

FIRE

# 4007ES and 4007ES Hybrid Fire Alarm Systems



Programmer's  
Manual

579-1167  
Rev. D

 Simplex



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All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

**IMPORTANT: Verify FACP System Programmer, Executive, and Slave Software compatibility when installing, or replacing system components. Refer to the Technical Support Information and Downloads website for compatibility information.**



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# Chapter 1.

## Getting Started

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**Introduction** The 4007ES Panel Programmer is a software program designed to create “jobs” that are used to configure and program the 4007ES and 4007ES Hybrid Fire Alarm Control Panel (FACP). The 4007ES Panel Programmer must be installed on a computer that can be either physically or remotely connected to the panel.

---

**In this chapter** Requirements and Compatibility ..... 1-1      Installing the Software ..... 1-2  
Downloading the Software ..... 1-1      Starting the Programmer ..... 1-2

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**Requirements and Compatibility**

**Computer requirements:**

The Programmer must be installed on a Computer that has the following requirements:

- Windows XP with SP3 or a more recent operating system.
- Removable media for job archives and backups.
- 1 CD-ROM drive, for access to the documentation CD.
- 1 Ethernet port or optionally 1 serial port & assorted cables for communication with the ES Panel.

**Programmer Requirements:**

To install and open the Programmer, the user must have the following:

- Internet access in order to download the software.
- 

**Downloading the Software**

To download the 4007ES panel programmer software:

1. Connect to Internet.
  2. Connect to the simplex-fire.com Tech Support website (registration is required).
  3. Navigate to the Distributor Support, then Technical Support page.
  4. Once in the Software Download area, click the 4007ES Hybrid. This should be the latest revision of the ES Programmer for the 4007ES panel.
  5. Once the file is loaded a security warning will ask you if you wish to proceed. Click **Run**.
  6. An authorization request to copy the file to your computer’s C Drive appears. Click **OK**. The file *4100ESProg* will then start to download to the C directory of your computer.
-

## Getting Started

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### Installing the Software

#### To install the software:

1. Go to the computer C Drive and open the *4100ESProg* folder.
  2. Double click on the ES programmer executable file (.exe).
  3. The Software Licensing agreement appears. Read the agreement and click **Next** to continue the installation.
  4. A prompt window requesting the user to specify the destination folder for the programmer files appears.
    - Click on the **Next** button to accept the default destination. It is recommended that you choose the default folder Simplex. When the correct entry is specified, click on **Next** to continue.
  5. Progress indicators appear, displaying the progress of the file copy operations.
  6. The next prompt requests that the user restart the computer.
 

**Note:** Before restarting the computer be sure that all open files have been saved.
  7. Click on **Finish** to restart and complete the installation.
- 

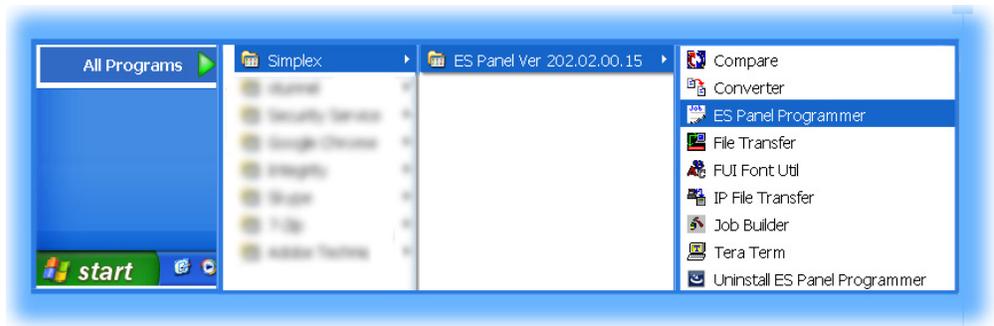
### Starting the Programmer

#### To Start the ES Panel Programmer:

1. Open the Windows Start menu.
2. Click on the All Programs menu.
3. Click on the Simplex menu item.
4. Click on the version of the ES Panel Programmer you want to open and a menu appears.
5. To start the Programmer select *ES Panel Programmer* from the menu.

**Note:** The following options are also available from the ES Panel Programmer menu:

- Compare: This option allows the user to compare job revisions.
- IP File Transfer: This option opens the IP File Transfer menu.
- Job builder: Select this option to build a Job.
- Tera Term: This option opens the Tera Term connection.
- Uninstall ES Panel Programmer: Click on this option to uninstall the ES Panel Programmer.



**Figure 1-1. Starting the ES Panel Programmer**

See page 3-1 for information on how to create a new job.

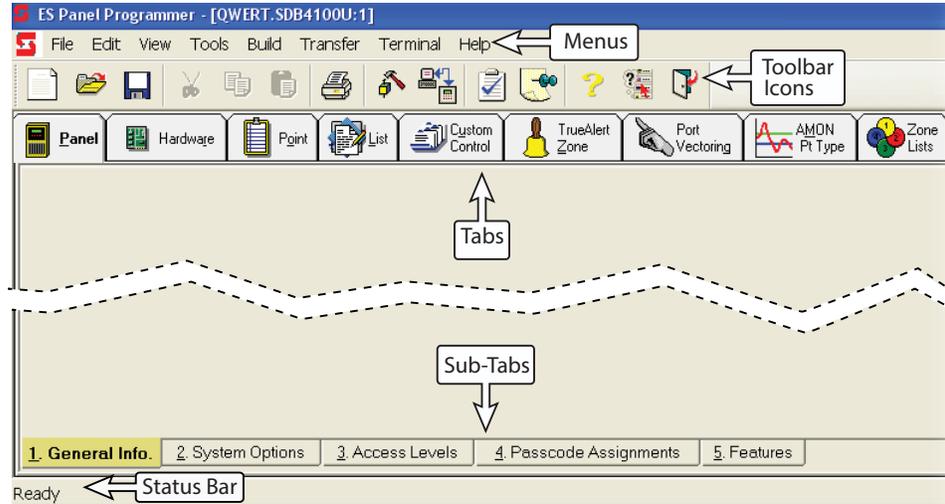
# Chapter 2.

## User Interface

### Introduction

The user interface has menus, icons, tabs, sub-tabs, and a status bar that help the user navigate through the programmer and create jobs.

The following sections detail the user interface and the options associated with each item.



**Figure 2-1. 4007ES Programmer Interface**

### In this chapter

Menus .....	2-1	Toolbar Icons .....	2-4
Tabs and Sub-Tabs .....	2-5	Status bar .....	2-5

### Menus

The menus are located at the top of the ES Panel Programmer:  
Consult the following tables for the description of the menu items.

**Table 2-1. File Menu**

Menu Item	Description	Menu Item	Description
<b>New</b>	Creates a new job.	<b>Archive</b>	Archives the job.
<b>Open</b>	Opens an existing job.	<b>Backup</b>	Backs up the job.
<b>Close</b>	Closes the current job.	<b>Restore</b>	Restores the previous saved version of the job.
<b>Save</b>	Saves the current job.	<b>Export</b>	Allows the user to: • Export data to service sales tools • Export user points to text file • Export XLG point data
<b>Save as</b>	Allows you to copy or rename the current job.		
<b>Reports</b>	Generates a digital job report.	<b>Import</b>	Allow the importation of user points from another file.
<b>View report</b>	Brings up the latest report.	<b>DB Compare</b>	Compares the job to previous revisions of itself.
<b>Print set up</b>	Configures the hard copy print specifications.	<b>Current Job</b>	The name of the current job.
<b>Print Label</b>	Prints labels for the FACP cards.	<b>Exit</b>	Exits the current job.

*Continued on next page*

# User Interface

## Menus

**Table 2-2. Edit Menu**

Menu Item	Description
<b>Cut</b>	Copies and deletes the selected content.
<b>Copy</b>	Copies the selected content.
<b>Paste</b>	Inserts the previously cut or copied material into the selected area.
<b>Preferences</b>	Allows the user to configure certain aspects of the programmer.

**Table 2-3. View Menu**

Menu Item	Description
<b>Revision History</b>	Allows the user to enter notes about the changes made for each revision.
<b>*Tab List*</b>	Click on the option to open the corresponding tab. The choices are: <ul style="list-style-type: none"> <li>• <b>Panel:</b> Allows the user to access the following sub-tabs: General Info, System Options, Access Levels, Passcode Assignments, and Feature.</li> <li>• <b>Hardware:</b> Allows the user to add and remove components and configure their properties.</li> <li>• <b>Point:</b> Allows the user to edit TrueAlert devices.</li> <li>• <b>List:</b> Allows the user to access the following sub-tabs: General List, Latching Supv Verification, Alarm Verification, WalkTest, and Elevator Recall.</li> <li>• <b>Custom Control:</b> Allows the components of the ES Panel FACP to be controlled with user-definable custom control equations.</li> <li>• <b>TrueAlert Zone:</b> Allows the user to view the points in each TrueAlert zone.</li> <li>• <b>Port Vectoring:</b> Allows the user to program cards to output only specific groups of events.</li> <li>• <b>AMON Pt Type:</b> Allows the user to create custom point types.</li> <li>• <b>Zone Lists:</b> Allows the user to view the lists sorted by zone.</li> </ul>
<b>Checklist</b>	Displays a mandatory and an optional checklist that lets the user know which steps have been completed in the programming process.
<b>Toolbar</b>	Click in the checkbox to make the tool bar icons visible.
<b>Status Bar</b>	Click in the checkbox to make the status bar visible.

**Table 2-4. Tools Menu**

Menu Item	Description
<b>Notes</b>	Click to open a note pad where the user can type in notes about the job.

**Table 2-5. Build Menu**

Menu Item	Allows the user to:
<b>Build Job</b>	Build the job.
<b>View Build Log</b>	Click to view the log of previous builds for this job.

*Continued on next page*

## User Interface, *Continued*

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### Menus

**Table 2-6. Transfer Menu**

Menu Item	Allows the user to:
<b>USB</b>	Transfer the job data from the computer to the USB key.
<b>Network</b>	Click on To Panel to transfer the job data to the panel.

**Table 2-7. Terminal Menu**

Menu Item	Allows the user to:
<b>Serial</b>	Enable a serial connection between the FACP and the Perle Box. This option cannot be used for panel serial downloads.
<b>Network</b>	Enable a network connection between the computer and the panel.
<b>Settings</b>	Access the service port connection settings.

**Table 2-8. Help Menu**

Menu Item	Description
<b>Help Topics</b>	Click to access the 4007ES Programmer Help.
<b>About Programmer</b>	Click to access basic information, copyright of the programmer software, and the revision of the programmer being used.

## User Interface, *Continued*

### Toolbar Icons

The toolbar icons are shortcuts to popular programmer commands. Table 2-9 explains each icon and the command it is attached to.

**Table 2-9. Icons and Commands**

Icon	Name	Allows the user to:
	New	Click to create a new job.
	Open	Click to open an existing job.
	Save	Click to save the current job.
	Cut	Click to cut the selected information from its current location.
	Copy	Click to copy the selected information.
	Paste	Click to paste cut or copied data.
	Print	Click to print the current job.
	Build Job	Click to build the current job.
	File Transfer	Click to initiate a file transfer.
	Checklist	Click to make the checklists appear.
	Note	Click to add a note to the job.
	About	Click to access basic information and copyright of the programmer software.
	Help Topics	Click to access the 4007ES Online Help.
	Exit	Click to exit the programmer.

## User Interface, *Continued*

### Tabs and Sub-Tabs

Each tab represents a specific component or feature of the job that must be configured. The tabs are placed in sequential order and should be completed in that order. Certain tabs are made up of multiple sub-tabs that are found at the bottom of the page. All sub-tabs must be opened and configured to complete the job.

**Table 2-10. Tab list**

Icon	Name	Sub-Tabs	Allows the user to:
	<b>Panel</b>	• General Info	Enter and view the general panel and branch information.
		• System Options	Set the system options for the job.
		• Access Levels	View the default user levels for specific tasks. Right click on the user level to view and edit its properties.
		• Passcode Assignments	View and edit the passcode assigned to each user level.
		• Features	Enable or disable certain features with specific dongles and codes.
	<b>Hardware</b>	• Tree View	Display the panel components in a branch structure.
		• Grid View	Display the panel components in a grid structure.
	<b>Point</b>	-NA-	Display the list of all the points in the FACP. Double click on any of the points to view and edit their properties.
	<b>List</b>	• General list	View all the Panel lists.
		• Latching Supervisory Verification	View and edit the items on the Latching Supervisory Verification list.
		• Alarm Verification	View and edit the items on Alarm Verification list.
		• WALKTEST	View and edit the items on the WALKTEST list.
		• Elevator Recall	View and edit the items on the Elevator Recall list.
	<b>Custom Control</b>	• Custom Control	Create custom control equations which allow operations to be customized per job.
		• Floor Above/Floor Below Wizard	Control the areas in which the NACs are activated.
		• Selective Signaling Wizard	Control the NACs that are activated.
		• Sounder/Relay Base Operation Wizard	Customize the default operation of select smoke detectors
	<b>TrueAlert Zone</b>	-NA-	View the points in each TrueAlert zone.
	<b>Port Vectoring</b>	-NA	Assign certain cards to specific groups of events.
	<b>AMON Point Type</b>	-NA-	View the analog monitor (AMON) points.
	<b>Zone Lists</b>	-NA-	View the lists sorted by zone.
	<b>Network</b>	• Network Information	Add and edit the lists of public and external points.
		• Network Points	

### Status bar

The Status bar is found at the bottom of the Programmer window and indicates the:

- Programmer status
- Time



# Chapter 3.

## Working with Jobs

---

### Introduction

A job is a file that contains specific programming and configuration information for the FACP. This chapter explains the basics surrounding creating and saving jobs, however, it is important to consult the following chapter in this document, *Panel Information and Configuration*, for crucial information on how to configure and program the job.

---

### In this chapter

Creating Jobs .....	3-1	Opening Existing Jobs .....	3-2
Setting Job Preferences.....	3-2	Job Notes .....	3-3
Saving Jobs .....	3-3	Building a Job .....	3-3
Archiving a Job.....	3-4	Backing Up a Job.....	3-4

---

### Creating Jobs

When the programmer is opened on a computer for the first time, a prompt window appears automatically requesting that the user create a job. If a job has been previously saved on the programmer it automatically opens when the programmer is started.

#### To create a new job:

1. Start the ES Panel Programmer:
  - If this is the first job saved for the FACP, the New Job window opens automatically.
  - If a previous job opens, click on the New icon or select New from the File menu to open the New Job window.
2. In the New Job window, select the job type:
  - 4007 - for the addressable panel
  - 4007H - for the Hybrid panel.
3. Enter the job number. The job name should be 8 characters long and start with a number.
  - **Year.** This is a two-digit field. Use the last two digits of the current year to indicate the year in which the job is programmed.
  - **Month.** This is a single character field. Use the numbers and letters shown in the example below to indicate the month in which the job is programmed. See Table 3-1.
  - **File Type.** This field is a single letter, used to indicate the panel type. There is currently only a single supported type.
  - **Number.** This is a three-digit field used to track how many of a specific job type have been programmed during the month. For example, if the File type is 4100ES, enter the number of 4100ES jobs programmed during the month.
  - **Job Version.** When archiving a job, you can use letters to differentiate the jobs once they have been archived. For example, once job 103E123A is archived, new edits should be saved to 103E123B.

## Working with Jobs

---

### Creating Jobs

Table 3-1 describes the naming convention format.

**Table 3-1. Job Naming Convention**

YEAR	MONTH	FILE TYPE	NUMBER	JOB VERSION
	1 = Jan	E=4100ES		
	2 = Feb			
	3 = Mar			
	4 = Apr			
	5 = May			
	6 = Jun			
	7 = Jul			
	8 = Aug			
	9 = Sep			
	A = Oct			
	B = Nov			
	C = Dec			
00	5	E	001	A

- Select the path to the file in which the job will be stored.

**Note:** It is preferable that the default folder C:\4100UJOBS be used for job storage.

---

### Opening Existing Jobs

#### To open an existing job:

- Start the ES Panel Programmer.
  - Click on the Open icon or select Open from the File menu to access the Open window.
  - Open the job's folder. It will have the same name as the job.
  - Once in the folder, open the ".SDB4100U" file.
- 

### Setting Job Preferences

#### To set the job preferences:

- Once in the job, open the Edit menu and select Preferences.
  - Preference allows the user to configure the following options:
    - Job: Click on the **Reload Job** checkbox to automatically reload the last saved job each time you start the programmer.
    - Toolbar Icon Size: Use to select large or small icons for the programmer toolbar.
    - Checklist: There are two preference settings for this option.
      - Reminder: If this box is selected, the programmer generates a reminder dialog each time you exit a screen whose corresponding entry in the Programmer Task Checklist has not been marked as complete. For example, if you view the General Information tab and its checklist entry is not marked as complete, the programmer will ask whether you want to mark the task as complete when you exit the screen.
      - Build Warning: Attempting to build a job when all mandatory checklist tasks are not marked as complete causes the programmer to generate warning messages in the job builder screen.
    - Default Central Station Email Address: This option allows you to set the default central station email address used by a per point SDACT. The address that you enter here automatically appears in the email address field of the SDACT card's programming screen.
    - Report Print Cover page: Select this box so that a cover page is printed with every report.
    - Editing Allow mixed case labels (non-English jobs only): This option is made to accommodate the characteristics of non-English languages.
  - Click on **OK** once all the options are set.
-

## Working with Jobs, *Continued*

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### Job Notes

#### To leave a note for the job on the programmer:

1. Once in the job, either click on the Notes icon or open the Tool menu and select Notes.
  2. The Notes window opens and the user can type in relevant job notes. These notes are saved with the job for future reference.
- 

### Saving Jobs

There are two saving options in the programmer, Save and Save As. The Save option is used to save the job in progress, the Save As option is used to save the job with a new name.

#### To save a job with Save:

- Click on the Save icon.
- Open the Edit menu and click on the Save option.

**Note:** When you click on the save option, the programmer overwrites the previous information and there is no way to backtrack to the previous job.

#### To save a job with Save As:

1. Open the File menu and click on the Save As option.
2. Select either the Copy option or the Rename option:
  - Copy: This option saves a copy of the currently open job under a new name in a new directory. This option allows you to open and reuse the previous version.
  - Rename: This option saves the job under a new name and deletes the content of the previous job folder. For example, if a user renames job 333 as job 444, a new job folder named 444 appears and the job folder 333 is empty.

**Note:** Conventionally, performing a Save As > Copy is the first action a technician takes when opening an existing job to create a new revision. This way, if complications arise, the technician can return to the previously saved revision.

---

### Building a Job

A job needs to be “built” before it can be downloaded. This process transforms the .SDB file into a CFG file that is compatible with the FACP.

**Note:** All configuration options and panel information must be complete before building the job. Any errors detected during the build will abort the process.

#### To build a job:

1. Open the job.
  2. Make the programming changes.
  3. Start the build by either clicking on the Build icon or by selecting the Build item from the Build menu.
  4. The Revision History window appears and the user must enter:
    - Their name.
    - A brief description of the edits that were made to the current revision.

Once the information has been entered click on **OK**.
  5. The Job Builder window then appears and displays all the elements in the job and their build status. Once the compilation is complete, the final dialogue in the window will read either:
    - Build Complete: This means the build has been successful and the job is ready to be downloaded to the FACP.
    - Build Aborted: This means that errors were found while the job was being built and that the job build was aborted. The errors that caused the job to abort are listed in the Job Builder window.
-

## System Requirements

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### Archiving a Job

Once a job is archived, it is saved as a read-only .SDA4100U file that can no longer be opened for editing.

#### To archive a job:

1. Save the job.
2. Open the Edit menu and click on the Archive menu item.
3. The Programmer Archive Utility window opens and requests that the user name the file and select the directory to which the file will be saved.
4. Click on **Archive**. A progress meter appears, showing the progress of the operation. When this bar disappears, the archive operation is complete. The archived file is saved as .SDA4100U.

#### To open an archived file:

1. Open the File menu and click on the Restore menu item.
  2. The Programmer Restore Utility window opens. Use the Look In search box to locate the archived file.
  3. Once the file is located, click on it so that its name appears in the File Name box.
  4. Click on **Continue**.
  5. The Browse for Folder window appears and requires that the user select the directory and file to which the file will be restored. It is recommended to use the 4100UJOB Folder.
  6. If a file with that name already exists, the user will be prompted to:
    - Overwrite the existing file
    - Rename the file
    - Cancel the operation: This will result in an error file and the programmer will return to the last saved job.
  7. The archived file will then open as a read-only job. To save the job as a different version in the 4100U folder, the user must use the Save As function.
- 

### Backing Up a Job

Backing up a job creates a compressed version of the job and stores it as a read/writable .SDC4100U file on either a removable storage medium or a remote disk.

#### To back up a job:

1. Open the File menu and select the Backup menu item.
2. The Programmer Backup Utility window opens and requests that the user name the file and select the directory to which the file will be saved.
3. Click on **Backup**. A progress meter appears, showing the progress of the operation. When this bar disappears, the backup is complete.

#### To restore a Backup file:

1. Open the File menu and click on the Restore menu item.
  2. The Programmer Restore Utility window opens. Use the Look In search box to locate the backup file.
  3. Once the file is located, click on it so that its name appears in the File Name box.
  4. Click on **Continue**.
  5. The Browse for Folder window appears and requires that the user select the directory and file to which the file will be restored.
  6. If a file with that name already exists, the user will be prompted to:
    - Overwrite the existing file
    - Rename the file
    - Cancel the operation
  7. The backup file will then open as normal job.
-

# Chapter 4.

## Panel Information and Configuration

### Introduction

This section focuses on items found in the Panel tab. Information in this section must be completed and the options must be configured before the job is successfully built.

### In this chapter

Notice to users, Installers, AHJ, and other Involved Parties .....	4-1	Panel Information .....	4-1
Passcode Configuration .....	4-8	System Options .....	4-2
Features Configuration .....	4-8	User Access Level Configuration .....	4-7

### Notice to users, Installers, AHJ, and other Involved Parties

This product incorporates field programmable software. In order for the product to comply with the Standard for Control Units and Accessories for Fire alarm systems, UL864, certain programming features or options must be limited to specific values or not used at all as indicated in Table 4-1.

**Table 4-1. Programming Features and Options**

Program Feature or Option	Permitted in UL864? (Y/N)	Possible Settings	Settings Permitted by UL
Editing group properties DC group tab	Yes	ON until completion ON until RESET ON until SILENCE	ON until completion
Editing Custom Control equations that change sensitivity levels (set Alarm Thresholds) for ISN- 550 Photo smoke detectors	Yes	3.1 2.6 2.2 1.8 1.4 1.0	3.1 2.6 2.2
LVSUPV - Latching Verified Supervisory Smoke Detector	No		
LVSDUCT - Latching Verified Supervisory Duct Smoke Detector	No		
MACOFIRE - Carbon Monoxide Fire Algorithm	Yes	COFIRE, COPRI2 COSUPV, UTILITY	COSUPV UTILITY
Suppression Release Wizard	Yes	Immediate Release (No Delay), 10 Second Delay, System Reset after GREATER of remaining time or 10s, IRI Abort, Reset Original Time Delay, NYC	Immediate Release (No Delay), 10 Second Delay, System Reset after GREATER of Remaining time or 10s

### Panel Information

Panel information provides identification reference for the technicians who created the jobs.

#### To enter the panel information:

1. Click on the Panel tab and select the General Information sub-tab.
2. Fill out the information requested on the page:
  - Panel Information: This section requests information about the panel.
  - Branch Information: This section requests information about the branch of the company and other useful information.

*Continued on next page*

## Panel Information and Configuration, *Continued*

### Panel Information

- Programmed by: This section requests information about the people who programmed the FACP (branch, customer information).
- Hardware Edit Lock: When this option is checked, the user cannot add or remove any hardware.
- Comment: Enter any comments about this specific FACP.

### System Options

ES Panel System Options are global attributes that allow the user to configure specific application options as well as configure certain elements of the panel's display.

#### To access the System Options screen:

1. Click on the Panel tab and select the System Options sub-tab.
2. Configure the options that appear on the page. The following tables list and define the different options.

**Table 4-2. General System Options**

Option	Description (“dflt” indicates the default setting)
<b>Date Format</b>	<ul style="list-style-type: none"> <li>• Select <b>MM-DD-YY</b> <sup>dflt</sup> for the panel to display the date by month, day, and year (example: January 4th 2013 = 01-04-13).</li> <li>• Select <b>DD-MM-YY</b> for the panel to display the date by day, month, and year (example: January 4th 2013 = 04-01-13).</li> </ul>
<b>Time Format</b>	<ul style="list-style-type: none"> <li>• Select <b>12 Hour</b> <sup>dflt</sup> for the panel to display the time as “a.m.” and “p.m.” (example: 6:00 a.m., 6:00 p.m.)</li> <li>• Select <b>24 Hour</b> for the panel to display the time on a 24h clock (example: 6h00, 18h00.)</li> </ul>
<b>Unit Format</b>	<ul style="list-style-type: none"> <li>• Select <b>Fahrenheit</b> <sup>dflt</sup> for the panel to display Imperial units. (example: 96 °F, 6 ft)</li> <li>• Select <b>Centigrade</b> for the panel to display Metric units. (example: 36 °C, 1.83 m)</li> </ul>
<b>Acknowledge Option</b>	<ul style="list-style-type: none"> <li>• Select <b>Global acknowledge</b> <sup>dflt</sup> to allow every point reporting the same alarm state (alarm, trouble, priority 2, or supervisory condition) to be acknowledged at once by pressing the according Acknowledge button. (Example: If 5 Trouble conditions are present on the system and global acknowledge is enabled, one press of the <b>Trouble Ack</b> button acknowledges all five Troubles at the same time.)</li> <li>• Select <b>Individual Acknowledge</b> to ensure that each point reporting an alarm state must be acknowledged individually. (example: If five Trouble conditions are present, acknowledge each one individually.)</li> </ul>
<b>Standard</b>	Select the system listing standard. The options are: <ul style="list-style-type: none"> <li>• None <sup>dflt</sup></li> <li>• UL (US)</li> <li>• ULC (Canada)</li> </ul>

*Continued on next page*

## Panel Information and Configuration, *Continued*

### System Options

Table 4-2. General System Options (Continued)

Option	Description ("dflt" indicates the default setting)
<b>Service Reset</b>	<p>Select <b>Service Reset</b> to allow an operator to reset the system even though the device causing the alarm has not restored to normal.</p> <p>The typical application for this would be when a malfunctioning initiating device (detector or sensor consisting of a base and removable head) causes an alarm, but will not reset even though the off-normal condition is no longer present. With this option enabled, the head can be removed and the system (including the local energy masterbox, if provided) can be reset. Without this option enabled, removing the head will cause the system to abort the reset because it will not have seen the alarmed point/zone having restored to a normal state, and it will not be possible to reset the local energy masterbox. The default setting for this option is disabled.</p>
<b>Combined Alarm and Hardware Reset</b>	<p>If checked, pressing the <b>Reset</b> button performs an alarm reset followed by a hardware reset. If this option is not selected, an alarm reset is performed if there are fire alarms or supervisories in the system. Otherwise, a hardware reset is performed.</p>
<b>Display First Alarm</b>	<p>When this option is selected, the display alternates between the summary screen (with the number of active alarms, troubles, etc.) and the screen showing detailed information on the first alarm received by the system.</p> <p>If this option is not selected, the screen indicating the number of alarm conditions on the system is displayed.</p>
<b>Non Steady Audible Evac</b>	<p>When enabled, this option allows you to select the type of operation for Non Steady Audible Evacuation Signals. The term Non Steady Audible Evacuation Signal refers to any Notification Appliance capable of sounding a coded signal. The default setting for this option is not enabled. Choices are:</p> <ul style="list-style-type: none"> <li>• <b>California Code 1.</b> A coding pattern consisting of 12 beats within a 10 second span of time, followed by a 2 ½ second pause. This sequence repeats four times (four rounds) and then terminates (i.e., the total coding pattern lasts approximately one minute).</li> <li>• <b>California Code 3.</b> Same coding pattern as California Code 1, however the sequence repeats 12 times (12 rounds) and then terminates (i.e., the total coding pattern lasts approximately three minutes).</li> <li>• <b>Fast March Time.</b> A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.</li> <li>• <b>March Time.</b> A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.</li> <li>• <b>Slow March Time.</b> A coded signal that uses 20 beats per minute. Each beat consists of 1.5 second pulse on, 1.5 second off. Pattern repeats until alarm silence.</li> <li>• <b>Temporal 4.</b> A CO gas warning that is a repeated sequence of four cycles of 100 msec on with 100 msec off, followed by 5 seconds off.</li> <li>• <b>Temporal.</b> A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.</li> <li>• <b>On Steady.</b></li> </ul> <p><b>Note:</b> If the coding pattern selected here is not supported by the notification appliance, it will be replaced by a default one.</p>

*Continued on next page*

## Panel Information and Configuration, *Continued*

### System Options

**Table 4-2. General System Options, *Continued***

<b>Non Steady Visual Evac</b>	<p>When enabled, this option allows you to select the flash pattern output by Non Steady Visual Signals. The term Non Steady Visual Signal refers to any Visual Notification Appliance capable of emitting a pattern of flashes (such as incandescent visuals). The default setting for this option is not enabled.</p> <p>Choices are:</p> <ul style="list-style-type: none"> <li>• <b>March Time.</b> A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off.</li> <li>• <b>Slow March Time.</b> A coded signal that uses 20 beats per minute. Each beat consists of 1½ second pulse on, 1½ second off.</li> <li>• <b>Temporal.</b> A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence.</li> </ul> <p><b>Note:</b> This option cannot be used for public mode signaling as defined in Section 4-4 of NFPA 72-99.</p>
<b>Alarm Cutout Timer</b>	<p>This option allows you to set a duration (up to 60 minutes) that specifies how long signals sound following an alarm. For example, with this option set at 2 minutes, building signals sound for two minutes and then automatically stop. After the signals stop, the alarm condition remains active at the panel.</p> <p>If Alarm Silence/Reset Inhibit option is active, it takes precedence over this option. See description of Alarm Silence/Reset Inhibit below for more information.</p> <p>The range for this option is 60-3600 seconds. The default setting for this option is not enabled. Set the point type for visual NACS to SVISUAL to have them turn off at the same time as the audible signals.</p> <p><b>Note:</b> See Appendix A for ULC Programming requirements when using this feature for ULC applications.</p>
<b>Alarm Silence/Reset Inhibit</b>	<p>This option disables the <b>Alarm Silence</b> and <b>System Reset</b> buttons for a user-definable duration that ranges from 1 to 60 minutes. The timer is activated only by the first alarm (i.e., subsequent alarms do not reset the timer).</p> <p>If this option and the Alarm Cutout Timer are both enabled, this option takes precedence. For example, if the Alarm Cutout Timer is set to one minute and this option is set to 2 minutes, signals continue to sound after one minute.</p> <p>The default setting is not enabled.</p> <p><b>Note:</b> This option must be enabled for Canadian jobs.</p>
<b>Door Drop on AC Fail</b>	Option is grayed out
<b>Door Drop on Alarm</b>	Option is grayed out
<b>AC Failure Delay</b>	Specifies the time delay (HH:MM) in reporting an AC failure trouble to the city circuit (if AC fail is the only trouble) or Central Station if an SDACT is installed.
<b>Auto Set Panel Time and Date</b>	The time and date that appeared on the panel before the CFGI DOWNLOAD are automatically set after download is complete. This option will not work if the time/date was not set prior to the download (i.e. system time/date invalid trouble at the panel).

*Continued on next page*

## Panel Information and Configuration, *Continued*

### System Options

Table 4-3. Active Status Reminder System Options

Option	Description
<b>Fire Reminder</b>	<p>The Fire Reminder option programs the system to periodically sound the piezo if an uncleared Alarm condition exists at the panel, thereby reminding system operators about the uncleared condition.</p> <p><b>By default, this option is enabled and the Resound Time is set to 8:00.</b></p> <p>To modify the Active Status Reminder settings, do the following:</p> <ol style="list-style-type: none"> <li>1. Make sure the box labeled <b>Enabled</b> is checked.</li> <li>2. Set the interval at which the piezo should sound. The range is from 0 to 18 hours. The default is 8 hours.</li> </ol>
<b>Pri2 Reminder</b>	<p>The Pri2 Reminder option programs the system to periodically sound the piezo if an uncleared Priority 2 Alarm (security) condition exists at the panel, thereby reminding system operators about the uncleared condition.</p> <p>By default, this option is enabled and the Resound Time is set to 8:00.</p> <p><b>To modify the Active Status Reminder settings, do the following:</b></p> <ol style="list-style-type: none"> <li>1. Make sure the box labeled <b>Enabled</b> is checked.</li> <li>2. Set the interval at which the piezo should sound. The range is from 0 to 18 hours. The default is 8 hours.</li> </ol>
<b>Supv Reminder</b>	<p>The Supv Reminder option programs the system to periodically sound the piezo if an uncleared supervisory condition exists at the panel, thereby reminding system operators about the uncleared condition.</p> <p>By default, this option is enabled and the Resound Time is set to 8:00.</p> <p><b>To modify the Active Status Reminder settings, do the following:</b></p> <ol style="list-style-type: none"> <li>1. Make sure the box labeled <b>Enabled</b> is checked.</li> <li>2. Set the interval at which the piezo should sound. The range is from 0 to 18 hours. The default is 8 hours.</li> </ol>
<b>Trbl Reminder</b>	<p>The Trbl Reminder option programs the system to periodically sound the piezo if an uncleared Trouble condition exists at the panel, thereby reminding system operators about the uncleared condition.</p> <p><b>By default, this option is enabled and the Resound Time is set to 8:00.</b></p> <p>To modify the Active Status Reminder settings, do the following:</p> <ol style="list-style-type: none"> <li>1. Make sure the box labeled <b>Enabled</b> is checked.</li> <li>2. Set the interval at which the piezo should sound. The range is from 0 to 18 hours. The default is 8 hours.</li> </ol>
<b>Local Annunciation</b>	<p>If there is a per point serial DACT in the system, this setting specifies whether the piezo on the local panel will sound. This option is useful in situations where the panel is located in a public area (such as a lobby) and the occupant does not want the piezo repeatedly sounding.</p>

## Panel Information and Configuration, *Continued*

### System Options

**Table 4-4. Recurring Trouble Filter System Options**

<b>General Description:</b> These options stop a recurring trouble event from continuously dialing the central station or from generating SafeLINC email events if the programmed criteria are met (number of occurrences of that point in the trouble log within the specified elapsed time frame).	
Option	Description
<b>Occurrences</b>	Number of times the point is found in the Trouble log (0=no filtering; default for pre-existing jobs upgraded to 12.06). Value is selectable from 0 and 2 to 10. By default, it is set to 3.
<b>Elapsed Time</b>	Number of minutes in which the Troubles must be found. Value is selectable from 1 to 1440 minutes. By default, it is set to 60.

**Table 4-5. Addressable Appliances Preferred Default System Options**

<b>General Description:</b> This option allows <b>System Options</b> to be selected for TrueAlert ES appliances that can be configured identically or independently through the ES Programmer software.	
To use the System Options to configure TrueAlert ES appliances:	
<ul style="list-style-type: none"> <li>• The appliance's jumpers and configuration switches must be set to the correct setting. For example, if a specific candela value is selected in the system options, the device should be set to FACP. On the other hand, if system option is set to "Hardware", the candela flag at the device should be set to any other position than FACP.</li> <li>• The appliance's candela and coding type in the power supply's Point Editing tab in the programmer must be set to "System Default".</li> </ul>	
When a specific candela value is selected, that value applies to all compatible appliances that have their configuration switches set to FACP*.	
When Hardware Specified is selected, it is the appliance's locally configured candela value that is used.	
Option	System Options
<b>Candela</b>	<ul style="list-style-type: none"> <li>• 15 cd</li> <li>• 20 cd</li> <li>• 30 cd</li> <li>• 75 cd</li> <li>• 110 cd</li> <li>• 135 cd</li> <li>• 185 cd</li> <li>• Weather Proof 75 cd</li> <li>• Weather Proof 185 cd</li> <li>• Hardware Specified</li> </ul>
<p><b>*Note:</b> When a specific candela value is selected, a warning window appears to notify the user that in the event that an appliance cannot be set to the selected Preferred Default System Option, a compatible default value is assigned to the device by the programmer.</p> <p>For example: If the System Option is set to 20 cd and there is a UL Weatherproof device (that has no 20 cd setting), the Programmer assigns a value of WP75 cd to the UL weatherproof device.</p>	

*Continued on next page*

## Panel Information and Configuration, *Continued*

### System Options

**Table 4-5. Addressable Appliances Preferred Default System Options, *Continued***

Assigned Candela Value	Value for Indoor Appliances	Value for Weatherproof, UL	Value for Weatherproof, ULC
15 cd	15 cd	15 cd	20 cd
20 cd	30 cd	WP75 cd	20 cd
30 cd	30 cd	WP75 cd	30 cd
75 cd	75 cd	75 cd	75 cd
110 cd	110 cd	WP185 cd	75 cd
135 cd	135 cd	WP185 cd	75 cd
185 cd	185 cd	WP185 cd	75 cd
WP75 cd	75 cd	WP75 cd	75 cd
WP185 cd	185 cd	WP185 cd	75 cd
<b>HARDWARE</b>	Device candela jumper setting determines the output.		

**Table 4-6. Compatible Alert Tone Value**

Assigned Tone	Compatible Tone for Appliances
Broadband / 520HZ / Slow Whoop / Bell / Siren / Hi / Lo / Chime / Hardware Specified	Temporal coding and Broadband tone.

### User Access Level Configuration

User access levels can be configured on the programmer for display functions to determine their access level.

Each access level automatically has access to the level below it. For example, a technician authorized for level 1 is only able to access functions that are tagged as level 1. A technician with a level 3 authorization level however, has access to functions tagged as levels 1, 2 and 3.

**Note:** Passcodes can be attributed to user levels 2, 3, and 4 to restrict the access to certain functions. For more information consult the Passcode Configuration section.

#### To associate user levels with a display function:

1. Click on the Panel tab and select the Access Levels sub-tab.
2. Double click on the table entry to open its Object Properties window.
3. Select one of four user levels for the display function. Basic display functions, such as System Reset and Change Time and Date, are usually assigned to user level 1. More sensitive display functions, such as Remote Download, are typically assigned to user level 2, 3, or 4.
4. Click on **OK** to confirm the selection.

