private cimOleObj As AMVOCXLib.IAmvOcx Sub OnNewAlarm(NewAlarms As Boolean, AlarmCount As Long, AlarmDate As String) Where parameters are: | |
| | NewAlarms | True if a new alarm was received. |
| | AlarmCount | Number of alarms being displayed. |
| | AlarmDate | Time stamp of the alarm update or new alarm. |

## *AlarmItemClick*

AlarmItemClick

AlarmItemClick triggers a procedure or script that can provide a list of information when a user clicks an alarm in the Alarm Viewer control.

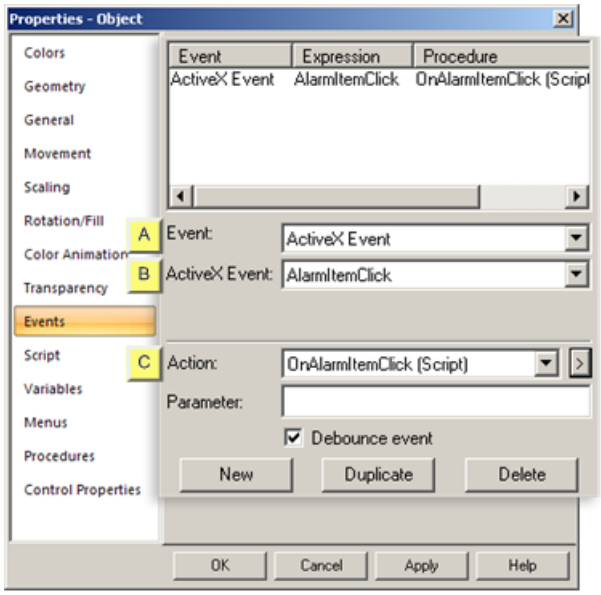



| Field | Description | | |
|---|---|---|---|
| Event | ActiveX Event provides the AlarmItemClick expression. | | |
| ActiveX Event | AlarmItemClick is included in the drop-down list. | | |
| Action | Contains a drop-down list of existing procedures and scripts. Use either of the following. | | |
| | Procedure | Create or use an existing procedure. | |
| | Script | Create or use an existing script. | |
| Parameter | Can be used if the event invokes a script directly or through a procedure. The default code begins as follows. Private cimOleObj As AMVOCXLib.IAmvOcx Sub OnAlarmItemClick(AlarmInfo As AMVOCXLib.AmvOcxAlarmItemInfo, ClickSource As Long) Where parameters are: | | |
| | AlarmInfo | Object that accesses several properties as follows. | |
| | | Property | Description |
| | | String AlarmIdentifier() | Alarm ID |
| | | String ResourceIdentifier() | Resource ID |
| | | String ReferenceIdentifier() | Reference ID |
| | | String Project() | Project name |
| | | Date GenerationTime() | Date/time the alarm was generated |
| | | Long AlarmState() | Alarm state |
| | | Long AckState() | Acknowledge state |
| | | String AlarmScreen() | (For point alarms only) Screen that is associated with the point on the Point Properties dialog box View tab. |
| | | Long Severity() | Alarm severity |

<table>
<tr><th>Field</th><th colspan="4">Description</th></tr>
<tr><td></td><td></td><td colspan="2">String AlarmMessage()</td><td>Alarm message</td></tr>
<tr><td></td><td></td><td colspan="2">Long Duration()</td><td>Alarm duration</td></tr>
<tr><td></td><td></td><td colspan="2">String TranslatedAlarmMessage()</td><td>Alarm message translated into the language specified for screen on which the alarm is selected. Important: The language and translated string must be in the CIMPLICITY Language Mapper to display correctly.</td></tr>
<tr><td></td><td>ClickSource</td><td colspan="3">Source that was used to click on an alarm in the Alarm Viewer list. The source is identified as follows.</td></tr>
<tr><td></td><td></td><td>Source</td><td colspan="2">Identified by</td></tr>
<tr><td></td><td></td><td>Left-mouse button</td><td colspan="2">0</td></tr>
<tr><td></td><td></td><td>Right-mouse button</td><td colspan="2">1</td></tr>
<tr><td></td><td></td><td>Enter key</td><td colspan="2">2</td></tr>
<tr><td></td><td></td><td colspan="3">Note: The AlarmItemClick event will not be fired for the right-mouse button if the Context (Popup) menu is enabled for the Alarm Viewer control.<br><br>The Popup menu can disabled by clearing either of the following check boxes.</td></tr>
<tr><td></td><td></td><td>Checkbox</td><td colspan="2">Location</td></tr>
<tr><td></td><td></td><td>Right click menu</td><td colspan="2">Privileges tab in the Role Properties dialog box.</td></tr>
<tr><td></td><td></td><td>Allow runtime popup menu</td><td colspan="2">Display tab in the CIMPLICITY AMV Control Properties dialog box.</td></tr>
</table>

## Example: Configure an AlarmItemClick Event

1. Open the Properties - Object dialog box (Alt+Enter).
2. Select the Events tab.
3. Configure an AlarmItemClick event as follows.




rect 76, 126, 124, 158 *(page 145)*
rect 72, 156, 117, 188 *(page 145)*
rect 63, 206, 120, 238 *(page 145)*

| A | Event |
|---|---|

Select ActiveX Event.

| B | ActiveX Event |
|---|---|

Select `AlarmItemClick`.

| C | Action |
|---|---|

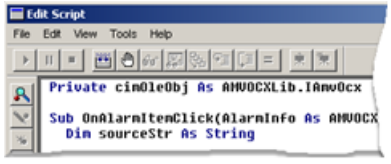
Create a new script.

For this example a user will display a message box when an alarm is selected and either of the following occurs.

- Right mouse button is clicked.

Note: The Allow runtime popup menu *(page 53)* checkbox on the CIMPLICITY AMV Control Properties dialog box Display tab is clear *(page 144)* .

- Enter is pressed on the keyboard.

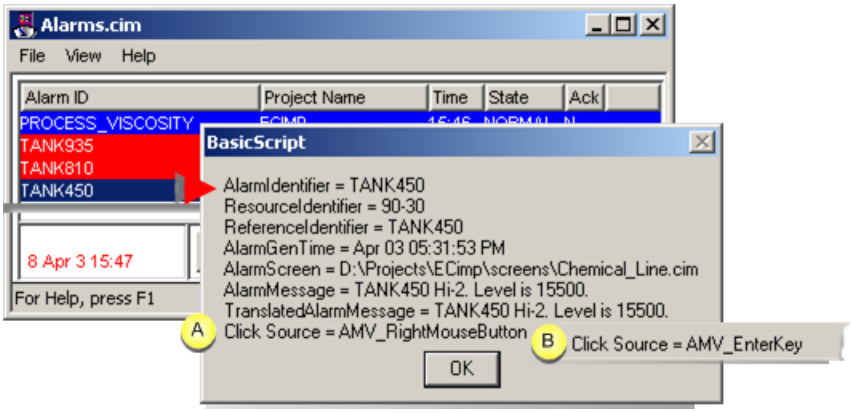


The script is as follows.

```
Private cimOleObj As AMVOCXLib.IAmvOcx
Sub OnAlarmItemClick(AlarmInfo As AMVOCXLib.AmvOcxAlarmItemInfo,
 ClickSource As Long)
  Dim sourceStr As String
  Select Case ClickSource
  Case AMV_LeftMouseButton
    sourceStr = "AMV_LeftMouseButton"
  Case AMV_RightMouseButton
    sourceStr = "AMV_RightMouseButton"
  Case AMV_EnterKey
    sourceStr = "AMV_EnterKey"
  End Select

  If  ClickSource=AMV_EnterKey Or ClickSource=AMV_RightMouseButton Then
  Dim DataString As String
  DateString = Format(AlarmInfo.GenerationTime, "mmm dd hh:nn:ss AM/
PM")
  MsgBox "AlarmIdentifier = " & AlarmInfo.AlarmIdentifier & ebCRLF & _
         "ResourceIdentifier = " & AlarmInfo.ResourceIdentifier &
 ebCRLF & _
         "ReferenceIdentifier = " & AlarmInfo.ReferenceIdentifier &
 ebCRLF & _
         "AlarmGenTime = " & DateString & ebCRLF & _
         "AlarmScreen = " & AlarmInfo.AlarmScreen & ebCRLF & _
         "AlarmMessage = " & AlarmInfo.AlarmMessage & ebCRLF & _
         "TranslatedAlarmMessage = " & AlarmInfo.TranslatedAlarmMessage
 & ebCRLF & _
         "Click Source = " & sourceStr

  End If
  End Sub
```

4. Click OK.
5. Test the `Properties` script.

When a user selects an alarm and either right-clicks or presses Enter on the keyboard, a Message box displays. Values for the properties specified in the script are listed.




| | |
|---|---|
| A | AMV_RightMouseButton is the Click Source when the alarm is right-clicked. |
| B | AMV_EnterKey is the Click Source when the Enter key is pressed. |

# *Alarm Viewer Methods for the AMV Control*

## *Alarm Viewer Methods for the AMV Control*

The Alarm Viewer methods operate on Alarm Viewer OCX controls in a **CimView** screen. They give you access to the button functions used by the control so that you can invoke the button functions from other objects on your CimView screen.

Steps to implement an AMV Control method include:

| | |
|---|---|
| Step 1 *(page 147)* | Name the Alarm Viewer OCX control you want to use for the method. |
| Step 2 *(page 148)* | Create an Invoke Method action for the screen object and select the Alarm Viewer method you want to invoke. |

When a user clicks on the object at runtime, the button function executes.

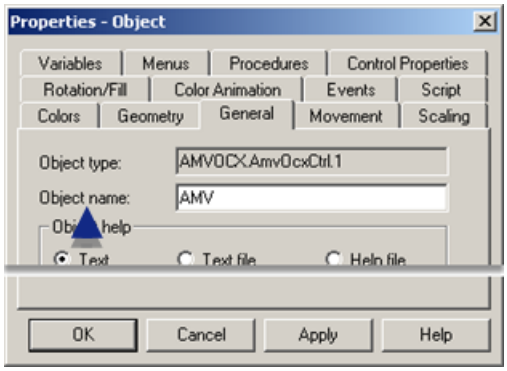
## *Step 1. Name an AMV Control*

1. Select the AMV Control.
2. Click Edit on the menu bar,
3. Do one of the following.
    - Select Properties

- Press Alt+Enter.

The Object Properties dialog box opens.

4. Select the General tab.
5. Enter a name for the AMV Control in the **Object name** field.




6. Do one of the following.
   - Click OK to save your changes and close the Object Properties dialog box.
   - Click Apply to apply the name and continue configuration.

You can now select the control when you create an Invoke Method action.

## *Step 2. Create an Invoke Method Action*

You can create an Invoke Method action for any object or group for which you can define procedures in your CimEdit screen. The methods that are available depend on the selected object or group.

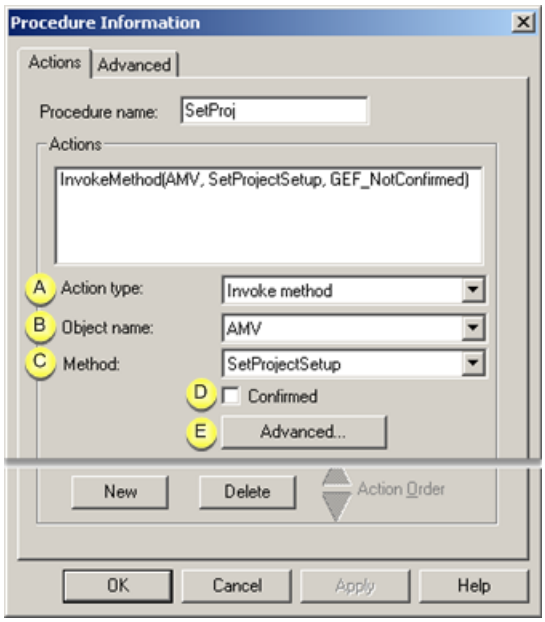
1. Select the Procedure tab in the Properties  dialog box.

   **Note:** You can also create a new procedure through the Events tab.

2. Click New.

   The Procedure Information dialog box opens.

3. Click New.
4. Create an Invoke method action as follows.




| | | |
|---|---|---|
| A | Action type | Invoke method |
| B | Object name | Select the Alarm Viewer control object. Names of objects that have available methods are listed. |
| C | Method | Select a method. Alarm Viewer Control methods are listed when the Alarm Viewer control is selected. |
| D | Confirmed | Currently not implemented for the Alarm Viewer control. |
| E | Advanced | When enabled:<br>a. Click Advanced…<br>An Edit Method dialog box opens.<br>a. Configure advanced specifications for the method.<br>b. Click **OK**.<br>The Edit Method dialog box closes. |

5. Click Advanced…
   An Edit Method dialog box opens.

6. Configure advanced specifications for the method.

7. Click **OK**.
   The Edit Method dialog box closes.

8. (For all methods) Click either:
   - New to add another method or
   - OK to close the Procedure Information dialog box.

# *Alarm Viewer Methods*

## Alarm Viewer Methods

- AboutBox
- DoToggle
- AddProject
- DoViewStack
- DoAckAll
- GetProjectSetup
- DoAckFirst
- MoveDownOneAlarm
- DoAcknowledge
- MoveUpOneAlarm
- DoAckReset
- PageDownalarms
- DoCimviewScreen
- PageUpAlarms
- DoComments
- RemoveProject
- DoCustom<n>
- SelectAllAlarms
- DoDelete
- SelectFirstAlarm
- DoHelp
- SelectPageAlarms
- DoRefresh
- SelectTopAlarm
- DoReset
- SupressConnectionWarning
- SetProjectSetup
- DoSetup
- Methods reserved for GE Intelligent Platforms use.

## AboutBox Method

| | |
|---|---|
| Purpose: | Display the Help About dialog box for the CIMPLICITY AMV Control. There is no equivalent to this method in the AMV Control. |
| Advanced parameters | Not required. |

## AddProject Method

| | |
|---|---|
| Purpose | Add a project to the AMV Control. |
| Advanced parameters | Described next. |

Advanced parameters for AddProject

1. Click Advanced… to open the Edit Method dialog box.
2. Enter a project name.
3. Enter one of the following for the **Setup value**:
   - An empty string (""), which will be the selected project's default setup, or
   - A setup name.

**Important:** Enclose the string entries in quotes.

## DoAckAll Method

| | |
|---|---|
| Purpose | Acknowledge all alarms in the CIMPLICITY AMV Control's alarm list. |
| Equivalent to | **Ack All** button in the AMV Control. |
| Advanced Parameters | Not required. |

## DoAckFirst Method

| | |
|---|---|
| Purpose | Acknowledge the first alarm in CIMPLICITY AMV Control's alarm list. |
| Equivalent to | **Ack First** button in the AMV control. |
| Advanced parameters | Not required. |

## DoAcknowledge Method

| | |
|---|---|
| Purpose | Acknowledge the currently selected alarm(s) in the alarm list on the CIMPLICITY AMV Control . |
| Equivalent to | **Ack** button in the AMV Control . |
| Advanced parameters | Not required. |

## DoAckReset Method

| | |
|---|---|
| Purpose | Acknowledge and reset the currently selected alarm(s) in the alarm list on the CIMPLICITY AMV Control |
| Equivalent to | **Ack and Reset** button in the AMV Control. |

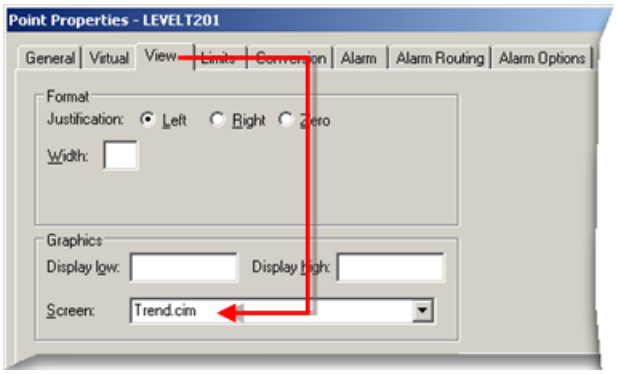
| | |
|---|---|
| Advanced parameters | Not required. |

## DoCimviewScreen Method

*DoCimviewScreen Method*

| | |
|---|---|
| Purpose | Display the CimView screen configured for the currently selected alarm in the alarm list on the CIMPLICITY AMV Control . |
| Equivalent to | **CimView Screen** button in the AMV Control. **Important:** At runtime, the user must select only one alarm for this method to work. If the user selects more than one alarm, the method will not execute. |
| Advanced parameters | Not required. |

**Note:** The CimView screen that you assign to a point on the View tab in the Point Properties dialog box is the screen that displays when a user selects the alarm in the AMV Control and the DoCimviewScreen method is invoked.




*DoCimviewScreen and Viewers*

1. Display the C:\Program Files\Proficy\Proficy CIMPLICITY\Data directory in Windows Explorer or at a Command prompt on the Viewer.
2. Open the log_names.cfg file in a text editor.

   The control looks for the path to the screen in this file. By default, it assumes that the Alarm Viewer OCX is running on the server.

3. Find the following lines.

   ```
   * GSM Logical names * GMMI_SCREENS|S|default|30|SITE_ROOT:\screens GMMI_SCREENS|P|default|30|SITE_ROOT:\screens
   ```

4. Change `SITE_ROOT` to the actual path that leads to the Screens folder.

| |
|---|
| Example * GSM Logical names * GMMI_SCREENS\|S\|default\|30\|`M:\PROJECTName:`\screens GMMI_SCREENS\|P\|default\|30\|`M:\PROJECTName:`\screens |

Where

| | |
|---|---|
| M: | is a mapped drive from the server |
| \PROJECTName | is the name of the project that has the assigned screens. |

## DoComments Method

| | |
|---|---|
| Purpose | Open the Alarm Comments dialog box for the currently selected alarm in the CIMPLICITY AMV Control's alarm list so that users can view, add, or delete comments for the alarm. |
| Equivalent to | Comments button in the AMV Control. At runtime, the user must select only one alarm for this method to work. If the user selects more than one alarm, the method will not execute. |
| Advanced parameters | Not required. |

## DoCustom<n> Method

| | |
|---|---|
| Purpose | Launch user-defined applications from the CIMPLICITY AMV Control . |
| Equivalent to | **Custom1** through **Custom8** buttons in the AMV Control . |
| Advanced parameters | Not required. |

## DoDelete Method

| | |
|---|---|
| Purpose | (If users have the Alarm delete privilege) delete the currently selected alarm(s) in the alarm list on the CIMPLICITY AMV Control. |
| Equivalent to | **Delete** button in the AMV Control . |
| Advanced parameters | Not required. |

## DoHelp Method

| | |
|---|---|
| Purpose | Open the Alarm Operator Help dialog box for the currently selected alarm in the CIMPLICITY AMV Control's alarm list. |
| Equivalent to | **Help** button in the AMV Control. At runtime, the user must select only one alarm for this method to work. If the user selects more than one alarm, the method will not execute. |
| Advanced parameters | Not required. |

## DoRefresh Method

| | |
|---|---|
| Purpose | Refresh Static Alarm list in the CIMPLICITY AMV Control with the latest alarms. |
| Equivalent to | **Refresh** button in the AMV Control. |
| Advanced parameters | Not required. |

## DoReset Method

| | |
|---|---|
| Purpose | Let a user reset the currently selected alarm(s) in the CIMPLICITY AMV Control's alarm list. |
| Equivalent to | **Reset** button in the AMV Control. A reset alarm will not be generated again until it returns to its normal state then goes back to an alarm state. |
| Advanced parameters | Not required. |

## DoSetup Method

| | |
|---|---|
| Purpose | Open the Alarm Setups dialog box so that users can select the filtering they want when viewing alarms in the CIMPLICITY AMV Control. |
| Equivalent to | **Setup** button in the AMV Control. |
| Advanced parameters | Not required. |

## DoToggle Method

| | |
|---|---|
| Purpose | Toggle the CIMPLICITY AMV Control between the Static Alarm list and the Dynamic Alarm list. |
| Equivalent to | **Toggle** button in the AMV Control. |
| Advanced parameters | Not required. |

## DoViewStack Method

| | |
|---|---|
| Purpose | Open the Stacked Alarms dialog for the selected alarm in the CIMPLICITY AMV Control. |
| Equivalent to | **View Stack** button in the AMV Control. At runtime, the user must select only one alarm for this method to work. If the user selects more than one alarm, the method will not execute. |
| Advanced parameters | Not required. |

## GetProjectSetup Method

| | |
|---|---|
| Purpose | Return a string that contains the current setup name. |
| Advanced parameters | Described next. |

Advanced parameters for GetProjectSetup:

1. Click **Advanced** to open the Edit Method dialog box.
2. (Optional) Enter one of the following for the **Project value**.:
   - An empty string ("").

   The AMV Control attaches a project to the string, in the following order of priority.

   a. A default project.

   If you run CimView in the context of a project, it creates a default project.

   a. The connected project.
   a. The first project in a list of projects to which the user is connected.

   The list of projects displays in the Alarm Viewer **Project Name** field. To display this field check **Project Name** on the Fields tab in the CIMPLICITY AMV Control Properties dialog box.

   - A project name.
3. Click **OK**.

**Important:** Enclose the string entries in quotes.

## MoveDownOneAlarm Method

| | |
|---|---|
| Purpose | Highlight the next alarm in the CIMPLICITY AMV Control's alarm list. If the current alarm is the last alarm on the screen but not the last in the list, this method moves the list up to highlight the next alarm. |
| Equivalent to | **Down arrow** on a user's keyboard. |
| Advanced parameters | Not required. |

## MoveUpOneAlarm Method

| | |
|---|---|
| Purpose | Highlight the previous alarm in the CIMPLICITY AMV Control's alarm list. If the current alarm is the first alarm on the screen but not the first alarm in the list, this method moves the list down to highlight the previous alarm. |
| Equivalent to | **Up arrow** on a user's keyboard. |
| Advanced parameters | Not required. |

## PageDownAlarms Method

| | |
|---|---|
| Purpose | (If there is more than one screen of alarms in the AMV Control's alarm list) display the next screen of alarms. |
| Equivalent to | **Page Down** button on the user's keyboard. |
| Advanced parameters | Not required. |

## PageUpAlarms Method

| | |
|---|---|
| Purpose | (If there is more than one screen of alarms in the CIMPLICITY AMV Control's alarm list) displays the previous page of alarms. |
| Equivalent to | **Page Up** key on the user's keyboard. |
| Advanced parameters | Not required. |

## RemoveProject Method

| | |
|---|---|
| Purpose | Remove a project from the AMV Control. |
| Advanced parameters | Described next. |

Advanced parameters for RemoveProject:

1. Click **Advanced…** to open the Edit Method dialog box.
2. Enter one of the following for the **Project value**.

   An empty string ("").

   • The AMV Control attaches a project to the string, in the following order of priority.

   a. A default project.

   If you run CimView in the context of a project, it creates a default project.

   a. The connected project.
   b. The first project in a list of projects to which the user is connected.

   The list of projects displays in the Alarm Viewer **Project Name** field. To display this field check **Project Name** on the Fields tab in the CIMPLICITY AMV Control Properties dialog box.

   • A project name.

**Important:** Enclose the string entries in quotes.

### SelectAllAlarms Method

| | |
|---|---|
| Purpose | Select all alarms in the CIMPLICITY AMV Control's alarm list. |
| Advanced parameters | Not required. |

### SelectFirstAlarm

| | |
|---|---|
| Purpose | Selects the first alarm in the list and displays it. |
| Advanced parameters | Not required. |

### SelectPageAlarms Method

| | |
|---|---|
| Purpose | Select all alarms displayed on the current screen in the CIMPLICITY AMV Control . |
| Advanced parameters | Not required. |

### SelectTopAlarm Method

| | |
|---|---|
| Purpose | Select the first alarm from the current page displayed in the CIMPLICITY AMV Control and de-select all other selected alarms. |
| Advanced parameters | Not required. |

### SetProjectSetup Method

| | |
|---|---|
| Purpose | Allow a user to select a specified alarm setup that is currently supported by a project. |
| Advanced parameters | Described next. |

Advanced parameters for SetProjectSetup:

1. Click **Advanced…** to open the Edit Method dialog box.

2. Enter one of the following for the **Setup value**.
   - An empty string ("") that results in an unfiltered alarm list, or
   - A setup name.

3. (Optional) Enter one of the following for the **Project value**.
   - An empty string (""), which will
   - Attach to a current project running inside a project or

- Use the first project to which the user is connected.
- A project name.

4. (Optional) Enter a text point ID in the **Method result** field.

**Important:** Enclose the string entries in quotes.

## SuppressConnectionWarning Method ame

| | |
|---|---|
| Purpose | Allows you to suppress warning dialog pop up that appears when an alarm viewer is disconnected from the project. |
| Example | Private cimOleObj As AMVOCXLib.IAmvOcx<br>Sub OnScreenOpen()<br>cimOleObj.**SuppressConnectionWarning** = True<br>End Sub |

**Note:** This script should be available in Alarm Viewer Object to work as expected.

## Methods Reserved for GE Use

The following method is reserved for GE use:

**NotifyAllPropertySinks**

# Chapter 5. Alarm Sound Manager

## *About the Alarm Sound Manager*

The Alarm Sound Manager is a stand-alone utility that plays sound and displays alarm information for selected running CIMPLICITY projects that are broadcasting on your local network. The Alarm Sound Manager plays sound for one alarm at a time, the alarm that has the highest priority based on your configuration (in both the Alarm Class Configuration dialog box and the CIMPLICITY® Alarm Sound Manager dialog box).

The CIMPLICITY® Alarm Sound Manager can be opened *(page 161)* through the Windows Start menu and through the CIMPLICITY Workbench. Once opened, an icon is placed on the Windows Task bar. The icon can be used to display or minimize the dialog box.

The following are important requirements for operating systems in general and for Windows Server 2008 R2, specifically.