## Panel Information and Configuration, *Continued*

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### Passcode Configuration

Numeric passcodes can be created to grant specific access level to up to 20 different operators. Each access level automatically has access to the level below it. For example, a technician authorized for level 1 is only able to access functions that are tagged as level 1. A technician with a level 3 authorization level however, has access to functions tagged as levels 1, 2, and 3.

#### To create a passcode:

1. Click on the Panel tab and select the Passcode Assignments sub-tab.
  2. Double-click on a table entry to open Object Properties window.
  3. Enter a passcode, composed of up to ten numbers.
  4. Assign the access level to the passcode.
  5. Click on **OK** to confirm the selection.
- 

### Features Configuration

The Features sub-tab provides information on the functionalities of the ES Panel Programmer which can be used with the software key currently plugged into the Programmer PC.

#### To configure the functionalities:

1. Click on the Panel tab and select the Features sub-tab. The usable features are listed in the Programmer/Runtime Features window.
2. To enable the options under Programmer and Runtime on the left panel, enter the software key provided by an authorized Simplex representative with the appropriate access codes.
3. Click on **Update Access Codes** to complete the action.

**Note:** This sub-tab also prompts the user to enter the CPU Number. To get the CPU number, from the panel, press on Menu > System info > Panel Serial Number. Enter the number in the designated box.

# Chapter 5.

## Specifying Hardware Components

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### Introduction

The hardware components that are part of the FACP must be entered into the programmer so that the user can configure their properties according to the job requirements.

This chapter explains how to add and remove the hardware elements that are entered into the programmer.

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### In this chapter

Hardware Tab Overview.....	5-1	Adding Hardware.....	5-2
Adding a City/Relay Card .....	5-3	Adding the Additional IDNet Loops .....	5-3
Removing Hardware.....	5-3	Editing Properties .....	5-3
Annunciator Numbers.....	5-4	Annunciator Number Sharing Rules.....	5-4
Editing Basic Card Properties.....	5-5		

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### Hardware Tab Overview

The Hardware Tab Window uses a drag and drop interface, consisting of a palette of available icons on the right-hand side of the screen and a work area on the left-hand side of the screen. There are two available views:

- **Tree View:** This view displays the hardware in a branch structure. The hardware appears linked to the bay into which it is installed.
- **Grid View:** This view displays the hardware in a grid structure and groups the hardware by type. This view also features search and sorting options for elements already added to the FACP.

## Specifying Hardware Components

### Hardware Tab Overview

Table 5-1 lists the available hardware icons and their descriptions.

**Table 5-1. Hardware Tab Icons**

Icon	Meaning
<b>Panel Icon</b> 	<p>This icon permanently resides in the top left corner of the work area. The panel icon represents all of the non-networked, RUI-linked components controlled by a single CPU. A single panel may, for example, actually be multiple boxes, some residing at one location and some at another location.</p> <p>Highlighting this icon and hitting Shift-Right Arrow at the same time expands the entire hardware tree.</p>
<b>Unit Icon</b> 	<p>The unit icon does not represent actual equipment. It corresponds to a location at which the box resides.</p> <p>Click on the + sign to expand the contents of a unit and see the box.</p>
<b>Box Icon</b> 	<p>The box icon typically represents a standard bay box. There is also an option that represents a custom box.</p> <p>Click on the + sign to expand the contents of the box.</p>
<b>Logical Card Icon</b> 	<p>Logical cards are not hardware; instead they represent all of the analog pseudo points, digital pseudo points, or lists used on the system.</p> <p>Double click on the card to access its properties.</p>
<b>Physical Card Icon</b> 	<p>Physical cards are actual hardware, including: monitor, signal, relay, annunciator, display, interface, and power cards.</p> <p>Double click on the card to access its properties.</p>
<b>LED Module Icon</b> 	<p>This icon represents the fixed-48 LED Module. The module is installed directly in a recess of the dress panel.</p> <p>Double click on the card to access its properties.</p>

### Adding Hardware

There are two ways to add a hardware component to the programmer:

- Drag and drop
- Right click + add

#### To add a hardware component to the programmer using drag and drop:

1. Locate the hardware component that you want to add from the Available Hardware window on the right of the programmer screen.
2. Click on the hardware and drag it into the Hardware Configuration window on the left of the programmer screen, into the proper directory:
  - Units must be placed in panel icons.
  - Boxes must be placed in units.
  - Cards must be placed in boxes.
3. When the component is in the proper place, release the mouse. If the component was successfully added, it appears in the Hardware Configuration menu. If the component cannot be added to the configuration, an error message appears with the problem diagnosis.

## Specifying Hardware Components, *Continued*

### Adding Hardware

**To add a hardware component to the programmer using click + add:**

1. Right click in the Hardware component window. An action list appears.
2. Select the type of hardware you want to add to the programmer from the action list:
  - Add Unit: The Unit Properties box automatically opens.
  - Add Box: The Add Box window opens and displays the available boxes.
  - Add Card: The Add Card window opens. Use the drop-down menus to select the card you want to add. If the card cannot be added to the configuration, an error message appears with the problem diagnosis.

To add multiple boxes or cards at one time, use the right-click method. Specify the number of boxes/cards to add in the Quantity field.

### Adding a City/ Relay Card

**To add a City/Relay card:**

1. In the Hardware Configuration window, double click on the IDNAC or the NAC power supply component.
2. Click on the Data Entry tab.
3. Select the radio button that corresponds to the card you want to add (City connect or Relay).

### Adding the Additional IDNet Loops

**To add additional loops in the IDNet expansion loop card:**

1. In the Hardware Configuration window, double click on IDNAC power supply, then double click on IDNet+ Multiloop.
2. Click on the Loop Editing tab.
3. Select the first unused card 2: loop B isolator.
4. Change the device type to Isolator/Expanded point capacity.
5. Repeat steps 3 and 4 with the second unused card 2: loop C isolator.

### Removing Hardware

**To remove hardware components from the programmer:**

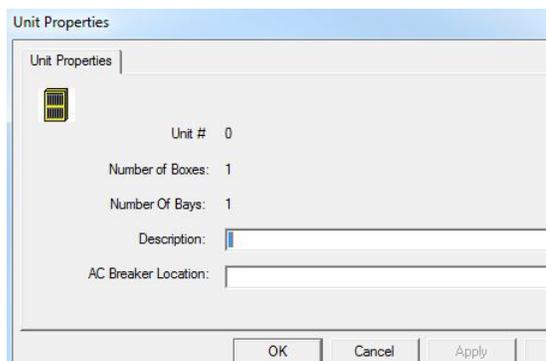
1. Locate the hardware component in the Hardware Configuration window.
2. Right click on the hardware to open the action list.
3. Select **Delete**.
4. A warning message appears warning you that deleting a hardware component deletes all references to that component. Click **Yes** if you wish to continue. If the component cannot be deleted, a second warning appears with the specifics of why the component cannot be deleted.

**Note:** Before deleting a hardware component, it is important to evaluate that component's role in the programmer and make sure that all other elements attached to that component have been redirected.

### Editing Properties

To access the Properties dialog, right click on a Unit icon in the work area and then click on **Properties**. For more information on the cards and modules' Properties window, refer to Chapter 6. For the Box Properties window, refer to Figure 5-1.

- Description: Enter descriptive text for the unit.
- AC Breaker Location: Enter the location of the breaker to which the power supplies within the unit's boxes connect.



**Figure 5-1. Box Properties Window**

## Specifying Hardware Components, *Continued*

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### **Annunciator Numbers**

Every card in a 4007ES Panel job must have an associated annunciator number, whether it is an annunciator or not. Annunciator numbers are assigned in the following manner: when a new unit is added to a job, the unit is assigned the next available annunciator number.

When the first annunciator card is added to such a unit, it also assumes the unit's annunciator number.

As additional annunciators are added to the unit, there are several cases where the annunciators share their annunciator numbers. Any additional annunciator cards of the same type added to the same unit also shares this number.

When an additional annunciator card of a different type is added to the unit, that annunciator card is given an annunciator number distinct from the number assigned to the earlier annunciator type.

A card's annunciator number is important for correct LED Switch operation. For example, a lamp test switch only lights lamps/LED on cards with the same annunciator number.

Exception to the rules above:

- Internal and external LCD Annunciators require their own annunciator number and do not share numbers even with their own kind.

---

### **Annunciator Number Sharing Rules**

These rules apply to the annunciator sharing arrangement:

**AN Rule 1** - The CPU is annunciator number 0.

**AN Rule 2** - Annunciators of the same type in the same unit share annunciator numbers.

## Specifying Hardware Components, *Continued*

### Editing Basic Card Properties

All cards, regardless of whether they are the standard system cards (such as the system power supply) or an option card, include the basic properties. The basic card properties are listed below.

- **Card Address.** A unique number used to identify the card within the system. This number must correspond to the card address dip switch settings on the card.
  - Address 001 IDNAC/NAC power supply
  - Address 002 IDNet and multiloop
  - Address 003 Color user interface

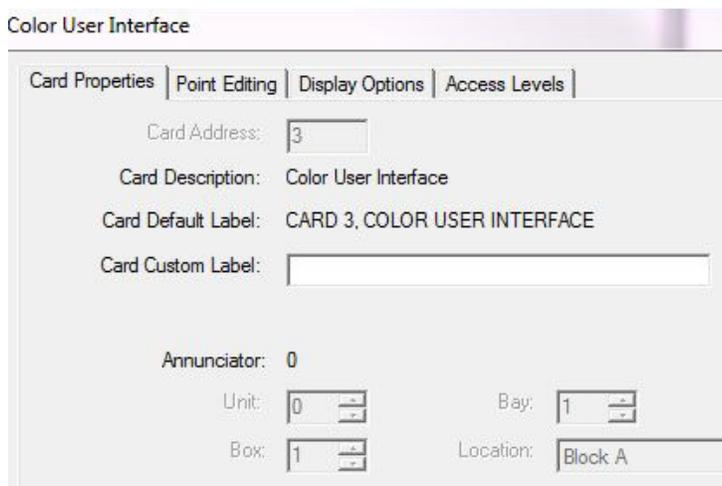
**Note:** It is usually easier to first add the card to the job with the programmer and then set the dip switches with the address automatically assigned by the programmer.

- **Card Custom Label.** This field describes the card's function, location, or some other descriptive text.
- **Unit, Box, Bay, and Block (location).** The values shown in the fields reflect the location in which the card icon was placed when you added it with the programmer. It is possible to change these values; however, the new values must reflect the new physical location of the card.

**To gain access to the Card Properties dialog, do *either* of the following:**

- Double click on any card icon in the work area.
- Right click on any card in the work area. When the list of choices appears, click on **Properties**.

A window similar to Figure 5-2 appears.



**Figure 5-2. Card Properties Window - Color User Interface shown as example**

Edit these fields as follows:

- Enter a descriptive name in the Card Custom Label field.
- Use the Unit, Box, Bay, and Location (block) fields to change this information if necessary. If you specify invalid information (for example, attempt to assign a card to a fully populated bay), the programmer outputs an error message to indicate the problem.



# Chapter 6.

## Editing Standard Component Properties

**Introduction** 4007ES panels come equipped with a standard set of hardware components. This chapter details the programming for those cards.

<b>In this chapter</b>	Accessing Properties.....	6-1	Editing the IDNET Multiloop.....	6-7
	Editing the Unit Properties .....	6-1	Editing the NAC Power Supply.....	6-9
	Editing the CPU .....	6-1	Editing the Zone/Relay Card .....	6-11
	Editing the Color User Interface .....	6-3	Editing the Serial DACT Card Per Point .....	6-13
	Editing the IDNAC Power Supply.....	6-5	Editing the Event DACT Card.....	6-15
	48-LED Module.....	6-17		

- Accessing Properties**
1. Open the Hardware tab.
  2. Select the hardware component from the Hardware Configuration window and double-click on it to open the editing window.

**Editing the Unit Properties**

Each 4007ES panel set-up automatically requires a unit in the programmer.  
**To edit the unit:**  
 The Unit Window requests that the user enters the following information:

- Description: Enter a description that identifies the particular FACP.
- AC Breaker Location: Enter the location of the breaker that powers the unit's power supply.

**Editing the CPU**

The 4007 CPU window has three main tabs to edit. The Card Properties tab, the Service Port tab, and the Ethernet tab.

**To edit the Card Properties tab (Figure 6-1):**

Enter the card's custom label. This label should make the card easily identifiable.

The following fields in the tab are filled by the programmer and cannot be edited:

- Card address
- Card description
- Card default label
- Annunciator address
- Unit number
- Box number
- Bay number
- Location

**To edit the Service Port tab (used as an output for ExacTech and TrueInsight):**

1. Configure the communication settings by selecting the Baud Rate, Parity, Data Bits, and Stop Bits fields to the values required by the attached device. It is recommended that you use the following default settings whenever possible.

- Baud Rate: 115,200
- Data Bits: 8
- Stop Bits: 1
- Parity: None

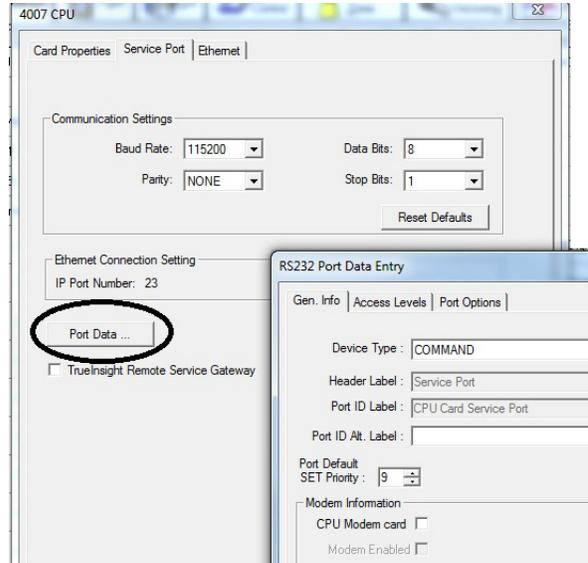
2. Click on the **Port Data** button. The RS323 Port Data Entry window opens (Figure 6-1).

*Continued on next page*

## Editing Standard Component Properties, *Continued*

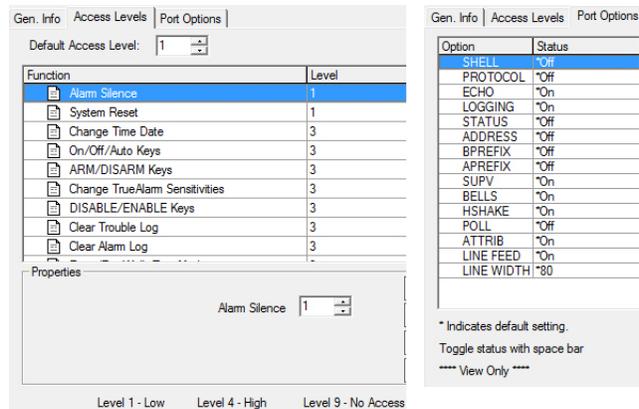
### Editing the CPU

- Click the Gen. Info tab. Enter the information requested. Click on **Apply** and then **OK** to confirm the selection (Figure 6-1).
  - Device Type:** For a CPU card service port, this field is permanently set to **COMMAND**.
  - Header Label:** This field specifies the first line of banner text that appears at the top of the CRT screen.
  - Port ID Label:** This field specifies the second line of banner text that appears at the top of the CRT screen. It is typically used to designate the port connection. For example, "Port 2, Command Center."



**Figure 6-1. 4007 CPU - Gen Info Tab**

- Port Default SET Priority CPU Card Only:** This is the system priority level assigned to commands issued from the service port. The range is 2 to 15 and the default is 9.
- Click on the Access Level tab in the RS232 Port Data Entry window (Figure 6-2). This tab allows you to set the access level for the various system operations that can be carried out via the service port. To set an access level for one of the service port operations, scroll through the list of functions and highlight the function. Use this control to associate an access level with the function. Click on **Apply** and then **OK** to confirm the selection.



**Figure 6-2. 4007 CPU Access Levels and Port Options**

**Note:** These access levels apply only to actions performed through the service port, not for operations made at the panel display.

- Click on the Port Options tab in the RS232 Port Data Entry window. This tab contains options that apply to the way data appears on the display connected to the service port. These are read-only fields. Click **OK** to return to the Service Port tab.
- Click in the TrueInsight Remote Service Gateway box to enable the use of the Remote Service Gateway.

#### To edit the Ethernet tab:

- Click the Use Default box or enter the name that the building network has attributed to the FACP.
- Click on **Apply** to confirm the selection.

## Editing Standard Component Properties, *Continued*

### Editing the Color User Interface

The Color User Interface window has five main tabs to edit. The Card Properties tab, Annunciator Settings tab, the Point Editing tab, the Display Options tab, and the Access Level tab.

#### To edit the Card Properties tab:

1. Enter the card's custom label. This label should make the card easily identifiable.
2. If required, select a unit, a box, and a bay number.

The following fields in the tab are filled by the programmer and cannot be edited:

- Card address
- Card description
- Card default label
- Annunciator address
- Location

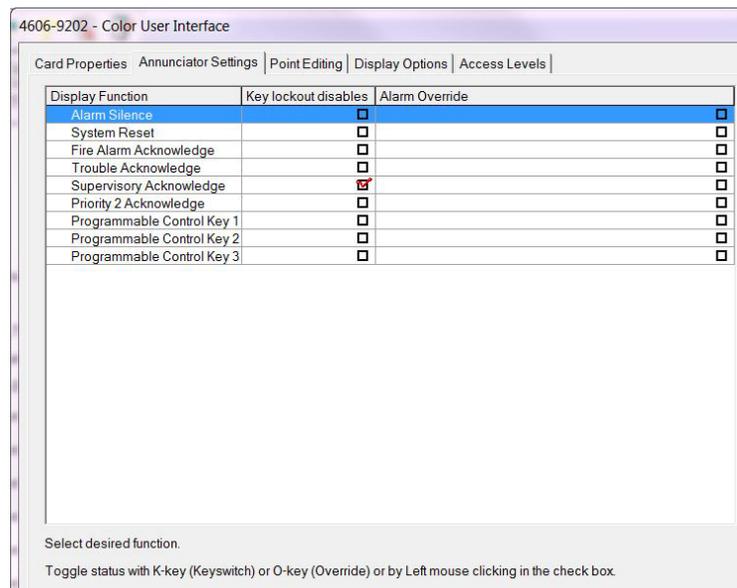
#### To edit the Annunciator Settings tab

The annunciator settings for a remote color touchscreen LCD annunciator determine the operation of the keyswitch. By default, the operations are disabled, except:

- Fire Alarm Display/scrolling
- Supervisory display/scrolling
- Disable display scrolling

To set the properties:

1. Click on the Hardware tab.
2. Expand the unit, the box, and the bay combination in which the annunciator resides.
3. Double click on the annunciator's icon.



**Figure 6-3. Color User Interface - Annunciator Settings Tab**

4. Click on the Annunciator Setting tab (see Figure 6-3).
5. This sheet has a series of rows on the left, identifying the functions that can be performed from the annunciator. Each row has two checkboxes: Keyswitch Required and Override on Alarm. Check or uncheck these boxes, using the following guideline.
  - Keyswitch Required. A checkmark in the Keyswitch Required box to the right of a function's row indicates the function is ignored unless a key is inserted in the annunciator's key switch and the position of the key is on.
  - Override on Alarm. A checkmark in the Override on Alarm box to the right of a function's row indicates that if the Key Switch Required box is checked, the key switch is not required during an alarm situation.

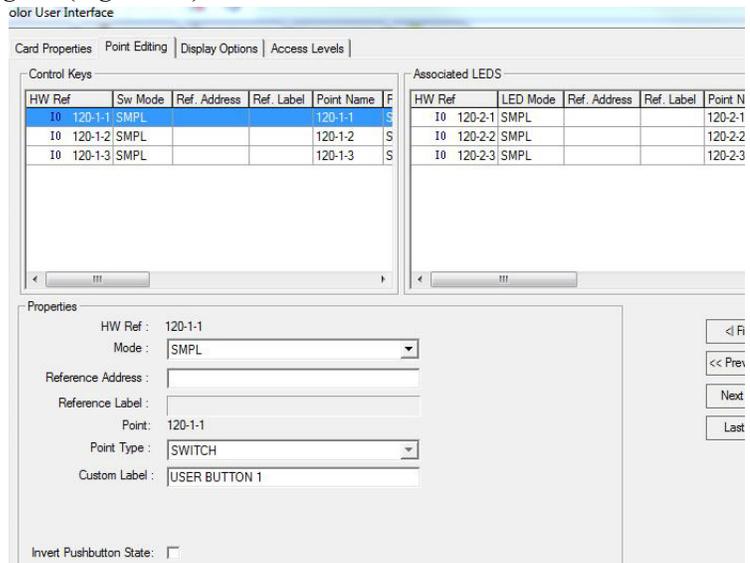
## Editing Standard Component Properties, *Continued*

### Editing the Color User Interface

#### To edit the Point Editing tab (Figure 6-4):

For each control key:

1. Select a switch mode from the drop-down list.
2. Enter a reference address. Press F9 to access the TagList window.
3. Edit the point's custom label if required. This label should make the point easily identifiable.
4. Check the Invert Pushbutton State box to switch down the point.



**Figure 6-4. Color User Interface - Point Editing Tab**

The following fields in the tab are filled by the programmer and cannot be edited:

- Reference Label
- Point
- Point Type

For each LED:

1. Select the appropriate mode from the drop-down list.
2. Enter a reference address.

**Note:** Depending on the switch mode, a LED can be associated to a control key. To do so, the reference address of the LED must be the same as the reference address of the control key.

3. Select the appropriate point type from the drop-down list.
  - a. The default point type for the first two LED points are LEDRED
  - b. The default point type for the third LED point is LEDGREEN
4. Edit the point's custom label if required. This label should make the point easily identifiable.

The following fields in the tab are filled by the programmer and cannot be edited:

- Reference Label
- Point
- Invert Pushbutton State (grayed out)

## Editing Standard Component Properties, *Continued*

### Editing the Color User Interface

To edit the **Display Options** tab (Figure 6-5): If needed, check the Reverse Display of custom label and status line. To use custom external files for the primary and/or the alternate MsgLib:

1. Click on **Import**.
2. Browse to import the appropriate MsgLib.
3. Click on **Open**.
4. Edit the Name and Date fields.

By default, the *System is Normal* image is displayed. To edit this image:

1. Check the Enable Custom Image check box.
2. Click on **Import Image...**
3. Browse to select the appropriate image.
4. Click on **Open > Apply**.



Figure 6-5. Color User Interface - Display Options

### To edit the Access Levels tab:

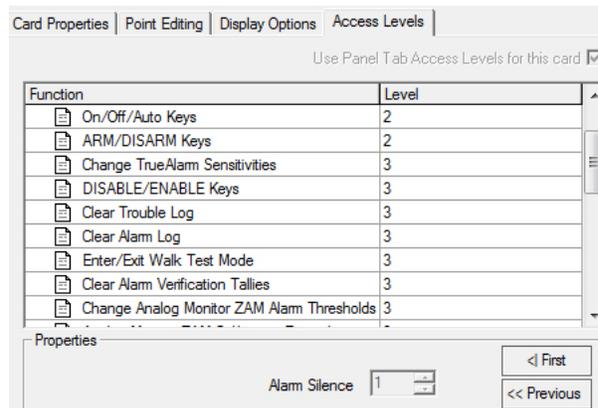


Figure 6-6. Color User Interface - Access Levels

The Access Level tab of the color user interface card cannot be edited. You can view the access level for the various functions in the system, but cannot change them.

### Editing the IDNAC Power Supply

The IDNAC Power Supply is part of the 4007ES Hardware Configuration. It has five main tabs to edit. The Card Properties tab, the Data Entry tab, the AuxNAC tab, the Aux Relay tab, and the Point Editing tab. For more information on the 4007ES Hybrid power supply, refer to the *Editing the NAC Power Supply* section.

#### To edit the Card Properties tab:

1. Enter the card's custom label. This label should make the card easily identifiable.

The following fields in the tab are filled by the programmer and cannot be edited:

- Card address
- Card description
- Card default label
- Annunciator address
- Unit number
- Box number
- Bay number
- Location

## Editing Standard Component Properties, *Continued*

### Editing the IDNAC Power Supply

#### To edit the Data Entry tab (Figure 6-7):

1. Configure the Depleted Battery Cutout option. If selected, the power supply card shuts itself off after detecting a depleted battery condition when no AC power is present. If this option is selected, a jumper must be installed on the power supply (on S527), for Canadian operation. It is unselected by default.
2. Select the optional cards that are connected to the power supply card. The choices are:
  - None
  - City Connect
  - Relay

The screenshot shows the 'Data Entry' tab of the IDNAC configuration window. It features two main sections: 'Options' and 'Optional Card'. In the 'Options' section, there is a checkbox for 'Depleted Battery Cutout' which is currently unchecked. In the 'Optional Card' section, there are three radio button options: 'None' (selected), 'City Connect', and 'Relay'. At the bottom of the window, there is a checkbox for '25V Regulator' which is also unchecked.

**Figure 6-7. IDNAC - Data Entry Tab**

3. Click in the 25V Regulator box if a 25V regulator card, 4007-9802, is used with the FACP.
4. Click **OK** to confirm the selection.

The screenshot shows the 'AuxNAC' tab of the IDNAC configuration window. It contains a table with the following data:

HW Ref	Point Name	Device Type	Point Type	Custom Label
S16 1-4	SIG3	SIGB	AUXPWR	SIGNAL CARD 1 CIRCUIT SIG3

Below the table is a 'Properties' panel with the following fields:

- HW Ref : 1-4
- Point : SIG3
- Point Type : AUXPWR (dropdown menu)
- Custom Label : SIGNAL CARD 1 CIRCUIT SIG3

Navigation buttons include '< First', '<< Previous', 'Next >>', and '> Last'.

**Figure 6-8. IDNAC - AuxNAC Tab**

#### To edit the AuxNAC tab (Figure 6-8):

1. Select a point type from the drop-down menu.
2. Edit the AuxNAC point type custom label. This label should make the point easily identifiable.
3. Click on **Apply > OK** to confirm the edits.

#### To Edit the Aux Relay tab (Figure 6-9):

1. Select a point type from the drop-down menu.
2. Edit the Aux Relay point type custom labels. This label should make the point easily identifiable.
3. Click on **Apply > OK** to confirm the edits.

The screenshot shows the 'Aux Relay' tab of the IDNAC configuration window. It contains a table with the following data:

HW Ref	Point Name	Device Type	Point Type	Custom Label
AUX 1-10	AUX3	RELAY	RELAY	AUX RELAY CARD 1 RELAY CKT
AUX 1-11	AUX4	RELAY	RELAY	AUX RELAY CARD 1 RELAY CKT

Below the table is a 'Properties' panel with the following fields:

- HW Ref : 1-10
- Point : AUX3
- Point Type : RELAY (dropdown menu)
- Custom Label : AUX RELAY CARD 1 RELAY CKT AUX4

**Figure 6-9. IDNAC - Aux Relay Tab**

## Editing Standard Component Properties, *Continued*

### Editing the IDNAC Power Supply

#### To edit the Point Editing tab (Figure 6-10):

Select the card options you want to apply to the devices added to the IDNAC Power Supply.

- The choice are:
  - Code Candela Rating on Magnet with Test Mode off
  - LEDs Blink when polled
- Configure the devices that are attached to the IDNAC Power Supply.

HW Ref	Point Name	Device Type	Point Type	Custom Label	Coding Types	Candela Rating	Current I
1-1-1	1-1-1	UNUSED			N/A	N/A	0.0000
1-1-2	1-1-2	VO	VO		N/A	SYSTEM DEF...	0.0000
1-1-3	1-1-3	UNUSED			N/A	N/A	0.0000
1-1-4	1-1-4	UNUSED			N/A	N/A	0.0000
1-1-5	1-1-5	UNUSED			N/A	N/A	0.0000
1-1-6	1-1-6	UNUSED			N/A	N/A	0.0000
1-1-7	1-1-7	UNUSED			N/A	N/A	0.0000
1-1-8	1-1-8	UNUSED			N/A	N/A	0.0000
1-1-9	1-1-9	UNUSED			N/A	N/A	0.0000

**Figure 6-10. IDNAC - Point Editing Tab**

- Depending on the selected device, enter the required information in the Properties section. Consult Chapter 7 for the details on how to edit points for TrueAlert devices.
  - ISO: Custom label
  - Repeater: Custom label, Depleted battery cutout, Repeater operation (Class B Spur, Class A Spur, Class A Loop)
  - DCAI: Custom label, Loop 1 address (filled by the programmer)
  - Loop 2 address: Unused, need to be assigned by the person programming the panel
  - Custom Label
  - TrueAlertES Appliances: AV (Audible/Visual), VO (Visual Only), AO (Audible Only)
  - TrueAlert Appliances: STRB, Horn, A/V, ASTRB

### Editing the IDNET Multiloop

The IDNet Multiloop can contain up to 250 points. The card has three main tabs to edit. The Card Properties tab, the Point Editing tab, and the Loop Editing tab.

#### To edit the Card Properties tab:

- Enter the card's custom label. This label should make the card easily identifiable.
- Click in the box beside the following functions to activate them:
  - Only activate TrueAlarm device LEDs
  - Activate Signal IAM LEDs

The following fields in the tab are filled by the programmer and cannot be edited:

- Card address
- Card description
- Card default label
- Annunciator address
- Unit number
- Box number
- Bay number
- Location
- Total of configured points
- Total of available points

## Editing Standard Component Properties, *Continued*

### Editing the IDNET Multiloop

#### To edit the IDNet Point Editing tab (Figure 6-11):

The Point Editing tab is used to define the points on the IDNet loop. Once the Verification points are defined, they must be associated to a zone. The other types of points can also be associated to a zone, but it is not mandatory.

1. Select an IDNet point to configure in the table.
2. Assign a device type to the IDNet point.
3. Assign a point type to the IDNet point.
4. Enter a custom label. This label should make the IDNet point easily identifiable.

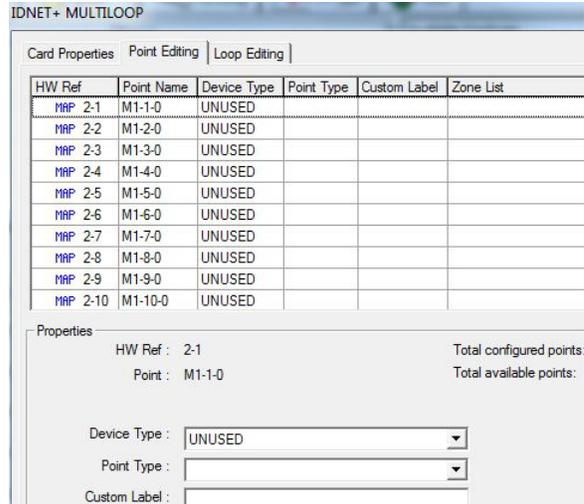


Figure 6-11. IDNet Multiloop - Point Editing Window

5. Tag the IDNet point to a Zone by clicking on **Zone List**. The TagList window is displayed (Figure 6-12).
  - a. Scroll through the list and select the zone to populate.
  - b. Press the space key. A “>>” symbol appears to the left of each point to indicate that it is selected.

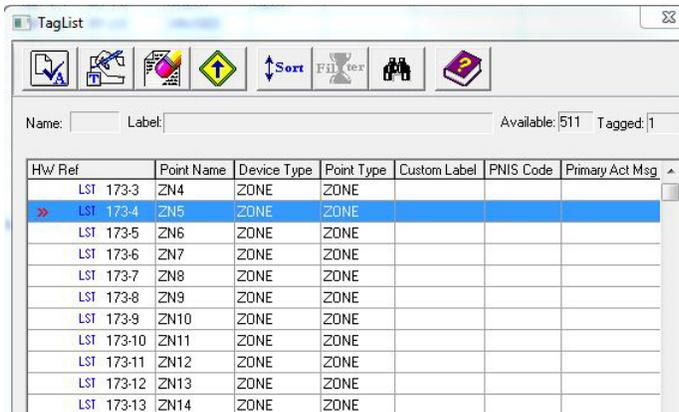


Figure 6-12. TagList Window

6. Click **OK**. If an error message is displayed, click **OK** and make the appropriate modifications.
7. Click **Apply > OK** to confirm the edits.

#### To edit the Loop Editing tab (Figure 6-13)

The Loop Editing tab is used to define the loops on the IDNet Multiloop card. To edit the loops, follow the same steps as for the Point Editing tab, but skip step 3, since there is no point type for loops.

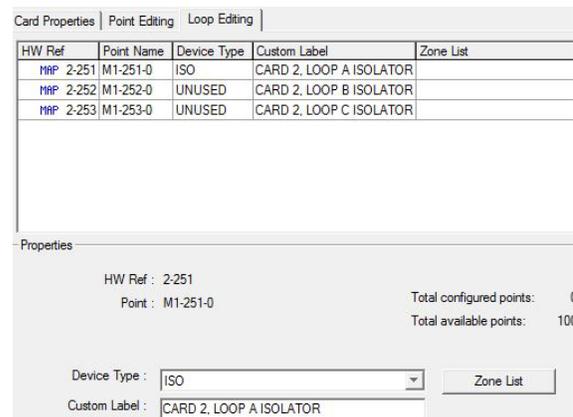


Figure 6-13. IDNet Multiloop - Loop Editing Window

## Editing Standard Component Properties, *Continued*

### Editing the NAC Power Supply

The NAC Power Supply is part of the 4007ES Hybrid Hardware Configuration. The card has four main tabs to edit. The Card Properties tab, the Data Entry tab, the NACs tab, and the AuxNAC tab.

#### To edit the Card Properties tab:

1. Enter the card's custom label. This label should make the card easily identifiable. The following fields in the tab are filled by the programmer and cannot be edited:

- Card address
- Card description
- Card default label
- Annunciator address
- Unit number
- Box number
- Bay number
- Location

#### To edit the Data Entry tab (Figure 6-14):

1. Configure the Depleted Battery Cutout option. If selected, the power supply card shuts itself off after detecting a depleted battery condition when no AC power is present. If this option is selected, a jumper must be installed on the power supply (on S527), for Canadian operation. It is unselected by default.
2. Select the optional cards that are connected to the power supply card. The choices are:
  - None
  - City Connect
  - Relay
3. Select the NAC options for the wiring. The choices are:
  - 4 Class B
  - 4 Class A
4. Click in the Wheelock Devices (Code 3) box if ONLY Wheelock device are used with the FACP.
5. Click in the 25V Regulator box if a 25V regulator card is used with the FACP.
6. Click **Apply** > **OK** to confirm the edits.

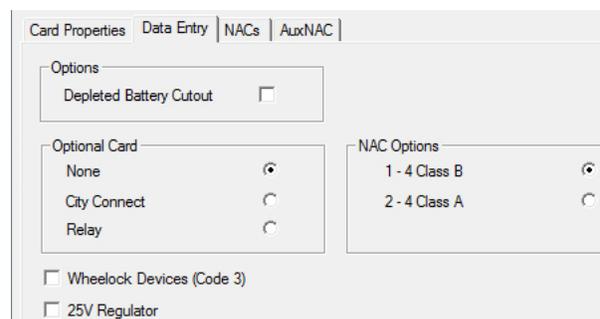


Figure 6-14. NAC - Data Entry Tab

## Editing Standard Component Properties, *Continued*

### Editing the NAC Power Supply

To edit the NACs tab (Figure 6-15):

1. Select a circuit to configure in the table.

HW Ref	Point Name	Device Type	Point Type	Custom Label	EOLR
SIG 1-1	SIG3	SIGB	SSIGNAL	SIGNAL CARD 1 CIRCUIT SIG3	10k
SIG 1-2	SIG4	SIGB	SSIGNAL	SIGNAL CARD 1 CIRCUIT SIG4	10k
SIG 1-3	SIG5	SIGB	SSIGNAL	SIGNAL CARD 1 CIRCUIT SIG5	10k
SIG 1-4	SIG6	SIGB	SSIGNAL	SIGNAL CARD 1 CIRCUIT SIG6	10k

Properties

HW Ref : 1-1

Point : SIG3

Point Type : SSIGNAL

Custom Label : SIGNAL CARD 1 CIRCUIT SIG3

EOL Resistance: 10k

<| First

<< Previous

Next >>

Last |>

**Figure 6-15. NAC - NACs Tab**

2. Select a point type from the Point Type drop-down list.
3. Enter a custom label. This label should make the point easily identifiable.
4. Select the EOL resistance from the EOL Resistance drop-down list.
5. Click **Apply** > **OK** to confirm the edits.

To edit the AuxNAC tab (Figure 6-16):

1. Select a circuit to configure in the table.

HW Ref	Point Name	Device Type	Point Type	Custom Label	EOLR
SIG 1-5	SIG7	SIGB	AUXPWR	SIGNAL CARD 1 CIRCUIT SIG7	

Properties

HW Ref : 1-5

Point : SIG7

Point Type : AUXPWR

Custom Label : SIGNAL CARD 1 CIRCUIT SIG7

<| First

<< Previous

Next >>

Last |>

**Figure 6-16. NAC - AuxNAC Tab**

2. Select a point type from the Point Type drop-down list.
3. Enter a custom label. This label should make the point easily identifiable.
4. Click **Apply** > **OK** to confirm the edits.

## Editing Standard Component Properties, *Continued*

### Editing the Zone/ Relay Card

The 4007-9801 Zone/Relay card allows monitoring of up to eight Class B zones or four Class A zones, or control up to eight relay contacts. Up to four cards can be used. The card has two main tabs to edit. The Card Properties tab and the Point Editing tab.

#### To edit the Card Properties tab:

1. The panel assigns an address when a Zone/Relay card is added. Set the card address to match the programmer assigned address.
2. Enter the card's custom label. This label should make the card easily identifiable.
3. Select the location for each Zone/Relay card. By default, the selected block is F (bottom left corner). The other choices are block E, block G, and block H.

The following fields in the tab are filled by the programmer and cannot be edited:

- Card description
- Card default label
- Annunciator address
- Unit number
- Box number
- Bay number

#### To edit the Point Editing tab (Figure 6-17):

1. Select the device type. The choices are:

- MONA Class A Monitoring Device

**Note:** If MONA is selected for a point, a confirmation window is displayed explaining that the next point is reserved for the system and the next point's device type, point type, and labels change automatically change. These fields then become non-editable.

- MONB Class B Monitoring Device
- Relay device

2. Select the point type.
3. Enter the card's custom label. This label should make the card easily identifiable.
4. Select the EOL resistance from the EOL Resistance drop-down list.
5. Click **Apply** > **OK** to confirm the edits.