(All Operating Systems) Sound Configuration Required

You configure the sound (.**wav** file or beeps) for projects in each class' Alarm Classes Configuration dialog box.

The Alarm Sound Manager only deals with classes for which sound is configured.

As a result, the Alarm Sound Manager does not report alarms associated with classes for which no sound is configured.

You can create sound either:

- From a wave file if your system supports .wav files.
- With the beep, if your system has a speaker.

(Windows Server 2008 R2) Configuration Requirements

Windows Server 2008 R2 disables sound features in the default installation. The following sound features must be enabled in order to enable the Alarm Sound Manager to play sound.

1. Install the Desktop Experience server feature.
2. Configure the Windows Audio service to start automatically.
3. Configure the Beep service to start automatically, as follows.

```
sc config beep start= auto
```

4. Enable the `SystemSoundsService` task to run on user logon, as follows.
5. Open the Task Scheduler.
6. Select the Task Library.
7. Navigate to Microsoft/Windows/Multimedia.
8. Right-click the `SystemSoundsService` task and click Enable.
9. Restart the server.

The Alarm Sound Manager will be able to play sound for a running project after the server is rebooted and the sound is configured.

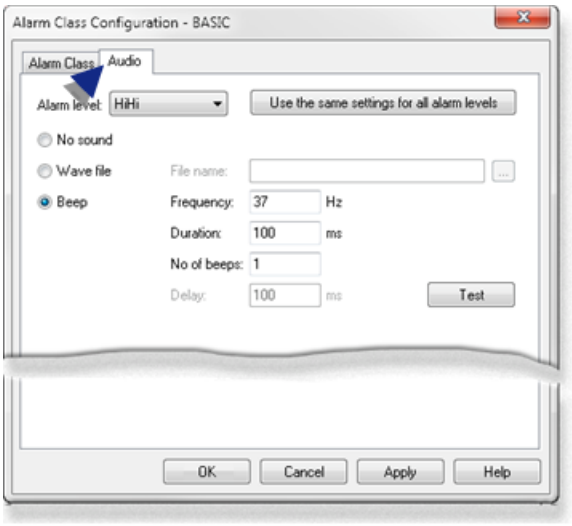
# *Alarm Sound Manager Configuration*

Steps to configure alarm audio support include:

| | |
|---|---|
| Step 1 *(page 160)* | Configure sound for relevant alarm classes. |
| Step 2 *(page 161)* | Open the CIMPLICITY® Alarm Sound Manager dialog box. |
| Step 3 *(page 162)* | Add projects to a sound manager profile. |
| Step 4 *(page 166)* | Configure runtime sound options. |
| Step 5 *(page 170)* | Auto-start the Alarm Sound Manager. |

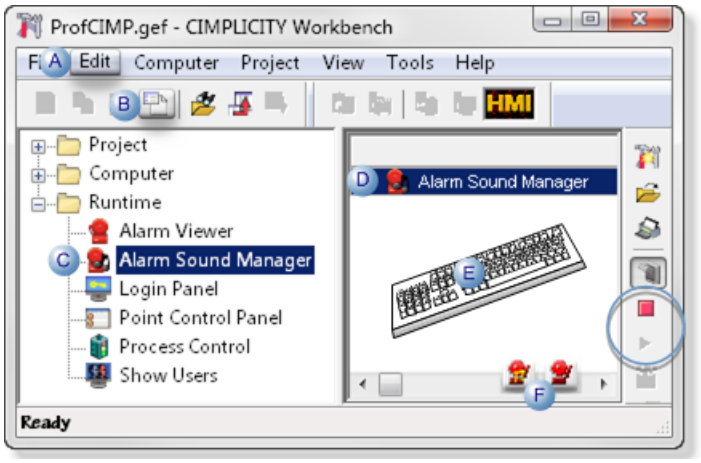
# *Step 1. Configure Sound for Relevant Alarm Classes*

You select .wav files or configure beeps for an alarm class on the Audio tab in the Alarm Class Configuration dialog box.




# *Step 2. Open the Alarm Sound Manager Dialog Box*

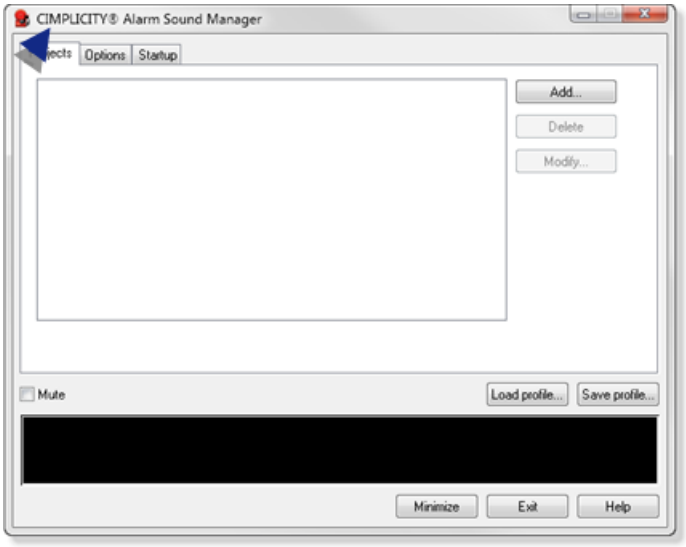
1. Make sure that the projects that will be added to the Alarm Sound Manager are running.
2. Select **Project**>**Runtime**>**Alarm Sound Manager** in the Workbench left pane.
3. Select **Alarm Sound Manager** in the Workbench right pane.
4. Do any of the following:




| | |
|---|---|
| A | Click Edit>Properties on the Workbench menu bar. |
| B | Click the Properties button on the Workbench toolbar. |
| C | In the Workbench, double-click **Alarm Sound Manager**, or press Alt+Enter on the keyboard. |
| D | In the Workbench, double-click **Alarm Sound Manager**, or press Alt+Enter on the keyboard. |

| | |
|---|---|
| E | Press Alt+Enter on the keyboard. |
| F | Click an Alarm Sound Manager icon on the Windows Task bar. One of the following icons displays on the Windows Task bar if the Alarm Sound Manager is running. The Alarm Sound Manager sound is:  |

the CIMPLICITY® Alarm Sound Manager dialog box opens when you use either method.




# *Step 3. Add/Modify Projects in the Alarm Sound Manager*

## *Step 3. Add/Modify Projects in the Alarm Sound Manager*

| | |
|---|---|
| Step 3.1 *(page 162)* | Configure projects to add to the list. |
| Step 3.2 *(page 165)* | Save an alarm sound profile. |

## *Step 3.1. Configure Projects to add to the List*

**Note:** The Add Project dialog box opens when you modify an existing project's specifications. However, the Project field is disabled.

1. Select the Projects tab in the CIMPLICITY® Alarm Sound Manager dialog box..
2. Click **Add**.

The Add Project dialog box opens.

3. Fill in the fields as follows.


rect 8, 24, 245, 55 *(page 163)*
rect 7, 54, 134, 85 *(page 163)*
rect 7, 91, 244, 122 *(page 163)*

| | |
|---|---|
| A *(page 163)* | Project |
| B *(page 163)* | Priority |
| C *(page 163)* | Setup |

| | |
|---|---|
| A | Project |

Select a project from the drop down menu.

Projects that are running and available (e.g. broadcast) are listed.

| | |
|---|---|
| B | Priority |

A number equal to or greater than 0 in the **Priority** field to specify the project's priority static to other projects.

0 is the highest priority.

The higher the number you enter, the lower the priority.

The list of projects on the Projects tab is sorted in the order of priority that you specify. The Alarm Sound Managers uses this project ordering to help determine which sound plays first at runtime.

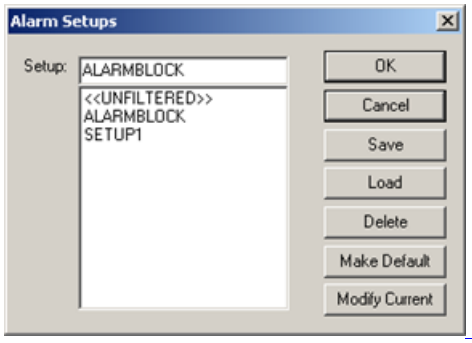
| | |
|---|---|
| C | Setup |

An alarm setup that will filter alarms that trigger a sound.

Either:

- Type a setup in the **Setup** field.
- Click the Browse button to the right of the **Setup** field.

An Alarm Setups dialog box opens.



*(page 111)*

Setups listed in the Alarm Setups dialog box were created in any of the following.

- Stand-alone Alarm Viewer
- Alarm Viewer OCX
- Alarm Sound Manager

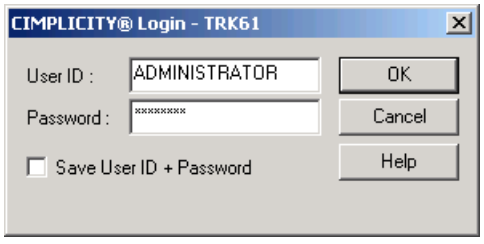
**Note:**

- You can create a new or modify an existing setup *(page 111)* to enter in the Setup field.
- If you do not select a setup, CIMPLICITY uses the <<Unfiltered>> setup, which will trigger sound for any alarm in the project.

4. Click OK.

If you are not logged into CIMPLICITY, a CIMPLICITY® Login dialog box opens.

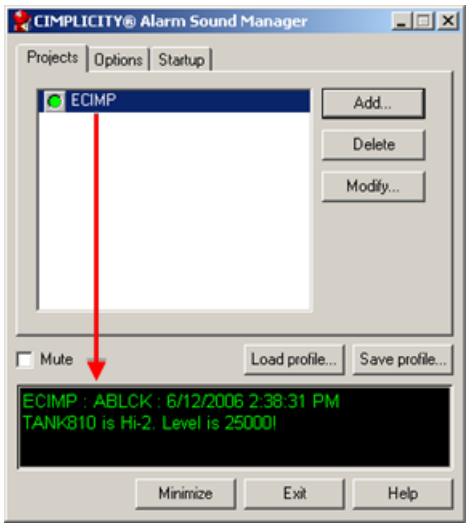
Enter your **User ID** and **Password**.




Once you are logged in, the project displays in the list of projects on the Projects tab in the CIMPLICITY® Alarm Sound Manager dialog box. If an alarm is generating a sound, a message provides the alarm's:

- Project
- Class

- Generation date/time
- Message

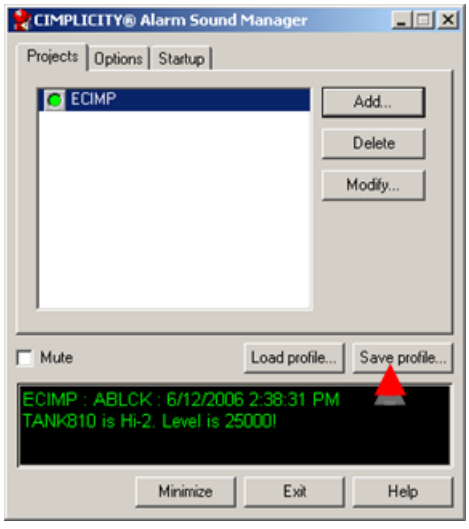



5. Repeat adding projects until all of the projects that should have sound for alarms appear in the **Projects** list.

**Note:** Select a project in the list and click **Delete** if you want to remove it from the Alarm Sound Manager.

## *Step 3.2. Save an Alarm Sound Profile*

1. Click **Save profile…** on the Projects tab




An Open dialog box opens.

2. Open the folder in which you want to save the profile.
3. Enter a file name.

   The file is an .ini file.

4. Click OK.

The Alarm Sound Manager saves the configuration that display on all of the tabs in the CIMPLICITY® Alarm Sound Manager dialog box in an .ini file.

You can continue to save the profile if you change the configuration on any other tabs.

The profile is available whenever it is required.

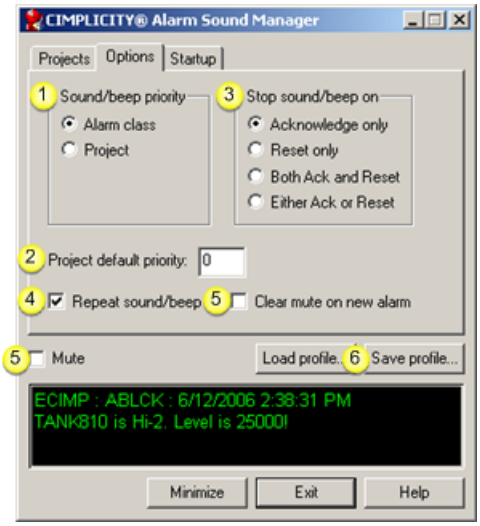
**Tip:** Click Load profile… on any tab in the CIMPLICITY® Sound Manager dialog box to load any of the profiles you saved.

# *Step 4. Configure Runtime Sound Options*

## *Step 4. Configure Runtime Sound Options*

Select the Options tab in the CIMPLICITY® Alarm Sound Manager dialog box.