HW Ref	Point Name	Device Type	Point Type	Custom Label	EOLR	Zone L
I0 4-1	IO1	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO1		
I0 4-2	IO2	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO2		
I0 4-3	IO3	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO3		
I0 4-4	IO4	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO4		
I0 4-5	IO5	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO5		
I0 4-6	IO6	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO6		
I0 4-7	IO7	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO7		
I0 4-8	IO8	RELAY	RELAY	ZONE / RELAY CARD 4 POINT IO8		

Properties

HW Ref : 4-1  
Point : IO1

Device Type : RELAY

Point Type : RELAY

Custom Label : ZONE / RELAY CARD 4 POINT IO1

EOL Resistance: [ ]

Zone List

**Figure 6-17. Zone / Relay Card / Point Editing Tab**

6. Tag each point to a Zone by clicking on **Zone List**. The TagList window is displayed (Figure 6-12).
  - a. Scroll through the list and select the zone to populate.
  - b. Press the space key. A “>>” symbol appears to the left of the point to indicate that it is selected. Click **OK**. If an error message is displayed, click **OK** and make the appropriate modifications.
7. Click **Apply** > **OK** to confirm the edits.

## Editing Standard Component Properties, *Continued*

### Editing the Zone/ Relay Card

#### Auto Fill Window (Figure 6-18)

The auto fill function allows you to fill up the information for one point and then use this information to automatically fill the information for the other points. To invoke this function, select a point in the Point Editing tab grid and press F4. The Auto Fill window appears.

The following fields in the Auto Fill window are pre-filled with the values from the highlighted point (from the Point Editing tab):

- All
  - Point Forward
  - Selected
1. Select to which point you want to apply the auto fill from the Auto Fill drop-down menu. The choices are:
    - All (programmer changes all the points on the card to match the auto fill selection)
    - Point Forward (programmer changes the highlighted point and all subsequent points on the card to match the auto fill selection)
    - Selected (programmer changes the highlighted point to match the auto fill selection)
  2. To apply the same custom label to other points, check the Custom Label check box.
  3. To add an identification number after the label, check the Automatically increment last number in custom labels check box.
  4. The following fields are grayed out:
    - Reference Address
    - Coding Type
    - Candela Rating
    - Mode

**Figure 6-18. Zone / Relay Point Editing - Auto Fill Window**

5. Click on **OK** to confirm the edits.

**Note:** If the point selected is a MONA, the Auto Fill affects only the primary points (1, 3, 5, or 7) for the custom label since the second points (2, 4, 6, or 8) are reserved. However, if the Alt Custom Label is checked, both the first and the second point of a MONA are affected.

## Editing Standard Component Properties, *Continued*

### Editing the Serial DACT Card Per Point

The 4007-9806 serial DACT interface card can be programmed per point or by event.

The 4007-9806 serial DACT per point has six main tabs to edit. The Card Properties tab, the Basics tab, the Event Codes tab, the Local Points tab, the Point Types tab, and the Points tab.

#### To edit the Card Properties tab per point:

1. The panel assigns an address when a DACT card is added. Set the card address to match the programmer assigned address.
2. Enter the card's custom label. This label should make the card easily identifiable.
3. Select a card address, from 0 to 31.

The following fields in the tab are filled by the programmer and cannot be edited:

- Card description
- Card default label
- Annunciator address
- Box number
- Bay number
- Location

#### To edit the Basics tab (Figure 6-19):

The Basics tab can be used to set up the basic communication information of the DACT to DACR link. The following fields in the tab can be edited:

- Phone and Account Numbers
  - Primary (1)#
  - Secondary (2)#
  - Account (1)#
  - Account (2)#
- Central Station Line #
- Dial Mode
  - Tone
  - Pulse
  - Tone else Pulse
- Miscellaneous
  - Report AC Failure Delay
  - Test Report Time
  - Send Unmapped Points
  - IP Communicator

Figure 6-19. DACT Card - Basics Tab

- Central Station Email Address. Check the box to enter an email address and the .CSV file is automatically sent to Central Station. Automatic email can only be used with Per Point DACTs and must be set up in advance with Central Station.

#### To edit the Event Codes tab (Figure 6-20):

The Event Codes tab allows you to edit the event codes associated with each of the 4007ES Panel point types.

1. Click on the Point Types drop-down list box and select the point type whose event codes needs to be changed. (The Next and Previous buttons allow you to scroll through the list without clicking on the drop-down list box.)
2. Click on the Enable Edit checkbox at the top left of the window.
3. A warning window appears. Click on **Yes**.

	EVENT	RESTORAL
Fire :	110	110
Priority 2 :		
Supervisory :		
Trouble :	330	330
Utility :		
Control :		

Figure 6-20. DACT - Event Codes Tab

**Note:** Do not edit event codes without prior authorization and direction from the central station.

4. The non-editable fields remain grayed out. Define the appropriate event codes for both the Event and the Restoral columns.
5. Click **Apply** > **OK** to confirm the edits.

## Editing Standard Component Properties, *Continued*

### Editing the Serial DACT Card

#### To edit the Local Points tab (Figure 6-21):

The Local Points tab allows you to edit the local points associated with each of the 4007ES Panel point types.

1. Click on the Enable Edit checkbox at the top right of the window.
  2. A warning window appears. Click on **Yes**.
- Note:** Do not edit local points without prior authorization and direction from the central station.
3. The non-editable fields remain grayed out. Define the appropriate local points for both the Event and the Restoral columns.
  4. Click **Apply** > **OK** to confirm the edits.

Figure 6-21. DACT - Local Point Tab

#### To edit the Point Types tab (Figure 6-22):

The Point types tab allows you to add new point types, delete, or edit existing point types.

##### To edit an existing point:

1. Click on a point in the grid.
2. Edit the appropriate fields for both the Event and the Restoral columns.
3. Edit the SDACT point type name and the SDACT point type description if necessary.
4. Click **Apply** to confirm the edits

Figure 6-22. DACT - Point Types Tab

##### To add a point:

1. Click on **Add**.
2. Edit the SDACT point type name and the SDACT point type description. These labels should make the points easily identifiable.
3. Edit the appropriate fields for both the Event and the Restoral columns.
4. Click **Apply** > **OK** to confirm the edits.

**Note:** Do not edit local points without prior authorization and direction from the central station.

## Editing Standard Component Properties, *Continued*

### Editing the Serial DACT Card

#### To edit the Points tab (Figure 6-23):

1. To edit a point, click on the point or use the up and down arrow with the <space bar> to toggle point selection.
2. Depending on the point, edit the fields as necessary. The non-editable fields remain grayed out.

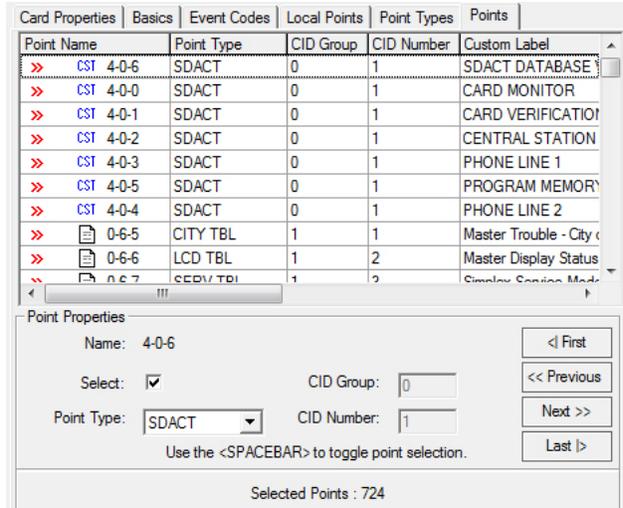


Figure 6-23. DACT - Points Tab

### Editing the Event DACT Card

The 4007-9806 DACT “per event” has five main tabs. To edit the Card Properties tab, the Basics tab, the Event Codes tab, the Local Points tab, and the Points tab.

#### To edit the Card Properties tab per event:

1. The panel assigns an address when a DACT card is added. Set the card address to match the programmer assigned address.
2. Enter the card’s custom label. This label should make the card easily identifiable.
3. Select a card address, from 0 to 31.

The following fields in the tab are filled by the programmer and cannot be edited:

- Card description
- Card default label
- Annunciator address
- Box number
- Bay number
- Location

## Editing Standard Component Properties, *Continued*

### Editing the Event DACT Card

To edit the Basics tab (Figure 6-24):

The Basics tab can be used to set up the basic communication information of the DACT to DACR link. The following fields in the tab can be edited:

- Phone and Account Numbers
  - Primary (1)#
  - Secondary (2)#
  - Account (1)#
  - Account (2)#
- Central Station Line #
- Communications Format
  - SIA
  - 3/1
  - 4/2
  - BFSK
- Pulse Communication Format (available when 3/1, 4/2 or BFSK is selected)
  - Format rate 10 PPS or 20 PPS
  - Communication Format Frequency 1.9KHz Data/1.4KHz ACK or 1.8KHz Data/2.3KHz ACK
- Dual Mode
  - Tone
  - Pulse
  - Tone else Pulse
- Miscellaneous
  - Report AC Failure Delay
  - Test Report Time
  - Send Unmapped Points
  - IP Communicator

Figure 6-24. DACT Event Reporting - Basics Tab

To edit the Event Codes tab (Figure 6-20):

1. Select the Enable Edit checkbox.
2. A warning window appears. Click on **Yes**.

**Note:** Do not edit local points without prior authorization and direction from the central station.

3. Define the appropriate local points for both the Event and the Restoral columns.
4. Click **Apply** > **OK** to confirm the edits.

## Editing Standard Component Properties, *Continued*

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### Editing the Event DACT Card

The Local Points tab allows you to edit the local points associated with each of the 4007ES Panel point types.

#### To edit the Local Points tab (Figure 6-21):

1. Select the Enable Edit checkbox at the top right of the window.
2. A warning window appears. Click on **Yes**.

**Note:** Do not edit local points without prior authorization and direction from the central station.

3. Define the appropriate local points for both the Event and the Restoral columns.
4. Click **Apply** > **OK** to confirm the edits.

#### To edit the Points tab (Figure 6-23):

1. To edit a point, click on the point or use the up and down arrow with the <spacebar> to toggle point selection.
  2. Depending on the point, edit the fields as necessary. The non-editable fields remain grayed out.
- 

### 48-LED Module

The 48-LED Module has two main tabs to configure. The Card Properties tab and the Point Editing tab.

#### To edit the Card Properties tab:

1. Enter a card address for the 48-LED Module.
2. Enter the card's custom label. This label should make the card easily identifiable.

The following fields in the tab are filled by the programmer and cannot be edited:

- Card description
- Card default label
- Annunciator address
- Unit number
- Box number
- Bay number
- Location

## Editing Standard Component Properties, *Continued*

### 48-LED Module

#### To edit the Point Editing tab:

From the Point Editing tab, two view choices are available.

**High Level Modes:** organizes the LEDs in pairs. Under this view, the Mode options are more limited:

- OO | On/Off
- TO | Trouble/On

**Low Level Modes:** shows each LED as individually configurable.

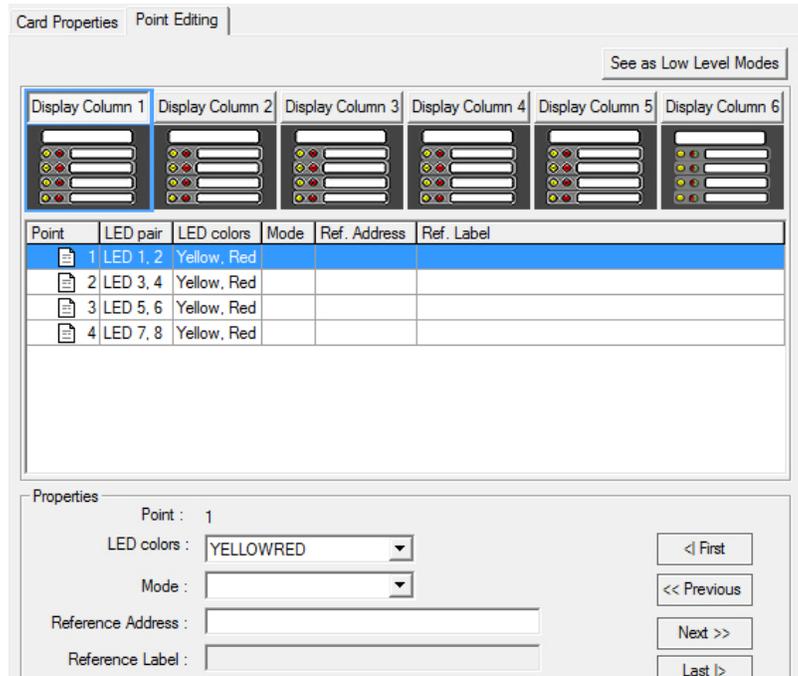


Figure 6-25. 48-LED Module High Level

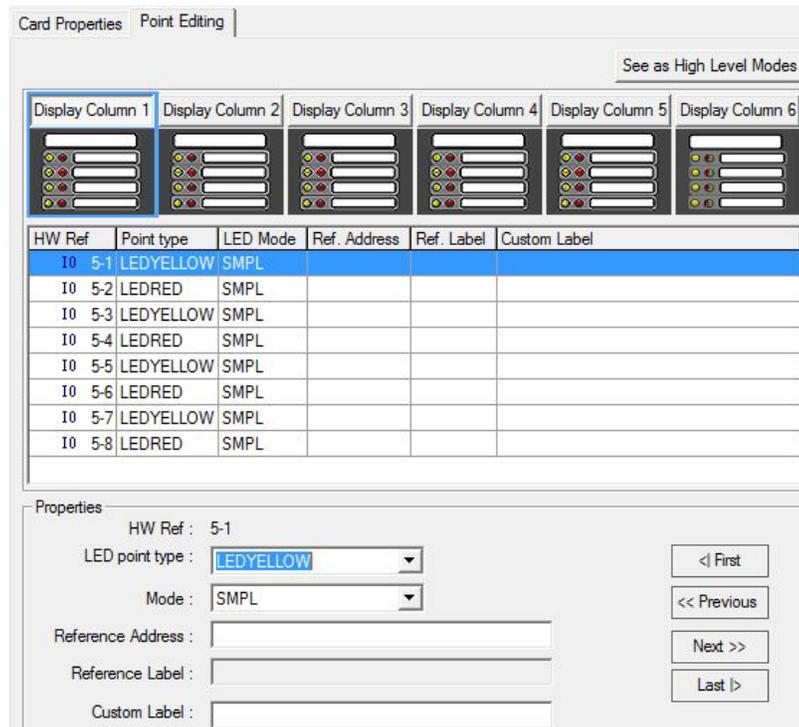


Figure 6-26. 48-LED Module Low Level

## Editing Standard Component Properties, *Continued*

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### 48-LED Module

#### In High Level Mode:

1. Select a column and then a point that needs to be edited. LED pairs are yellow and red.
2. Select the Mode from the Mode drop-down list. Under this mode, only three options are available. If an error is detected, a red “X” is displayed in the HW Ref column. Pass the mouse over the row to display the tool tip describing the problem.
  - OO : On/Off
  - TO: Trouble On
3. Create Reference Address for the points by pressing F9.
  - Select an address from the table. Scroll through the list and press the space key to select an address. A “>>” symbol appears indicate that it is selected.
4. Enter a point custom label. This label should make the point easily identifiable.
5. When editing the 8 points of the Display Column 6, LED pairs can be either yellow/red or yellow/green.
6. Repeat for each point that needs to be edited.

#### In Low Level Mode:

1. Select a column and then a point that needs to be edited. Point type:
  - For the even-numbered points 2 through 40, the default LED point type is LEDRED.
  - For the odd-numbered points 1 through 39, the default LED point type is LEDYELLOW.
2. Select the Mode from the Mode drop-down list.
3. Create Reference Address for the points by pressing F9.
  - Select an address from the table. Scroll through the list and press the space key to select an address. A “>>” symbol appears indicate that it is selected.
4. When editing the 8 points of the Display Column 6:
  - For the even-numbered points, the default LED point type is LEDRED. The address of the point depends on the LED point type selected. The point type can be changed to LED green.
  - For the odd-numbered points, the default LED point type is LEDYELLOW.



# Chapter 7.

## Editing TrueAlert Devices Properties

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**Introduction** TrueAlert devices are edited through the Point Editing tab on the IDNAC Power Supply.

**To access this tab:**

1. Go to the Hardware Configuration window.
2. Double click on the IDNAC Power Supply icon.
3. Click on the Point Editing tab.

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## Point Editing for TrueAlert Device

### TrueAlert ES AO Appliance Point Editing

Use this device type to edit TrueAlert ES Audible Only (AO) appliances.  
The following editing options are available for this appliance:

**Table 7-1. TrueAlert ES AO Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	Available settings:	<ul style="list-style-type: none"> <li>• Indoor</li> <li>• Weatherproof UL</li> <li>• Weatherproof ULC</li> </ul>
<b>Horn Type</b>	Broadband	Multitone
<b>Tone</b>	BROADBAND	BROADBAND, 250 HZ, BELL, SLOW WHOOP, SIREN, HILO, CHIME, HARDWARE
<b>Coding Type</b>	Select the Coding Type to set the cadence of the audible signal.	
	System Default	This sets the coding to the value determined in the System Option tab.
	Temporal	A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.
	March 20	A coded signal that uses 20 beats per minute. Each beat consists of 1 ½ second pulse on, 1 ½ second off. Pattern repeats until alarm silence.
	March 60	A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.
	March 120	A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.
	On Steady	On steadily.
	Temporal 4	A CO gas warning that is a repeated sequence of four cycles of 100 msec on with 100 msec off, followed by 5 seconds off.
<b>Volume</b>	Set the appliance volume:	
	High	To use this option the appliance's configuration control must be set to Panel.
	Low	To use this option the appliance's configuration control must be set to Panel.
	Hardware	Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.
<b>Note:</b> The "Copy/Paste/ Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES VO Appliances Point Editing

Use this device type to edit TrueAlert ES Visual Only (VO) appliances. The following editing options are available for this appliance:

**Table 7-2. TrueAlert ES VO Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	<ul style="list-style-type: none"> <li>Indoor.</li> </ul> Available candela options:	System Default. Sets the candela value to the one selected in the System Option tab.
		15 candela
		30 candela
		75 candela
		110 candela
		135 candela
		185 candela
		Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.
	<ul style="list-style-type: none"> <li>Weatherproof UL.</li> </ul> Available candela options:	System Default. Sets the candela value to the one selected in the System Option tab.
		15 candela
		75 candela
		WP 75 candela
		WP 185 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<ul style="list-style-type: none"> <li>Weatherproof ULC.</li> </ul> Available candela options:	System Default. Sets the candela value to the one selected in the System Option tab.	
	20 candela	
	30 candela	
	75 candela	
Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.		
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Mounting</b>	Select the mounting location of the appliance: wall-mounted or ceiling-mounted.	
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Note:</b> The "Copy/Paste/ Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES VO-H Appliances Point Editing

Use this device type to edit TrueAlert ES Visual Only High Candela (VO-H) appliances. The following editing options are available for this appliance:

**Table 7-3. TrueAlert ES VO-H Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field is used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	• Indoor. Available candela options:	System Default. Selecting this option sets the candela value to the one selected in the System Option tab.
		110 candela
		135 candela
		185 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Mounting</b>	Only a ceiling-mounted appliance is allowed.	
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Note:</b> The "Copy/Paste/ Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES VO-L Appliances Point Editing

Use this device type to edit TrueAlert ES Visual Only LED Strobe (VO-L) appliances. The following editing options are available for this appliance:

**Table 7-4. TrueAlert ES VO-L Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	<ul style="list-style-type: none"> <li>• Indoor.</li> <li>• Weatherproof UL/ULC.</li> </ul> Available candela options:	System Default. Selecting this option sets the candela value to the one selected in the System Option tab.
		15 candela
		30 candela
		75 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Mounting</b>	Only a wall-mounted appliance is allowed.	
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Note:</b> The "Copy/Paste/ Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES VO-LH Appliances Point Editing

Use this device type to edit TrueAlert ES Visual Only LED Strobe High Candela (VO-LH) appliances. The following editing options are available for this appliance:

**Table 7-5. TrueAlert ES VO-LH Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field is used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	<ul style="list-style-type: none"> <li>• Indoor.</li> <li>• Weatherproof UL/ULC.</li> </ul> Available candela options:	System Default. Selecting this option sets the candela value to the one selected in the System Option tab.
		110 candela
		135 candela
		175 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Mounting</b>	Only a wall-mounted appliance is allowed.	
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Note:</b> The "Copy/Paste/ Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV Appliance Point Editing

Use this device type to edit TrueAlert ES Audible/Visual (AV) appliances. The following editing options are available for this appliance:

**Table 7-6. TrueAlert ES AV Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	<ul style="list-style-type: none"> <li>System Default. Selecting this option sets the candela value to the one selected in the System Option tab.</li> <li>15 candela</li> <li>30 candela</li> <li>75 candela</li> <li>110 candela</li> <li>135 candela</li> <li>185 candela</li> <li>Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Indoor.</li> <li>• Available candela options:</li> </ul>	<ul style="list-style-type: none"> <li>System Default. Sets the candela value to the one selected in the System Option tab.</li> <li>15 candela</li> <li>75 candela</li> <li>WP 75 candela</li> <li>WP 185 candela</li> <li>Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.</li> </ul>
	<ul style="list-style-type: none"> <li>• Weatherproof UL.</li> <li>• Available candela options:</li> </ul>	<ul style="list-style-type: none"> <li>System Default. Selecting this option sets the candela value to the one selected in the System Option tab.</li> <li>20 candela</li> <li>30 candela</li> <li>75 candela</li> <li>Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.</li> </ul>
	<ul style="list-style-type: none"> <li>• Weatherproof ULC.</li> <li>• Available candela options:</li> </ul>	<ul style="list-style-type: none"> <li>System Default. Selecting this option sets the candela value to the one selected in the System Option tab.</li> <li>20 candela</li> <li>30 candela</li> <li>75 candela</li> <li>Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.</li> </ul>

*Continued on next page.*

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV Appliance Point Editing

Table 7-6. TrueAlert ES AV Point Editing Options, *Continued*

Option	Description	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Horn Type</b>	Broadband	Multitone
<b>Tone</b>	BROADBAND	BROADBAND, 520 HZ, BELL, SLOW WHOOP, SIREN, HILO, CHIME, HARDWARE
<b>Coding Type</b>	Select the Coding Type to set the cadence of the audible signal.	
	System Default	This sets the coding to the value determined in the System Option tab.
	Temporal	A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.
	March 20	A coded signal that uses 20 beats per minute. Each beat consists of 1 ½ second pulse on, 1 ½ second off. Pattern repeats until alarm silence.
	March 60	A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.
	March 120	A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.
	On Steady	On steadily.
	Temporal 4	A CO gas warning that is a repeated sequence of four cycles of 100 msec on with 100 msec off, followed by 5 seconds off.
<b>Volume</b>	Set the appliance volume:	
	High	To use this option the appliance's configuration control must be set to Panel.
	Low	To use this option the appliance's configuration control must be set to Panel.
	Hardware	Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.
<b>Note:</b> The "Copy/Paste/Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV-H Appliance Point Editing

Use this device type to edit TrueAlert ES Audible/Visual High Candela (AV-H) appliances. The following editing options are available for this appliance:

**Table 7-7. TrueAlert ES AV-H Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	<ul style="list-style-type: none"> <li>• Indoor.</li> <li>• Available candela options:</li> </ul>	System Default. Selecting this option sets the candela value to the one selected in the System Option tab.
		110 candela
		135 candela
		185 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Mounting</b>	Only a ceiling-mounted appliance is allowed	
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Horn Type</b>	Broadband	Multitone
	<b>Tone</b>	BROADBAND

*Continued on next page.*

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV-H Appliance Point Editing

Table 7-7. TrueAlert ES AV-H Point Editing Options, *Continued*

Option	Description	
<b>Coding Type</b>	Select the Coding Type to set the cadence of the audible signal.	
	System Default	This sets the coding to the value determined in the System Option tab.
	Temporal	A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.
	March 20	A coded signal that uses 20 beats per minute. Each beat consists of 1 ½ second pulse on, 1 ½ second off. Pattern repeats until alarm silence.
	March 60	A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.
	March 120	A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.
	On Steady	On steadily.
	Temporal 4	A CO gas warning that is a repeated sequence of four cycles of 100 msec on with 100 msec off, followed by 5 seconds off.
<b>Volume</b>	Set the appliance volume:	
	High	To use this option the appliance's configuration control must be set to Panel.
	Low	To use this option the appliance's configuration control must be set to Panel.
	Hardware	Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.
<b>Note:</b> The "Copy/Paste/Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV-L Appliance Point Editing

Use this device type to edit TrueAlert ES Audible/Visual LED Strobe (AV-L) appliances. The following editing options are available for this appliance:

**Table 7-8. TrueAlert ES AV-L Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field is used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	<ul style="list-style-type: none"> <li>• Indoor.</li> <li>• Weatherproof UL/ULC</li> </ul> Available candela options:	System Default. Selecting this option sets the candela value to the one selected in the System Option tab.
		15 candela
		30 candela
		75 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Mounting</b>	Only a wall-mounted appliance is allowed.	
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Horn Type</b>	Broadband	
<b>Tone</b>	BROADBAND	

*Continued on next page.*

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV-L Appliance Point Editing

Table 7-8. TrueAlert ES AV-L Appliance Point Editing, *Continued*

Option	Description
<b>Coding Type</b>	Select the Coding Type to set the cadence of the audible signal.
System Default	This sets the coding to the value determined in the System Option tab.
Temporal	A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.
March 20	A coded signal that uses 20 beats per minute. Each beat consists of 1 ½ second pulse on, 1 ½ second off. Pattern repeats until alarm silence.
March 60	A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.
March 120	A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.
On Steady	On steadily.
Temporal 4	A CO gas warning that is a repeated sequence of four cycles of 100 msec on with 100 msec off, followed by 5 seconds off.
<b>Volume</b>	Set the appliance volume:
High	To use this option the appliance's configuration control must be set to Panel.
Low	To use this option the appliance's configuration control must be set to Panel.
Hardware	Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.
<b>Note:</b> The "Copy/Paste/Special Paste" feature can be used to configure multiple devices identically.	

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV-LH Appliance Point Editing

Use this device type to edit TrueAlert ES Audible/Visual LED Strobe High Candela (AV-LH) appliances. The following editing options are available for this appliance:

**Table 7-9. TrueAlert ES AV-LH Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field is used to describe the appliance's function, location, or other descriptive information.	
<b>Alternate Label</b>	This field is used to enter an alternative description of the appliance.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	<ul style="list-style-type: none"> <li>• Indoor.</li> <li>• Weatherproof UL/ULC</li> </ul> Available candela options:	System Default. Selecting this option sets the candela value to the one selected in the System Option tab.
		110 candela
		135 candela
		185 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default. The "alarm/alert" switch on the device must be set to "Alarm".
	Other	When this mode is selected the user is confirming that the strobe does not have a default assignment to a particular VNAC and that the VNAC must be specified by the user.
<b>Mounting</b>	Only a wall-mounted appliance is allowed.	
<b>Candela</b>	Select the candela output of the appliance. The selection varies according to the appliance style.	
<b>Horn Type</b>	Broadband	
<b>Tone</b>	BROADBAND	

*Continued on next page.*

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert ES AV-LH Appliance Point Editing

Table 7-9. TrueAlert ES AV-LH Appliance Point Editing, *Continued*

Option	Description
<b>Coding Type</b>	Select the Coding Type to set the cadence of the audible signal.
System Default	This sets the coding to the value determined in the System Option tab.
Temporal	A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.
March 20	A coded signal that uses 20 beats per minute. Each beat consists of 1 ½ second pulse on, 1 ½ second off. Pattern repeats until alarm silence.
March 60	A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.
March 120	A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.
On Steady	On steadily.
Temporal 4	A CO gas warning that is a repeated sequence of four cycles of 100 msec on with 100 msec off, followed by 5 seconds off.
<b>Volume</b>	Set the appliance volume:
High	To use this option the appliance's configuration control must be set to Panel.
Low	To use this option the appliance's configuration control must be set to Panel.
Hardware	Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.
<b>Note:</b> The "Copy/Paste/Special Paste" feature can be used to configure multiple devices identically.	

## Point Editing for TrueAlert Device, *Continued*

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### ISO Options

Use this device type to edit TrueAlert Isolators. The following editing options are available for this device:

**Table 7-10. TrueAlert Isolator Editing Options**

Option	Description
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.

---

### Repeater Options

Use this device type to edit Repeaters.

The 4009 IDNAC Repeater is a TrueAlert ES Addressable device that extends the maximum wiring distance supported by the IDNAC Signaling Line Circuit (SLC). Consult the 4009 IDNAC Repeater manual 579-1019 for more information. The following editing options are available for this device:

**Table 7-11. Repeater Editing Options**

Option	Description
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.
<b>Current Draw (Amps)</b>	This information is not available.
<b>Depleted Battery Cutout</b>	When this option is selected the Repeater shuts itself off after detecting a depleted battery condition when no AC power is present. This option is de-selected by default.
<b>Repeater Operation</b>	Select the option that corresponds to the Repeater's wiring style.
	• For local Class B Wiring select "Class B Spur"
	• For local Class A Loop Wiring select "Class A Spur"
	• For extended Class A Loop Wiring select "Class A Loop"

## Point Editing for TrueAlert Device, *Continued*

### DCAI Options

Use this device type to edit DCAI cards.

**Note:** A warning appears if the number of DCAI cards added to the Point Editing table does not correspond to the number of cards added to the job.

The 4100-6103 Dual Class A Isolator (DCAI) card converts the Class B output of an IDNAC into two isolated Class A outputs. Consult the DCAI manual 579-1029 for more information. The following editing options are available for this device:

**Table 7-12. DCAI Editing Options**

Option	Description
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.
<b>Loop 1 Address</b>	The Loop 1 Address is automatically set by the programmer.
<b>Loop 2 Address</b>	This virtual address does not need to be adjacent to the loop 1 hardware address.

### TrueAlert STRB Appliances Point Editing

Use this device type to edit TrueAlert Strobe (STRB) appliances. The following editing options are available for this appliance:

**Table 7-13. TrueAlert STRB Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	• Indoor. Available candela options:	System Default. Sets the candela value to the one selected in the System Option tab.
		15 candela
		30 candela
		75 candela
		110 candela
	Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.	
<b>Operation</b>	Select the type of operation the appliance will signal.	
	General Evac.	The strobe is automatically associated with the "ALL VISUAL" VNAC by default.
<b>Candela</b>	Select the candela output of the appliance.	
<b>Note:</b> The "Copy/Paste/Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert Horn Appliance Point Editing

Use this device type to edit TrueAlert Horn appliances. The following editing options are available for this appliance:

**Table 7-14. TrueAlert Horn Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Style</b>	Select the Indoor Style	
<b>Coding Type</b>	Select the Coding Type to set the cadence of the audible signal.	
	System Default	This sets the coding to the value determined in the System Option tab.
	Temporal	A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.
	March 60	A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.
	March 120	A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.
	On Steady	On steadily.
<b>Volume</b>	Set the appliance volume:	
	High	To use this option the appliance's configuration control must be set to Panel.
	Low	To use this option the appliance's configuration control must be set to Panel.
<b>Note:</b> The "Copy/Paste/Special Paste" feature can be used to configure multiple devices identically.		

## Point Editing for TrueAlert Device, *Continued*

### TrueAlert A/V Appliances Point Editing

Use this device type to edit TrueAlert Strobe Audible/Visual (A/V) appliances. The following editing options are available for this appliance:

**Table 7-15. TrueAlert AV Point Editing Options**

Option	Description	
<b>Custom Label</b>	This field can be used to describe the appliance's function, location, or other descriptive information.	
<b>Style</b>	Select the Style that corresponds to the appliance or device you are programming.	
	Indoor. Available candela options:	System Default. Sets the candela value to the one selected in the System Option tab.
		15 candela
		30 candela
		75 candela
		110 candela
Hardware. Selecting this option sets the appliance to the setting indicated on the appliance's configuration switch or jumper.		
<b>Operation</b>	The strobe and horn appliances is automatically associated respectively with the "ALL VISUAL" and "ALL AUDIBLE" VNAC by default.	
<b>Candela</b>	Select the candela output of the appliance.	
<b>Coding Type</b>	Select the Coding Type to set the cadence of the audible signal.	
	System Default	This sets the coding to the value determined in the System Option tab.
	Temporal	A three-pulse coding pattern consisting of three ½ second pulses, each separated by a ½ second silence. Each three pulse group is separated by 1 ½ seconds of silence. Pattern repeats until alarm silence.
	March 60	A coded signal that uses 60 beats per minute. Each beat consists of ½ second pulse on, ½ second off. Pattern repeats until alarm silence.
	March 120	A coded signal that uses 120 beats per minute. Each beat consists of ¼ second pulse on, ¼ second off. Pattern repeats until alarm silence.
	On Steady	On steadily.
<b>Volume</b>	Set the appliance volume:	
	High	To use this option the appliance's configuration control must be set to Panel.
	Low	To use this option the appliance's configuration control must be set to Panel.
<b>Note:</b> The "Copy/Paste/Special Paste" feature can be used to configure multiple devices identically.		

# Chapter 8.

## Viewing, Adding, and Editing Lists

---

### Introduction

A *list* is a group of similar points, sharing a common name, that can be monitored or controlled as if they were a single point. For example, when you use a switch to turn on a list populated with control points, all of the points in the list turn on. The 4007ES FACP includes the following types of lists.

- **Automatically Generated, Read-Only System Lists.** These lists are created based on the point type assigned to the point. Points cannot be manually added or deleted from these lists.
- **Automatically Generated, Editable System Lists.** These are lists created based on the point types you assign to the point. These lists are only editable after the automatic list generation property is turned off for the list.
- **User-Defined Lists.** Switches, LEDs, and Custom Control equations all make use of these types of lists. Switches typically control lists made up of control points (relays), or standard NACs (horns/strobes). LEDs can be programmed to monitor a list and turn ON when any point in the list activates. Custom Control equations typically use lists of monitor points to indicate when a specific output action should occur, and the points affected by the output action are typically specified in a user-defined list of control points.
- **Zone Lists.** This option allows you to create up to 512 lists grouping together points in one defined zone.

This chapter describes the programming of the four list categories, General Lists, WalkTest Lists, Latching Supv Verification Lists, and Elevator Recall Lists, used by the Panel FACP.

**Note:** The Alarm Verification Tab can still be accessed through the List Tab, but it cannot be used.

For information on using lists for the Install Mode feature, consult the *4007ES Operator's Manual* (579-1165).

### In this chapter

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## Viewing, Adding, and Editing Lists

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### List Tab

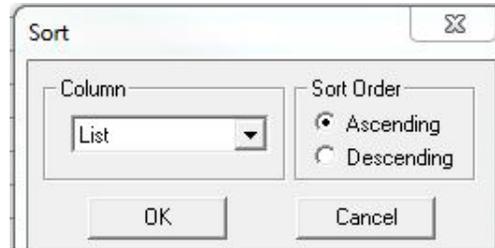
Select the List Tab to display the List Tab window. By default when you select the List Tab, the General List subtab, located on the bottom left of the window, is selected. This window contains an entry for every list in the system.

The subtabs running across the bottom of the window allow you to display only the lists associated with a specific system category. For example, clicking on the alarm verification subtab displays only the lists associated with alarm verification.

---

### Sort Function

The Sort function allows you to sort and display lists in ascending or descending order based on list-specific criteria (the criteria shown in the Sort Dialog is different for each type of list). To sort lists, do one of the following:



**Figure 8-1. Sort Window**

- **Press F5 function key.** When the Sort Dialog (shown above) appears, click on the Column drop-down list box to select the criteria to use for the sort operation. Next, select whether the sort should be in Ascending or Descending order and click on **OK**.
  - **Click on a column title.** Clicking on one of the column titles in the List Tab window automatically sorts the list in descending order. Clicking on the same column title again sorts the lists in ascending order.
  - **Right click in the list window.** Right Click in the list window. When the list of options appears, select Sort. Click on the Column drop-down list box to select the criteria to use for the sort. Next, select whether the sort should be in Ascending or Descending order and click on **OK**.
- 

### Custom Label Spell Check

Spell Check allows you to validate the spelling of custom labels. Using Spell Check, incorrectly spelled words can be automatically corrected or suggested alternatives can be substituted.

1. Position the pointer in the point list and press the F7 button. (Alternatively, you can right-click in the List window and select Spell Check when the list of options appears.)
2. Correct the misspelled word in any of the following ways. (Use the Ignore and Ignore All buttons to ignore the misspelled word.)
  - Click on the Change or Change All button to accept the suggested spelling in the “Change to” field.
  - Type the correct spelling in the “Change to” field and press the Change or Change All button.
  - Scroll through the Suggestions drop-down list, click on one of the entries, and then click on the Change or Change All field.

The Search and Find functions allow you to specify a specific search criteria (such as a specific custom label) and then search the List Window for the selected data.

1. Position the pointer in the List Window and press the CTRL + F key combination. (Alternatively, you can right click in the List Window and select Search or Find from the list that appears.)
  2. Enter the Search text in the Search What field. Click on the Search in Column field and select the column in which to search. Click on **Search Next** to start the search.
  3. Press the F3 key to continue searching the List Window for another occurrence of the item you are searching.
-

## Viewing, Adding, and Editing Lists, *Continued*

### Managing Points

Default custom control programming within the system automatically adds points to system lists based on their point type, a process known as auto list generation, or autogen. For example, adding a signal point with the SSIGNAL point type automatically adds the point to system list L8, Fire Alarm Points Off on Silence.

In some applications, however, you need to turn a system list's autogen property off, so that you can manually move points into or out of the system list. This is particularly true when editing WalkTest, Latching Supv Verification, and Elevator Recall groups.

Be aware that when working with the system lists, four icons are used to indicate the status of the system list.

 This symbol represents an auto-generated list with the autogen property turned on. When autogen is turned on, points cannot be manually moved into or out of the list.

 This symbol represents an auto-generated list whose autogen property cannot be altered. The list is permanently set to autogen on and cannot be edited.

This symbol represents an auto-generated list with the autogen property turned off.

 Indicates that the list is not automatically generated.

A system list's autogen property can be turned on and off in one of two places:

- **General List Tab.** Clicking on the General List tab displays all lists (system and user) currently defined on the panel. Refer to “Turning Autogen Off and On from the General List Tab” for specific information on doing this.
- **WalkTest, Latching Supv Verification, Elevator Recall Tabs.** Each of these tabs displays a window that allows you to move points into the appropriate lists. Within each window, you can toggle the autogen property to allow points to be moved into and out of the lists. Refer to the specific section for information on turning off autogen for Latching Supv Verification, WalkTest, or elevator recall.

### Turning Autogen Off and On from the General List Tab

1. Click on the List tab at the top of the programmer.
2. Click on the General List subtab at the bottom of the window.
3. Right click on the list whose autogen property you want to change. Select Properties from the list that appears. A dialog similar to Figure 8-2 appears.



Figure 8-2. List Properties Window

4. Click on the AutoGen field and change the setting.

## Viewing, Adding, and Editing Lists, *Continued*

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**Basic Operations** User-defined lists allow a range of points to be controlled (turned on or off, for example) by turning a switch on, or via a Custom Control command. Lists associated with LEDs allow the status of system attributes or components to be monitored.

---

### Adding a User-Defined List

#### To add a general-purpose list and populate it with points:

1. Open the List Window by selecting the List Tab at the top of the Programmer.
  2. Open the TagList window by either pressing the Insert key or right clicking in the List Window and selecting Add List.
  3. You can select points for the list using a combination of the following three methods. When you select points, the TagList window adds the “>>” character to the left of the point to indicate that the point is tagged.
    - Use the spacebar to select/deselect specific points. Click on the point you want to select and then press the spacebar once to tag the point; press it again to deselect the point.
    - Click on the Tag All icon, located at the top of the TagList window. This selects every point in the Taglist.
    - Click on the Tag by Type dialog to tag points based on their point type or device type.
    - Click on Clear All Tags (eraser) to erase all the tags.
    - Click on Tags Up to sort the tagged points to the top of the list.
    - Click on Sort to sort either HW Ref, Point Name, Device Type, Point Type or Custom Label columns in the TagList window in ascending or descending order
    - Click on Filter to sort points according to predefined criteria, such as: Device Type, Point Type and Custom Label.
    - Click on Search to look for a point in one of the five columns in the TagList window.
    - Click on Help to open the ES Panel Online Help.
  4. Click on the **OK** button in the TagList window. A dialog box appears, prompting you to name the list. Enter descriptive text and click on **OK**.
- 

### Editing an Existing User-Defined List

#### To edit an existing list (i.e., add additional points or delete points from the list):

1. Open the list's Tag List by either right clicking on the list and selecting Tag List from the menu that appears, or click on the list and press the F9 key.
2. When the tag list appears, click on the points you want to add or delete. Press the spacebar to toggle whether the point is tagged (included in the list) or not. Tagged points are identified by the “>>” to the left of the point name.
3. Click on **OK** to accept the changes.
4. Edit the List Label and the Alternate List Label.
5. Press **OK**.

## Viewing, Adding, and Editing Lists, *Continued*

### Latching Supv Verification

The ES Panel's Latching Supv Verification (LVS DUCT and LVSUPV) feature activates a supervisory condition when a device crosses the threshold. This means that the supervisory condition on the panel does not clear until the point restores to normal and a system reset is performed.

The ES Panel FACP supports both Domestic (United States) and Canadian versions of supervisory verification. Refer to “Selecting Canadian or Domestic (US) Operation” for information on enabling the Canadian or domestic version of alarm verification.

#### Moving Points between Groups

By default, initiating devices with a latching verification point type are initially put in Supv Verification Group 0.

#### To put points into other Supv Verification groups:

1. Open the List Window by selecting the List Tab at the top of the Programmer.
2. Click on the Latching Supv Verification tab at the bottom of the List Window.
3. Click on the Supv Verification group into which you want to move points. Right click and select Tag List.
4. Use the mouse or arrow keys to highlight each point you want to move into the group. A point is selected when a “>>” appears to the left of the point. Repeat this step to select other points.

#### Selecting Canadian or Domestic (US) Operation

Canadian alarm verification works somewhat differently from the domestic (US) version. Table 8-1 shows Canadian and domestic (US) operation for the alarm verification feature.

**Table 8-1. Canadian/Domestic Operation**

Type	Operation
Canadian Operation	<b>Retard Stage.</b> If a point specified within one of the alarm verification lists enters an alarm state, the system delays the annunciation of the alarm for 15 seconds
	<b>Reset Stage.</b> When the 15 second timer expires, the system attempts to reset the initiating device for five seconds.
	<b>Confirmation Stage.</b> After the five second timer expires, the system evaluates the state of the initiating device for 10 additional seconds. After 10 seconds, if the device is still in alarm, the system immediately annunciates the alarm.
Domestic (US) Operation	<b>Retard Stage.</b> If a point specified within one of the alarm verification lists enters an alarm state, the system delays the annunciation of the alarm for 30 seconds
	<b>Reset Stage.</b> When the timer expires, the system attempts to reset the initiating device for five seconds.
	<b>Confirmation Stage.</b> After the timer expires, the system evaluates the state of the initiating device for up to 120 additional seconds. After this duration, if the device is still in alarm, the system immediately annunciates the alarm.

#### To select Canadian or Domestic (US) operation (Figure 8-3), follow these steps:

1. Right click on one of the groups and select Properties. The Alarm Verification Properties dialog appears.
2. Click on the Alarm Verification tab.
3. Click on the drop-down list box and select Canadian or Domestic operation.

**Note:** You only need to set the Verification Timer field for one of the alarm verification groups. The programmer sets this field to the same value for all other groups.



**Figure 8-3. Alarm Verification Properties Dialog**

## Viewing, Adding, and Editing Lists, *Continued*

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### Latching Supv Verification

#### Renaming a Group

The default names for the groups are Supv Verification Group 0 through Supv Verification Group 7.

**To add a more descriptive name to the group, follow these steps.**

1. Right click on the group whose name you want to change and select Properties. The Alarm Verification Properties dialog appears.
  2. Click on the List tab in the dialog.
  3. Enter a name for the group in the Description field.
  4. Click the **Apply** button, followed by the **OK** button to close the dialog.
- 

### WalkTest™

WalkTest allows the function of the system's initiating devices and signals to be tested by a single person. Conducting a WalkTest requires you to perform the following general steps.

- **Step 1.** Create WalkTest Groups. The ES Panel supports up to eight WalkTest groups. This allows the building to be divided into small portions for the WalkTest, and allows the rest of the building to be protected by the fire alarm panel. Each group has a list of monitor points (initiating devices) and a list of the signal circuits that activate when one of the monitor points within the group activates.
- **Step 2.** Enable WalkTest Options from Front Panel. These options include the following:
  - Which WalkTest Group is enabled.
  - Whether the group's signals turn on when a monitor point in the same group activates. Turn this option off to perform a silent WalkTest on the system.
  - Whether logging of WalkTest information is enabled or not. (Enable this option to perform a silent WalkTest. Refer to the *4007ES Operator's Manual (579-1165)* for information on setting these options.)
- **Step 3.** Manually Activate Initiating Devices in Each Group and Interpret Signals. Individually activate each initiating device in the group, using the manufacturer's recommended test equipment. Make sure to proceed in a logical manner (i.e., start with the lowest IDNet address and work toward the highest). Each time you activate an initiating device, the system's signals pulse a code that allows you to verify exactly which initiating device triggered the signals. For hardwired monitor zones, the signal code corresponds to the number of the zone. (For example, if the zone number is eight, the signals pulse eight times to indicate zone eight.) For IDNet devices, the first set of pulses from the signals correspond to the channel. The signals then pause momentarily and the next set of pulses corresponds to the number of the device on the channel. For example, if you activate an IDNet smoke detector with an address of M1-25, the signals would sound once to indicate channel one, pause for a short duration, and then sound two pulses followed by a pause and then five pulses to indicate device 25. In some cases, immediately after verifying the function of an initiating device, you may also want to verify its ability to generate a trouble condition. To do this, cause a trouble on the device and then listen to the signals. The signals sound steady for 4 seconds to indicate trouble conditions, and then reset.

## Viewing, Adding, and Editing Lists, *Continued*

### WalkTest

#### Moving Points between Groups

The WalkTest list consists of eight groups. The purpose of these groups is to allow a technician to conduct a WalkTest in a specific area of a building (or different buildings), and limit the activation of the building signals to only the intended area.

WalkTest Group 0 initially contains all of the monitor points and all of the signal points wired to the panel. Each WalkTest group consists of two lines: one for monitor zones and one for signal/relays.

Follow these steps to move points from WalkTest Group 0 (where they are initially placed) into other WalkTest groups. Signal/relay points can exist in multiple groups, but monitor points can be in only one group at a time.

1. Open the List Window by selecting the List Tab at the top of the Programmer.
2. Click on the WalkTest tab at the bottom of the List Window. A screen similar to the one shown in Figure 8-4 appears.

Walktest Groups	Monitor Points	Control points
Walktest Group 0		
LST WALK TEST GROUP 0	1	
LST WALK TEST GROUP 0 - SIGNALS/RELAYS		5
Walktest Group 1		
LST WALK TEST GROUP 1	0	
LST WALK TEST GROUP 1 - SIGNALS/RELAYS		1
Walktest Group 2		
LST WALK TEST GROUP 2	0	
LST WALK TEST GROUP 2 - SIGNALS/RELAYS		1
Walktest Group 3		
LST WALK TEST GROUP 3	0	
LST WALK TEST GROUP 3 - SIGNALS/RELAYS		1

Figure 8-4. WalkTest Tab

3. Right click on WalkTest Group 0 and select Properties. A properties dialog appears. Click on the WalkTest tab in the dialog. Remove the checkmarks from the Monitor and Control checkboxes. Click the **Apply** button, followed by the **OK** button to close the dialog.
4. Select the monitor points to move as follows:
  - a. Right click on the WalkTest group into which you want to move the points (for example, using Figure 8-4, right click on the line called LST WALKTEST GROUPX). When the list of options appears, select Tag List.
  - b. In the Tag List, use the mouse or arrow keys to highlight each monitor point you want to move into the group. Press the space bar to tag or un-tag points to be added or deleted. A point is selected when a “>>” symbol appears to the left of the point.
  - c. Repeat these steps to move other monitor points into the group. When you move points, the points are automatically unselected in WalkTest Group 0 - Monitor Points and moved into the group you chose.
5. Select the signal/relay points to move as follows:
  - a. Right click on the WalkTest group into which you want to move the signal/relay points (for example, using Figure 8-4, right click on the line called LST WALKTEST GROUPX - SIGNALS/RELAYS). When the list of options appears, select Tag List.
  - b. In the Tag List, use the mouse or arrow keys to highlight each signal/relay point you want to move into the group. Press the spacebar to tag or un-tag points to be added or deleted. A point is selected when a “>>” symbol appears to the left of the point.
  - c. Repeat these steps to move other signal/relay points into the group.
  - d. The points that you selected in Step b above are not automatically deleted from WalkTest Group 0 - Signals/Relays list. If you do not want these points to be in both groups, you need to open up the WalkTest Group 0 - Signals/Relays list and delete the points. To do this, right click on WalkTest Group 0 - Signals/Relays list. Select Tag List. When the list of points appears, use the mouse or arrow keys to highlight each point you want to unselect from WalkTest Group 0. Press the spacebar to deselect the highlighted point. Points do not have the “>>” symbol to their left when they are unselected.

## Viewing, Adding, and Editing Lists, *Continued*

---

### WalkTest

#### Editing Group Properties

Each WalkTest group includes a set of properties that allow you to control the way in which points within the group operate.

#### To edit the properties for a group:

1. Click on the WalkTest tab at the bottom of the List Window.
2. Double click on one of the WalkTest groups to view its properties window. (Alternatively, you can right click on the group and select Properties from the menu that appears.)
3. Use the guidelines listed below to set the properties for the WalkTest group.

**Table 8-2. WalkTest Group Property Guidelines**

Tab	Properties
WalkTest	<p>Setting the properties in this tab affects all WalkTest groups.</p> <p><b>Monitor.</b> A check in this box means monitor points are automatically inserted in Group 1 - Monitor Zones. If you uncheck this box, you can move points from one group to another. However, at a later point, if you recheck this box, the points you previously moved to other groups will be moved back to Group 1.</p> <p><b>Control.</b> A check in this box means control points (signals/relays) are automatically inserted in Group 0 - Signals/Relays. If you uncheck this box, you can move points from one group to another. However, at a later point, if you recheck this box, the points you previously moved to other groups will be moved back to Group 1.</p> <p><b>On.</b> Allows you to set the duration of each tone within the PNIS code.</p> <p><b>Off.</b> Allows you to set the duration of silence between tones of the PNIS code.</p>
Group	<p>Setting the properties in this tab affects only the selected group.</p> <p><b>Monitor.</b> A counter that tracks the number of devices in the group.</p> <p><b>Control.</b> A counter that tracks the number of devices in the group.</p> <p><b>Reset Delay.</b> Allows you to shorten or lengthen the reset time used by the monitor device. For example, increase the delay in cases where canned smoke does not clear from a smoke detector quickly enough.</p>
List	<p><b>Description.</b> Allows you to change the description of the group's monitor or control lists. For example, you can change the name of the WalkTest Group 0 - Signals/Relays to a more descriptive name, if necessary.</p>

4. After making changes to the WalkTest Group properties, click on the **Apply** button to apply the changes and then click on **OK** to close the window.
-

## Viewing, Adding, and Editing Lists, *Continued*

### Elevator Recall List

The Elevator Recall list is made up of five groups, each corresponding to an elevator shaft numbered from one to five. Each shaft group contains three lists - one for the primary recall points, one for the alternate recall points, and one for the shutdown points. The Elevator Shaft 1 group initially contains all of the system's monitor points and all relays with the following point types - PRIMARY, ALTERN, and SHAFT (shutdown).

Elevator Recall Groups		Monitor Points	Control points
[-] Elevator Shaft 1			
[-] Primary Recall			
[-] LST ELEVATOR SHAFT 1 PRIMARY MONITOR ZONES	0		
[-] LST ELEVATOR SHAFT 1 PRIMARY RELAY			0
[-] Alternate Recall			
[-] LST ELEVATOR SHAFT 1 ALTERNATE MONITOR ZONES	0		
[-] LST ELEVATOR SHAFT 1 ALTERNATE RELAY			0
[-] Shutdown			
[-] LST ELEVATOR SHAFT 1 SHUTDOWN MONITOR ZONES	0		
[-] LST ELEVATOR SHAFT 1 SHUTDOWN RELAY			0
[-] Elevator Shaft 2			
[-] Primary Recall			
[-] LST ELEVATOR SHAFT 2 PRIMARY MONITOR ZONES	0		
[-] LST ELEVATOR SHAFT 2 PRIMARY RELAY			0
[-] Alternate Recall			
[-] LST ELEVATOR SHAFT 2 ALTERNATE MONITOR ZONES	0		
[-] LST ELEVATOR SHAFT 2 ALTERNATE RELAY			0
[-] Shutdown			
[-] LST ELEVATOR SHAFT 2 SHUTDOWN MONITOR ZONES	0		

**Figure 8-5. Elevator Recall Tab**

#### Moving Between Points:

Follow these steps to move points from Elevator Shaft 1 group (where they are initially placed) into other elevator shaft groups. Signal/relay points and monitor points can exist in multiple groups at the same time.

1. Open the List Window by selecting the List Tab at the top of the Programmer.
2. Click on the Elevator Recall tab at the bottom of the List Window.
3. Select the monitor points to move:
  - a. Right click on the Elevator Shaft group into which you want to move monitor points (for example, using Figure 8-5, right click on the line called LST ELEVATOR SHAFTX PRIMARY MONITOR ZONES). When the list of options appears, select Tag List.
  - b. In the Tag List, use the mouse or arrow keys to highlight each monitor point you want to move into the group. Press the spacebar to tag or un-tag points to be added or deleted. A point is selected when a ">>" symbol appears to the left of the point.
  - c. Repeat these steps to move other monitor points into the group.
  - d. Points that you move from Elevator Shaft 1 Primary Monitor Zones list to another group are not automatically deleted from Elevator Shaft 1 Primary Monitor Zones list. To delete points from this list, you need to highlight the Elevator Shaft 1 Primary Monitor Zones list, press F9 to see the tag list, and then highlight the point you want to delete and hit the space bar.
4. Select the signal/relay points to move as follows:
  - a. Right click on the Elevator Shaft group into which you want to move the signal/relay points (for example, using Figure 8-5, right-click on the line called LST ELEVATOR SHAFTX PRIMARY RELAY). When the list of options appears, select Tag List. When the list of options appears, select Tag List.
  - b. In the Tag List, use the mouse or arrow keys to highlight each signal/relay point you want to move into the group. Press the space bar to tag or un-tag points to be added or deleted. A point is selected when a ">>" symbol appears to the left of the point.
  - c. Repeat these steps for the Alternate and Shaft lists within the selected group.
  - d. If you want to delete relay points from the Elevator Shaft 1 Primary Relay list, you need to first right click on the Elevator Shaft 1 Primary Relay list, select Properties, and set the AutoGen field to No. Next, press F9 to see the tag list, and then highlight the point you want to delete and hit the space bar.

## Viewing, Adding, and Editing Lists, *Continued*

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### **Elevator Recall List**

#### **Editing Group Descriptions**

Each Elevator Recall group includes a description property that allows you to change the label of the group. To edit the group's description:

1. Click on the Elevator Recall tab at the bottom of the List Window. Double click on the appropriate Elevator Recall list.
  2. Edit the description field and click on the **Apply** button. Click **OK** to close the screen.
- 

### **Zone Lists**

The Zone List tab provides a way to group alarm conditions into zones (up to 512 zones).

When grouped into zones, when an alarm occurs, a list of affected zones is displayed on the panel's touchscreen. It is then possible to touch the zone in alarm to display all the points that are in alarm in that particular zone.

#### **To create a Zone List:**

1. Open the Zone List tab in the programmer.
2. Double click on an empty Zone List. The Zone List Properties window opens.
3. Enter a custom label to describe the Zone List.
4. Enter an alternate custom label to describe the Zone List.
5. Click on the **Select Point** button; the Tag List window opens.
6. Select the points that you want to include in the list.
7. Click on **OK** to confirm the selection.

# Chapter 9.

## Custom Control

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### Introduction

With Custom control the components of the ES Panel FACP—hardware points, pseudo points, and lists—can be controlled with user-definable custom control “equations.”

This chapter describes using Custom Control to create custom programming applications for the ES Panel FACP.

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### Custom Control Overview

ES Panel Custom Control — which is a wizard-based application used to create Custom Control Equations — provides a way to override the ES Panel’s default operation and for the ES Panel to function in a facility-specific way. Each Custom Control equation has a similar form: one half of the equation, called the input side, is used to monitor the state of specific system inputs (initiating devices, for example). The other half of the equation, called the output side, is used to control specific system outputs (such as relays, notification appliances). The output side executes only when the state of the input side is true. Another way to think about Custom Control equations is to consider them as If/Then commands. If the input side of the equation is true, then execute the output side.

The following examples help explain the way custom control is typically used with a ES Panel FACP.

- **Selective Signaling.** Selective signaling replaces the system's general alarm NAC operation — which activates all NACs in response to any alarm condition — with selective NAC control. With this type of control you can program the system so that only specific NACs respond to specific initiating devices.
  - **Fan and Damper Control following an Alarm.** Controlling a building's HVAC system following an alarm condition prevents supply fans from feeding a potential fire and makes it possible for the HVAC system to exhaust smoke from the area in alarm. In this case, custom control equations are used to monitor the initiating devices in a given area and control the HVAC system’s dampers and air handling units to provide the correct supply and exhaust pressurization.
-

## Custom Control

### Role of Lists and Pseudo Points

Using lists and pseudo points (both user-defined and system) improves the efficiency of Custom Control equations and makes it possible for a range of facility-specific operations to be programmed.

- **Digital Pseudo Points.** Digital pseudo points store a value of ON or OFF.
- *System Digital Pseudo Points*, with these you can track when common actions (such as a system reset) have occurred and activate facility-specific outputs as necessary.
- *User-defined digital pseudo points* can be used to signal that a specific event has occurred. (For example, turn on a user-defined pseudo point to indicate when a water tank is full.)
- **Analog Pseudo Points.** Analog Pseudo Points store analog values that can be used in Custom Control equations.
- *System Analog Pseudo Points* store analog values (the number 128, for example), and can be used as a threshold value within a Custom Control equation. (For example, perform some output action when the value of the Number of System Troubles analog pseudo point (A2) reaches a specific value.)
- *User Analog Pseudo Points* store user-defined analog values. The exact function of an analog user pseudo depends on its point type—counter, timer, or analog value.
- **List Pseudo Points.** With User-Defined Lists you can refer to a specific group of devices using a single reference. For example, creating a user-defined list called “Floor 1 Pull Stations,” and populating it with only the pull stations from floor 1 provides a way to monitor all of the pull stations on the floor without writing an equation for each pull station.

### Anatomy of a Custom Control Equation

As mentioned above, every Custom Control equation has an input side, consisting of input statements, and an output side, consisting of output statements.

**Input Statements** are typically used to monitor the status of a point or list, or perform an action such as delay, cycle, compare two values, or save/recall values. Every input statement begins with an Opcode, which is the action that the input is performing (for example, monitor point status, recall memory register). The Custom Control wizard then displays a series of opcode-specific dialogs. For example if the Opcode is Point Status, the dialogs prompt the user for Qualifier about the condition (such as, alarm, trouble) and point being monitored.

```
[INPUTS]
STATUS FIRE
ZNT1 | MONB | FIRE | MONITOR CARD 3 ZONE ZNT1
```

**Figure 9-1. Input Statement Example**

**Output Statements** are the actions that occur only when the input side of the equation is true. Every output statement begins with an Opcode, which is the general action that occurs when the input side is true. The opcode is followed by a series of opcode-specific dialogs, with which you can specify exactly how the selected opcode functions. For example, if you are using the Set Opcode, the wizard displays a series of dialogs, with which you can specify a qualifier (for example, on, off) and the point (a signal, for example) on which you want the output action to execute.

```
[OUTPUTS]
HOLD ON PRI-99
SIG3 | SIGB | SIGNAL | SIGNAL CARD 1 CIRCUIT SIG3
```

**Figure 9-2. Output Statement Example**

*Continued on next page*

## Custom Control, *Continued*

### Anatomy of a Custom Control Equation

Using Logical Operators (AND, OR, NOT) you can link multiple input statements to form logical expressions. Logical operators are only used with input statements and are not used with Output statements. ES Panel Custom Control uses the following logical operators.

- **AND Operator.** With the AND logical operator you can put a group of points in series so that only the activation of all points at the same time causes the Output side of the equation to occur. In the following example, Zone1 and Zone2 must both be in alarm (FIRE) before the output (Hold ON SIG3) executes.

```
[INPUTS]
STATUS FIRE
  ZN1 | MONB | FIRE | MONITOR CARD 3 ZONE ZN1
AND STATUS FIRE
  ZN2 | MONB | FIRE | MONITOR CARD 3 ZONE ZN2
[END INPUTS]
[OUTPUTS]
HOLD ON PRI-9,9
  SIG3 | SIGB | SIGNAL | SIGNAL CARD 1 CIRCUIT SIG3
[END OUTPUTS]
```

**Figure 9-3. Logical Operator: AND**

- **OR Operator.** With the OR operator you can put a group of points in parallel, meaning the activation of any one of the points causes the output side of the equation to execute. In the following example, if either Zone1 or Zone2 enters an alarm state, the output (Hold ON SIG3) executes.

```
[INPUTS]
STATUS FIRE
  ZN1 | MONB | FIRE | MONITOR CARD 3 ZONE ZN1
OR STATUS FIRE
  ZN2 | MONB | FIRE | MONITOR CARD 3 ZONE ZN2
[END INPUTS]
[OUTPUTS]
HOLD ON PRI-9,9
  SIG3 | SIGB | SIGNAL | SIGNAL CARD 1 CIRCUIT SIG3
[END OUTPUTS]
```

**Figure 9-4. Logical Operator: OR**

- **NOT Operator.** Use the NOT Operator to specify that a condition must not be true in order for the output to execute. In the following example, the output side of the equation (print message “Smoke not dirty”) executes only if the condition of M1-1 is NOT dirty.

```
[INPUTS]
NOT STATUS DIRTY
  M1-1 | PHOTO | SMOKE | LAB1-SMOKE1
[END INPUTS]
[OUTPUTS]
PRINT ALL "SMOKE NOT DIRTY"
[END OUTPUTS]
```

**Figure 9-5. Logical Operator: NOT**

### Using a Ladder Logic Diagram to Evaluate an Equation

A ladder logic diagram is a “sketch” of the equation used to evaluate (predict the outcome) of a custom control equation before it is entered into the programmer. Use the following conventions when creating ladder logic diagrams:

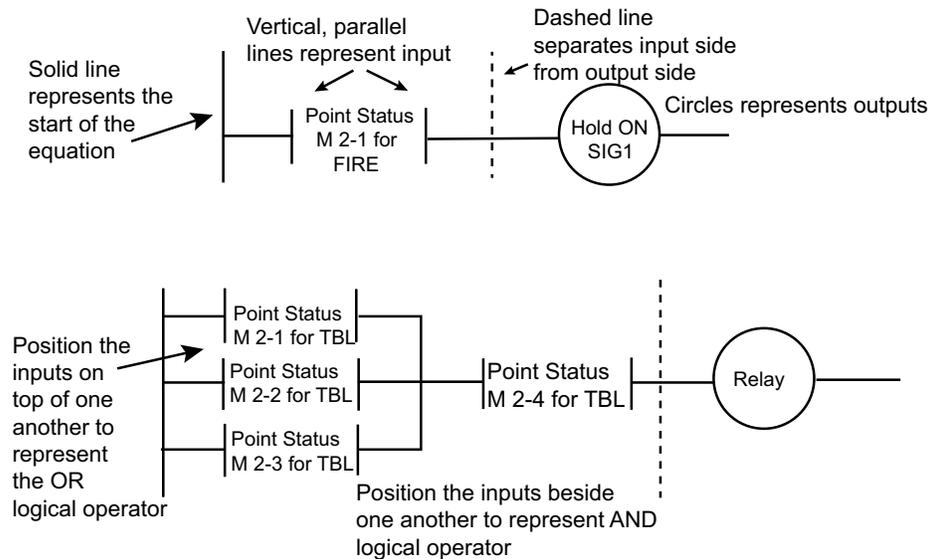
- Draw a solid, vertical line on the left side of the sketch to represent the starting point for the equation. Use a vertical dashed line to divide the sketch into an input side and an output side.
- Use two vertical, parallel lines to represent each input statement. Add text between the lines to describe the input statement.

*Continued on next page*

## Custom Control, *Continued*

### Using a Ladder Logic Diagram to Evaluate an Equation

- Use a circle to represent each output statement. Add text within or beside the circle to describe the output statement. In the following example, the output side of the equation, which monitors point M 2-1 for the presence of a fire condition, is true.
- Represent the OR logical operator by positioning inputs on top of one another as shown in the example below. Represent the AND logical operator by positioning the inputs beside one another.



**Figure 9-6. Logic Diagram**

The example shown above can be interpreted as: If point M2-1 or M2-2 or M2-3 and M2-4 are in a trouble state, hold on Relay 1. M2-4 is the key here. At least one of the three on the left (M2-1, M2-2, and M2-3) must be in a trouble state AND M2-4 must also be in a trouble state.

## Custom Control, *Continued*

### Custom Control Window

Selecting the Custom Control tab from the main programmer window displays the Custom Control Window shown in Figure 9-7. This window contains two halves.

- The left half lists user-defined and system-only (non-editable) programs. Click on the + sign to the left of an entry to expand the contents of that entry.
- The right half of the window is used for creating user-defined Custom Control equations. With the **Equation Comment** text entry box you can enter descriptive text explaining the operation of the equation. The Equations Area contains a text entry box for creating and editing an equation's input and output statements. The **Add** button starts the Custom Control Wizard and is used to create new equations. The **Edit** button is used to edit existing equations. The **Taglist** button starts a taglist that can be used for selecting/deselecting points in an existing equation.

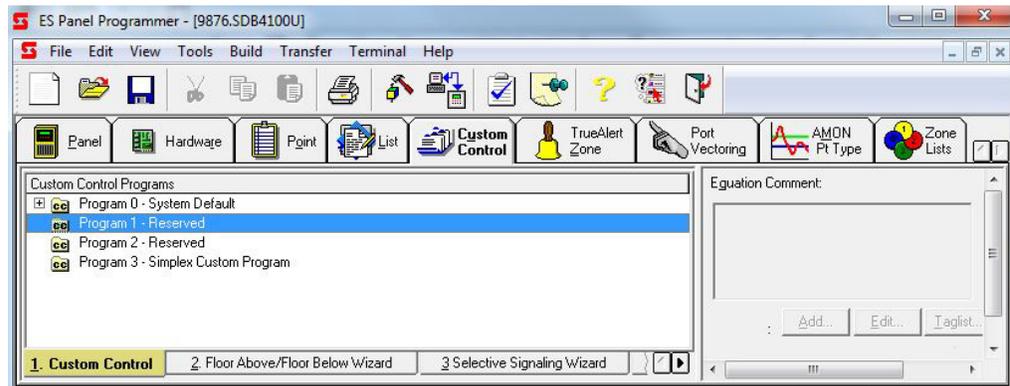


Figure 9-7. Custom Control Window

## Custom Control, *Continued*

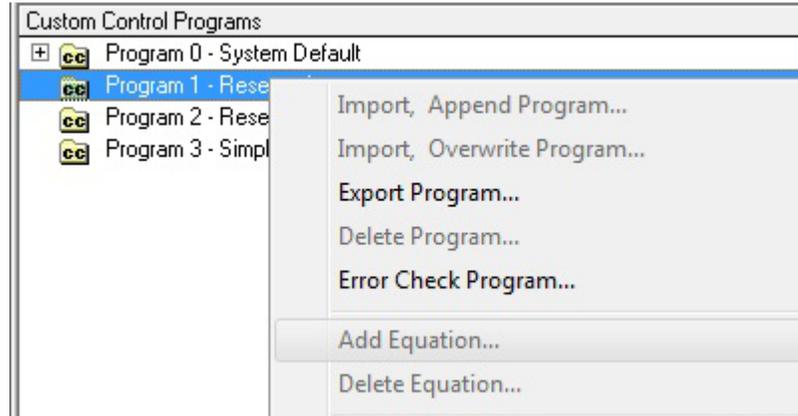
### Selecting User Program

**Note:** You cannot write custom control on InfoAlarm switches and LEDs.

The first step in defining a new custom control equation is to add the equation to a User Programs.

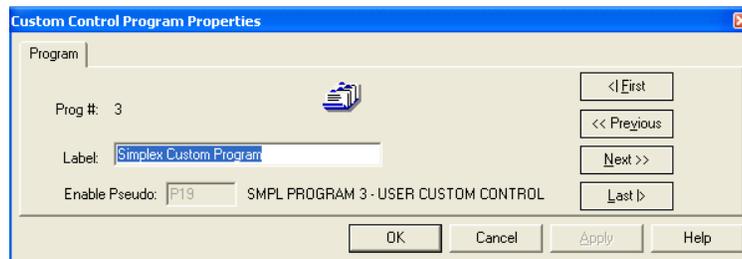
To add a new custom control equation:

1. Right click on one of the user programs, located at the bottom of the program list, and select Add Equation from the list of options.



**Figure 9-8. Add Equation**

2. The **Custom Control Program Properties** dialog (Figure 9-9) appears. Enter a name for the equation in the Label field and click on **OK**.



**Figure 9-9. Equation Properties**

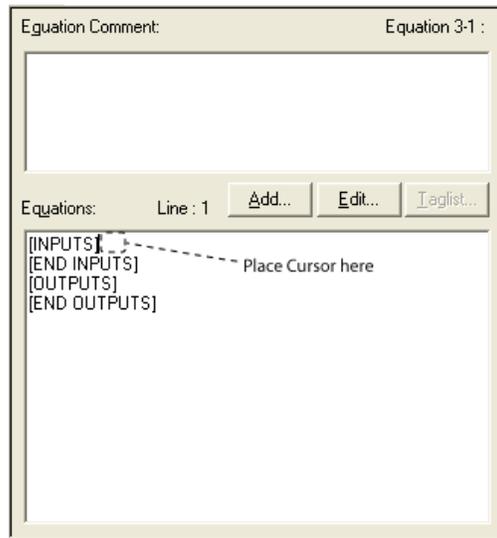
The Equations section of the **Custom Control** window updates to include the [INPUTS], [END INPUTS] etc, entries.

## Custom Control, *Continued*

### Adding Input Statements

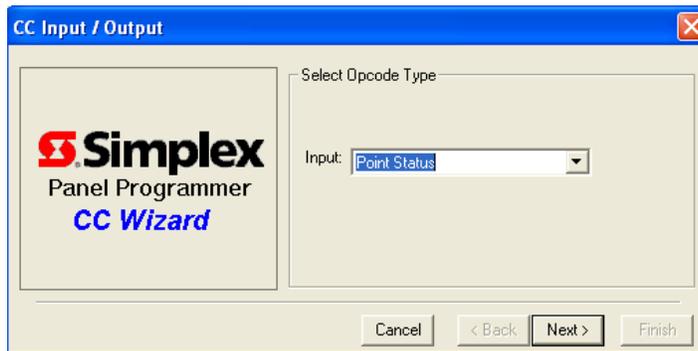
The second step in creating a new Custom Control equation is to add input statements to the equation. Repeat the steps in this section until all input statements in the equation have been defined.

1. In the Equations box, position the cursor just to the right of [INPUTS].



**Figure 9-10. Positioning the Cursor**

2. Click **Add**. The dialog shown in Figure 9-11 appears.



**Figure 9-11. Select Input Opcode Dialog**

3. Click on the drop-down list box, select one of the Opcodes, and click **Next**. Opcodes available: Select Opcode, Select Input Qualifier, Select Item, Select Point.
4. The next dialogs displayed by the wizard depend on the Opcode you selected in Step 3. Follow the Wizard's windows to create input for the equation.
5. The **Finish** button becomes available when all dialogs related to the input Opcode have appeared. Click it to finish defining the input statement.

## Custom Control, *Continued*

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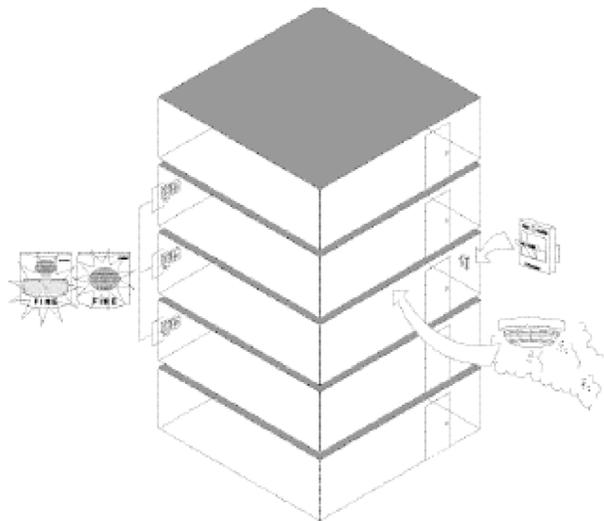
### Adding Output Statements

The third step in creating a new Custom Control equation is to add output statements to the new equation. Repeat the steps in this section until all output statements in the equation have been defined.

1. In the Equations box, position the cursor just to the right of [OUTPUTS].
  2. Click on the **Add** button. The dialog shown in Figure 9-11 appears.
  3. Click on the drop-down list box, select one of the output Opcodes, and click the **Next** button.  
Opcode available: Select Item, Set/Reset Priority, Select Point.
  4. The next dialogs displayed by the wizard depend on the Opcode you selected in Step 3.  
Follow the Wizard's windows to create the output for the equation.
  5. The **Finish** button becomes available when all dialogs related to the output Opcode have appeared. Click it to finish defining the output statement.
- 

### Floor Above/Floor Below Wizard

This application limits the activation of NACs to the floor on which the activated initiating device is located, referred to as the fire floor, and the floors immediately above and below the fire floor.



**Figure 9-12. Floor Above/Below**

In Figure 9-12, an activated smoke detector or pull station on Floor 3 activates the NACs on Floors 2, 3, and 4.

## Custom Control, *Continued*

### Selecting Floor Tab

1. Start the Floor Above/Below Wizard by clicking on the Floor Above/Floor Below Wizard tab, which is located along the bottom left part of the Custom Control window.
2. Right click in the blank area above the tab. When the list of options appears, select Create Floor Group. (The ES Panel refers to each set of floor above/below equations as a Floor Group. This is the name of the group or area that the floor above/below program has control over.) Enter a name for the Floor Group in the dialog that appears.

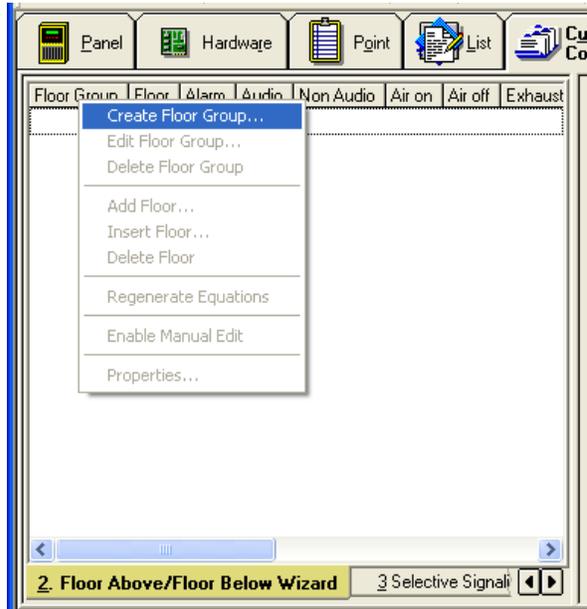


Figure 9-13. Create Floor Group



Figure 9-14. Select Group

## Custom Control, *Continued*

### General Information

After you enter a name for the floor group, click **Next**. A dialog appears, with this dialog you can specify general information about the application.

**Figure 9-15. Floor Above/Below Data**

Specify this information as follows:

- **Program #.** Use this entry to specify the Custom Control user program in which this application is to be stored. Three programs are available for user programs.
- **Number of Floors.** This specifies the total number of floors controlled by the floor above/below equations.
- **Control # of Floors Above.** When a fire occurs, this setting determines how many floors above the fire floor are notified.
- **Control # of Floors Below.** When a fire occurs, this setting determines how many floors below the fire floor are notified.
- **Type (select all that apply)**
  - **Non-Audio.** Select if using non-audio notification appliances
  - **Smoke.** Select this option to control smoke control (damper/AHU) points

Click **Next** when you are finished.