Options are as follows.




rect 211, 207, 289, 230 *(page 169)*
rect 2, 209, 80, 232 *(page 169)*
rect 128, 172, 275, 195 *(page 169)*
rect 9, 174, 129, 197 *(page 169)*
rect 132, 48, 275, 140 *(page 168)*
rect 9, 148, 152, 171 *(page 168)*
rect 15, 43, 128, 116 *(page 167)*

| | |
|---|---|
| 1 *(page 167)* | Sound/beep priority |
| 2 *(page 168)* | Project default priority |
| 3 *(page 168)* | Stop sound/beep on |
| 4 *(page 169)* | Repeat sound/beep on |
| 5 *(page 169)* | Clear mute on new alarm/Mute |
| 6 *(page 169)* | Save profile |

| | |
|---|---|
| 1 | Sound/beep priority |

Select which priority the Alarm Sound Manager should check first when concurrent alarms are received as follows.

| Check | Alarm Sound Manager Checks static Priority of each alarm's: |
|---|---|
| Alarm Class | Class, as specified in the Alarm Class Configuration dialog box. Determination of the highest priority alarm is:<br>1. The sound for the first alarm with the highest priority alarm class is played first.<br>2. If alarms exist for the same alarm class in more than one project, then the highest priority alarm for the highest priority project is played first.<br>3. If alarms exist for the same alarm class in the same project, the alarm that is triggered first is played first. |
| Project | Project as specified in the Add Project dialog box that is opened through the Projects tab in the CIMPLICITY® Alarm Sound Manager dialog box. Determination of the highest priority alarm is:<br>1. The sound for the alarm with highest priority Alarm Class in the highest priority project is played first.<br>2. If more than one project has the highest priority, then the order in which the projects display in the Alarm Sound Manager dialog box determines the project priority. |

**Tip:** The following keys select the alarm class or project.

| Key | Selects |
|---|---|
| Alt+R | Alarm Class |
| Alt+P | Project |

| 2 | Project default priority |
|---|---|

Specifies the default priority that the Alarm Sound Manager will assign to each project that is added to a current session.

Enter **0** or higher.

**0** is the highest priority. The higher the number, the lower the priority.

The number you enter displays in the Priority *(page 162)* field when you open a new Add Project dialog box.

| 3 | Stop sound/beep on |
|---|---|

Specify the condition under which the sound/beep for an alarm is stopped as follows.

| Check | Alarm sound/beep stops when the alarm is: |
|---|---|
| Acknowledge only | Acknowledged |
| Reset only | Reset. |
| Both Ack and Reset | Acknowledged and reset. |
| Either Ack or Reset | Acknowledged or reset. |

When the Alarm Manager stops the sound for one alarm, it provides sound for the next highest priority alarm.

| 4 | Repeat sound/beep |
|---|---|

Select whether or not to have the Alarm Sound Manager repeat the sound for an alarm until it meets the **stop sound/beep on** conditions, as follows.

| Repeat sound/ beep | Description |
|---|---|
| Check | The Alarm Sound Manager repeats the sound. The .wav sound or group of beeps (as specified in the Alarm Class Configuration dialog box) repeats every 10 seconds for the alarm until the stop sound/beep condition is satisfied. When the stop condition is satisfied the Alarm Manager repeats the sound for the alarm that assumes the highest priority status. |
| Clear | The Alarm Sound Manager provides a .wav sound or group of beeps once and then moves to the next alarm. The Alarm Sound Manager rotates through the alarms, playing the sound for each during its turn in the rotation. When the stop condition is met for an alarm, the Alarm Sound Manager removes that alarm from the rotation. **Tip:** Press Alt+U to check/clear Repeat sound/beep. |

| 5 | Clear mute on new alarm |
|---|---|

Play or mute the sound as follows:

| Check | To |
|---|---|
| Mute | Mute all alarms. **Note:** The message still displays. |
| Mute and Clear mute on new alarm | Mute existing alarms, but enable the sound when there is a new alarm. The Alarm Sound Manager clears the **Mute** check box. |
| Neither (clear both) | Enable sound for all alarms. The sound is repeated for the highest priority alarm or rotated among alarms depending on whether or not **Repeat sound/beep** is checked. |

| 6 | Save profile |
|---|---|

Click Save profile *(page 165)* to save your selections in the open profile.

## *Example: Prioritize Alarm Sounds*

You have three projects, each with two Alarm Classes as follows:

| Project | Project Priority | Alarm Class 1 | Class 1 Priority | Alarm Class 2 | Class 2 Priority |
|---|---|---|---|---|---|
| PROJ_A | 3 | **ALM_A** | 1 | **ALM_B** | 2 |
| PROJ_B | 2 | **ALM_A** | 1 | **ALM_B** | 2 |
| PROJ_C | 1 | **ALM_A** | 1 | **ALM_B** | 2 |

In addition, you currently have one alarm generated for each class in each project.

If you prioritize audio alarms by:

Alarm Class, the alarm order is:

| Alarm Sound | Alarm | |
|---|---|---|
| Order | Project | Class |
| 1 | PROJ_C | ALM_A |
| 2 | PROJ_B | ALM_A |
| 3 | PROJ_A | ALM_A |
| 4 | PROJ_C | ALM_B |
| 5 | PROJ_B | ALM_B |
| 6 | PROJ_A | ALM_B |

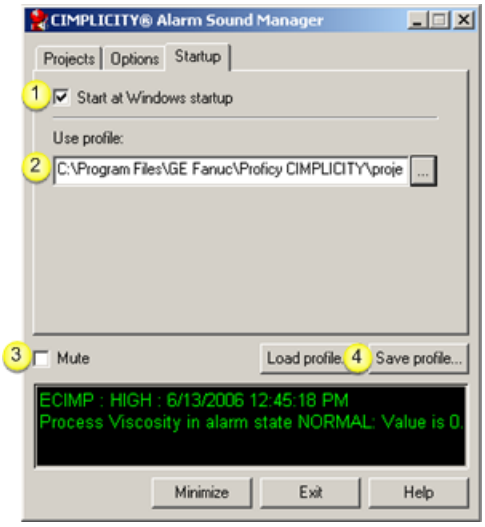
Project, the alarm order is:

| Alarm Sound | Alarm | |
|---|---|---|
| Order | Project | Class |
| 1 | PROJ_C | ALM_A |
| 2 | PROJ_C | ALM_B |
| 3 | PROJ_B | ALM_A |
| 4 | PROJ_B | ALM_B |
| 5 | PROJ_A | ALM_A |
| 6 | PROJ_A | ALMB |

# *Step 5. Auto-start the Alarm Sound Manager*

Select the Startup tab in the CIMPLICITY® Alarm Sound Manager dialog box.

Options are as follows.




rect 210, 208, 298, 233 *(page 172)*
rect -3, 206, 85, 231 *(page 171)*
rect 10, 90, 284, 115 *(page 171)*
rect 7, 44, 162, 69 *(page 171)*

| | |
|---|---|
| 1 *(page 171)* | Start at Windows startup |
| 2 *(page 171)* | Use profile |
| 3 *(page 171)* | Mute |

| | |
|---|---|
| 1 | Start at Windows startup |

Check Start at Windows Startup to start an Alarm Sound Manager profile when Windows starts up.

| | |
|---|---|
| 2 | Use profile |

Specify the Alarm Sound Manager profile that will be used as follows.

1. Click the Open dialog box button at the right of the **Use profile** field.

The Open dialog box opens.

1. Find and select the profile (.ini file).
2. Click OK.

| | |
|---|---|
| 3 | Mute |

Check or clear to specify the following.

| | |
|---|---|
| Check | The Alarm Sound Manager will:<br><br>• Be mute when Windows opens<br>• Start and load the selected profile when Windows reboots. |
| Clear | The Alarm Sound Manager will:<br><br>• Provide the selected sounds as soon as one of the listed projects is running as soon as Windows reboots.<br><br>**Note:** If the projects are running on the same server as the Alarm Sound Manager, select them to start when Windows reboots in the CIMPLICITY Options dialog box.<br><br>• Start and load the selected profile when Windows reboots. |

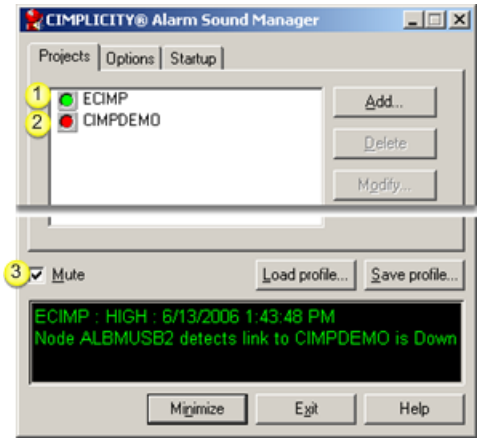
| | |
|---|---|
| 4 | Save profile |

Click Save profile *(page 165)* to save your selections in the open profile.

Results

One of the Alarm Sound Manager icons *(page 162)* displays in the Windows Task bar when Windows starts.

When the Alarm Sound Manager is opened the following displays.

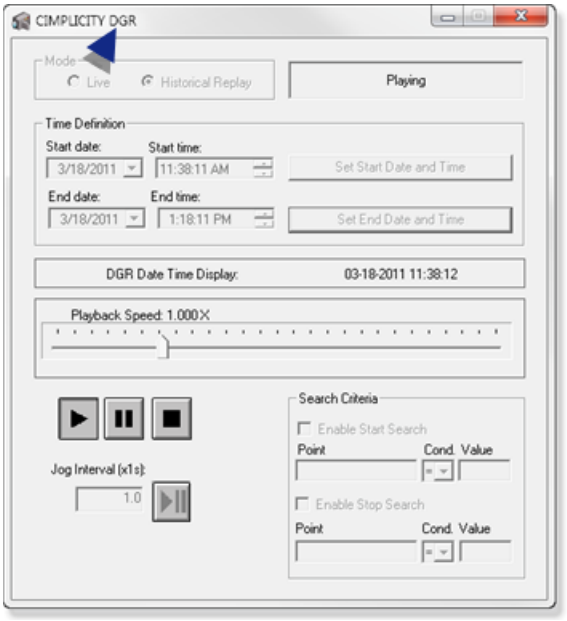



| | |
|---|---|
| 1 | Projects in the selected profile that are running display as connected (green). |
| 2 | Projects in the selected profile that are not running display as not connected (red). |
| 3 | The Alarm Sound Manager will be mute or will provide sound, as specified. |

# Chapter 6. DGR

## *About Dynamic Graphic Replay*

Dynamic Graphical Replay (DGR) is a powerful tool to help you, a system administrator, troubleshoot problems that have occurred in your processes.




- Configuration for DGR use.
- DGR operation.

### Overview

DGR enables you to review and diagnose what conditions may have led to an event of interest. Because the DGR automates reviewing either Database Logger or Proficy Historian logged data you can quickly and precisely pinpoint when and by how much one or more points deviated from the norm.

Using the DGR, you can:

- View logged point data history using a project:
- CimView screen.
- Trend chart.
- Point Control Panel.

**Note:** Replay speed can be up to a maximum of 100 times faster than real-time and a down to a minimum speed of 1/10 real-time.

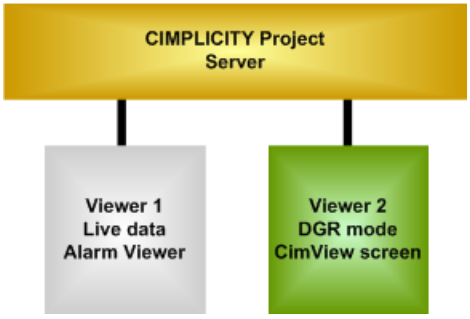
- Search logged data to locate when a point value meets a specified condition.
- A **Start Search** functionality sets the playback start time to the time of a corresponding specified condition.
- A **Stop Search** functionality pauses playback each time a specified condition is met.
- Run independent DGR sessions on one or more terminal sessions, serving requests for play backs
- DGR plays back values as follows.

| DGR mode | For | | DGR Plays Back |
|---|---|---|---|
| Live | Points | | Real time values. |
| | Point or class attributes | | Real time values. |
| Historical Replay | Points | Logged | Logged values. |
| | Points | Not logged | Not available |
| | Point or class attributes | Logged to SQL Server | Logged values. |
| | POINT_ID and TIMESTAMP | Logged to Historian | Logged values |
| | Point  attributes or class attributes | Not logged | Current values. |

**Note:**

- `Point ID` and `TIMESTAMP` are the only attributes that are logged to Historian.
- The DGR is local to the Viewer or Server on which it is running. When you switch to DGR mode all of the local CimView point data switches to DGR mode. As a result, your system can continue displaying live data on one viewer while it displays DGR time on another.

Example




- When running DGR with SQL Server, current Point attribute and class attribute values can be viewed. However, they are read-only.

**Important:** DGR does not run in Demo mode.

# *Configuration for DGR Use*

## *Configuration for DGR Use*

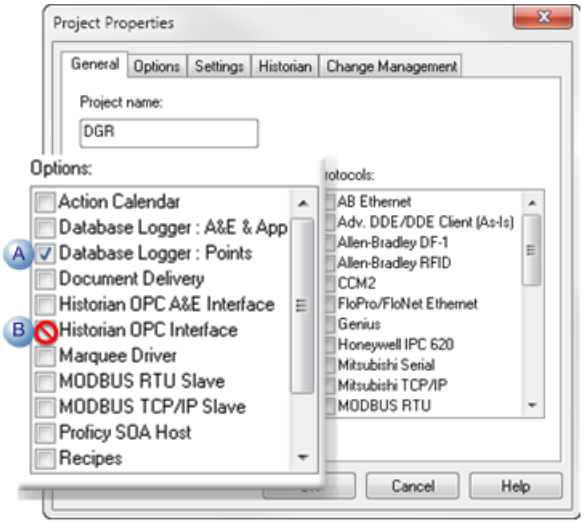
Do the following before you open the DGR.

| | |
|---|---|
| Step 1 *(page 175)* | Select the playback source. |
| Step 2 *(page 176)* | Check Log Data in the Point Properties dialog box. |
| Step 3 *(page 177)* | (Configure and) Run a runtime application to display point values. |

**Important:** DGR is supported for projects logging to SQL Server or Proficy Historian.

## *Step 1. Select the Playback Source*

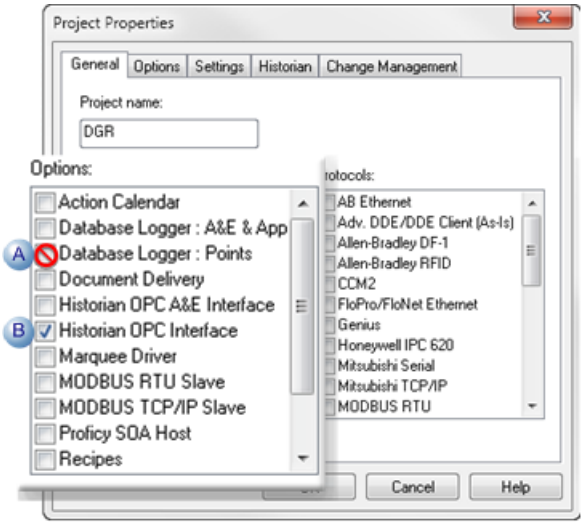
1. Open the Project Properties dialog box.
2. Check one of the following.
   - Pull historic Data from SQL Server.




| | |
|---|---|
| A | Check Database Logger - Points |

| | |
|---|---|
| B | Clear Historian OPC Interface |

• Pull historic data from Historian.



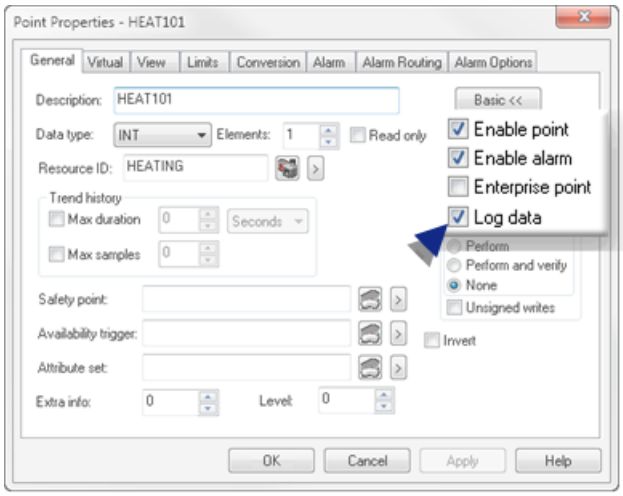

| | |
|---|---|
| A | Clear Database Logger - Points. |
| B | Check Historian OPC Interface. |

3. Configure your selection to receive logged data.

DGR will play back data from the selected source.

## *Step 2. Check Log Data in the Point Properties dialog box.*

1. Select each point for which logged data should be available for diagnosis.
2. Open the point's Point Properties dialog box.
3. Select the General tab.
4. Check Log data.



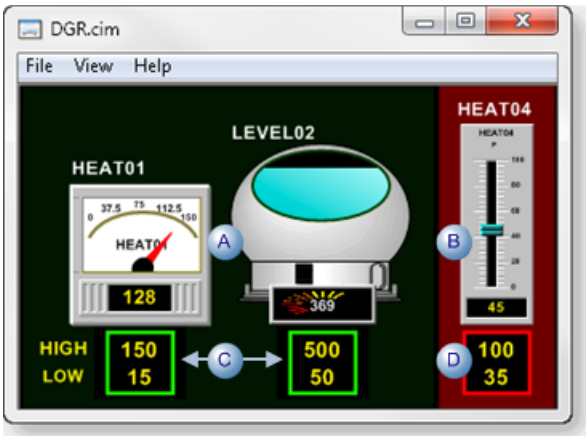

## *Step 3. Run a Runtime Application to Display Point Values*

When you are working with the DGR, point values that display in either live or DGR mode display on runtime applications.

- Example: CimView
- Example: Trend chart

### Example: CimView

During live runtime, a CimView screen displays logged and non-logged values, as follows.

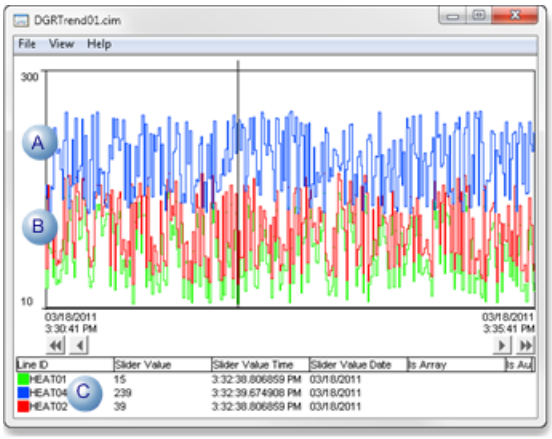



| | Value Type | Logged | Display |
|---|---|---|---|
| A | Point | Yes | Yes |
| B | Point | No | Yes |
| C | Point attribute | Yes | Yes |

| | Value Type | Logged | Display |
|---|---|---|---|
| D | Point attribute | No | Yes |

### Example: Trend Chart

During live runtime, a Trend chart displays logged and non-logged values as follows.




| | Value Type | Logged |
|---|---|---|
| A | Point | No |
| B | Points | Yes |
| C | Legend | No and Yes |

# *DGR Operation*

## *DGR Operation*

Operating the DGR is straightforward.

**Note:** Make sure the DGR project is running.

| | |
|---|---|
| Step 1 *(page 179)* | Open the DGR. |
| Step 2 *(page 180)* | Start Historical Replay mode. |

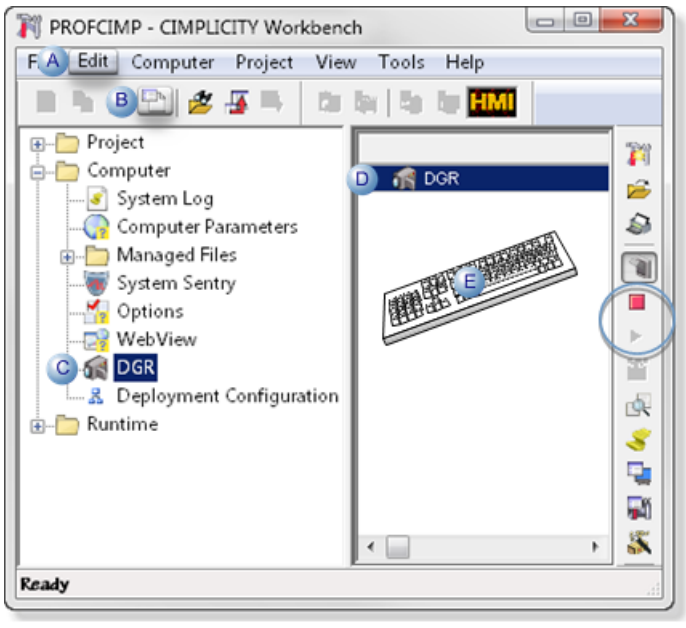
| | |
|---|---|
| Step 3 *(page 183)* | Set the start date and time. |
| Step 4 *(page 184)* | Select playback speed. |
| Step 5 *(page 186)* | View playback. |
| Step 6 *(page 200)* | Exit the DGR. |

When you are in DGR mode you can view the date and time that data was logged in the DGR Date Time box.

At any time you can switch back to Live mode.

## *Step 1. Open the DGR*

1. Make sure the project is running.
2. Select **Computer>DGR** in the Workbench left pane.
3. Select **DGR** in the right pane.
4. Do one of the following.




| | |
|---|---|
| A | Click Edit>Properties on the Workbench menu bar. |

| | | |
|---|---|---|
| B | Click the Properties button on the Workbench toolbar. | |
| C | In the Workbench left pane: | |
| | Either | Or |
| | Double click **DGR**. | a. Right-click **DGR**.<br>b. Select Properties on the Popup menu. |
| D | In the Workbench right pane: | |
| | Either | Or |
| | Double click **DGR**. | a. Right-click **DGR**.<br>b. Select Properties on the Popup menu. |
| E | Press Alt+Enter on the keyboard. | |

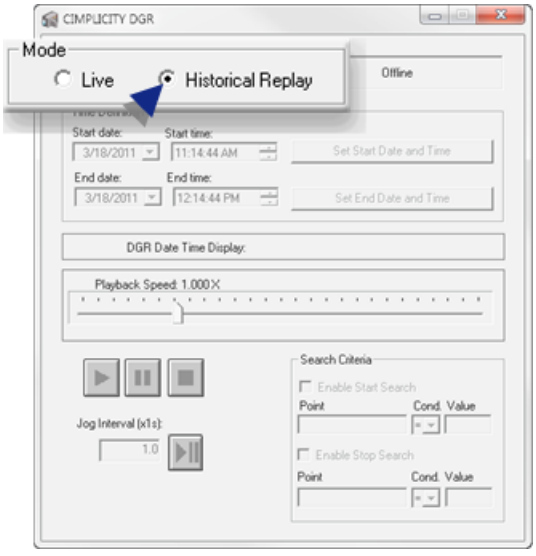
5. Right-click **DGR**.
6. Select Properties on the Popup menu.
7. Right-click **DGR**.
8. Select Properties on the Popup menu.

## *Step 2. Start Historical Replay Mode*

- Historical Replay Mode startup.
- Start Historical Replay Mode examples.

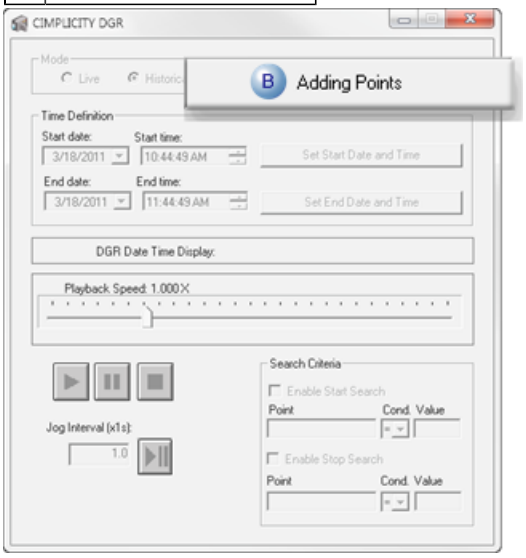
### Historical Replay Mode Startup

Check Historical Replay on the CIMPLICITY DGR.

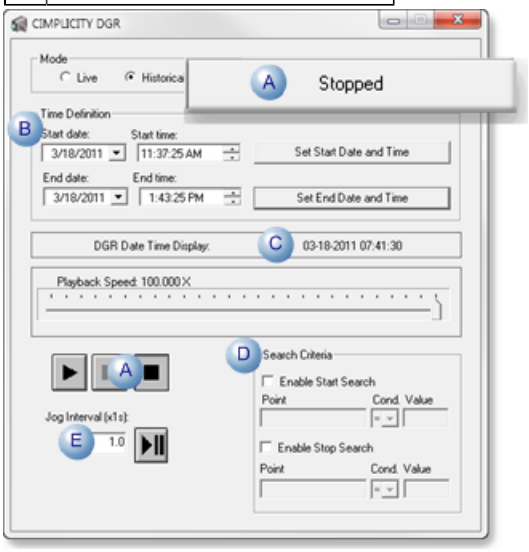


Result: The DGR does the following.

| | |
|---|---|
| A | Switches to DGR mode. |
| B | Adds points. |




| | |
|---|---|
| C | Displays the status as Stopped. |
| D | Enables the Play buttons. |




| | |
|---|---|
| E | Turns off point displays in runtime user applications. |

## Start Historical Replay Mode Examples

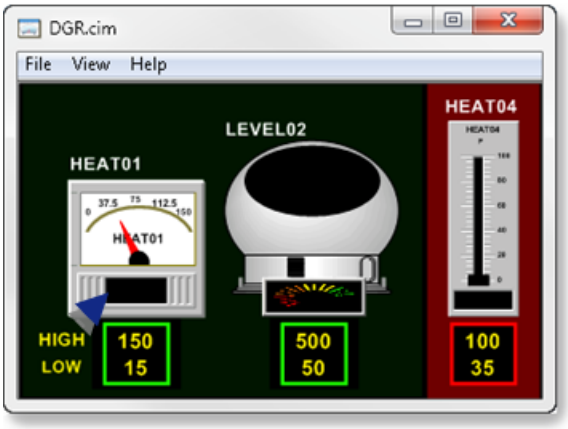
- CimView.