## Custom Control, *Continued*

### Specifying Floor Names

The Floor drop-down list box contains an entry for all floors (i.e., if you set number of floors to 10 in the previous screen, there are 10 entries). To enter a floor's name, first click on the drop-down list box to select the floor and then enter a descriptive label in the Floor Label text box. Enter any comments in the Comment box at the bottom of the dialog.



**Figure 9-16. Specify Floor Names**

### Specifying Input and Static Points

Enter information for the other fields in this screen as follows:

- Alarm Points. Identifies the floor's input points (such as, detectors, pull stations).
- Non-Audio Points. Identifies the floor's non-audio (horns, strobes) notification points.
- Air ON Points. Identifies the pressurization fan and damper ON points.
- Exhaust ON Points. Identifies the exhaust fan and damper ON points.
- Air OFF Points. Identifies the pressurization fan and damper OFF points.
- Exhaust OFF Points. Identifies the exhaust fan and damper OFF points.

For each of these selections, when you click on the button, a taglist appears, with which you can select specific points. Press the space bar to select a point. A “>>” symbol appears to the left of the point to indicate that it is selected.



**Figure 9-17. Input and Static Points**

**Note:** The user list is created starting from the first available user list and the number of list used depends on the chosen configuration.

Click **Next**. A dialog containing the Custom Control equations generated by the wizard appears. Click **Finish**.

## Custom Control, *Continued*

### Using the Selective Signaling Wizard

Selective Signaling is typically used to limit the activation of NACs to the area or floor on which an activated initiating devices is located. In the following example, an activated initiating device on Floor 2 triggers only the NACs located on Floor 2.

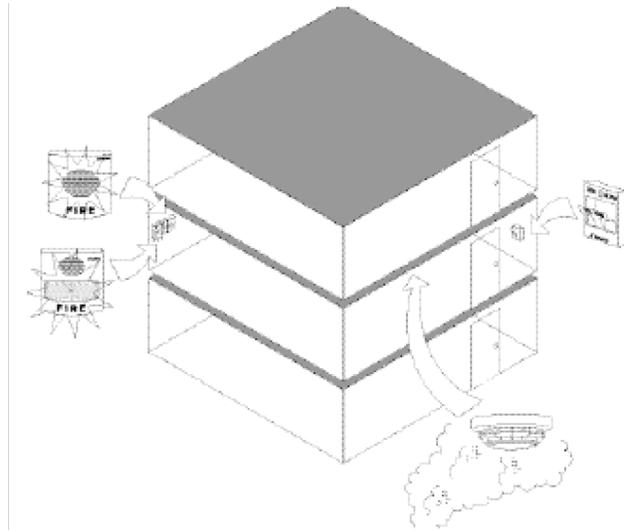


Figure 9-18. Selective Signaling

### Selecting Selective Signaling Wizard Tab

Start the Selective Signaling Wizard by clicking on the Selective Signaling Wizard tab, which is located along the bottom left part of the Custom Control window.

Right click in the blank area above the tabs. When the list of options appears, select Create Group. (See Figure 9-19.)

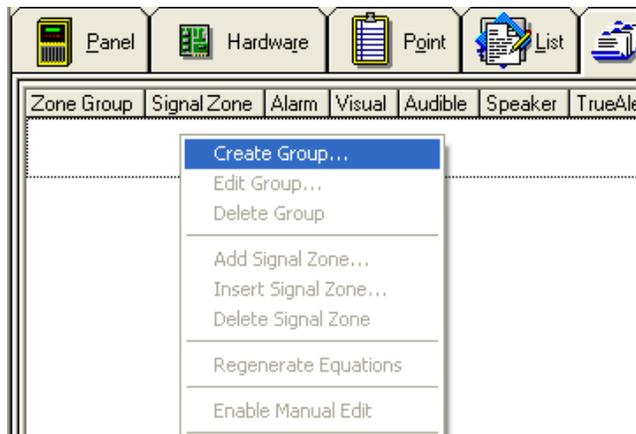


Figure 9-19. Create Selective Signaling Group

The dialog shown in appears, prompting you for the name of the area/group. Enter a name for the group in the dialog and click **Next**.

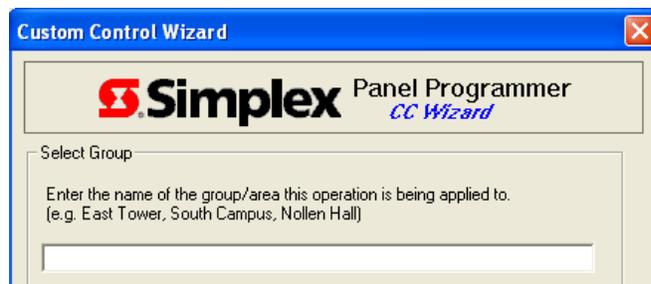
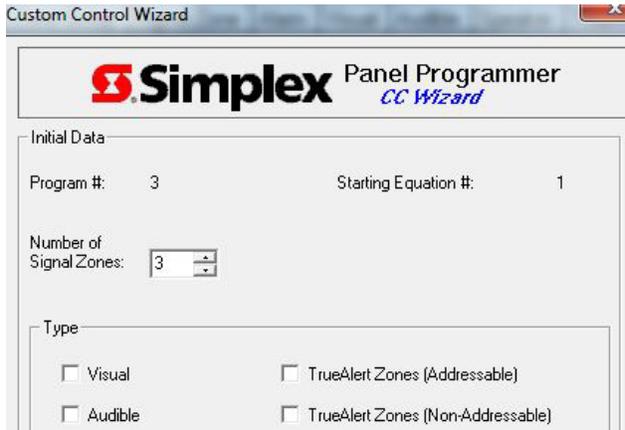


Figure 9-20. Naming Group

## Custom Control, *Continued*

### Setting General Options

After you enter a name for the group, click the **Next** button. A dialog appears, with this dialog you can specify general information about the application.



**Figure 9-21. General Information**

Specify the following:

- Program #. If necessary, specify an alternate program number for the selective signaling application.
- Number of Signal Zones. Enter the total number of signal zones affected by the application.
  - Type (select all that apply).
  - Visual. Select to use visual notification appliances in the application.
  - Audible. Select to use audible notification appliances in the application.
  - TrueAlert Zones (Addressable). Select to use addressable TrueAlert zones (wired to 4009T or TrueAlert Power Supply) in the application.
  - TrueAlert Zones (Non-Addressable). Select to use non-addressable TrueAlert appliances (2-wire with independent control of audibles and visuals) in the application.

### Setting Zone Names

Click on the Zone drop-down list box and select the zone number. Enter a label for the zone in the Signal Zone Label box. Click on **Next** to continue.

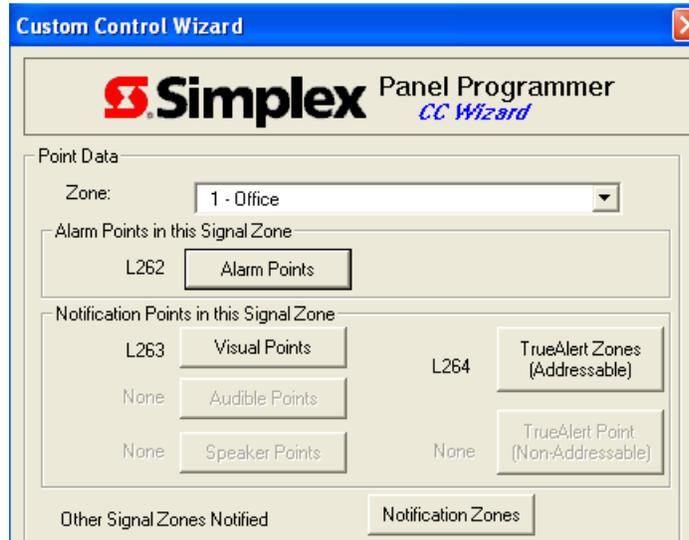


**Figure 9-22. Zone Names**

## Custom Control, *Continued*

### Linking Initiating and Notification Points

Using the screen shown below you can link initiating and notification points to one another. If one of the specified initiating devices activates, only the notification appliances linked to the initiating device activates.



**Figure 9-23. Linking Initiating and Notification Devices**

**Note:** The user list is created starting from the first available user list and the number of list used depends on the chosen configuration.

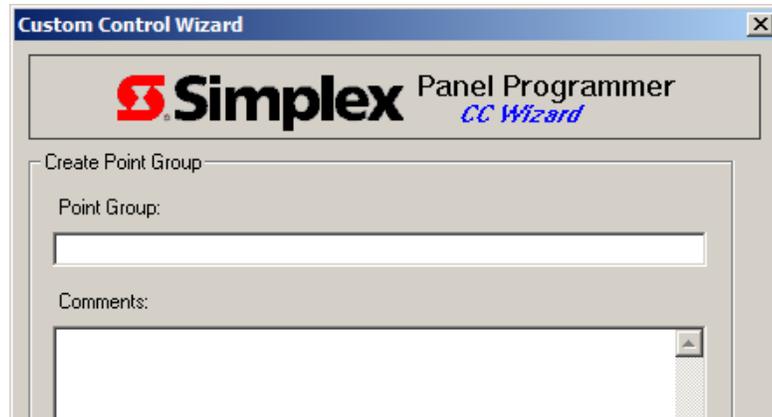
1. Click on the button labeled **Alarm Points**. A tag list appears. Use the up and down arrow keys to move through the list. Use the spacebar to tag (select) a point. A “>>” symbol appears to the left of the point when it is selected. Click **OK** to continue. The previous screen appears.
2. In **Notification Points in this Signal Zone**, click the notification appliance you want to turn on when the tagged initiating devices activate. The choices are: **Visual Points**, **Audible Points**, **TrueAlert Zones (Addressable)**, and **TrueAlert Zones (Non-Addressable)**. A tag list appears. Use the up and down arrow keys to move through the list. Use the spacebar to tag (select) a point. A “>>” symbol appears to the left of the point when it is selected. Click **OK** to continue. The previous screen appears.
3. You can also activate other notification signal zones when a tagged initiating device activates. To do this, click on the **Notification Zones** button to the right of the **Other Signal Zones Notified** label. A tag list appears. Use the up and down arrow keys to move through the list. Use the spacebar to tag (select) a point. A “>>” symbol appears to the left of the point when it is selected. Click **OK** to continue. The previous screen appears.
4. Click **Next** to continue. A screen showing the equations created by the wizard appears. Click **Finish**.

## Custom Control, *Continued*

### Using the Sounder/Relay Base Wizard

Using the Sounder/Relay Base Wizard you can change the default operation of single station smoke detectors. Note that the default operation—sounder activates when the alarm threshold is passed and deactivates when the smoke level drops back below the threshold—is programmed using the TPHOTO device type. To use the wizard to change the default operation, you must assign a device type of SPHOTO or RPHOTO to the device.

1. Start the Sounder/Relay Base Wizard by clicking on the Sounder/Relay Base Operation Wizard tab, which is located along the bottom left part of the Custom Control window.
2. Right click in the blank area above the tabs. When the list of options appears, select Create Point Group. A figure similar to appears.



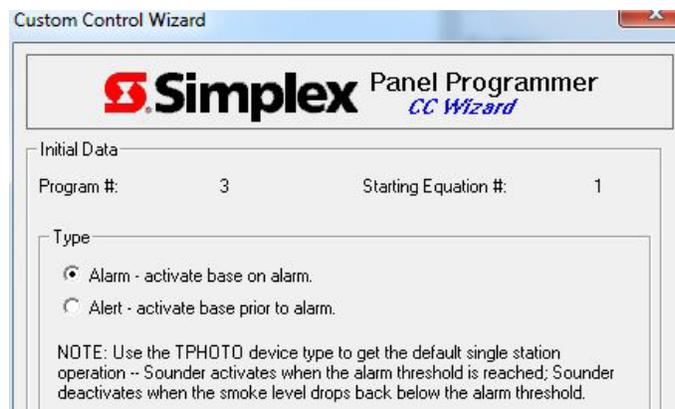
**Figure 9-24. Creating Point Group**

3. Enter a Name for the group in the Point Group field and enter any comments in the Comments box. Click **Next** to continue. Refer to the appropriate section below for specific information.

### Activating Base on Alarm

Activate base on Alarm configures the single station detectors to activate when the alarm threshold is reached and to turn off on either reset or silence.

1. To select this option, select the radio button labeled “**Alarm—Activate Base on Alarm.**”
2. If necessary, you can select a different Custom Control user program. To do this, click on the control to the right of Program # and select the appropriate program number. Click **Next** to continue.



**Figure 9-25. Sounder/Relay Base Information**

*Continued on next page*

## Custom Control, *Continued*

### Activating Base on Alarm

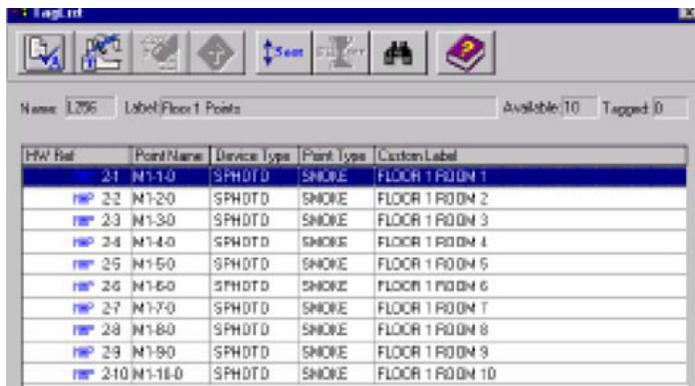
3. A dialog similar to the following appears. Select the operation for the device as either “Hold Device ON until Reset” (sounder or relay remains activated until reset) or “Hold Device on until Silence” (sounder or relay remains activated until signal silence).



**Figure 9-26. Specifying Device Operation**

Note: List number L256 is the next available list. It is not specifically L256.

4. Click on the **Group Points** button. A tag list, containing single station points appears. Use the up and down arrow keys to move through the list. Use the spacebar to tag (select) a point. A “>>” symbol appears to the left of the point when it is selected.



**Figure 9-27. Tagging Points**

5. Click **OK** to continue. The previous screen appears. Press **Next** to continue. A screen showing the Custom Control statements appears. Click **Finish**.

## Custom Control, *Continued*

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**Common Ground Fault LED Control** Select and utilize the LED Yellow point type for custom control ground fault LED trouble indications:

Program the Color User Interface, **Point Editing** Tab as follows:

HW Ref.	Switch Mode	Ref. Address	Ref. Label	HW Ref.	LED Mode
3-1-1	SMPL	3-2-1	ON	P535	Ground Fault
3-1-2	SMPL	3-2-2	SMPL		
3-1-3	SMPL	3-2-3	SMPL		

Add the following custom control equation to the 4007ES IDNAC Addressable Panel:

```
[INPUTS]
  STATUS ON
    1-0-9 | CARDSTAT | CSP | POSITIVE EARTH
  OR STATUS ON
    1-0-10 | CARDSTAT | CSP | NEGATIVE EARTH
  OR STATUS ON
    1-0-27 | CARDSTAT | CSP | POSITIVE EARTH ON RUI
  OR STATUS ON
    1-0-28 | CARDSTAT | CSP | NEGATIVE EARTH ON RUI
  OR STATUS ON
    2-0-8 | CARDSTAT | CSP | IDNET+ EARTH TROUBLE
[END INPUTS]
[OUTPUTS]
  TRACK ON PRI=9,9
    P535 | DIGITAL | UTILITY | COMMON GROUND FAULT LED
[END OUTPUTS]
```

Add the following custom control equation to the 4007ES Hybrid Panel:

```
[INPUTS]
  STATUS ON
    1-0-3 | CARDSTAT | CSP | POSITIVE EARTH GROUND
  OR STATUS ON
    1-0-4 | CARDSTAT | CSP | NEGATIVE EARTH GROUND
  OR STATUS ON
    2-0-8 | CARDSTAT | CSP | IDNET+ EARTH TROUBLE
[END INPUTS]
[OUTPUTS]
  TRACK ON PRI=9,9
    P535 | DIGITAL | UTILITY | COMMON GROUND FAULT LED
[END OUTPUTS]
```

## Custom Control, *Continued*

### Suppression Release Introduction

This section describes how to configure Suppression Release Hazard Areas using the programmer.

Suppression Release refers to the release of water or chemical agents in response to alarm conditions. Suppression Release operation is limited to hazard areas, which are collections of initiating devices, signaling appliances, and releasing peripherals, powered by NACs, that are set up to respond to alarm conditions.

### Suppression Release General Capabilities

The 4007ES panel is capable of controlling either a preaction/deluge sprinkler system or an agent release extinguishing system.

- The number of hazard areas that the 4007ES panel is capable of monitoring is restricted by the hardware and point capacity of the panel. Each hazard is defined as a separate area containing its own 4090-9005 or -9006 releasing peripheral and solenoid.
- Table 9-1 lists the number of Notification Appliance Circuits required by each hazard area of the 4007ES FACP.

**Table 9-1. Number of NACs for Hazard Area**

<p>Each hazard area requires three to five conventional or virtual NACs, depending on the use case and options selected. One conventional NAC is required to power the Suppression Release Peripheral (SRP). The other outputs can either use conventional NACs or Virtual Notification Appliance Circuits (VNACs). The information below describes the operation associated with the available suppression release NAC/VNAC point types.</p>
<ul style="list-style-type: none"> <li>• The RELSIG circuit for audible notification typically consists of a horn and provides escalating cadence patterns to identify the stage of events (i.e., first alarm, confirmed alarm, release).</li> <li>• The RELWVIS circuit for visual notification is used to alert when the first stage of a cross-zoned releasing sequence occurs or when a delayed action is used.</li> <li>• The RELVIS circuit for visual notification is activated when the releasing output activates and remains on until System Reset. It can be used in systems without cross-zoning and without a delay timer to indicate the release output activation. It can also be used in systems with cross-zoning or a delay timer to provide a separate indication that the release output activation has occurred outside entrances of the hazard area.</li> <li>• The SUPRELS circuit controls the power to the SRP. This circuit must be a conventional NAC, not an addressable VNAC.</li> <li>• The RELISIG circuit controls audible and visual notification appliances when the system is configured to have a NYC Abort Investigation timer. Although an audible signal type, this NAC can connect sounders and strobes to the same circuit as required by NYC requirements. The audible portion of these appliances activates on steady when the NYC investigation timer activates and turn off when the investigation timer reaches zero. The NYC Abort option does not comply with UL 864.</li> </ul>

- The releasing peripheral activates its output, which attaches to the solenoid, only when the designated initiating devices and the NAC connected to the release peripheral are active at the same time. This prevents a malfunctioning input from triggering a release.
- Releasing signaling patterns are as follows:
  - Dual Detector Application. Temporal on first alarm (can also be configured as 20 beats per minute). Signal changes to 120 BPM on second alarm. When the releasing appliances activate, the tone changes to Steady.
  - Single Detector Application. When an initiating device in the hazard area activates, the system does one of two things: If a delay timer is used, the NACs play a 120 BPM signal as the timer counts down. This changes to a Steady pattern when release occurs. If no delay timer is used, the releasing appliances activate as soon as a single detector enters an alarm state. In this case, the NACs sound a Steady tone pattern and no distinct pre-discharge tone pattern plays.
  - Alarm Triggered by Activation of Manual Release Station. If a delay timer is used, the system plays a 120 BPM signal on the NACs as the timer counts down. When the delay timer reaches zero, the releasing outputs activate and the signal changes to a steady tone.

*Continued on next page*

## Custom Control, *Continued*

### Suppression Release General Capabilities

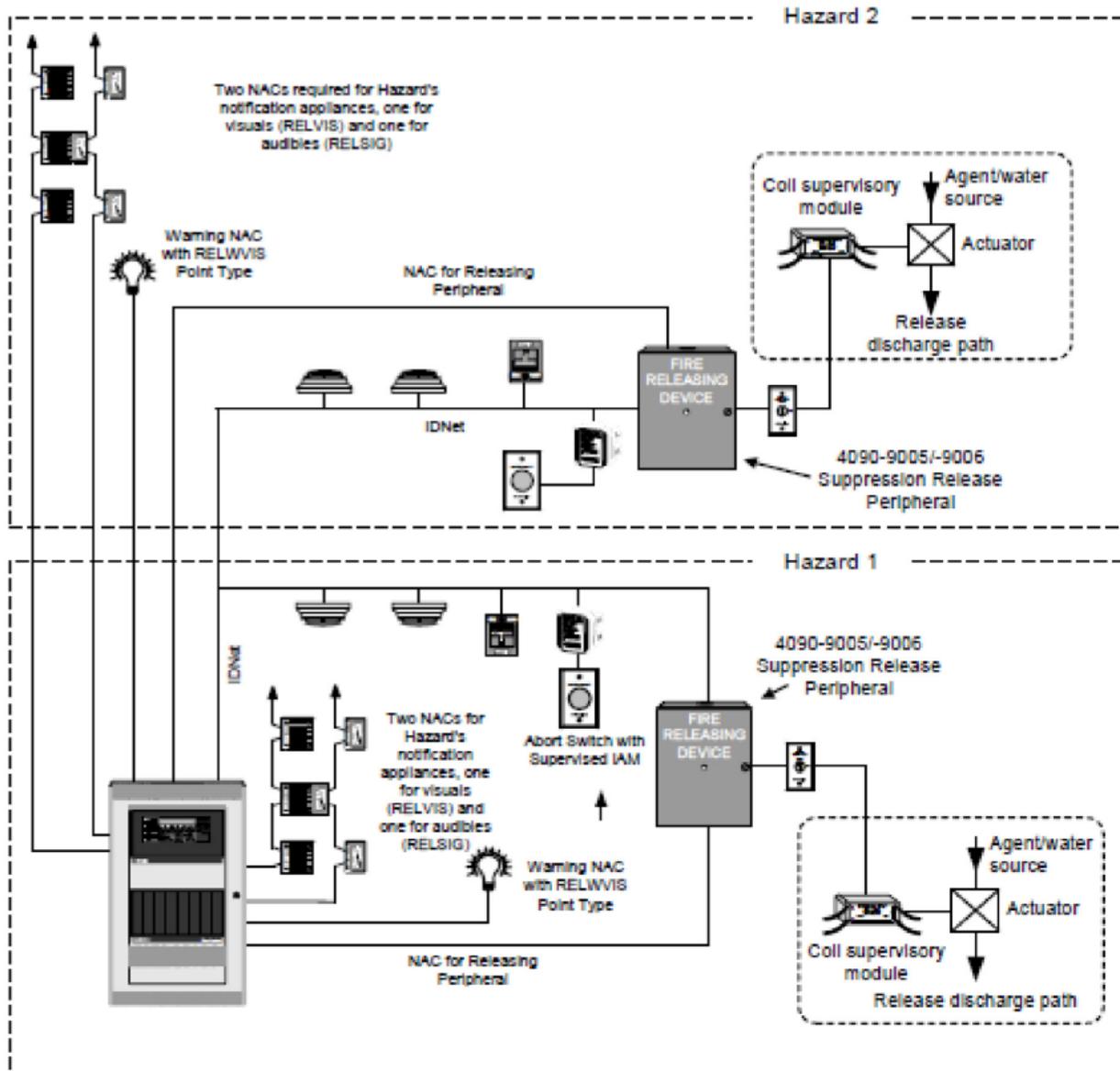


Figure 9-28. Suppression Release Overview

### Applying Appliqué

A self-adhesive appliqué (4010-9830 English or 4010-9830CAF French) must be ordered separately and applied to the front door of the unit when it is used as a suppression release system. This appliqué is used to indicate that the 4007ES panel is programmed to work as a releasing panel and all releasing circuits must be disabled prior to servicing. Apply the label to any area on the front door.

## Custom Control, *Continued*

### Suppression Release Device and Point Types

Suppression release device and point types are shown in the table below. Assign the applicable device and point types to the suppression points **before** programming hazard area information.

Refer to section *Programming Points* inside the Online Help of the 4007ES Panel Programmer for information on programming the points.

**Table 9-2. Valid Device and Point Types**

Point Type	Description	Valid Device Types	AutoGenerates to Following Lists:
RELSIG	Releasing audible circuit	SIGA, SIGB, CHAN2A, CHAN2B, CHAN4A, CHAN4B, PCHAN4A, PCHAN4B, SIGIAM, NULLSIG, PS_SIGA, PS_SIGB, MFIO_SIGA, MFIO_SIGB, MSOUND, MSIGA, MSIGB, VNAC	L0 - Coding Group 0 L1 - Coding Group 1 L50 - Walk Test Group 0 - signals/relays L139- Local Mode Operation Points
RELISIG	NYC investigation bell/strobe circuit	SIGA, SIGB, CHAN2A, CHAN2B, CHAN4A, CHAN4B, PCHAN4A, PCHAN4B, SBZAM, SAZAM, NULLSIG, PS_SIGA, PS_SIGB, MFIO_SIGA, MFIO_SIGB, MSOUND, MSIGA, MSIGB, VNAC	L0 - Coding Group 0 L1 - Coding Group 1 L48 - TrueAlert Zone OFF on SILENCE L50 - Walk Test Group 0 - signals/relays L139- Local Mode Operation Points
RELVIS	Release visual circuit	SIGA, SIGB, CHAN2A, CHAN2B, CHAN4A, CHAN4B, PCHAN4A, PCHAN4B, SBZAM, SAZAM, SIGIAM, NULLSIG, PS_SIGA, PS_SIGB, MFIO_SIGA, MFIO_SIGB, MSOUND, MSIGA, MSIGB, VNAC	L0 - Coding Group 0 L13 - Fire Alarm Visuals OFF on RESET L49 - TrueAlert Zone OFF on RESET L50 - Walk Test Group 0 - signals/relays L139- Local Mode Operation Points
RELWVIS	Releasing warning visual signal	SIGA, SIGB, CHAN2A, CHAN2B, CHAN4A, CHAN4B, PCHAN4A, PCHAN4B, SBZAM, SAZAM, SIGIAM, NULLSIG, PS_SIGA, PS_SIGB, MFIO_SIGA, MFIO_SIGB, MSOUND, MSIGA, MSIGB, VNAC	L0 - Coding Group 0 L13 - Fire Alarm Visuals OFF on RESET L49 - TrueAlert Zone OFF on RESET L50 - Walk Test Group 0 - signals/relays L139- Local Mode Operation Points
SSABRT	Shorted Suppression Agent Abort Zone	MONA, MONB, SMONA, SMONB, SCAN50, 4002MA, 4002MB, IAM, SECIAM, MAZAM, MBZAM	
SSDUMP	Shorted Suppression Agent Manual Dump	MONA, MONB, SMONA, SMONB, SCAN50, 4002MA, 4002MB, IAM, SECIAM, MAZAM, MBZAM, ADRPUL, CANPUL	L18 - General Fire Alarm Monitor Zones L30 - Alarm Verification Group 0 L61 - Coding Group 1 - Monitor Zones L139- Local Mode Operation Points
SUPRELS	Suppression Release Output	RELEASE, SIGA, SIGB, CHAN2A, CHAN2B, CHAN4A, CHAN4B, PCHAN4A, PCHAN4B, SBZAM, SIGIAM, SAZAM, NULLSIG, PS_SIGA, PS_SIGB, MFIO_SIGA, MFIO_SIGB	
SUPRELS (Graphic24)	Suppression (Agent Discharge) Release Output	OUTPUT	

*Continued on next page*

## Custom Control, *Continued*

### Suppression Release Device and Point Types

**Table 9-2. Valid Device and Point Types, *continued***

Point Type	Description	Valid Device Types	AutoGenerates to Following Lists:
SUPDET	Suppression Agent Monitor Zone	MONA, MONB, SMONA, SMONB, SCAN50, 4002MA, 4002MB, IAM, SECIAM, MAZAM, MBZAM, ADRDET, GENIAM, NULLMON, 500PSM, APM500, CM520, DM520, DMC520, IHN135, IHN200, 500CMB, 500CMC, 500CMAB, 500CMAC, 500CMAD, 500CMAE, TFXCDM, 501CMB, LPBD520, MD501, MD501EX, MD901, MDR901, MDS901, MF401, MF501, MF501HA, MF501EX, MF901, MF901HA, MFR901HA, MFS901HA, MER901, MFS901, MR501, MR501EX, MR501T, MR501TEX, MR901, MRR901, MRS901, MS502EX, MU901, MU912, S251, S252PLUS, All PHOTO Device types, All ION Device types, all HEAT Device types	L18 - General Fire Alarm Monitor Zones L30 - Alarm Verification Group 0 L61 - Coding Group 1 - Monitor Zones L139- Local Mode Operation Points
SUPDUMP	Suppression Agent Manual Dump	MONA, MONB, SMONA, SMONB, SCAN50, 4002MA, 4002MB, IAM, SECIAM, MAZAM, MBZAM, ADRPUL, CANPUL	L18 - General Fire Alarm Monitor Zones L30 - Alarm Verification Group 0 L61 - Coding Group 1 - Monitor Zones L139- Local Mode Operation Points
SUPABRT	Suppression Agent Abort Zone	MONA, MONB, SMONA, SMONB, SCAN50, 4002MA, 4002MB, IAM, SECIAM, MAZAM, MBZAM	
SUPPRES	Suppression Agent Pressure Mon	MONA, MONB, SMONA, SMONB, SCAN50, 4002MA, 4002MB, IAM, SECIAM, MAZAM, MBZAM	L18 - General Fire Alarm Monitor Zones L30 - Alarm Verification Group 0 L61 - Coding Group 1 - Monitor Zones L139- Local Mode Operation Points

## Custom Control, *Continued*

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### Suppression Release Signal Responses

This section describes the responses of the suppression release signals.

#### 1. Alarm Silence/System Reset

- RELSIG, RELISIG turn off on alarm silence.
  - RELSIG, RELISIG resounds after alarm silence when there is a state change on those signals (for example, 2nd detector activates in a cross-zone, delay expires, abort activated).
  - RELVIS, RELWVIS turn off on system reset.
  - If not already silenced, RELSIG, RELISIG will turn off on system reset.
  - SRP output stays on until system reset.
- 

### Suppression Release Use Cases

#### Use Case: Common Configuration

The following use cases share some common configuration, listed in this section. Specific configuration is listed under each use case.

Panel: A 4007ES IDNAC with the following points.

IDNet points:

- Manual release point: MBZAM with SSDUMP point type at address M1-11-0.
- Automatic Release Points: Two Smoke detector devices with SUPDET point types at addresses at M1-18-0 and M1-19-0.
- Abort Switches: One IAM with point type SUPABRT at address M1-35-0.
- SRP: One SRP (RELEASE) with point type SUPRELS at address M1-36-0.

True Alert Zone

- SIG913 is configured as RELSIG (Releasing horn circuit) and has at least one audible device from the IDNAC channel.
- SIG914 is configured as RELWVIS (Releasing Warning Visual Signal) and has at least one visual device from the IDNAC channel.

AuxNAC

- SIG3 set as SUPRELS point type.

Create a Hazard Area in Custom Control, Suppression Release Wizard

- Create Hazard Area window
  1. Hazard Area Name: Area 1
  2. Comments: n/a

*Continued on next page*

## Custom Control, *Continued*

### Suppression Release Use Cases

Initial data window

- Program#: 3.  
**Note:** It is always 3 for a 4007ES FACP.
- Check **Enhanced Power Supply** because we have an IDNAC channel.
- Check **Cross Zone (Dual Detector)**.
- Set **First Stage Audible Notification** to Temporal.  
**Note:** The other options are Slow March Time (March20) and Fast March Time (March120). Fast March Time should not be used because the Second Stage Audible Notification is fixed at Fast March Time.

Timer Configurations

- Set **Manual Release** at 30 seconds and check the box.
- Set **Detector Release Delay** at 60 seconds and check box.

Hazard Area Lists window

- Press **Manual Release Points** and select the manual release point at **M1-11-0**.
- Press **Automatic Release Points** and select **Automatic Release Points at M1-18-0 and M1-19-0**.
- Press **Abort Switches** and select **Abort Point at address M1-35**.
- Press **Release Warning Points** and select **SIG914**.
- Press **Suppression Dump Points** and select **SIG3 and M1-36-0**.
- Press **Release Notification Audible NACs** and select **SIG913**.

### Use Case #1: 10 Second Delay Abort

#### Specific Configuration

Abort Logic Window

- Set **System Release after GREATER of Remaining Time Delay or 10 seconds**.

Table 9-3 describes actions and their corresponding responses.

**Table 9-3. 10 Second Delay Abort, Actions and Responses**

Action	Response
First detector is triggered.	RELSIG turns on at low cadence (Temporal). RELWVIS turns on.
Manual device or second detector is triggered.	RELSIG turns on at high cadence (March120). RELWVIS stays on.
Abort switch is pressed and maintained for approximately 60 seconds after the RELSIG is in high cadence.	While the abort switch is pressed the RELSIG stays in high cadence and RELWVIS stays on.
Release the Abort Switch	RELSIG stays on in high cadence. RELWVIS stays on for 10 seconds or for the remainder of the automatic release timer, whichever is greater. When the timer expires RELSIG and SUPRELS turn on steady and RELWVIS remains on.

*Continued on next page*

## Custom Control, *Continued*

### Suppression Release Use Cases

#### Use Case #2: NYC Abort

##### Specific Configuration

###### True Alert Zone

- SIG912 is configured as RELISIG (Releasing Investigation Circuit) and has at least one audible device from the IDNAC channel.

###### Abort Logic Window

- Set **NYC**

###### Hazard Area Lists Window

- Press **Release Investigation Points** and select **SIG912**.

Table 9-4 describes actions and their corresponding responses.

**Table 9-4. NYC Abort, Actions and Responses**

Action	Response
First detector is triggered.	RELISIG turns on steady.
Second detector is triggered.	<ul style="list-style-type: none"> <li>• RELISIG turns off.</li> <li>• RELWVIS turns on.</li> <li>• RELSIG turns on at high cadence (March120).</li> </ul>
Press and release the abort switch.	<ul style="list-style-type: none"> <li>• Automatic Release Timer countdown is reset to the original value.</li> <li>• RELISIG turns on steady for 90 seconds.</li> <li>• RELWVIS turns off.</li> <li>• RELSIG turns off.</li> </ul> <p><b>Note:</b> If the abort switch is pressed and released after the second alarm while the investigation timer is running, the investigation timer will not be reset and will continue to countdown until it reaches zero. When the investigation timer reaches zero, RELSIG and RELWVIS will turn back on and the automatic release timer will begin to countdown. If the abort switch is pressed and released again while the automatic release timer is running, a new full cycle of investigation and automatic release delay will start.</p>
Investigation Timer expires	<ul style="list-style-type: none"> <li>• RELISIG turns off.</li> <li>• RELWVIS turns on.</li> <li>• RELSIG turns on at high cadence (March120) for the full period of the Automatic Release Timer.</li> <li>• RELSIG turns on steady, RELWVIS stays on, SUPRELS NAC turns on steady and SRP output turns on steady after the full Automatic Release Timer expires.</li> </ul>

#### Use Case #3: IRI Abort

##### Specific Configuration

###### True Alert Zone

- SIG915 is configured as RELVIS (Releasing Visual Signal) and has at least one visual device from the IDNAC channel.

###### Abort Logic window

- Set **IRI Abort**.

###### Hazard Area Lists window

- Press **Release Notification Visible NACs** and select **SIG915**.

*Continued on next page*

## Custom Control, *Continued*

### Suppression Release Use Cases

Table 9-5 describes actions and their corresponding responses.

**Table 9-5. IRI Abort, Actions and Releases**

Action	Response
First detector is triggered.	RELSIG turns on low cadence (Temporal). RELWVIS turns on.
Abort switch is pressed and held.	No change.
Second detector is triggered while abort switch is still pressed. Keep the abort switch pressed for more than one minute.	<ul style="list-style-type: none"> <li>RELSIG goes on high cadence (March120). RELWVIS stays on.</li> <li>SRP output does not turn on including after Automatic Release Timer expires.</li> </ul>
Abort switch is released	<p>After 10 seconds or the remaining value of the release timer, whichever is greater, RELSIG goes on steady. RELWVIS stays on. RELVIS goes on. SUPRELS NAC goes on steady and SRP output goes on steady.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>If a second alarm condition occurs while the Abort switch is still pressed, the automatic release timer resets to the value that has been configured for it. It begins to count down and will stop at 10 seconds. When the abort switch is released, the panel starts the release timer countdown at the value of the countdown timer or at 10 seconds, whichever is greater.</li> <li>Pressing the abort switch again and releasing it, when a second alarm is triggered, has no effect.</li> </ul>

#### **Use Case #4: Immediate Release**

This use case is the simplest case. No abort switch, no release timers and no cross zone verification.

#### **Specific Configuration**

##### IDNET points

- Manual release point: MBZAM with SSDUMP point type at address M1-11-0.
- Automatic Release Points: One Smoke detector devices with SUPDET point types at address at M1-18-0.
- SRP: One SRP (RELEASE) with point type SUPRELS at address M1-36-0.

##### True Alert Zone

- SIG913 is configured as RELSIG (Releasing horn circuit) and has at least one audible device from the IDNAC channel.
- SIG915 is configured as RELVIS (Releasing Visual Signal) and has at least one visual device from the IDNAC channel.

##### AuxNAC

- SIG3 set as SUPRELS point type.

Create a Hazard Area in Custom Control, Suppression Release Wizard,

- Create Hazard Area window.
  1. Hazard Area Name: Area 1
  2. Comments: n/a

*Continued on next page*

## Custom Control, *Continued*

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### Suppression Release Use Cases

Initial data window

- Program#: 3  
**Note:** It is always 3 on a 4007ES.
- Check **Enhanced Power Supply** because we have an IDNAC channel.
- Uncheck **Cross Zone (Dual Detector)**.  
**Note:** Without cross zone the audible notification automatically defaults to Fast March Time (March120).

Abort Logic Window

- Set **Immediate Release (No Delay)**.

Timer Configurations

- Uncheck **Manual Release** to set it a 0.
- Uncheck **Detector Release Delay** to set it at 0.

Hazard Area Lists window

- Press **Manual Release Points** and select the manual release point at M1-11-0.
- Press **Automatic Release Points** and select Automatic Release Points at M1-18-0.
- Do not add any devices to **Abort Switches**.
- Do not add any devices to **Release Warning Points**.
- Press **Suppression Dump Points** and select SIG3 and M1-36-0.
- Press **Release Notification Audible NACs** and select SIG913.
- Press **Release Notification Visible NACs** and select SIG915.

Table 9-6 describes actions and their corresponding responses.

**Table 9-6. Immediate Release, Actions and Responses**

Action	Response
First detector is triggered	RELSIG turns on steady. RELVIS turns on. SUPRELS NAC turns on steady and SRP output turns on steady.