- Trend chart.

CimView

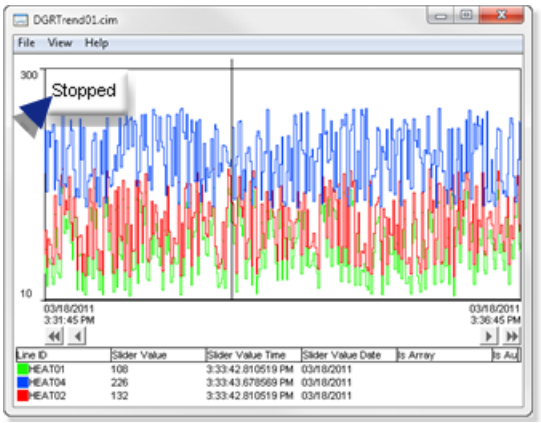
The values in CimView revert to the default text that was entered when:

- CimEdit was being configured.
- Attribute values were entered in the Point Properties dialog box, e.g. Alarm High and Alarm Low values.




Trend Chart

The Trend is stopped. Lines that were drawn during live runtime remain until Historical playback begins.

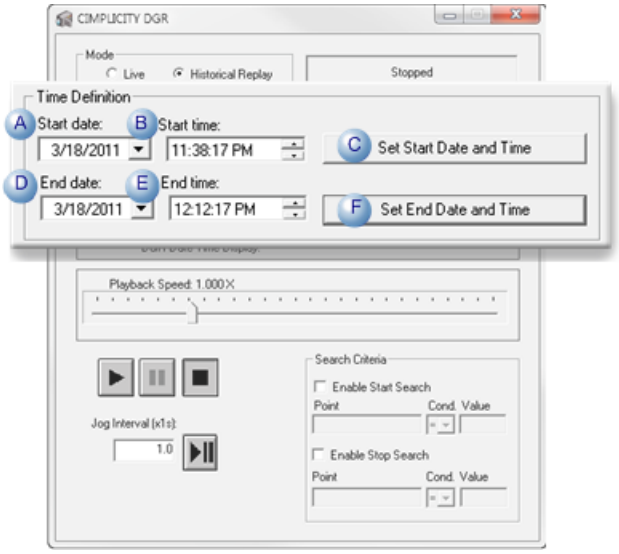


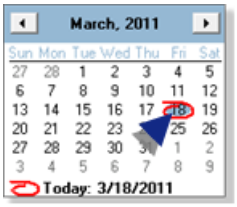

**Important:** DGR mode only affects user applications, e.g. CimView, Point Control Panel. CIMPLICITY resident processes, e.g. **PTDL** , **EMRP** , are not affected.

The Alarm Viewer continues to display live data.

## *Step 3. Set the Start and Stop Date and Time*

The following **data** and **time** fields on the CIMPLICITY DGR selects the playback start and end date and time.




| | Feature | Description |
|---|---|---|
| A | Start date | Month/day/year to start the DGR replay.<br><br>**Note:** Click the Down arrow to the right of the **Start Date** field to select a date from a calendar.<br><br>  |
| B | Start time | Hour:Minute:Second to start DGR replay. |
| C | Set Start Date and Time | Click to set the start date and time. |

| | Feature | Description |
|---|---|---|
| D | End date | Month/day/year to end the DGR replay.<br>**Note:** Click the Down arrow to the right of the **Start Date** field to select a date from a calendar.<br>  |
| E | End time | Hour:Minute:Second to end DGR replay. |
| F | Set End Date and Time | Click to set the end date and time. |

Result: The DGR loads the values of the points at that time. Clicking the Play button starts playing back updates.

## *Step 4. Select Playback Speed*

The Playback speed box on the left of the CIMPLICITY DGR enables you to specify the speed that the data should be played back.

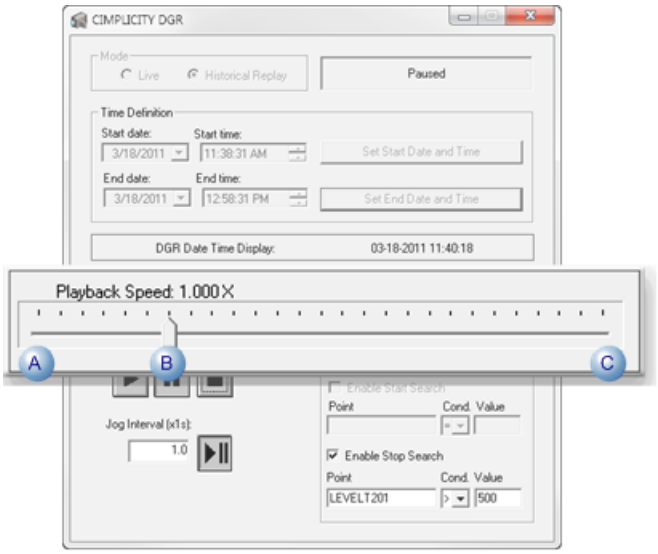
Slide the slider to the speed that you want the data to play back.

The speed changes as the slider is moved.

- Speed range
- Procedure to select the exact playback speed

Speed Range

The range of speed choices is as follows.




| | | |
|---|---|---|
| A | Lowest | 0.002X of normal speed |
| B | Normal | 1.000X |
| C | Highest | 100.000X the normal speed |

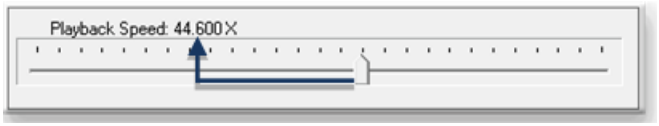
**Note:** The actual speed, which is also driven by your system hardware and setup, may vary slightly from the indicated selection.

Procedure to Select the Exact Playback Speed

1. Click the Pause button.

   **Note:** You can click the Stop button if you want the DGR to return to the playback start.

2. Move the slider to the speed or close to the speed you want.

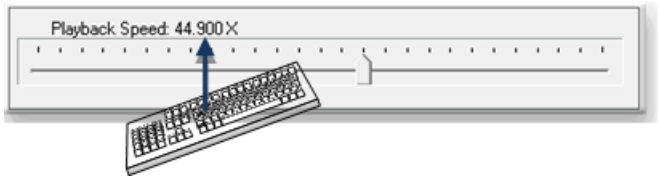



3. (When the speed is close to what you want) press the arrow keys on the keyboard to select the exact playback speed.

   Right arrow key

   Each time you press the right arrow key the speed increases 0.100x

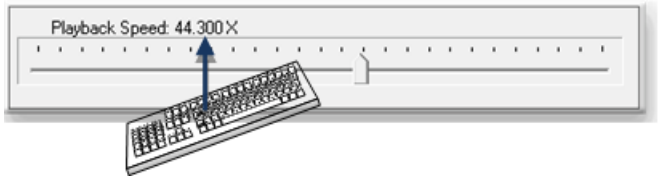
   Continue to press the right arrow key until the speed you want displays as the playback speed.




Left arrow key

Each time you press the left arrow key the speed decreases 0.100X.

Continue to press the left arrow key until the speed you want displays as the playback speed.




## *Step 5. View Playback*

Step 5. View Playback

The DGR provides several options for starting and stopping playback.

Options include the following.

| | |
|---|---|
| Option 5.1 *(page 187)* | Manually control playback. |
| Option 5.2 *(page 192)* | Use jog interval. |
| Option 5.3 *(page 194)* | Enable start search. |
| Option 5.4 *(page 197)* | Enable stop search. |

**Note:** In order for DGR playback to take advantage of microsecond logging, the following logging application versions are required.

| | |
|---|---|
| SQL Server | At least SQL Server 2008. |
| Historian | Historian v4.5 or higher. |

## Option 5.1. Manually Control Playback

1. Enter a date and time in the **Start date** and **Start time** fields when the DGR is in DGR mode.

   The DGR is ready for playback.

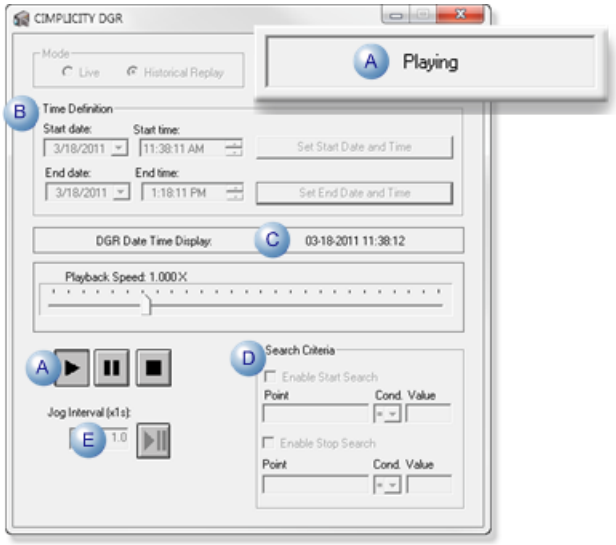
2. Use the playback buttons as follows.

| Button | | Action |
|---|---|---|
|  *(page 187)* | Play | The DGR begins playback from the start date/time. |
|  *(page 189)* | Pause | Playback pauses. When you click the Play button to resume, the DGR begins playing from where it paused. It does not go back to the beginning. |
|  *(page 190)* | Stop | The DGR stops and goes back to the start playback point. |

| | |
|---|---|
|  | Play |

   Click the Play button.

The CIMPLICITY DGR does the following.

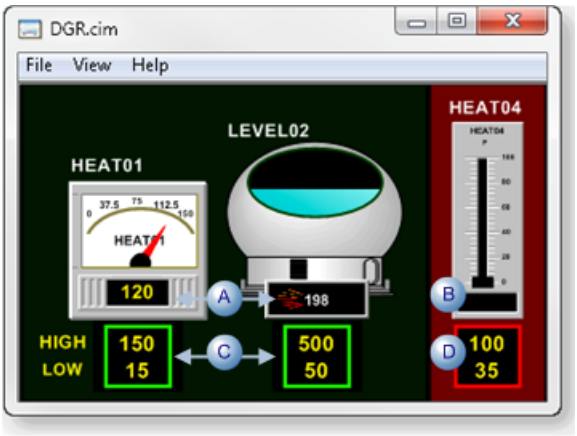


| | |
|---|---|
| A | Reports that playback is in progress. |
| B | Disables the **Start/End date** and **Start/End time** fields**. Note:** Start and end dates and/or time cannot be changed while the DGR is playing. |
| C | Displays the playback date and time in the **DGR Date Time Display** box. **Note:** Applications that display timestamps, e.g. Trend, will play back millisecond or microsecond time. |
| D | Disables the Enable Start Search *(page 194)* and Enable Stop Search *(page 197)* checkboxes. |
| E | Disables the **Jog Interval** options. |

**Note:** Note: Start and End date and time fields are disabled.

Example: CimView during DGR playback

During playback, CimView displays the logged and non-logged values as follows.



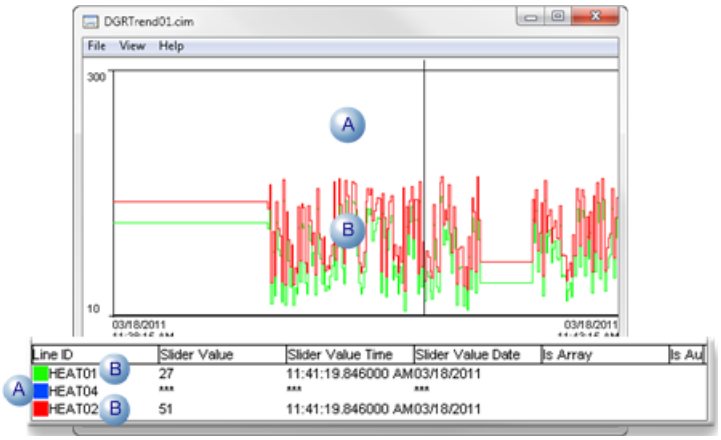

| | | Either | | | |
|---|---|---|---|---|---|
| | | Logged to | Logged to | Value Played Back | |
| | Value Type | SQL | Historian | SQL | Historian |
| A | Points | Yes | Yes | Logged | Logged |
| B | Points | No | No | None | None |
| C | Point or class attributes | Yes | **NA** | Logged | Current |
| D | Point or class attributes | No | **NA*** | Current | Current |

*Point ID and TIMESTAMP are the only attributes that are logged to Historian.

Example: Trend Chart during DGR Playback

The Trend chart displays the values for the selected historical playback, as follows.