## Custom Control, *Continued*

### Step 1. Defining Hazard Area

1. Click the **Custom Control** tab.
2. Click the **Suppression Release Wizard** subtab. A screen similar to the one shown in Figure 9-29 appears.

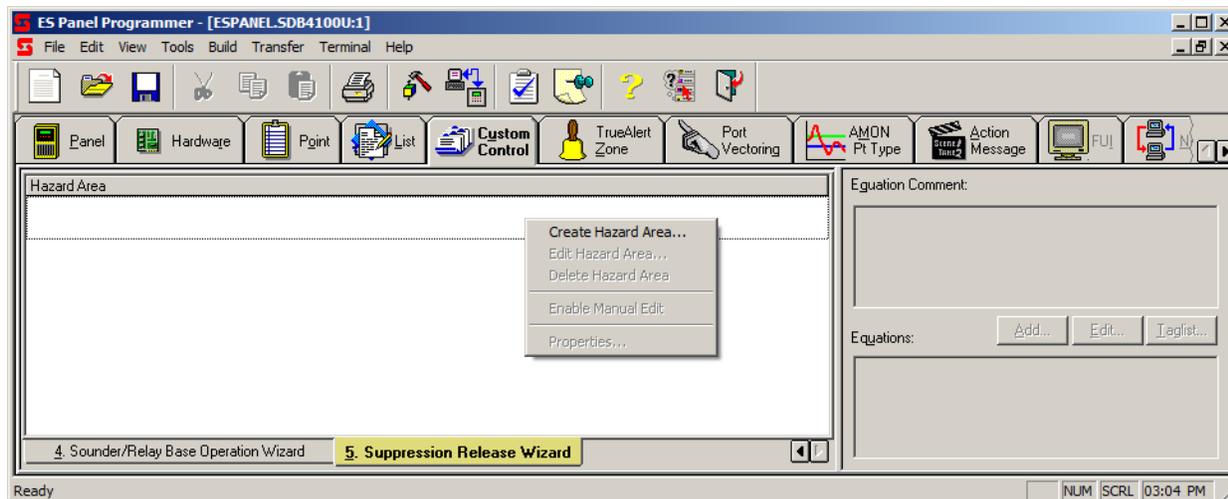


Figure 9-29. Create Hazard Area Menu Choice

3. Right click on the blank area of the screen labeled **Hazard Area**.
4. Click on **Create Hazard Area** from the menu that appears. A screen similar to the one shown below appears.
5. Enter a name for the hazard area in the Hazard Area Name field and enter any applicable comments. Click **Next** to continue.

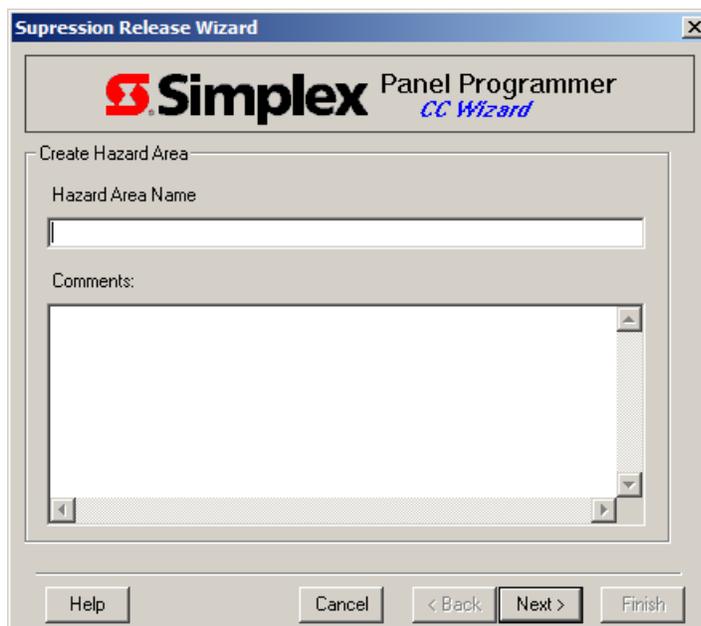


Figure 9-30. Naming Hazard Area

## Custom Control, *Continued*

### Step 2. Specifying Initial Data and Options

The next screen, shown in Figure 9-31, prompts you to specify the following information.

- **Custom Control Program Number.** This is the program number under which the suppression release custom control equations created by the wizard are stored. In the case of a 4007ES FACP, Program # 3 is the only one that can be used.
- **Cross Zone (Dual Detector).** Check this box to enable cross-zoned (dual detector) operation. Cross-zoned applications require that two automatic initiating devices in different areas enter an alarm state before the releasing appliance can activate.

**Note:** To achieve true cross zoning, the initiating devices must be wired to either Monitor cards or ZAMs. Dual detector operation, which requires two detectors to activate, can use TrueAlarm initiating devices.

- **First Stage Audible Notification.** Click on the drop down list box and set the audible notification appliance pattern used for the first stage of a cross-zone (dual detector) alarm. Choices include Slow March Time, Temporal, or Fast March time\*. When cross-zoned (dual detector) is enabled, this is the audible NAC tone pattern plays following activation of the first detector. When the second detector activates, the pattern is always Fast March. This option is not applicable if Cross Zone (Dual Detector) check box is not selected.

\* **Note:** Fast March time is not recommended, for example, there would be no change in pattern when transitioning from the first stage alarm to the second stage alarm.

**Figure 9-31. Cross Zone (Dual Detector) Options**

Click **Next** to continue programming when you have set these options to the appropriate values.

## Custom Control, *Continued*

### Step 3. Specifying Abort Switch Operation

Using the next screen you can specify the action that occurs when the abort switch is released.

**IMPORTANT:** For all choices except the International Risk Insurers (IRI) Abort method, pressing and holding the abort switch prevents agent release for as long as the switch is held in, unless a Manual Release switch is operated, which overrides the Abort Switch operation. For IRI Abort, the abort switch must be pressed and held before the second alarm activation occurs to prevent release.



**Figure 9-32. Abort Switch Options**

Set this option to one of the following choices:

- **Immediate.** If a confirmed alarm exists, for example, two detectors on separate zones for a cross zoned system or a single detector in a single alarm system and the release timer equals zero, the Suppression Release peripheral activates its output immediately upon release of the abort switch.
- **10 Second Delay.** If a confirmed alarm exists (for example two detectors on separate zones for a cross zoned system or a single detector in a single alarm system), the Suppression Release peripheral activates its output after a 10 second delay.
- **10s/Remaining.** Similar to the 10 Second Delay except when the abort switch is released, the delay used is the remaining time left on Automatic Release Delay Timer or 10 seconds, whichever is greater.
- **IRI Abort -- Cross Zoned System Only (Does not comply with UL 864).** When a single alarm is present, pressing the abort switch prevents the output on the Suppression Release Peripheral from activating. If a second alarm condition occurs while the Abort switch is still pressed, the investigation timer continues to countdown and the automatic release timer resets to its configured value. When the investigation timer reaches zero, the automatic release delay timer will begin to countdown. When the abort switch is released, the panel starts the release timer countdown at the value of the release timer or at 10 seconds, whichever is greater.
- **Original Delay (Does not comply with UL 864).** If a confirmed alarm exists, such as two detectors on a cross-zoned system or a single detector in a single alarm system, releasing the abort switch resets the delay timer interval to the value set for the Automatic Release Delay Timer.

*Continued on next page*

## Custom Control, *Continued*

### Step 3. Specifying Abort Switch Operation

- **NYC Abort (Does not comply with UL 864).** Pressing the Abort switch does the following:

- Warning bell and strobe turn on (NAC associated with RELISIG point type).
- Evacuation visuals turn off (NAC associated with RELWVIS point type).
- Evacuation audibles turn off (NAC associated with RELSIG point type).
- Automatic Release Timer countdown stops at its current value.

Releasing the Abort switch starts the 90-second Investigate Timer. When the Investigative Timer expires, the following occurs:

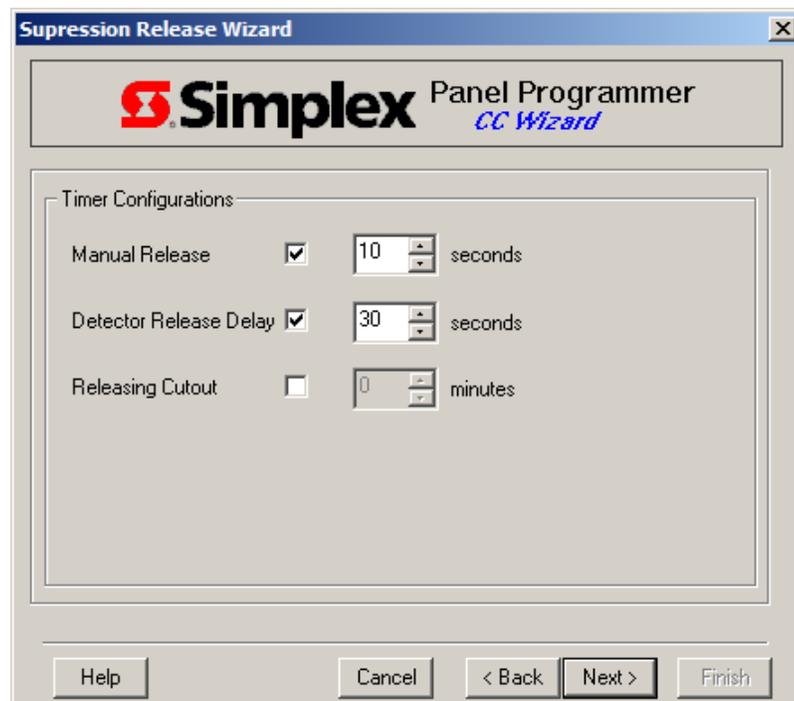
- Warning bell and strobe turns off
- Evacuation visuals turn on
- Evacuation audibles turn on at 120 BPM
- Reload the Automatic Release Timer with the programmed value

If the abort switch is pressed and released after the second alarm while the investigation timer is running, the investigation timer does not reset and continues to countdown until it reaches zero. When the investigation timer reaches zero, the evacuation visuals and audibles turn back on and the automatic release timer begins to countdown. If the abort switch is pressed and released again while the automatic release timer is running, a new full cycle of investigation and automatic release delay starts.

Click **Next** to continue.

### Step 4. Setting Timer Options

Using the next screen you can set values for the **Manual Release**, **Detector Release**, and the **Releasing Cutout**.



**Figure 9-33. Timer Configuration Options**

*Continued on next page*

## Custom Control, *Continued*

### Step 4. Setting Timer Options

Use the following guidelines when setting these values:

- **Manual Release.** The Manual Release Time Delay is a programmable timer that specifies the delay between the activation of a manual release switch and the activation of releasing appliances. The default setting for this timer is 10 seconds. A setting of 0 causes the releasing appliances to immediately activate after a manual release switch activates. This delay is programmable from 0-30 seconds.
- **Detector Release Delay.** The Automatic Release Time Delay is a programmable timer that delays the activation of the releasing appliance circuits. This timer starts immediately after receiving a confirming alarm (cross zoned system) or a first alarm (single alarm system). When the timer expires, the releasing appliances activate (assuming the abort switch is not active). This delay is programmable from 0-60 seconds. This delay makes evacuation of the protected space possible before the agent is released. Consider a delay timer when occupants could be present in the protected space.
  - **Cross-Zoned System.** The occupants receive a warning signal of the first alarm and receive an evacuation signal on the second alarm. Implementing a warning signal makes it possible to investigate the alarm before the second (confirmed) alarm. Implementing a delay on the second alarm gives time for occupants to evacuate, and where required, for the ventilation fans and dampers to shut down prior to the release activation.
  - **Single Alarm System.** A selection of “0” seconds activates the releasing circuit at the same time as when the NACs signal an initial warning. A delay provides time for occupants to evacuate, and where required, for the ventilation fans and dampers to shut down prior to the release activation.
- **Releasing Cutout.** The Releasing Cutout Timer is a programmable timer that specifies the length of time the output on the Suppression Release Peripheral is held on. When the timer expires, the solenoid turns off (or cuts out), which stops the water flow or release of the extinguishing agent. This option is typically used on Deluge systems and is not intended for use with all releasing systems and releasing devices. A selection of “0” means the solenoid does not “cut out” and remains on until the system is reset. The Countdown Timer is programmable from 0-30 minutes.

### Step 5. Specifying Hazard Area Points

The next screen, shown in Figure 9-34, contains seven buttons, each corresponding to one of the suppression-release system lists. Points are automatically assigned to the appropriate list based on the suppression release point type assigned to the point.

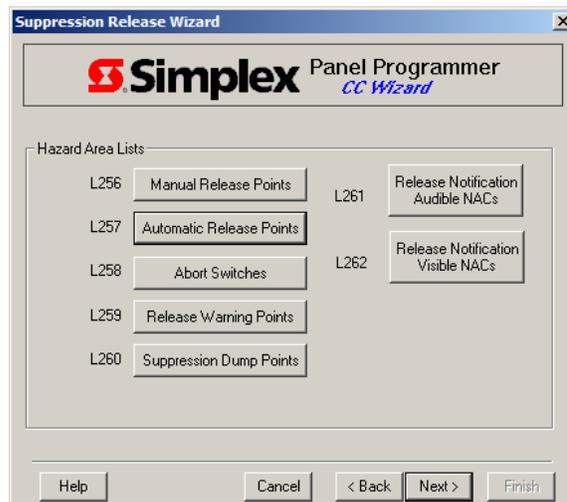


Figure 9-34. Tag List Buttons

**Note:** List numbers L256 through L262 are the next available lists. They are not specifically L256 through L262.

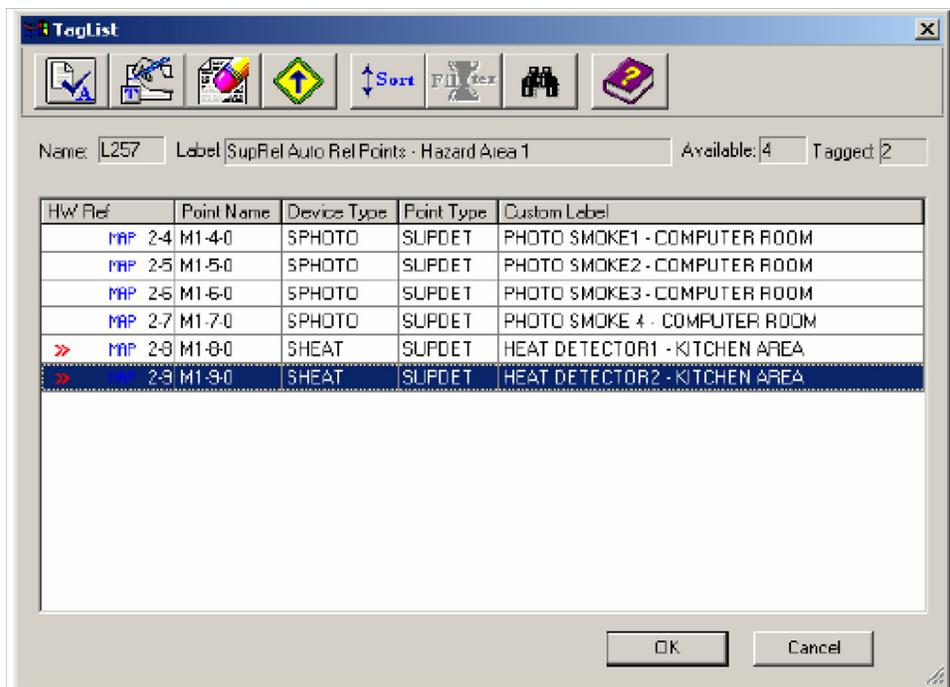
*Continued on next page*

## Custom Control, *Continued*

### Step 5. Specifying Hazard Area Points

Each button accesses a tag list, with this you can select (tag) the specific points to associate with the hazard. Follow these steps to tag points:

1. Click on the button corresponding to the type of suppression points you want to select. The **TagList** screen shown in Figure 9-35 appears.
2. The **TagList** screen displays all points with the relevant suppression release point type. To select a specific point for inclusion in the hazard area being programmed, click on the point to highlight it and then press the space bar.



**Figure 9-35. Tagging Points**

3. Click **OK** when you are finished selecting points. The screen containing the Tag List buttons (Figure 9-34) reappears. Click **Next** when all points associated with this hazard area have been chosen.

*Continued on next page*

## Custom Control, *Continued*

### Step 5. Specifying Hazard Area Points

Review the options selected for the hazard area using the screen shown in Figure 9-36. Use the scroll bar to check the selections for all options. If necessary, click **Back** to return to one of the option selection screens to change a choice. When all of the options are set correctly, click **Finish**.

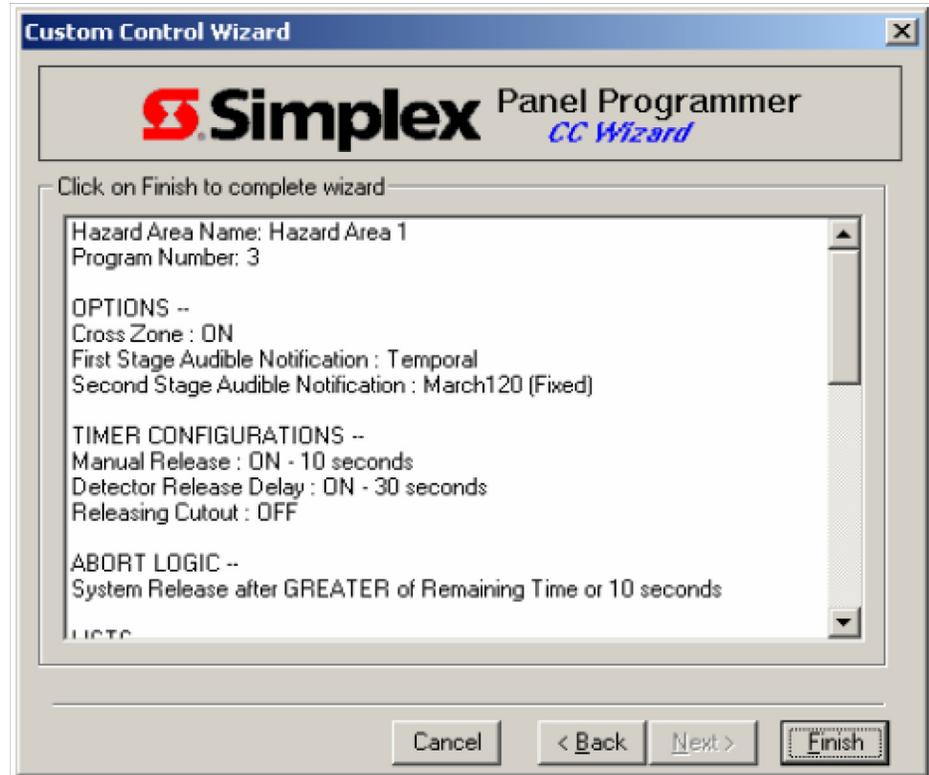


Figure 9-36. Reviewing Options

When you click **Finish**, an icon and label appear in the list of hazard areas shown in Figure 9-37.

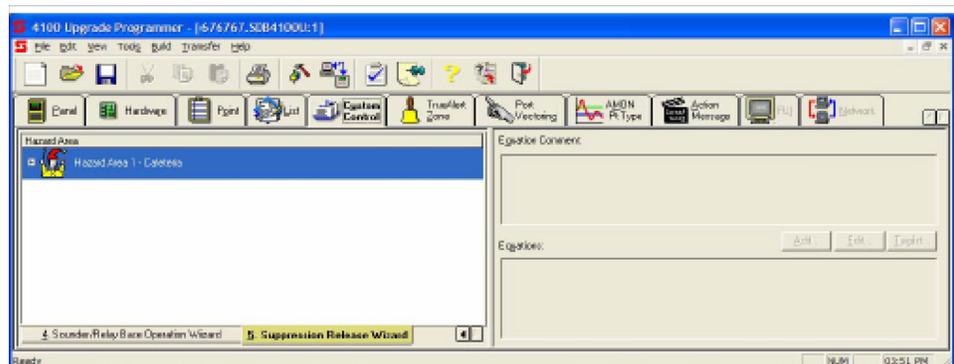


Figure 9-37. Icon Added Following Programming

## Custom Control, *Continued*

### Deleting Hazard Area

To delete an existing Hazard Area:

1. Right click the name of the hazard area (see Figure 9-37) and select the Delete Hazard Area option. A dialog appears warning you that all Custom Control equations associated with the hazard area will be deleted.
2. Click **Delete associated list and pseudo points**
3. Click **Yes**

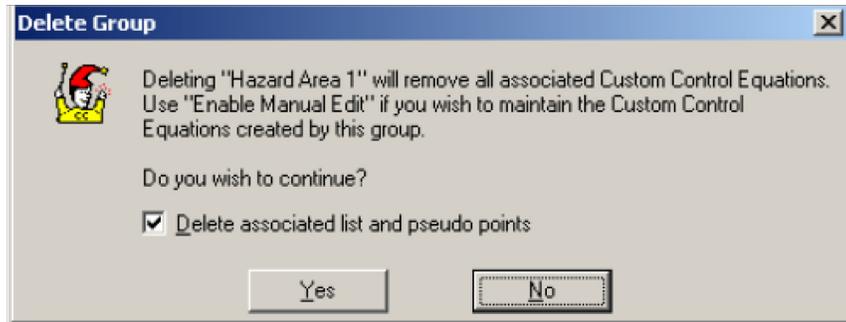


Figure 9-38. Deleting Hazard Areas

### Editing Existing Hazard Area

Existing hazard areas can be edited in the following ways:

- **Using the Wizard.** Right-click the name of an existing equation (see Figure 9-37) and select Edit Hazard Area. The wizard screens reappear in sequence. Reselect the options for the hazard area as necessary.
- **Properties.** Right click on the name of an existing equation and select Properties. A properties sheet, containing a series of tabs across the top, appears. Each tab corresponds to one of the groups of suppression options. Click on each tab and reselect the options for the hazard area as necessary.
- **Custom Control Equations.** Right click on the name of an existing equation and select Manual Edit. Edit the Custom Control equations using Manual Edit, this eliminates the ability to use the wizard to edit the equations. After selecting this option, click on Custom Control subtab on the far left at the bottom of the **Custom Control** window. Select the program containing the hazard area's equations.

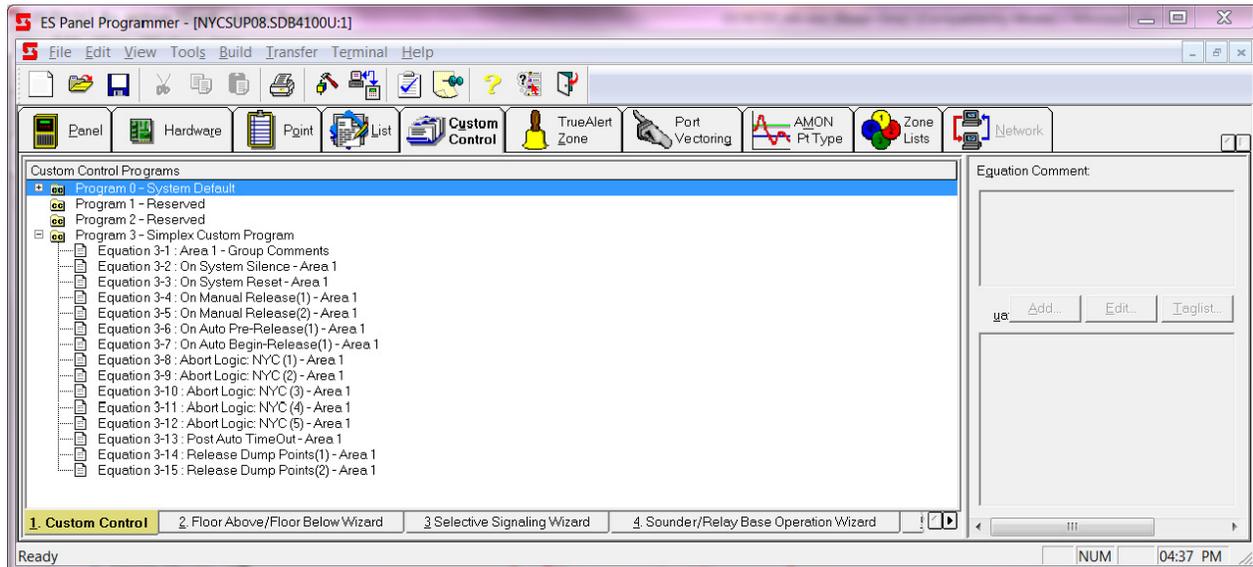


Figure 9-39. Manual Edit

## Custom Control, *Continued*

### Scheduling Options for Self-Test Wizard

Select the following options in the **Self-Test Wizard** to set up one or more schedules to run the scheduled self-tests:

- Frequency
- Day
- Time
- Triggering pseudo point

**Note:** An automatic self-test can be launched from the TSW instead of the FACP. The pseudo point is a trigger to execute the scheduled self-test. The triggering point is optional. The purpose is to select a digital pseudo point to launch a scheduled self-test by overriding the usual date and time condition. For example, a public TSW digital point can be added to the job as external point and used to trigger a self-test. The user can run an automatic self-test at any time and on multiple panels at the same time.

**Important:** The system pseudo point P503 RUN SCHEDULED SELF-TEST cannot be used as a triggering point. Doing so will lead to unpredictable behavior.

After configuring the date and time select the following options:

- List of SIGs
- Volume
- Trouble on fault

### Step 1. Creating a New Self-Test

1. Click on the **Custom Control** tab.
2. Click on the **Scheduled Self-Test Wizard** subtab, right click inside the blank area of the **Scheduled Tests** and select the **Create Self-Test** option. A screen similar to the one shown in Figure 9-40 appears.
3. Complete the **Self-Test Name** and **Comments** fields
4. Click **Next**.

Figure 9-40. Wizard entry screen

*Continued on next page*

## Custom Control, *Continued*

### Step 1. Creating a New Self-Test

- The next screen, shown in Figure 9-41, specifies the **Custom Control Program Number**. This is the program number under which the self-test custom control equations created by the wizard are stored. No specific program number is reserved for use by Self-Test equations. Click **Next**.

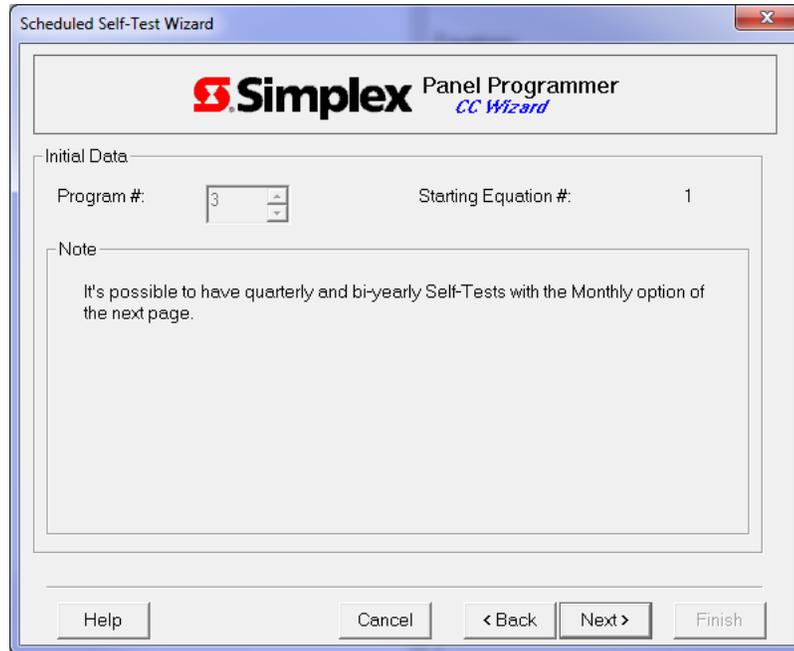


Figure 9-41. Initial Data Screen

### Step 2. Selecting Start Time and Frequency of the Self-Test

To select time and frequency of the Self-Test:

- In the **Self-Test Start Time** area select the time to run the Self-Test.
- In **Recurrence Pattern**, click the frequency and the day that the self-test is going to run.
- Click **Next**.

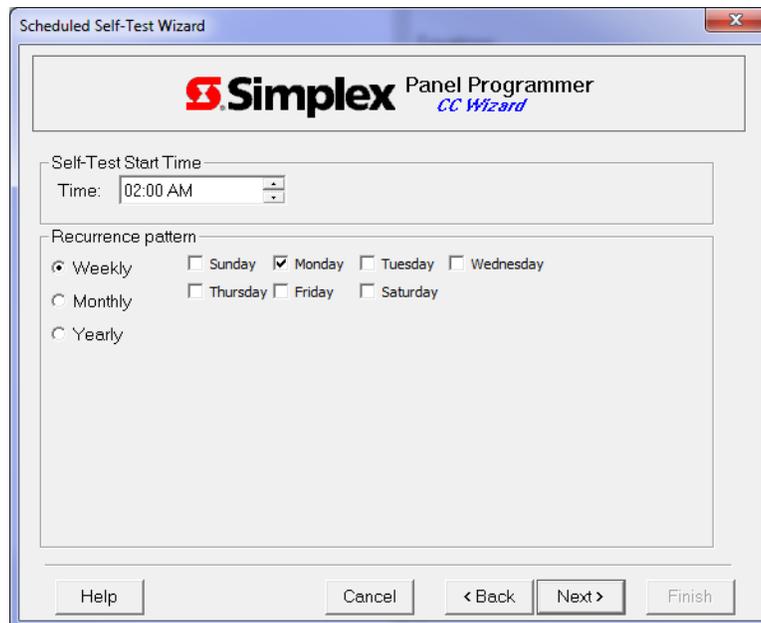


Figure 9-42. Self-Test Time and Recurrence (Weekly Configuration Shown as an Example)

## Custom Control, *Continued*

### Step 3. Selecting Self-Test Triggering Point and Point List

1. In **Self-Test Triggering Point**, click **Select Pseudo Point** to choose a pseudo point that will be used to activate Self-Test (Figure 9-43).
2. Inside **Self-Test Options**, click **Select Point List** to choose the points list for Self-Test. In **Volume** select whether horns on sounder devices will be disabled during Self-Test. In **Trouble on Fail** select yes or no to choose if a trouble will be generated if self-test fails. Click **Next**.
3. In the summary screen that appears, ensure that all of the settings are configured correctly and click **Finish** to complete the Self-Test Wizard. Table 9-7 lists all the default values for the **Scheduled Self-Test Wizard**.

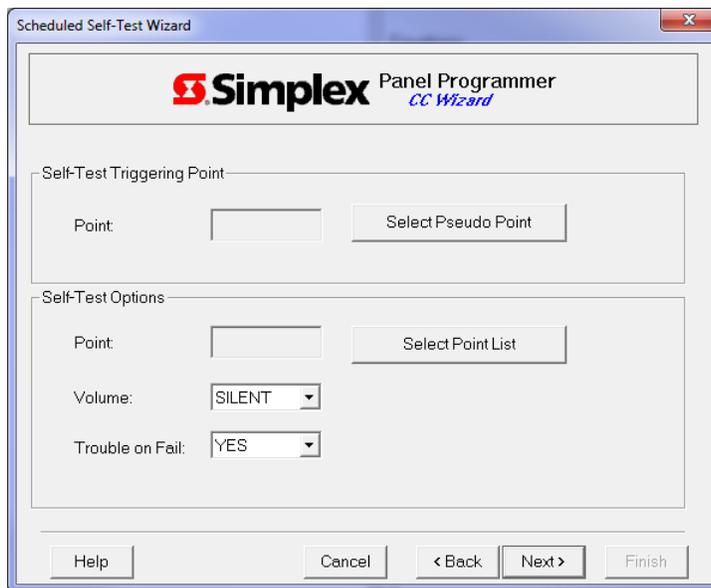


Figure 9-43. Self-Test Triggering Point and Point List

Table 9-7. Default Values for the Self-Test Wizard Settings

Setting	Value	User Options	Input Validation
<b>Self-Test Time</b>	2:00 am	User can edit hour and minute	
<b>Weekly</b>	No day selected	User cannot continue to next page while no day is checked. User can select more than one day.	
<b>Monthly</b>	Two options: <ul style="list-style-type: none"> <li>• Day 1 of each month</li> <li>• First Sunday of each month</li> </ul>	By choosing the second option, the user can configure the test not to execute every month; quarterly or biannual execution.	Input validation required as the number of days varies from 28 to 31.
<b>Yearly</b>	Two options: <ul style="list-style-type: none"> <li>• First of January</li> <li>• First Sunday of January</li> </ul>	Two options for the user to select between the date or day of the week.	Input validation required. A Self-Test schedule with the wizard will be executed at least once a year.
<b>Triggering Point and Self-Test Options</b>	Triggering or point list not selected by default	User cannot continue to next page if a point list is not selected.	
<b>Volume</b>	<b>NORMAL</b>		
<b>Trouble on Fail</b>	<b>NO</b>		

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# Chapter 10.

## File Transfer

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### Introduction

There are two methods of performing file transfer in the 4007ES. The preferred method is to use a USB portable storage device (also called thumb drive, key, memory stick, etc.) to transfer files between the 4007ES USB port and the service PC. The secondary method is by connecting a cable between the Ethernet port and the service PC. Both methods are explained in this chapter.

For the 4606-Series Color Touchscreen LCD Annunciator, the preferred file transfer method is also to use USB portable storage device. Partial file transfer can also be performed using the RUI addressable connection to the panel, but the transfer speed is slower.

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### In this chapter

USB File Transfer.....	10-2	Files Transferred .....	10-3
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Starting the IP File Transfer Utility .....	10-4	IP Communication Parameter Settings..	10-5
Downloadable Files .....	10-5	Download Tab .....	10-6
Upload/Reports Tab .....	10-8	Type of Transfer .....	10-9

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## USB File Transfer

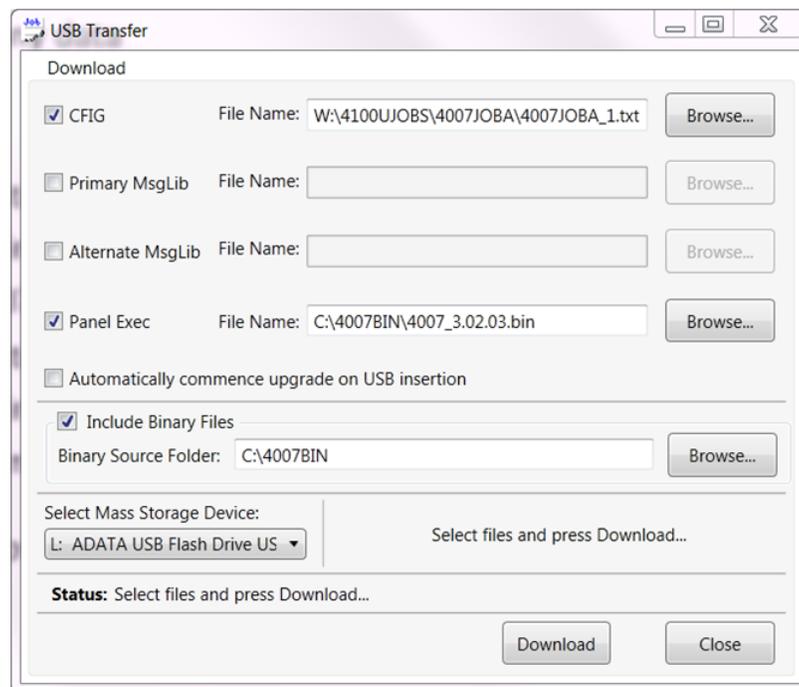
### USB File Transfer To Upgrade Software using a USB Storage Device:

1. Insert the USB storage device into the 4007ES Panel and upload the job currently running on the panel. The job is uploaded into a zip folder. The USB storage device must be formatted with FAT32 file system.
2. Take the USB storage device out of the panel and insert it in the PC.
3. Unzip the job and open it using the same version of the Programmer as the Master .BIN file running in the panel. For example, if 4007\_3.02.03.bin is the file in the panel, then Programmer version 3.02.04 must be used.

**Note:** To check which Master BIN file is running in the panel, press the **Menu** button on the panel, then browse to **System Info** and then to **Software Revisions**. The Master BIN file version appears on the 4007ES panel display and it is different from the 4100ES and 4010ES.BIN files.

4. Save the job, build it, and then re-open it using the most recent version of the Programmer.
5. Click on the **Transfer** menu option and then on **USB**.
6. In the **USB Transfer** window (Figure 10-1), click **CONFIG**, **Panel Exec** and **Include Binary Files** checkboxes and make sure the files are attached.

**Note:** Selecting the **Panel Exec** and **Include Binary Files** makes it possible for the USB transfer to select the correct panel bootloader, kernel, file system, panel UI slave and other listed slaves in the compatibility file (on the USB key /bins/compatibility.xml).



**Figure 10-1. USB Transfer Window**

7. Select the appropriate mass storage device and click on the **Download** button to download the files to the USB storage device. If older files are detected, the **Overwrite Files** dialog box appears. Click on the **Yes** button to replace the old files with the new ones.

*Continued on next page*

## USB File Transfer, *Continued*

- USB File Transfer** 8. Disconnect the USB storage device from the PC and insert it into the USB port located on the CPU board that is mounted on the inner door panel of the 4007ES. Files that need to be updated are flagged for an upgrade on the panel display (Figure 10-2).



**Figure 10-2. System Upgrade Window**

9. Press the **Process Upgrade** button on the touchscreen and confirm the selections.
10. When prompted, press the  button to take a snapshot of the existing panel software to be able to go back to the original files, if necessary.
11. After the panel reboot, press on the **System Upgrade** button to verify that no software is marked for an upgrade and disconnect the USB storage device by pressing the **Eject USB** button located under the **Mass Storage**.

The panel has now been upgraded with a new job and the latest software.

### Files Transferred

The following is an example of the files that can be transferred using a USB storage device:

File	Description
4007_3.02.03.bin	Master Controller file
bootloader_1.01_cpu801-4007es.bin	File to update/boot Linux and file system
filesystem_1.01.01_cpu801-4007es.bin	Root file system for the 4007ES FACP
IDNACPS_1.01.bin	Addressable panel power supply file
IDNet2_1.01.03.bin	IDNet file
kernel_1.01_cpu801-4007es.bin	Linux kernel with modifications for the 4007ES FACP
MsgLib_UTF8_3.01.bin	English display message library file
MsgLibF_UTF8_3.01.bin	French display message library file
NACPS_1.01.01.bin	Hybrid panel power supply file
panelui_1.01.02_cpu801.bin	Panel user interface file
userfilesystem_4007es.bin	System file (Manufacturing use only)
zonereley_1.01.01.bin	Zone/Relay card file

## IP File Transfer

### IP File Transfer

IP file transfer operates over the Ethernet service port, with files directly copied to the file system and activated. New Slave Exec data is then downloaded by the master once it is running.