**Note:** Playback reflects the speed with which data was collected. DGR supports microseconds.

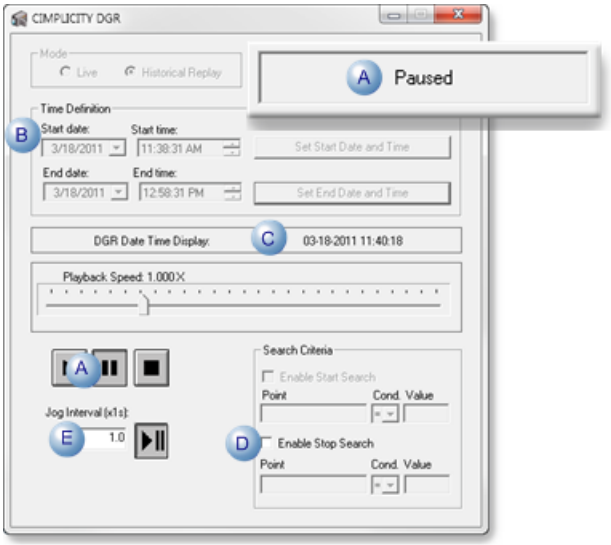



| | |
|---|---|
| A | No lines/values are available for non-logged point values. |
| B | Lines/values display for the logged points. |

| | |
|---|---|
|  | Pause |

Click the Pause button.

the DGR dialog box does the following.

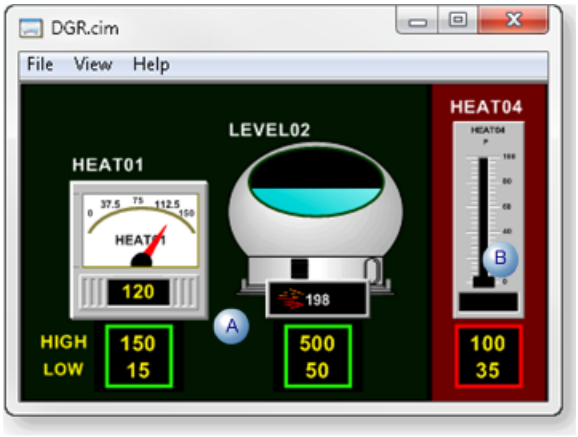



| | |
|---|---|
| A | Reports that playback is paused. |
| B | Disables the **Start/End date** and **Start/End time** fields. **Note:** Start and end dates and/or time cannot be changed while the DGR is paused. |
| C | Displays the paused date and time in the **DGR Date Time Display** box. **Note:** When playback is resumed, it resumes from the paused date and time. |
| D | Enables the Enable Stop Search *(page 197)* checkbox. |

| | |
|---|---|
| E | Enables the **Jog Interval** options. |

Runtime applications pause playback and continue to display the values that were found when Pause was clicked.

Example: CimView



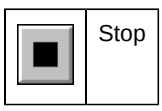

| | |
|---|---|
| A | Values that are found when DGR stops continue to display until DGR is re-started. When DGR restarts the start values that display are based on either the same or new search criteria. |
| B | Disabled fields represent unavailable values. |

Example: Trend

**Note:** The word **Paused** displays on the Trend chart when the DGR is paused.

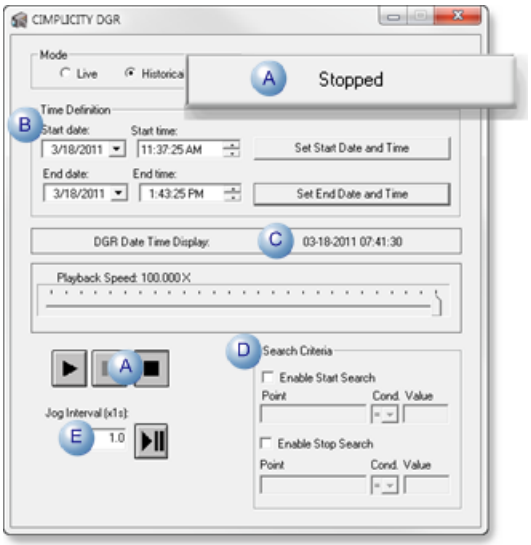

Values that are found when DGR is paused continue to display until DGR is re-started.

When DGR restarts Trend continues the historical playback.



Click the Stop button.

The DGR dialog box does the following.

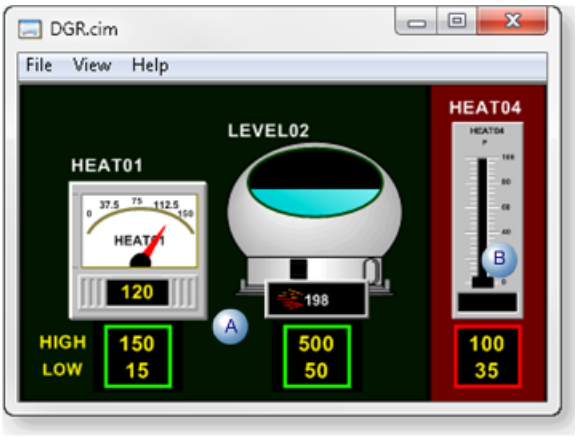



| | |
|---|---|
| A | Reports that playback is stopped. |
| B | Enables the **Start/End date** and **Start/End time** fields. **Note:** When playback is restarted, DGR does one of the following.<br>• Rewinds to the original start time and starts playing again.<br>• Starts from a new date and time in the **Start date** and **Start time** fields. |
| C | Displays the paused date and time in the **DGR Date Time Display** box, if the DGR has been running. **Note:** When DGR is restarted, it restarts from the stopped date and time. |
| D | Enables the Enable Start Search *(page 194)* and Enable Stop Search *(page 197)* checkboxes. |
| E | Enables the **Jog Interval** options. |

Runtime applications stop playback and continue to display the values that were found when Stop was clicked.

Example: CimView

At the time DGR is stopped and still in Historical mode, CimView displays values that were found.




| | |
|---|---|
| A | Values that are found when DGR stops continue to display until DGR is re-started. When DGR restarts the start values that display are based on either the same or new search criteria. |
| B | Disabled fields represent unavailable values. |

Example: Trend when DGR is Stopped

**Note:** When the DGR is stopped, the word **Stopped** displays on the Trend chart.


Values that are found when DGR is stopped continue to display until DGR is re-started.

When DGR restarts Trend continues the historical playback.

## Option 5.2. Use Jog Interval

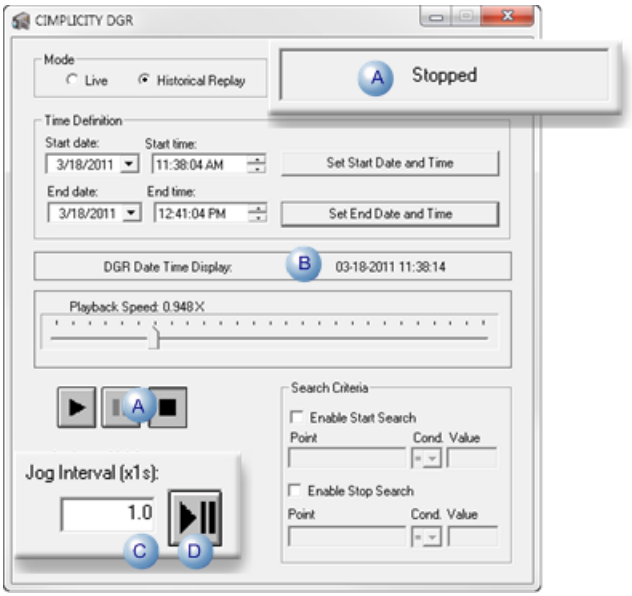
A Jog feature plays the indicated interval every time it is pressed. This allows a user to step through the data time slice by time slice utilizing the visualization of CimView.

- Jog definition.
- Jog playing.

- Single jog completed.

## Jog Definition

Anytime that the DGR is in Stopped or

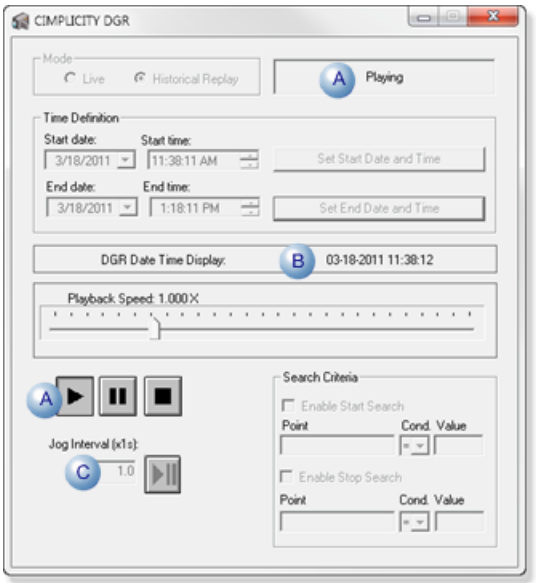



| | | | |
|---|---|---|---|
| A | Status Field/ Buttons | Report that playback is stopped. | |
| B | DGR Date Time Display | Displays the stopped date and time in the **DGR Date Time Display** box. **Note:** When playback is resumed, it starts from the stopped date and time, if the times have not been changed in the **Start/End date** and **Start/End time** fields. | |
| C | Jog Interval | Defines the jog interval length. The acceptable range is: | |
| | | Minimum | 0.001 second |
| | | Default | 1.0 second |
| D | Jog button | Starts the jog. | |

## Jog Playing

When the Jog button is clicked CIMPLICITY DGR plays for the specified jog interval.

DGR displays, as follows.




| | | |
|---|---|---|
| A | Status Field/Buttons | Report that playback is playing.. |
| B | DGR Date Time Display | Displays the playback date and time in the **DGR Date Time Display** box. |
| C | Jog interval/button | Disabled. |

**Note:**

- The jog can be stopped at any time. If it is stopped, the job interval can be changed. The new interval will be used when the jog is restarted.
- While DGR is jogging, the timestamps for points that have been logged using milliseconds or microseconds display that progress in any application, e.g. Trend, that displays timestamps.

## Single Jog Completed

When the single jog is complete, the DGR resumes Paused mode.

- The Jog button can be clicked again to start the next jog.
- Any criteria can be changed before a new jog is initiated.

### Option 5.3. Enable Start Search

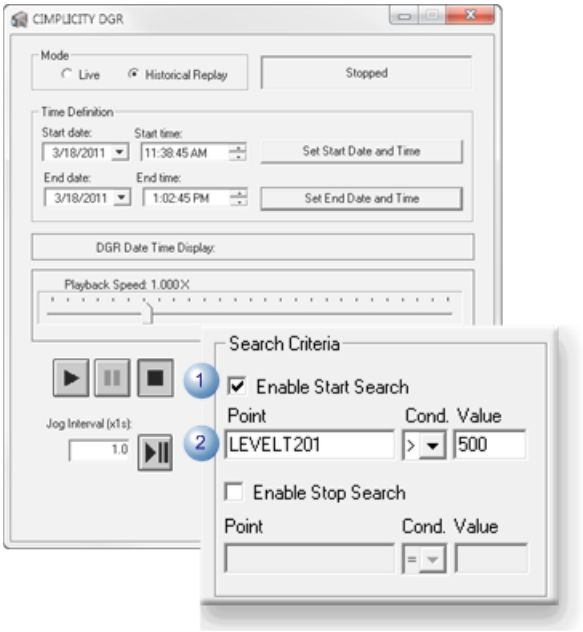
The DGR can stop its search when a point value fulfills a specified criterion; it can then be paused and restarted from that point to find the next instance for the same criterion or the first instance for a new criterion.

**Note:** Playback can be manually paused or stopped using the Pause or Stop buttons.

| | |
|---|---|
| A *(page 195)* | Enable Start Search criteria. |
| B *(page 195)* | Review Start Search playback. |
| C *(page 196)* | Pause of stop playback. |

1. Enable Start Search criteria

Enter the following.




| | | |
|---|---|---|
| 1 | Check Enable Start Search. The **Start Search** fields are enabled. Entries are as follows. | |
| 2 | Field | Description |
| | Point | Point ID that DGR should look for. |
| | Cond | Condition options are: > = < Example LEVELT201 is a point in the DGR project. LEVELT201>500 is entered as the Enable Start Search condition. |
| | Value | The value (in relation to the condition) that, when found, will start the DGR playback. |

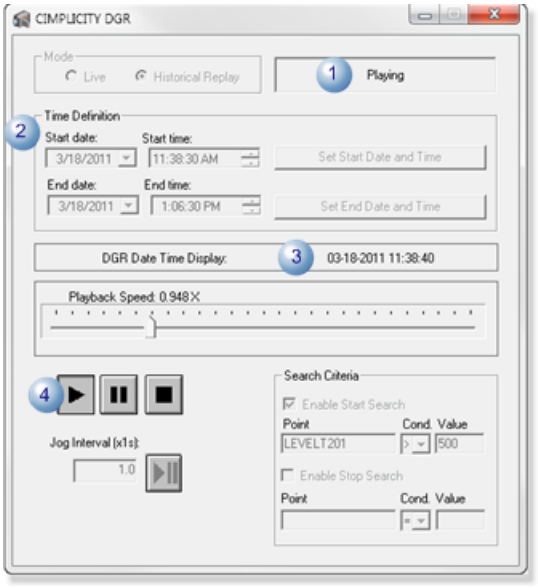
1. Review Start Search playback

The DGR does the following.