### File Transfer Connection to the PC

The Ethernet service port is located on the CPU board behind the inner door assembly (see Figure 10-3) and connects to the Service PC using a standard straight (non-crossover) Ethernet Patch Cable. Service Mode Jumper P7 must be connected for this operation which causes a Service Trouble condition. After, move the jumper to only one pin to disconnect and retain the jumper for future use.

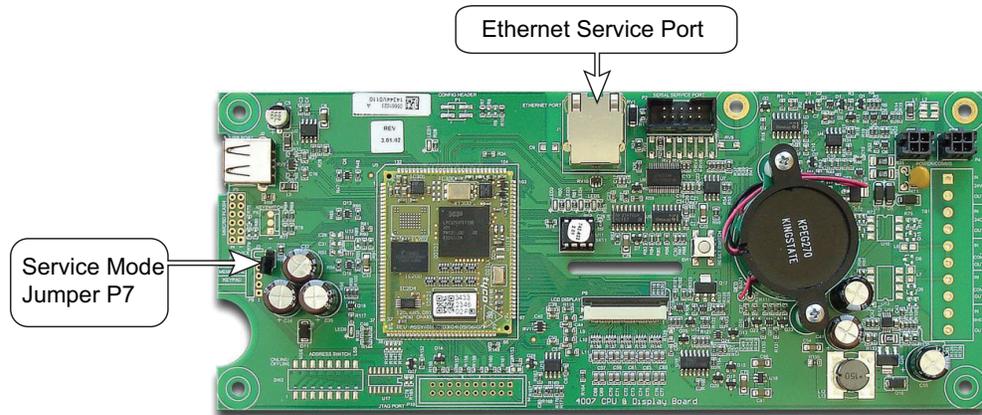


Figure 10-3. Front Panel Ethernet Service Port

### Starting the IP File Transfer Utility

This feature enables a download of the Fire Alarm Control Panel (FACP) software features (Panel Exec, Slave Exec, etc.). This provides a means for recovering previous configurations (via the File Transfer “History/Undo” tab). This also makes it possible for the FACP to continue operating during file download operation. FACP down-time is minimal.

The ES Panel IP File Transfer utility can be started from within the ES Panel Programmer or from the Windows Start menu. To start the File Transfer:

- **From within the Programmer.** While the programmer is running, click on the Transfer icon, located along the menu bar at the top of the programmer window. When the options appear, click on **Local Panel**.



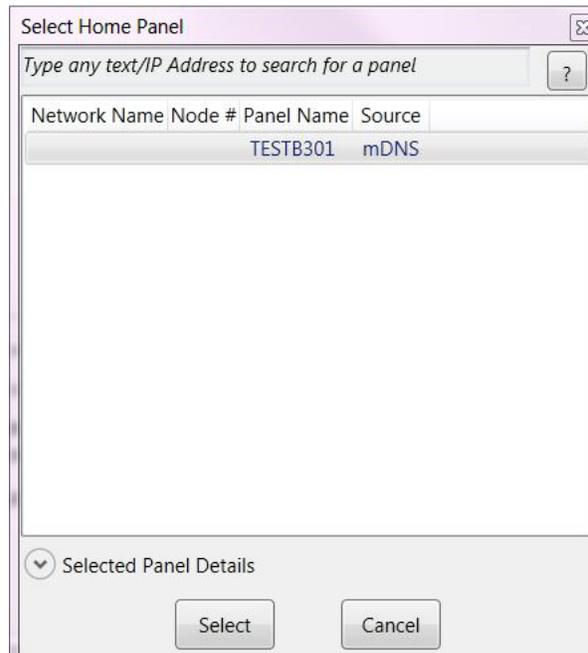
Figure 10-4. Transfer Icon

- **From the Start Menu.** Click the **Start** button. Move the pointer to the Programs option. When the list of choices appears, move the pointer to the Simplex option and click on the option containing the programmer. A list of options appears. Click on IP File Transfer.

When start-up procedure has been completed, the File Transfer Utility appears.

## IP File Transfer, *Continued*

**IP Communication Parameter Settings** Click on the **Settings** button near the top of the IP File Transfer Window to access the Settings Window. The settings window shows you the IP address the program is currently using, you to change it if necessary.



**Figure 10-5. File Transfer Settings Window**

Click on **OK** to confirm your selection or **Cancel** to erase any modification you made.

### Downloadable Files

The following types of files can be downloaded to the ES Panel FACP through its file transfer utility.

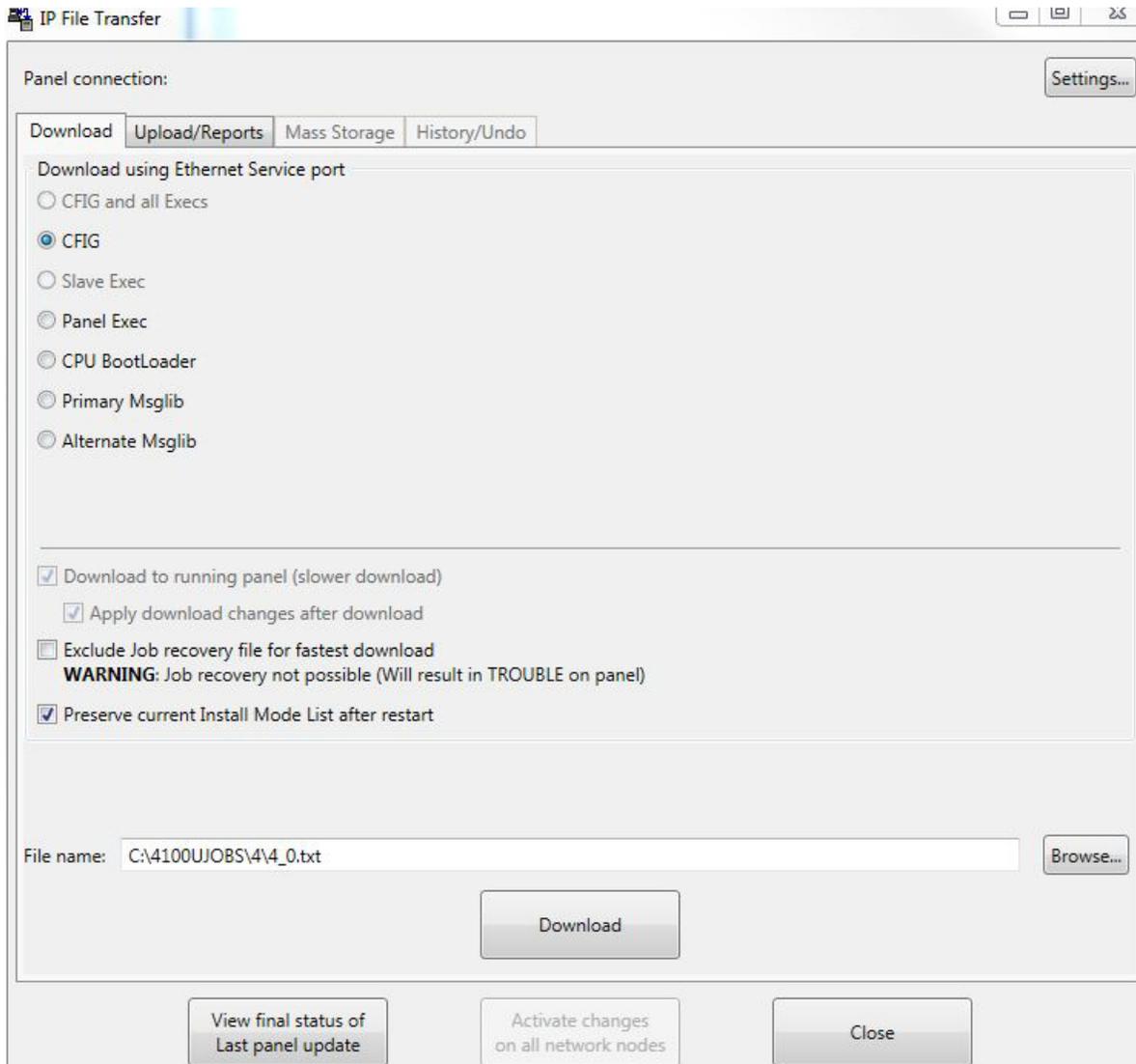
- **CFIG File.** This is the built job file, consisting of all programming definitions in a binary format, that the panel's CPU can execute.
- **Slave Exec.** Module-specific slave Exec files execute on intelligent slave modules (listed below) and define the way in which the slave module operates. Occasionally, changes to the functionality of a slave module may require you to download a new slave Exec file. (For example, a change to the IDNet Slave Exec file may be necessary to provide support for new, additional device types.) The following 4007ES modules are “intelligent” slave devices that use a module-specific Slave Exec file.

- |                     |                         |
|---------------------|-------------------------|
| - 25 Volt Regulator | - IDNet+ Expansion Card |
| - Zone/Relay Card   | - CPU Bootloader Files. |
| - SCU/RCU           | - LED Module            |
| - SDACT             | - Remote UI             |

- **CFIG Text File.** A panel with a missing or corrupt CFIG file can be restored to proper operation by downloading a CFIG text file to the panel. The CFIG text file is automatically built and placed in the same job directory as the “executable” CFIG file (file ending in .CFG extension).
- **Panel Exec (Master).** The Panel Exec file is the “operating system” that runs on the panel's CPU module. It manages interactions between system components. Occasionally, changes to the functionality of the operating system may require that a new Panel Exec file be downloaded.

## IP File Transfer, *Continued*

**Download Tab** By default, the IP File Transfer window opens to the Download tab.



**Figure 10-6. IP File Transfer Download Tab**

## IP File Transfer, *Continued*

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### Download Tab

1. **To download a software feature, make sure the Service Mode (Jumper 7) is enabled.** Select the type of file you want to download by clicking on the radio button next to the file you want to download. The options are:

- CFG and all Execs
- CFG
- Slave Exec
- Panel Exec
- CPU Bootloader
- Primary Msglib
- Alternate Msglib

**IMPORTANT: Selecting the CFG and All Execs option makes it possible for the IP Transfer to download the correct panel bootloader, panel UI slave and other slaves to the panel, in addition to the job.**

2. Once the selection has been made, use the checkboxes to select the download options:
  - **Download to a running panel:** Select this option to download the file to a running panel. Once this option is selected, there are 3 ways in which the changes can be applied:
    - Automatically after the download. Select the "Apply download changes after download" box to have the downloaded changes applied immediately after the download. This is the program's default setting.
    - When the system reboots: If the "Apply download changes after download" button is not selected, the downloaded changes will be saved and applied once the system is rebooted.
  - **Exclude the recovery file.** This box option can be used when downloading a CFG, it will result in a faster download.
  - **Preserve current Install mode list:** Select this box to keep all the points you have placed in install mode in install mode once downloaded changes have been applied. This is highly recommended.
3. Use the File name box to select the file you want to download to the panel.
4. Click on the **Download** button to start the process.

The following are additional functions accessible from the Download tab:

- **View Final Status of Last Panel Update:** Click on this button to bring up the final status of the last panel update.

## IP File Transfer, *Continued*

### Upload/Reports Tab

The default option for this feature is to upload the job that is currently running in the FACP. The file that is uploaded is a compressed image of the programmer job file. Therefore, there is no need for an “unbuild.” The file is uploaded to its default location. (C:\4100UJOBS\JobName). This tab also has options for uploading all FACP reports. The reports are uploaded to the “reports” subdirectory of the current job directory. The report file is given a descriptive name, appended with the current date (e.g., AlarmLog\_2010\_3\_11.txt).

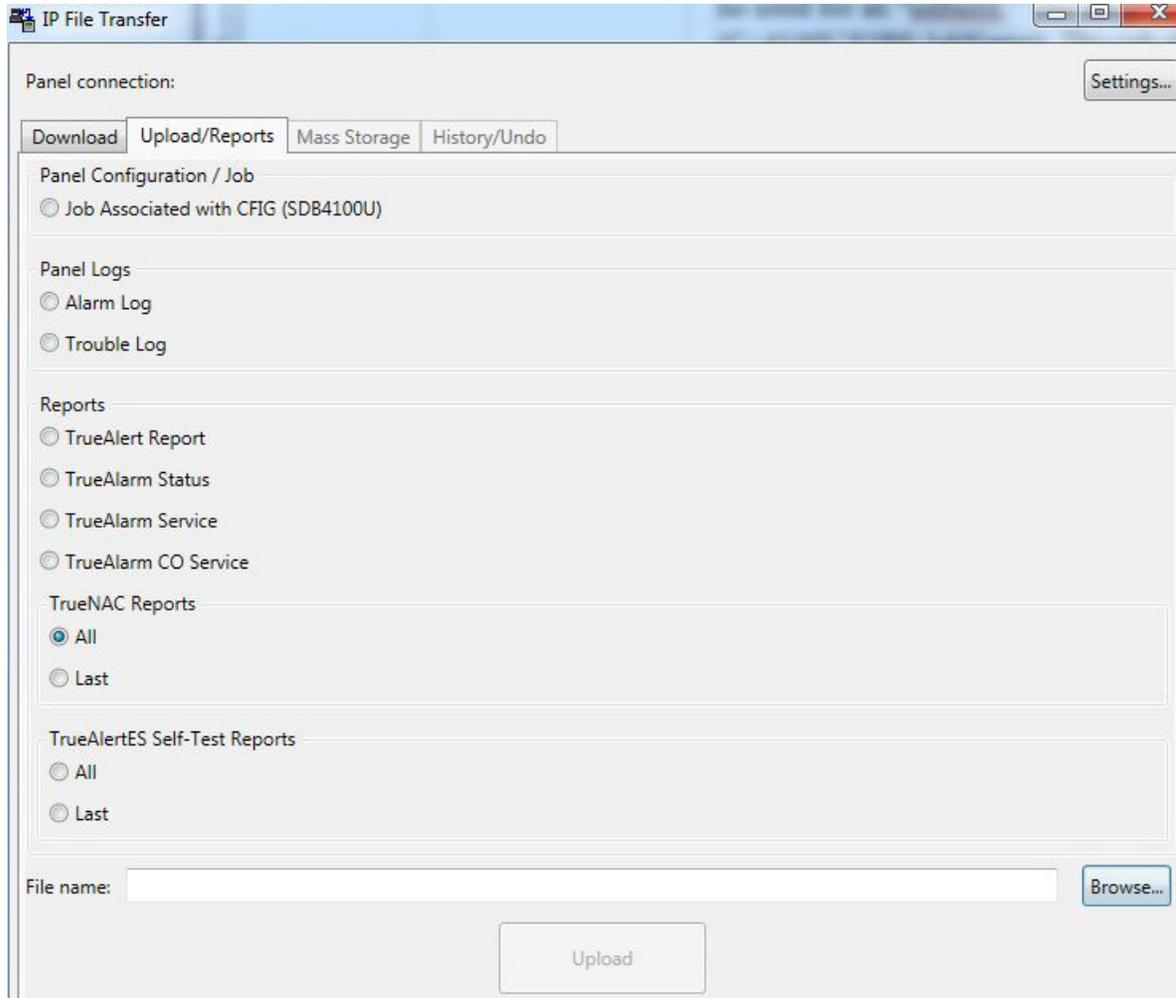


Figure 10-7.Upload/Reports Tab

#### To upload a file or a report:

1. Click on the Upload/Reports tab near the top of the IP File Transfer window. See Figure 10-7.
2. Select the type of file you want to upload by clicking on the radio button next to the item.
3. Chose one of the following:

Panel Configuration/Job		TrueNAC Reports	
• Job Associated with CFG (SDB4100U)		All	Last
Panel Logs		Self-Test	
• Alarm Log	• Trouble Log	All	Last
Reports			
• TrueAlert Report	• TrueAlarm Status	• TrueAlarm Service	• TrueAlarm CO Service

4. Use the File name box to select the directory on your PC you want to upload the report to.
5. Click on the **Upload** button to start the upload.

## IP File Transfer, *Continued*

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**Type of Transfer** In addition to the upload of the CFG file, other types of information from the Panel can also be uploaded to the ES Panel Programmer.

**IMPORTANT: The following reports can also be transferred to the USB storage device.**

- **TrueAlert Report:** It is a report generated by the panel. It provides information such as Point ID, Device Type, and Candela rating for all TrueAlert devices.
- **TrueNAC Report:** It is a report generated by the panel following the completion of a TrueNAC diagnostic test. The report indicates all devices' pass or fail status along with nominal current, predicted worst case current and predicted worst case voltage threshold at the minimum TPS operating voltage. By selecting this option you can choose between downloading the report for All TrueAlert devices on all TPSs or only for the Last TrueNAC diagnostics performed on a specific TPS and SLC.
- **Panel Logs:** With this selection you can select between uploading an Alarm Log or the Trouble Log, produced as a result of Alarm or Trouble conditions reported to the Control Panel, onto the ES Panel Programmer.
- **TrueAlarm Status Report:** A report providing the following information for each point:
  - Device Number
  - Custom Label
  - Current Sensitivity of the Point
  - Point Status: Normal, Trouble, Alarm
  - Almost Dirty Status: Points that are almost dirty have an asterisk in this field to denote this status.
- **TrueAlarm Service Report:** A report providing the following information for each point:
  - Device Number
  - Custom Label
  - Alarm Level (sensitivity level of the device)
  - Average Value
  - Current Value
  - Percent of Alarm: Shows the current value for the sensor. Value is shown as a percentage of 100 percent (alarm). For example, if the value shown is 9%, it means that the sensor is currently at 9% of the value required to trigger an alarm.
  - Peak Value: Shows the highest value that the sensor has reached. Value is shown as a percentage of 100 percent (alarm). For example, if the value shown is 9%, it means that the peak value experienced by the sensor was 9% of the value required to trigger an alarm.
  - Current State: Possible values include Normal, Trouble, Dirty, Excessively Dirty, and Almost Dirty.
- **TrueAlarm CO Service Report:** This report provides the following information regarding the CO devices:
  - Custom Label (custom description of device)
  - Current Device Value (PPM)
  - End-of-Life Date
- **Device Status (Normal, Trouble)**



# Chapter 11.

## Port Vectoring

### Introduction

The term port vectoring refers to the way in which certain cards can be programmed to output only specific groups of events. This section describes programming the ES Panel's port vectoring option.

**Note:** User editing of the DACT port vectoring is not permitted in UL 864.

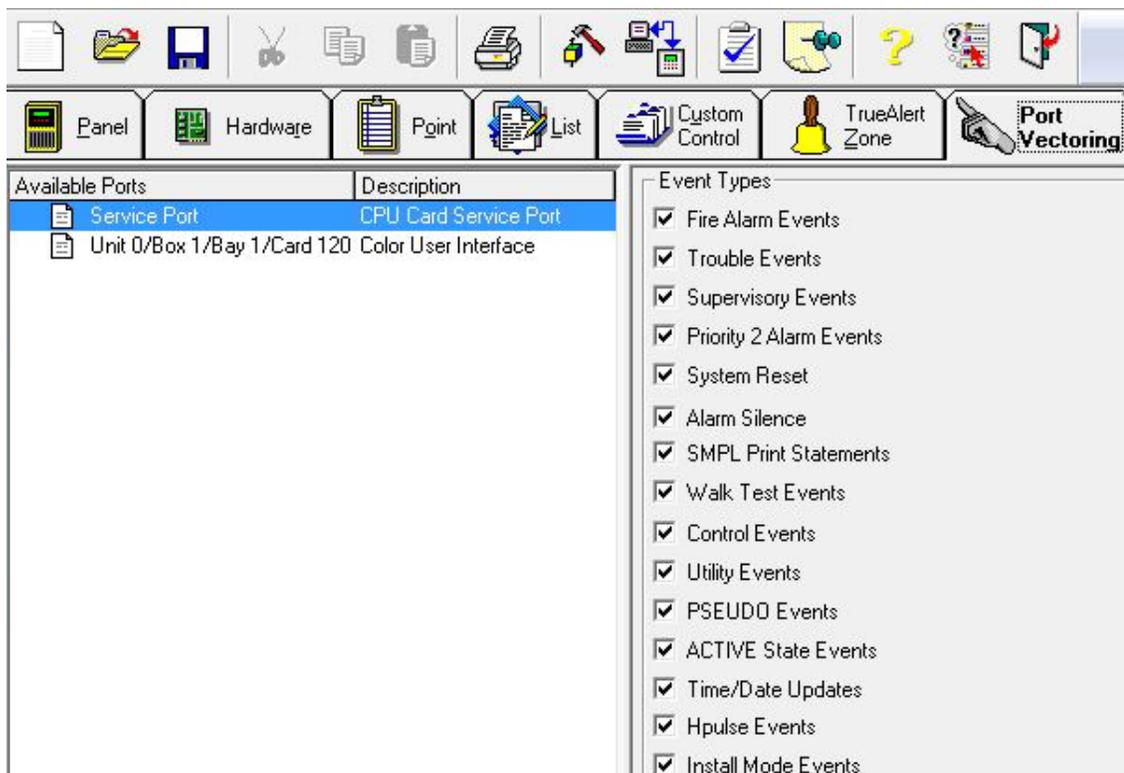
### In this chapter

Choosing Event Groups to Route .. 11-1

### Choosing Event Groups to Route

**To choose event groups to route:**

1. Click on the Port Vectoring tab, located just beneath the row of icons, to view the window used to route events to the RS-232 port or the DACTs. A window similar to the one shown in Figure 11-1 appears.



**Figure 11-1. Port Vectoring Tab**

2. In the Available Ports list, located on the left side of the window, click on the line containing the port you want to program. If you choose RS-232, all of the event types shown in the figure are available for routing. If you choose one of the DACTs, the following event types are not available:
  - System Reset
  - Alarm Silence
  - SMPL Print Statements
  - Walk Test Events
  - ACTIVE State Events
  - Time/Date Updates
3. In the Event Types list, located on the right side of the window, select the checkboxes corresponding to the event types that you want to route to the device selected in Step 1.



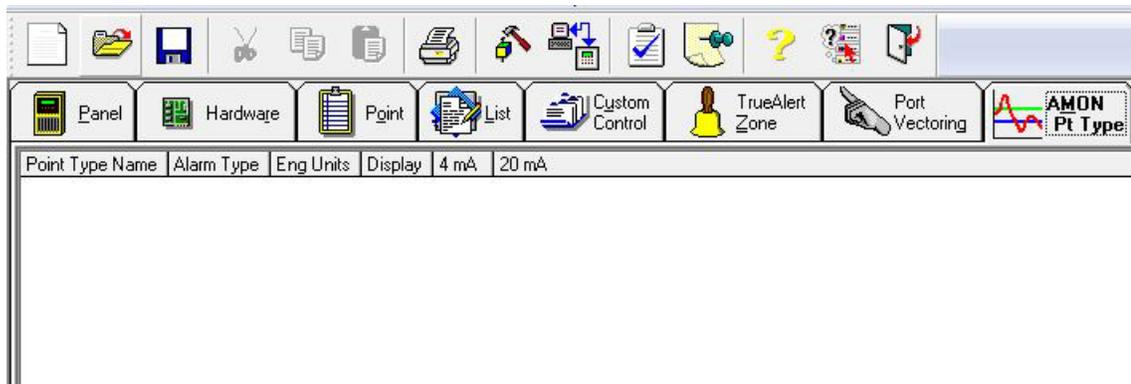
# Chapter 12.

## AMON Point Type

**Introduction** This chapter describes creating custom point types (referred to as AMON point types) for use with analog monitor ZAMs. These point types allow descriptive text and device-specific settings to be associated with a point name.

<b>In this chapter</b>	AMON Pt Type Tab..... 12-1	Adding a Point Type ..... 12-2
	Editing a Point ..... 12-4	Deleting a Point ..... 12-4

**AMON Pt Type Tab** The AMON Pt Type tab (Figure 12-1) is for use only with IDNET analog monitor ZAMs. It allows you to create a custom point type that specifies how the ES Panel system should interpret (i.e., react to) incoming analog data from the device attached to the ZAM. This point type can then be assigned to the ZAM using the IDNET point editing screen, which is accessible through either the Hardware or Point tab. For example, if you have an analog device that measures the amount of liquid within a tank, you can use this tab to create a point type that specifies what the unit of measurement is (gallons, for example) and what the threshold values for an alarm should be (generate an alarm when the tank is half empty, for example).



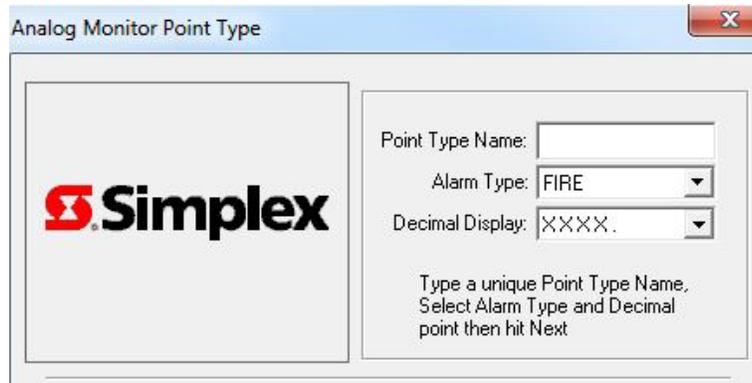
**Figure 12-1. AMON Point Type Tab**

## AMON Point Type

### Adding a Point Type

The AMON Point Type Tab uses a wizard-style interface that guides you through the process of creating an AMON point type.

1. To start this wizard, right click in the blank space just below the Point. When the menu appears, click on **Add**. A dialog similar to the one shown in Figure 12-3 appears.



**Figure 12-2. Initial AMON Point Type Dialog**

2. Enter data in the initial dialog's fields, as follows:

- **Point Type Name.** Enter a seven-character name for the point in this text entry field. This point name can then be assigned to the analog ZAM point editing screen. The point editing screen is accessible through either the Hardware Tab or the Point Tab.
- **Alarm Type.** The alarm type you choose determines how the ES Panel reacts when the device attached to the ZAM crosses the threshold that you define for it. (The threshold is defined in a step below.) Choices for this field are as follows:

**Table 12-1. Alarm Type**

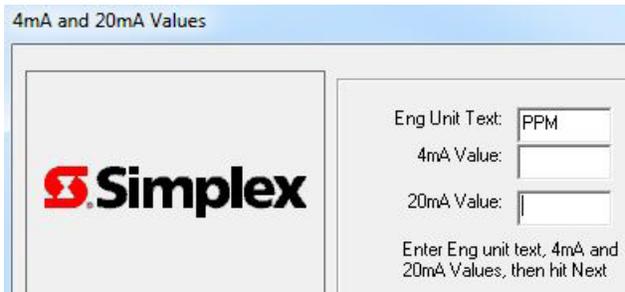
Alarm Type	Description
FIRE	Causes the system to generate a fire alarm when the device crosses the threshold.
LATSUPV	Creates a latching supervisory condition when the device crosses the threshold. This means that the supervisory condition on the panel does not clear until the point restores to normal and a system reset is performed.
MPR12	Generates a priority 2 alarm when the device crosses the threshold.
SUPERV	Generates a supervisory condition when the device crosses the threshold.
TROUBLE	Generates a trouble condition when the device crosses the threshold.
UTIL	Defines the point to be a pseudo point, having a value of either ON or OFF. Typically used as a trigger for custom control (i.e., perform some action if the point turns ON).

- **Decimal Display.** This field specifies the degree of precision for the device reporting data (how many digits after the decimal place the device reports). If the device reports data one unit at a time, choose the XXXX. option. If the device reports data in 10ths of a unit, choose the XXXX.X option. If the device reports data in 100ths of a unit, choose the XXXX.XX option.

## AMON Point Type, *Continued*

### Adding a Point Type

- Click the **Next** button to view the dialog shown in Figure 12-3.



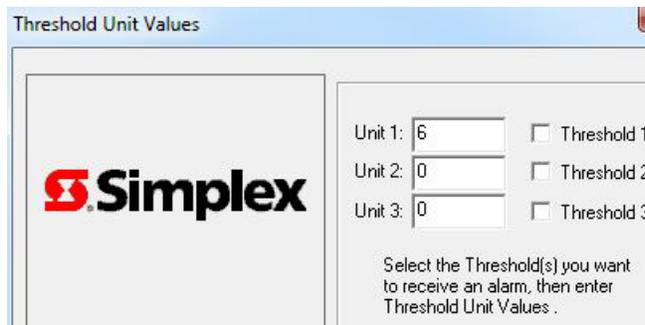
**Figure 12-3. 4mA and 20mA Values Dialog**

- Enter data in the 4mA and 20mA Values dialog (refer to Table 12-2).

**Table 12-2. 4mA and 20mA Values**

Field	Description
Eng Unit Text	The “unit” (ppm, gal, psi, etc.) text that appears on the front panel display when you display the current value of the device via the front panel. For example, if a monitor device with a monitoring capability of parts per million is attached to the ZAM, you might put ppm in this field.
4mA Value	This is the lowest value that the device reports. When the device is at this value, it draws 4mA of current from the ZAM.
20mA Value	This is the highest value that the device reports. When the device is at this value, it draws 20mA of current from the ZAM.

- Click the **Next** button. A dialog similar to the one shown in Figure 12-4 appears.



**Figure 12-4. Threshold Unit Values Dialog**

- In the Threshold Unit Values Dialog, you can specify up to three thresholds.
  - **Threshold Checkbox.** Select this box if you want the system to generate an event (the specific type of event depends on what you chose for Alarm Type in Step 2) when the device being measured goes above the value that you specify in the Unit field.
  - **Unit Field.** This is the value that the device must pass to trigger the alarm condition.
- Click **Finish**.

## AMON Point Type, *Continued*

---

### Editing a Point

#### To edit an existing point:

1. Right click on the point you want to modify.
2. Click on **Properties**.
3. Modify the AMON Properties as required.

The screenshot shows the 'Analog Monitor Point Type' dialog box. It is divided into several sections:

- AMon Properties**: This section contains the 'Point Type Definition' fields: 'Point Type Name' (123321), 'Alarm Type' (FIRE), and 'Eng. Unit Text' (PPM).
- Display**: A dropdown menu showing 'XXXX.'.
- Unit Range**: Two input fields for '4 mA' (value 5) and '20 mA' (value 7).
- Threshold Definitions**: A table with three rows for 'Threshold 1', 'Threshold 2', and 'Threshold 3'. Each row has a checkbox, a 'Units' field (all set to 5), a 'milli Amps' field (all set to 4.0), and a 'Sensor Counts' field (all set to 0).
- Navigation**: A vertical stack of buttons on the right: '<| First', '<< Previous', 'Next >>', and 'Last >'.

Figure 12-5. Editing an AMON Point Type

4. Click **Apply** > **OK**.
- 

### Deleting a Point

#### To delete an existing point:

1. Right click on the point you want to delete.
2. Click on **Delete**.
3. Click on **Yes** to confirm.

# Chapter 13.

## Adding or Editing Network Information

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**Introduction** This chapter describes the following network-related procedures.

- Defining the panel's Public and External points.
- Setting the Network Information fields for the panel.

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<b>In this chapter</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Role of the Network Programmer .....</td> <td style="width: 50%;">13-1</td> <td style="width: 50%;">Public Versus External Points .....</td> <td style="width: 50%;">13-1</td> </tr> <tr> <td>General Network Programming Guidelines...</td> <td>13-1</td> <td>4007ES Programmer Network tab .....</td> <td>13-2</td> </tr> <tr> <td>Gaining Access to the Network Information .</td> <td>13-3</td> <td>Editing the Network Name and Node Number</td> <td>13-4</td> </tr> <tr> <td>Procedure to Declare Public Points.....</td> <td>13-5</td> <td>Procedure to Declare External Points .....</td> <td>13-5</td> </tr> <tr> <td>Programming Network Alarm Silence.....</td> <td>13-6</td> <td>Programming Central Network Silence.....</td> <td>13-7</td> </tr> <tr> <td>Programming Distributed Network Silence...</td> <td>13-8</td> <td>Programming Central Network Reset.....</td> <td>13-9</td> </tr> <tr> <td>Programming Distributed Network Reset....</td> <td>13-10</td> <td>Distributed Configuration .....</td> <td>13-11</td> </tr> </table>	Role of the Network Programmer .....	13-1	Public Versus External Points .....	13-1	General Network Programming Guidelines...	13-1	4007ES Programmer Network tab .....	13-2	Gaining Access to the Network Information .	13-3	Editing the Network Name and Node Number	13-4	Procedure to Declare Public Points.....	13-5	Procedure to Declare External Points .....	13-5	Programming Network Alarm Silence.....	13-6	Programming Central Network Silence.....	13-7	Programming Distributed Network Silence...	13-8	Programming Central Network Reset.....	13-9	Programming Distributed Network Reset....	13-10	Distributed Configuration .....	13-11
Role of the Network Programmer .....	13-1	Public Versus External Points .....	13-1																										
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Programming Distributed Network Silence...	13-8	Programming Central Network Reset.....	13-9																										
Programming Distributed Network Reset....	13-10	Distributed Configuration .....	13-11																										

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**Role of the Network Programmer** Programming a network of 4007ES FACPs requires the use of two programmers, as follows.

- **Simplex New Network Programmer.** Use this programmer to create a new network or edit an existing network. Opening an existing network job with the network programmer spawns the ES Panel programmer, which can then be used to declare the public and external points for that node.
- **ES Panel Programmer.** The ES Panel programmer works along with the Simplex Network Programmer. It allows you to specify the panel's public points, external points, and Node numbers.

**Public Versus External Points** A *public point* is a point connected to this panel that you want to be visible to other nodes on the network. In other words, when the status of the point changes, you want it to announce its status on the other node. There is no limit to the quantity of public points for 4007ES network panels.

An *external point* is a point on another node. Declaring it to be an external point allows its status to be announced on this panel. The 4007ES supports up to 100 external points.

For example, when you want changes to the status of the panel's points to report to a central annunciator, such as a TSW, you would use the ES Panel programmer to declare the panel's points (or a subset of its points) public. Likewise, on the TSW, you would declare the panel's points as external.

**General Network Programming Guidelines** Use the following guidelines when programming

- All nodes must have the same version or a compatible version of software and firmware.
- All nodes must use the same baud rate.
- To reduce Net activity and increase efficiency, it is recommended that you do the following:
  - Avoid making control points Public.
  - Program all control functions in the node that contains the control points.
  - Use Lists to minimize the network traffic. (Nest only one list within a main list.) Do not make a list Public that already contains External Points.
  - Do not use the SET command when writing Custom Control for a Network node unless absolutely necessary. It acts on every poll cycle and slows down the network response time. Use TRACK rather than SET whenever possible.

*Continued on next page*

## Adding or Editing Network Information, *Continued*

### General Network Programming Guidelines

- Do not make an NDU point Public above offset 1535. This only applies to the 4100+.
- Never set the value of an External Analog Pseudo Point through the Network.
- Do not use P210, P211 or P212 at the same time for Network System Reset.
- Use P217 for Network Signal Silence.
- Avoid Version Mismatch. If you change a label or device type or point type on a point that is EXTERNAL to other nodes, you must build and download all nodes that have an external copy of the point. If you change the Job Title in the General Info screen, or the Network Prefix in the Network Points in the Info Screen, you must build all nodes and download all nodes.

### 4007ES Programmer Network tab

The Network Tab provides access to the dialogs used to add and edit the lists of public and external points. Click on the Network Tab to see the screen shown in Figure 13-1.

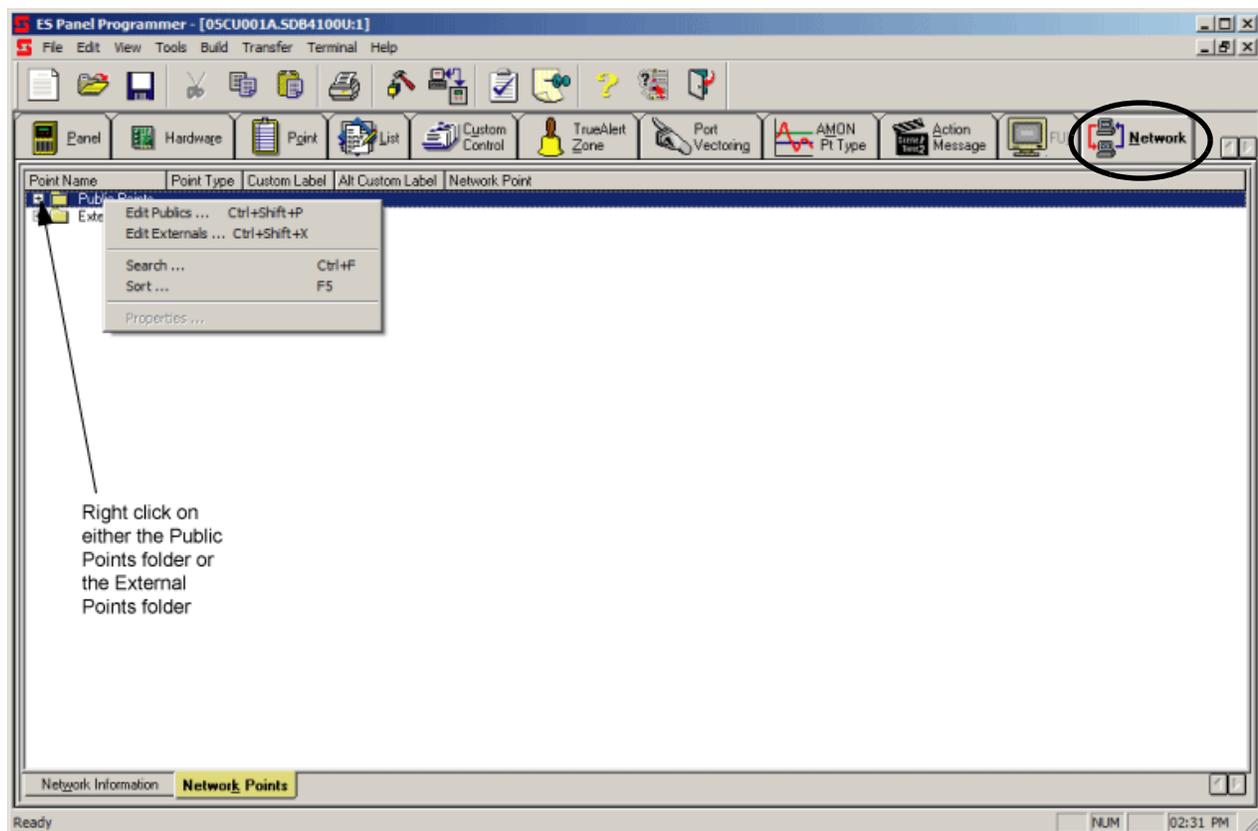


Figure 13-1. Network Tab

## Adding or Editing Network Information, *Continued*

### Gaining Access to the Network Information

The network information fields are contained within the Panel tab. To access these fields, do the following:

1. Click on the Network tab, shown in the upper right corner of Figure 13-2.
2. Click on the Network Information subtab on the bottom left of the window.