1. Searches for the first instance that fulfills the condition.

**Note:** While the DGR is searching for the first instance, the playback status is STOPPED. However, the DGR Date Time Display indicates the hour:minutes:seconds as the search progresses.

2. When DGR finds the first instance that fulfills the condition, DGR does the following.




| | |
|---|---|
| 1 | Changes the selected **Start date** and/or **Start time** to display the time that the playback actually starts. |
| 2 | Shows that it is playing.. Note: Playback values display in runtime applications, e.g. CimView. |
| 3 | Displays the date and time playback status. **Note:** The playback speed *(page 184)* can be changed at any time. |
| 4 | Disables the **Enable Start Search** fields. |

Example

The selected application to display values, e.g. CimView, displays logged values starting from the date and time the DGR finds the value LEVELT201>500.

a. Pause or Stop Playback

DGR provides several methods to pause or stop playback; DGR does the following based on what you do.

- Enter criteria in the **Enable Stop Search** fields before you start playback.

DGR pauses when the Stop Search criteria are met.

- Click Stop *(page 190)* .
- Do the following.

1. Click Pause.
2. Enter criteria in the **Enable Stop Search** fields.
3. Click Start.

DGR starts from the paused date and time and stops when the stop search criteria are met.

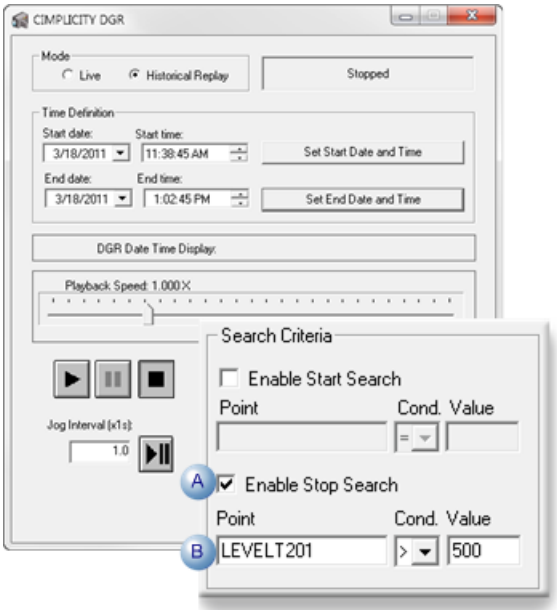
## Option 5.4. Enable Stop Search

The DGR can stop its search when a point value fulfills a specified criterion; it can then be paused and restarted from that point to find the next instance for the same criterion or the first instance for a new criterion.

| | |
|---|---|
| A *(page 197)* | Enable Stop Search criteria. |
| B *(page 198)* | Review Stop Search playback. |
| C *(page 199)* | Resume playback. |

1. Enable Stop Search criteria

Enter the following.



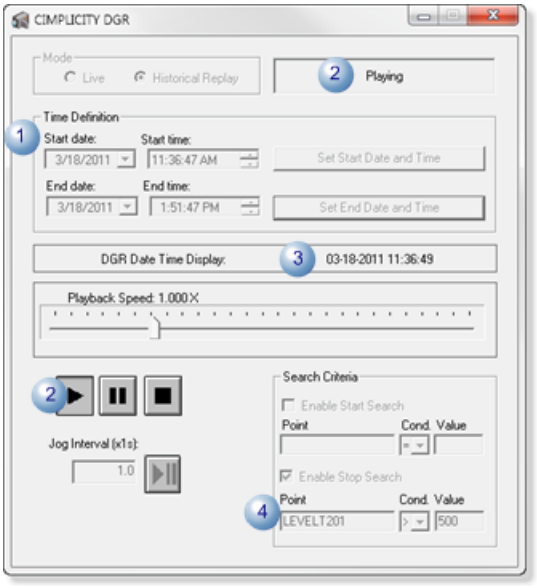

| | |
|---|---|
| 1 | Check Enable Stop Search. The **Stop Search** fields are enabled. Entries are as follows. |

| 2 | Field | Description |
|---|---|---|
| | Point | Point ID that DGR should look for. |
| | Cond | Condition options are: > = < Example LEVELRT201 is a point in a DGR project. LEVELT201>500 is entered as the **Enable Stop Search** condition. |
| | Value | The value (in relation to the condition) that, when found, will start the DGR playback. |

1. Review Stop Search playback

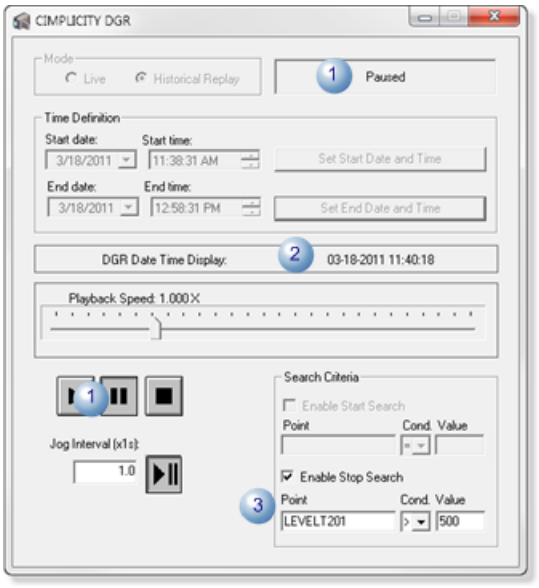
The DGR does the following.

Searches for the first instance that fulfills the condition.




| 1 | Starts its search at the selected **Start date** and **Start time**. |
|---|---|
| 2 | While playing searches for the first instance of a value that fulfills the **Stop Search** criteria. |
| 3 | Displays the date and time playback status. **Note:** The playback speed *(page 184)* can be changed at any time. |
| 4 | Disables the **Enable Stop Search** fields. |

When DGR finds the first instance that fulfills the condition, DGR does the following.




| | |
|---|---|
| 1 | Pauses the play |
| 2 | Displays the data and time the pause occurred. |
| 3 | Enables the **Enable Stop Search** fields. |

Pauses the value display in the runtime applications, e.g. CimView.

Example

The DGR pauses the runtime display when it finds the value LEVELT201>500.

1. Resume Playback

When the DGR stops the search, you can do any of the following.

- Click Start.

Result: DGR resumes playback to find the next instance that fulfills the current condition.

- Enter a new condition in the **Enable Stop Search** fields; click Start.

Result: DGR resumes playback from the stop search point to find the first instance of a new condition.

- Clear the Enable Stop Search checkbox; click Start.

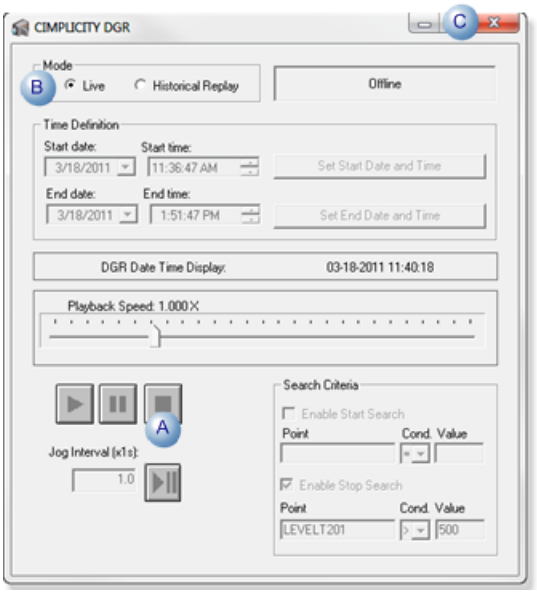
Result: DGR resumes normal playback from the paused point.

- Click Stop.

Result: DGR rewinds to the Start data and Start time ready to resume the playback type from the beginning.

### *Step 6. Exit the DGR*

Do the following to resume normal operation.




| | |
|---|---|
| A | Click the Stop button (when still in Historical Replay mode). |
| B | Check Live in the Mode box. |
| C | Click the Exit button on the top right of the DGR. |

Result: The following happens.

- The DGR closes.
- Runtime applications display real time values.

# *Technical Notes about DGR Functionality*

## *DGR Functionality Technical Notes*

The following sections provide technical notes about DGR functionality.

`GefVCRService` and the `GefVCRControlApp`.

- Context of DGR Mode.
- VCRServer.cfg file.
- Point attributes.

## *GefVCRService and the GefVCRControlApp*

Dynamic Graphical Replay consists of the **GefVCRService** and the **GefVCRControlApp** .

It works by letting supported client applications connect to an alternate data source, the `GefVCRService`.

The **GefVCRControlApp** controls point data source switching, playback of data, and searching.

Use the **GefVCRControlApp** to switch from the live Point Manager connection to the historical **GefVCRService** connection. This puts the local node in DGR mode.

Once the switch to DGR mode is complete, the **GefVCRControlApp** provides the means to send commands to the **GefVCRService.** Commands can include functions such as setting the start time for replaying data; start, stop and pause of data replay; controlling the speed of the data replay and searching for when a point value meets a specified condition.

When the **GefVCRService** receives the commands it queries the CIMPLICITY Database Logging default point logging table (DATA_LOG) for the historical point values and notifies CimView of changes in point values during replay.

When you finish replaying data, use the **GefVCRControlApp** to switch your local node back to Live mode..

## *Context of DGR Mode*

When you switch to DGR mode,

- All supported client applications on the local node switch to DGR mode.
- If you have more than one CimView screen open all of the screens will be switched.
- If you have other CIMPLICITY client applications running on the local node (e.g. Point Control Panel, Quick Trends, etc.) those connections will also be switched to DGR mode.

There is no way to control which client applications should switch and which should not.

- The switch over to DGR mode is local to the node. This means that several viewers can switch in and out of DGR mode without affecting each other.

You can safely run CimView screens in DGR mode on a CIMPLICITY server because only client applications are switched into DGR mode. Your project's runtime processes such as the Event Manager and Database Logging will remain connected to the live Point Manager.

- When DGR switches from Live mode to Historical Replay mode, it builds a list of the points and point configurations used in each CimView screen. This point list is saved when you switch from Historical Replay to Live mode, so they can be reused when you switch back from Live mode to Historical Replay mode.
- There may be an issue with the Windows firewall where it prevents SQL from running DGR on a Viewer. If the Viewer appears to hang, adding the sqlbrowser.exe file and path to the Windows Firewall exception list may solve the issue.

## *Point and Class Attributes*

Dynamic Graphical Replay provides limited support for point attributes (e.g. time stamp, resource, etc.). The point attributes that are supported include only those accessible from the CIMPLICITY Point Browser's tree view.

Point attributes in DGR that are supported are supported in one of the following ways.

| | | |
|---|---|---|
| Historical values (if available) | Some point attributes can be logged to the DATA_LOG table as follows. | |
| | If Attributes are: | DGR Displays: |
| | Configured for logging to the **SQL DATA_LOG** table, | The following attributes are logged to the SQL database.<br>• Point Value<br>• Prev. Value<br>• Raw value<br>• Alarm state<br>• Resource<br>• Time last Logged<br>• Engineering Units<br>• Quality<br>• User flags<br>These attributes will be replayed from SQL database Attributes other than these point attributes will be replayed from project configured data. |
| | Not configured for logging | Current value. |

| | |
|---|---|
| Currently configured value | • Some point attributes cannot be logged to the DATA_LOG table. Generally speaking, these attributes are set at configuration time only and don't change over time.<br><br>The currently configured value for these attributes will be displayed in DGR mode.<br><br>• The only attributes logged to Historian are POINT_ID and TIMESTAMP. DGR displays the currently configured value for all other attributes associated with points that are logged to **Historian**. |

## *VCRServer.cfg File*

For Projects logging to SQL only:

Before the **GefVCRService** can make queries for historical data it must know how to connect to the actual data archive. Information needed to make the connection includes the name of the node where the database server is running and which database on the server holds the DATA_LOG table.

In order to get this information, the service must be able to connect to and login to each CIMPLICITY project of interest. You provide the CIMPLICITY login information to the service with the **VCR Server.cfg** file, located in the data directory of your CIMPLICITY installation.

The format of this file is as follows.

```
<project name1>|<userid>|<password>
<project name2>|<userid>|<password>
.
.
.
```

# *DGR Limitations*

1. Active-X controls, including CIMPLICITY Active-X controls (e.g. Alarm Viewer and SPC) will not replay in DGR mode. Putting a screen with an Alarm Viewer control may cause the Alarm Viewer to malfunction.

   **Note:** The Trend Active-X control does work with DGR.

2. DGR cannot replay array points and may malfunction as a result of attempting to do so.

3. The DGR does not replay BYTE, WORD and DWORD points; however it does not generate errors. (Historian).

4. The following attributes are not supported in DGR mode.

- analog_deadband_n
- deviation_ptid
- setpt_check_ptid
- extended_user_flags_high
- extended_user_flags_log