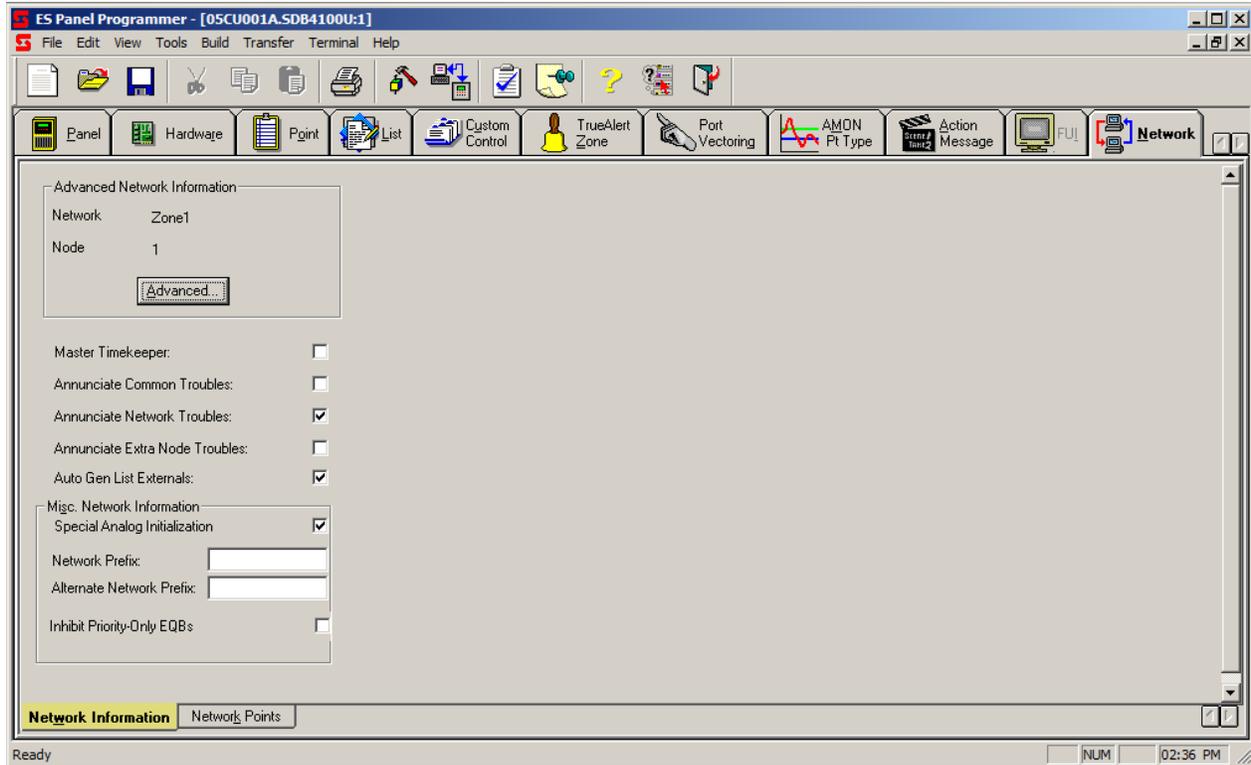


Figure 13-2. Network Tab, Showing Network Information

## Adding or Editing Network Information, *Continued*

### Editing the Network Name and Node Number

The Network Information tab includes the following fields. Use the guidelines outlined in the table when setting these fields.

	Field	Guidelines
Advanced Network Information	Network	Click on the Advanced button and use the dialog that appears to change the network to which the 4007ES panel is assigned.
	Node	Click on the Advanced button and use the dialog that appears to change the node number of the 4007ES panel.
	Master Timekeeper	Select to use this panel as the network's master timekeeper. Only one master timekeeper per network.
	Annunciate Common Troubles	Select if you wish to have other panel's common trouble messages annunciated on this panel.
	Annunciate Network Troubles	Select if you wish to have this panel's Network messages sent to the system's annunciators.
	Annunciate Extra Node Troubles	The Annunciate Extra Node Option prevents a node from annunciating an Extra Node Trouble following the addition of a new node. Guidelines for setting this option are as follows: <ul style="list-style-type: none"> <li>• Unselect this option on nodes without a need to annunciate events from the new node.</li> <li>• Select this option on the node that functions as the network's central annunciator.</li> </ul>
	Auto Gen List Externals	When selected, this option adds the external points from other nodes to the system lists on this node. When it does this, it adds the points to the list based on the point type of the point.
Miscellaneous Network Information	Network Prefix	Enter descriptive text in this field. This text appears when the more info. field is selected on a TSW.
	Special Analog Initialization	Checking this option prevents analog detectors from sending status on initialization if the value is not an alarm or trouble condition. However, if the analog value indicates an alarm or trouble condition exists, the detector will send its state. If you select this option and you have Custom Control equations that contain the Compare Opcode and Current Value qualifier, be aware that the equation will not trigger on network initialization, but will trigger on subsequent value changes. Also, if analog detectors have a numeric value on a GCC screen, the screen will not update until the point's value changes after network initialization. Note: To avoid Network Initialization troubles, all network nodes must be set the same way.
	Inhibit Priority-Only EQBs	This option prevents network EQBs from being generated for status changes that only affect priority and not the status of the point. For example, a Custom Control equation triggers that modifies the priority of a public control point, putting the point to the reset priority but not changing its state. If this option is selected, no EQB will be generated. The side effect of choosing this option is that there will be a display mismatch of the priority between the owner and the external node.  <b>Note:</b> Select this option only if required to reduce network traffic.
	Inhibit Sounder-EQB	This option prevents TrueAlarm sounder/relay base (non-combo points) from generating network EQBs when only the status of the sounder/relay changes. If the sounder/relay is turned on or off without a threshold or logical state change on the sensor portion of the device, no EQB will be generated to external nodes. Status changes to the device that involve a logical status change (e.g. alarm, trouble), or a sensor threshold level change will still report.  <b>Note:</b> Select this option only if required to reduce network traffic.

## Adding or Editing Network Information, *Continued*

### Procedure to Declare Public Points

Use the following procedure to define the panel's public points.

1. Click on the **Network** tab shown in the upper right corner of Figure 13-1.
2. Right click on the Public Points folder and select the **Edit Public** choice. The tag list is shown in Figure 13-3.
3. Position the highlight on a point and press the space bar to tag the point. A >> symbol is shown to the left of the point to indicate that it is selected. (To remove this symbol and deselect a point, highlight the point and press the space bar again.)

To select a contiguous group of points, click on the first point in the group, press the SHIFT key and click on the last point in the group you want to select.

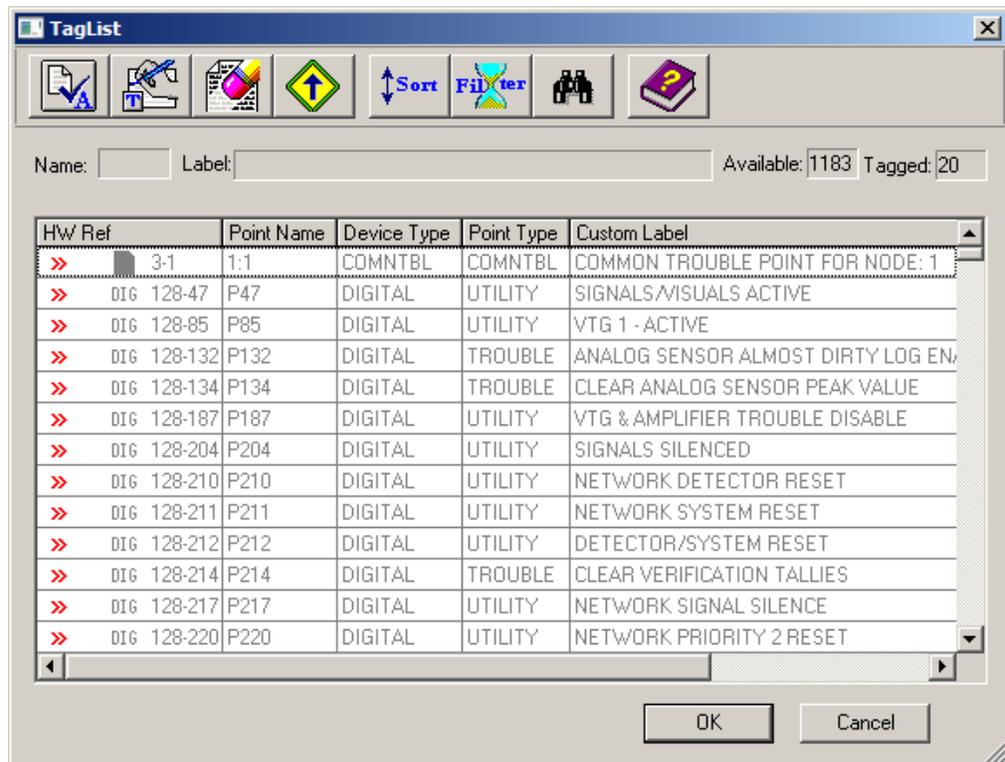


Figure 13-3. Public Points Tag List

### Procedure to Declare External Points

Use the following procedure to define the panel's external points.

1. Right click on the External Points folder and select the **Edit External** choice. The dialog shown below appears. Click on the drop down list box and select the number of the node containing the points you want to declare external.

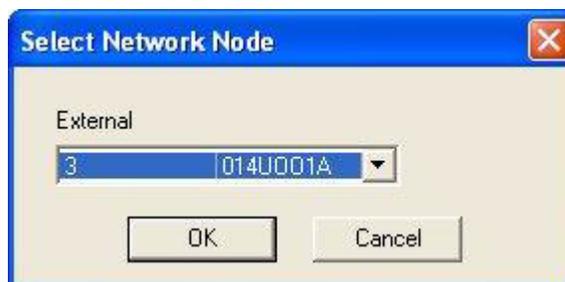


Figure 13-4. Select Network Node

*Continued on next page*

## Adding or Editing Network Information, *Continued*

### Procedure to Declare External Points

- Click **OK**. The tag list shown in Figure 13-5 appears. This taglist contains all of the points that are currently declared public on the node selected in Step 1 above.

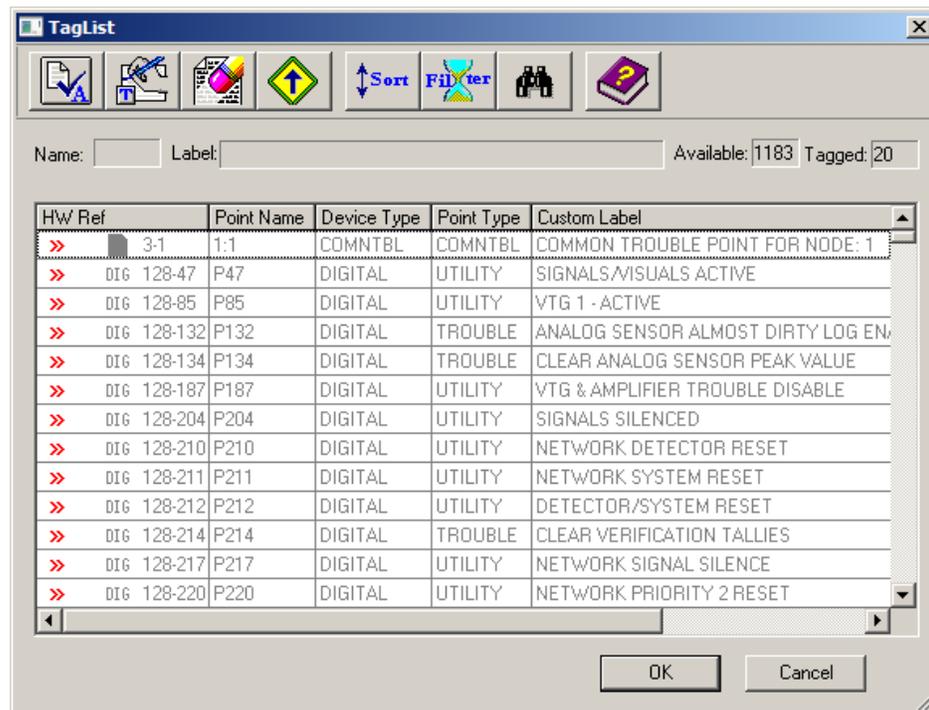


Figure 13-5. Tag List for External Points

- Position the highlight on a point and press the space bar to tag the point. A >> symbol is shown to the left of the point to indicate that it is selected. (To remove this symbol and deselect a point, highlight the point and press the space bar again.)

To select a contiguous group of points, click on the first point in the group, press the SHIFT key and click on the last point in the group you want to select.

### Programming Network Alarm Silence

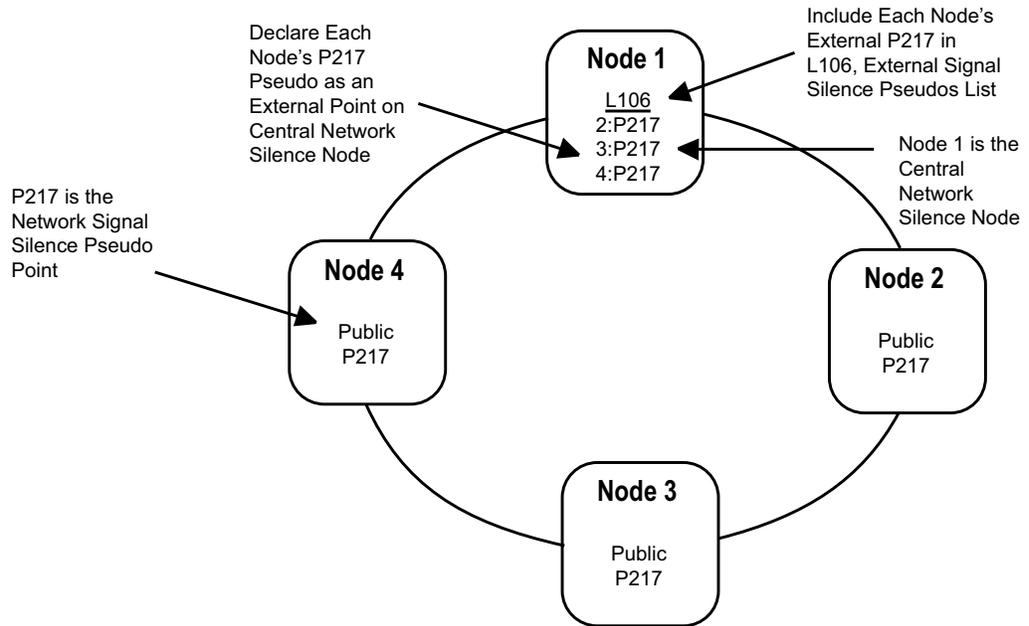
The sections below describe programming Network Silence and Network Reset. These options can be configured to work in either of the following ways:

- **Central Network Silence and Reset.** With this type of configuration, only one node (known as the Central Network Silence/Reset Node) is capable of initiating a Network Silence or Network Reset.
- **Distributed Network Silence and Reset.** This setup allows a Network Silence or Network Reset to be initiated from any node on the network.

## Adding or Editing Network Information, *Continued*

### Programming Central Network Silence

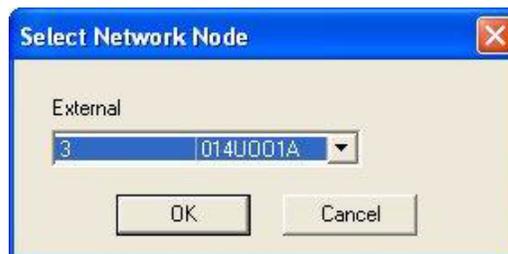
Any 4007ES node can be configured as the Central Network Silence Node. Programming Central Network Silence does not invalidate inhibit and cutout timers on each node. Each node handles these functions locally. The figure below provides an overview of Central Network Silence. In this figure, Node 1 serves as the Central Network Silence Node. Each node's P217 pseudo has been declared external on Node 1 and L106 on this node has been edited to include the external points.



**Figure 13-6. Central Network Silence**

Follow these steps to program Central Network Silence.

1. Open the network job, using the network programmer. Open the job for the node you have designated as the Central Network Silence Node.
2. When the ES Panel programmer appears, click on the **Network** tab at the top of the programmer. When the Network window appears, click on the **Network Points** subtab at the bottom of the Network window.
3. Right click in the Network window. When the choices appear, click on **Edit externals**. A dialog similar to the following appears. Click on the drop down list box and choose one of the nodes on the network.



**Figure 13-7. Select Network Node**

*Continued on next page*

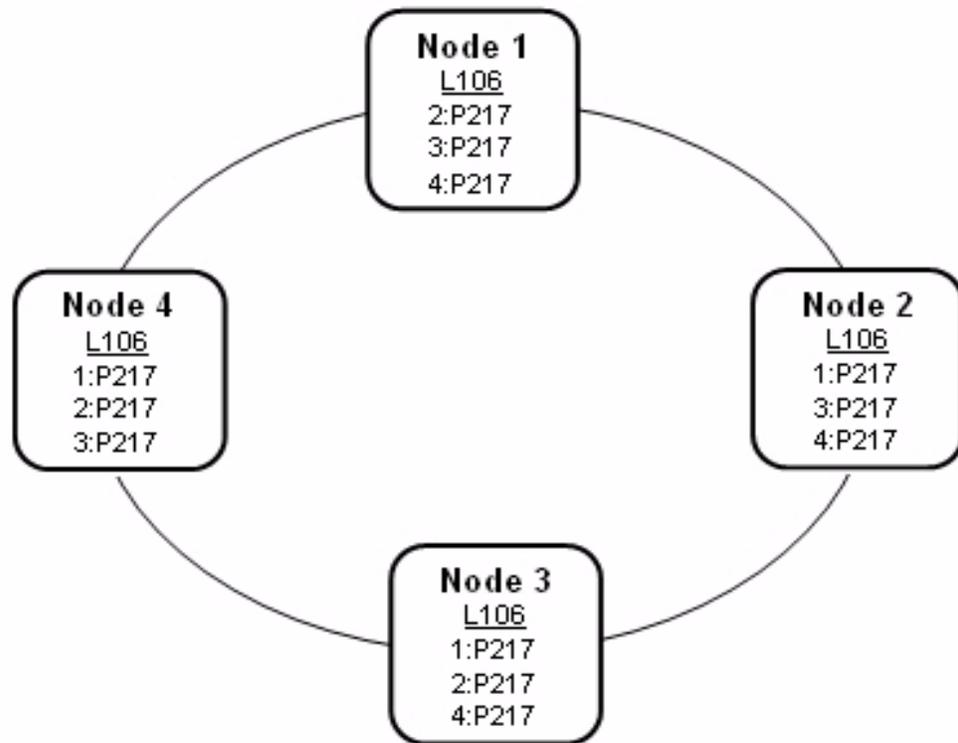
## Adding or Editing Network Information, *Continued*

### Programming Central Network Silence

4. Click **OK** to close the dialog. When you do this, a tag list containing the public points from the selected node appears. Click on **P217 Network Signal Silence** and press the space bar to select the point. Click **OK** to close the taglist.
5. Repeat Steps 3 and 4 for every node on the network.
6. Click on the **List** tab at the top of the programmer. When the List window appears, click on the **General List** subtab at the bottom of the window. Scroll through the list, right click on **L106 - External Alarm Silence Points** and select **Tag List**.
7. Click on the **Filter** icon at the top of the Tag List. When the list of choices appears, click on the **Network Externals** check box. Click on the OK button. All of the External Points appear.
8. Click on each entry for **P217 - Network Signal Silence** (each node on the network should have an entry) and press the space bar to add the entry to L106. N:P217 represents the Node Number.

### Programming Distributed Network Silence

This setup allows a Network Silence to be initiated from any node on the network. The figure below provides an overview of Distributed Network Silence. In this figure, each node's P217 pseudo has been declared external on the other nodes and L106 on each node has been edited to include the external points.



**Figure 13-8. Distributed Network Silence**

To configure Distributed Network Silence, follow the steps in section “Programming Central Network Silence” of this chapter for each node. Repeat Steps 3 through 7 for every node on the network.

## Adding or Editing Network Information, *Continued*

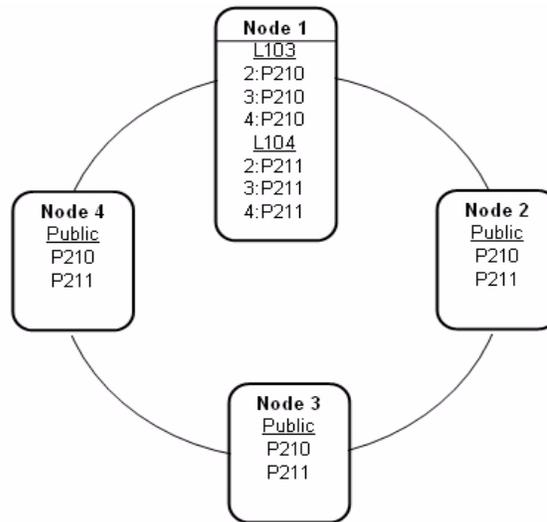
### Programming Central Network Reset

**Note:** 1. Do not reset a Node using Central Network Reset if you cannot see all the alarms associated to that node. When reset is pressed, P210 goes ON in every node it can reset. If the node where reset is activated has no alarms, it immediately turns ON the P211 pseudos on all nodes. However the system in alarm is not ready for this and latches.

2. If a TSW has a UT connected to it, put P210 of the UT into L0 to reset the UT.

Any 4007ES node can be configured as the Central Network Reset Node. Keep the following in mind when programming Central Network Reset.

- This application performs separate internal Detector Reset and System Reset.
- All General Alarm Points must be monitored and SMPL-controlled by the Central Node.
- System Points involved:
  - P210 Network Detector Reset/L103 External Detector Reset Points
  - P211 Network System Reset/L104 External Control Reset Points



**Figure 13-9. Central Network Reset**

1. Open the network job, using the network programmer. Open the job for the node that will serve as the Central Reset Node.
2. When the ES Panel programmer appears, click on the **Network** tab at the top of the programmer. When the Network window appears, click on the **Network Points** subtab at the bottom of the Network window.
3. Right click in the Network window. When the choices appear, click on **Edit Externals**. A dialog appears. Click on the drop down list box and choose one of the nodes on the network.
4. Click **OK** to close the dialog. When you do this, a tag list containing the public points from the selected node appears. Click on **P210** and press the space bar to select the point. Click **P211** and press the space bar to select the point. Click **OK** to close the taglist.
5. Repeat Steps 3 and 4 for every node on the network.
6. Click on the **List** tab at the top of the programmer. When the List window appears, click the **General List** subtab at the bottom of the window. Scroll through the list, right click on L103 and select **Tag List**.
7. Click on the **Filter** icon at the top of the **Tag List**. When the list of choices appears, click the **Network Externals** check box. All of the External Points appear.
8. Click on the entry for **P210** and press the space bar.
9. Repeat Steps 6 through 8 for every node on the network.
10. Click on the **List Tab** at the top of the programmer. When the **List** window appears, click the **General List** subtab at the bottom of the window. Scroll through the list, right click L104 and select **Tag List**.

*Continued on next page*

## Adding or Editing Network Information, *Continued*

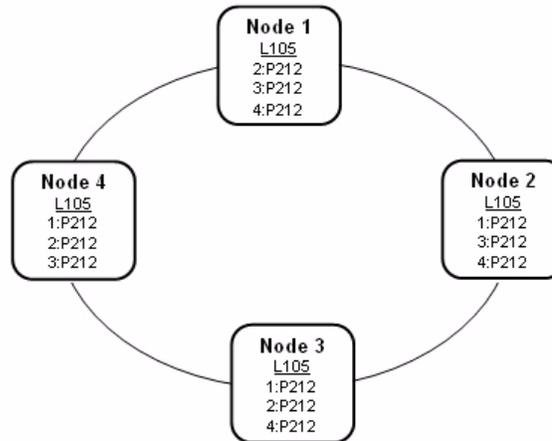
### Programming Central Network Reset

11. Click on the **Filter** icon at the top of the **Tag List**. When the list of choices appears, click on the **Network Externals** check box. All of the External Points appear.
12. Click on the entry for **P211** and press the space bar.
13. Repeat Steps 10 through 12 for every node on the network.

### Programming Distributed Network Reset

With Distributed Network Reset, the following occurs:

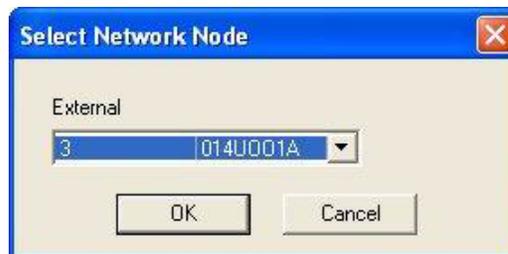
- Each node controls its own General Alarm Points.
- System Reset can be initiated from any node and all other nodes may also experience the reset operation.
- System Points involved: P212 Detector/System Reset, and 105 External Entire System Reset Points.



**Figure 13-10. Distributed Network Reset**

To configure Distributed Network Silence, do the following on each node.

1. Open the network job, using the network programmer. Open the job for one of the nodes.
2. When the ES Panel programmer appears, click on the **Network** tab at the top of the programmer. When the Network window appears, click on the **Network Points** subtab at the bottom of the Network window.
3. Right click in the Network window. When the choices appear, click on **Edit Externals**. A dialog similar to the following appears. Click on the drop down list box and choose one of the nodes on the network.



**Figure 13-11. Choose Node**

4. Click **OK** to close the dialog. When you do this, a tag list containing the public points from the selected node appears. Click on **P212** and press the space bar to select the point. Click **OK** to close the taglist.

*Continued on next page*

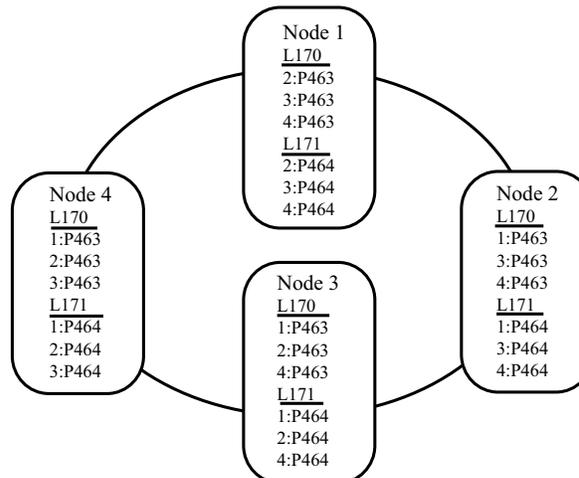
## Adding or Editing Network Information, *Continued*

### Programming Distributed Network Reset

5. Click on the **List** tab at the top of the programmer. When the **List** window appears, click on the **General List** subtab at the bottom of the window. Scroll through the list, right click on L105 and select **Tag List**.
6. Click on the **Filter** icon at the top of the **Tag List**. When the list of choices appears, click on the **Network Externals** check box. All of the External Points appear.
7. Click on every entry for **P212** and press the space bar to add the entry to **L106**.
8. Repeat Steps 3 through 7 for every node on the network.

### Distributed Configuration

The digital pseudo points P463 and P464 are used to raise a trouble when a CO sensor is within 6 or 12 month of its expiration date. A transition from off to on of the digital pseudo point will trigger a check on all CO sensors within the local panel. On site, where multiple panels are linked together over the network, it is possible to synchronize the 2 digital pseudo points on every node. To do so, the remote node must declare the local node's P463 as External, since P463 and P464 are always public by default. Once P463 is imported to the remote node's job, its L170 is automatically updated to include the imported digital pseudo point. The same applies to P464 and L171. So when the remote node P463 is turned on, default SMPL equation 0-164 will turn the local node's P463 to on. To declare an external point, refer to the section "Procedure to Declare External Points" in this chapter.



**Figure 13-12. Distributed Configuration**

1. Open the network job by using the network programmer.
2. Open the job for the node that will serve as the central reset node.
3. When the ES Panel programmer appears, click the **Network** tab at the top of the programmer.
4. When the Network window appears, click the **Network Points** subtab at the bottom of the Network window.
5. Right click in the Network window.
6. When the choices appear, click on **Edit Externals**. A dialog box appears.
7. Click on the drop-down list box and choose one of the nodes on the network.
8. Click on **OK** to close the dialog. A tag list containing the public points from the selected node appears.
9. Click on **P463** and press the space bar to select the point.
10. Click on **P464** and press the spacebar to select the point.
11. Click **OK** to close the taglist.
12. Repeat Steps 5 to 11 for every node on the network.



# Appendix A.

## ULC Programming Requirements

---

**Introduction** This appendix describes ULC programming requirements.

---

**In this chapter**

Required Operations.....	A-2
Alarm Cutout Timer Feature.....	A-4
Releasing Specific Controls and Indications.....	A-7

## Required Operations

**Introduction** To comply with ULC standards, there are indicators and a key that must be programmed and labeled, as outlined in this section. The LED indicators required are for Manual Evacuation, Ground Fault, and AC Power On. User Button 1 is designated as the Manual Evacuation key.

**Procedure** For ease of programming, there is a check box in the **Card Properties** section of the **Color User Interface** properties. Follow the steps outlined below to program the ULC required items.

1. Click the **Hardware** tab and expand the Unit 0, Box 1, Bay 1, and Block A icons to display the Color User Interface icon, see Figure A-1. Click the + signs to the left of the Unit 0, Box 1, Bay 1, and Block A icons to expand them.)
2. Right click the Color User Interface icon (highlighted in Figure A-1) and select **Properties**.
3. Click check box **S527 Operation**, as shown in Figure A- 2.
4. Click **OK** to close the dialog box.

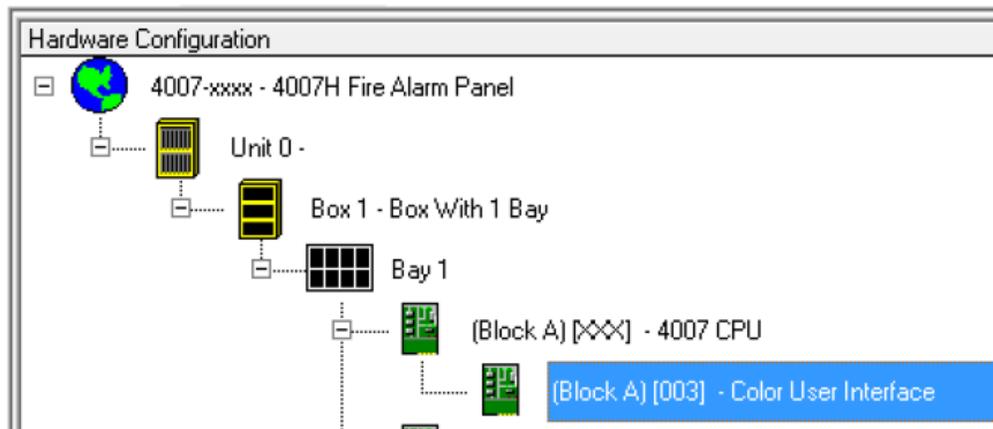
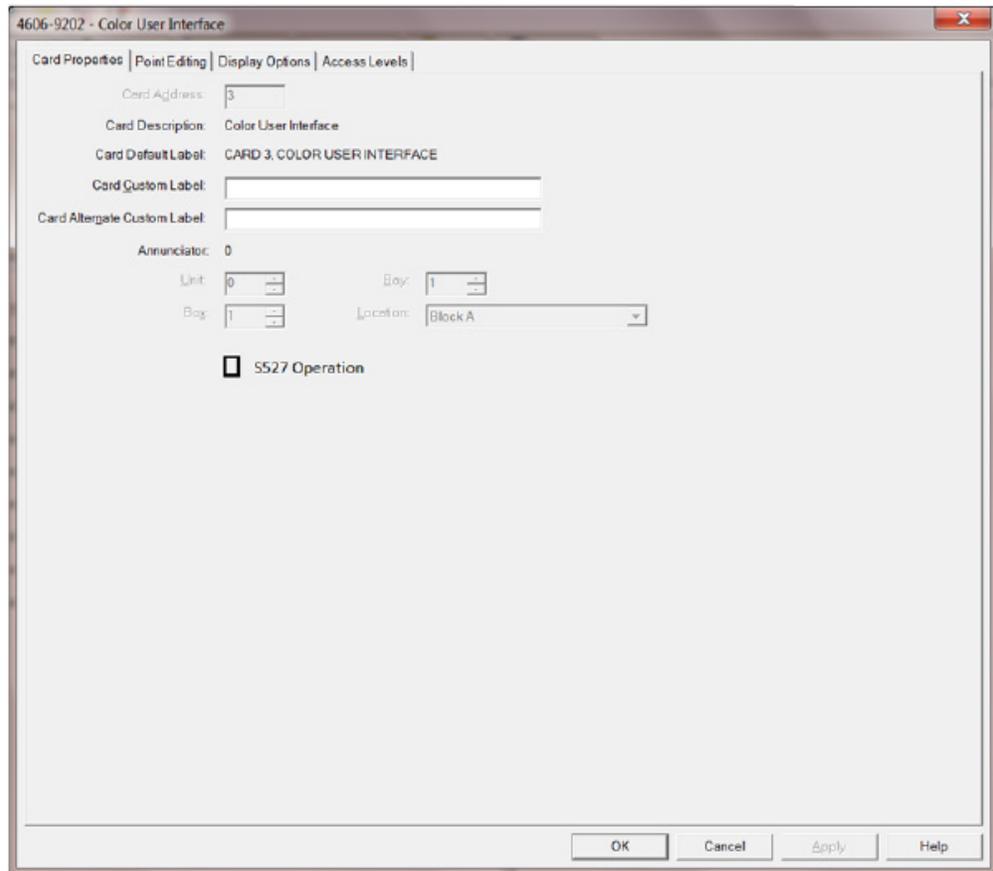


Figure A-1. Expanded View of Hardware Configuration

*Continued on next page*

## Required Operations, *Continued*

### Procedure



**Figure A- 2. Color User Interface Properties with S527 Operation Check Box**

**Note:** In compliance with ULC requirements, the slide-in label for LEDs on the user interface must be labeled as shown in Figure A- 3.



**Figure A- 3. ULC Labeling Requirements for LEDs**

## Alarm Cutout Timer Feature

### Introduction

To comply with ULC standards when using the Alarm Cutout Timer feature, there must be a yellow LED dedicated to indicate when the timer has expired.

**Note:** The LEDs adjacent to the LCD must be used for other ULC indication requirements, therefore the inclusion of the Alarm Cutout Timer feature will require the additional LED Module (4007-9805).

### Enabling Alarm Cutout Timer

To enable the Alarm Cutout Timer, do the following:

1. Click the **Panel** tab.
2. Click the **Systems Options** subtab located at the bottom of the programmer.
3. Click the **Alarm Cutout Timer** checkbox. Specify the timer value on the Seconds box to the right of the checkbox.

### Programming the LED

#### Step 1: Assigning a digital pseudo point for the LED.

1. Click the **Point** tab.
2. Scroll until the points with the Digital device type are visible. Select a point which has an empty custom label field. (For purposes of demonstration, pseudo point P700 has been selected.)
3. Right click on the point selected and select **Properties**.
4. Enter the description in the **custom label** field, as shown in Figure A- 4.
5. Click **OK**.

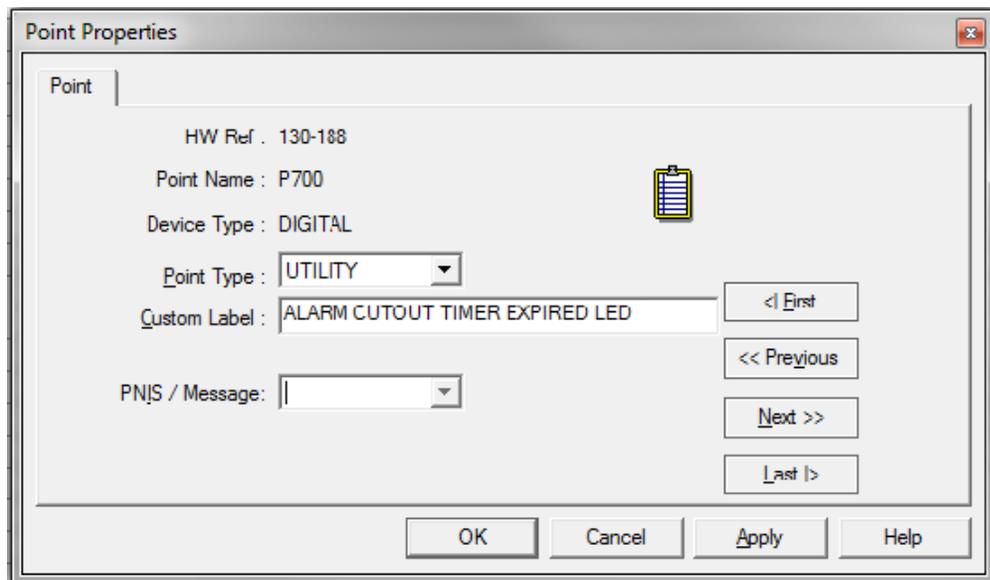


Figure A- 4. Pseudo Point Properties

#### Step 2: Create Custom Control equations for pseudo point operation.

1. Review Chapter 8 of this manual for the process of creating Custom Control equations.
2. Create the equation shown below in Figure A-5, which turns the assigned pseudo point ON when the Alarm Cutout Timer expires.
3. Create a second equation, shown in Figure A-6, which turns the assigned pseudo point OFF when a subsequent alarm resounds the signaling devices and when the system is reset.

*Continued on next page*

## Alarm Cutout Timer Feature, *Continued*

### Programming the LED

```
Equations:
[INPUTS]
  STATUS ON
  A26 |ANALOG | TIMER | FIRE ALARM CUTOUT SILENCE PULSE TIMER
[END INPUTS]
[OUTPUTS]
  HOLD ON PRI=9,9
  P700 |DIGITAL | UTILITY |
[END OUTPUTS]
```

Figure A- 5. Custom Control Equation to Turn ON Pseudo Point

```
Equations:
[INPUTS]
  NOT STATUS ON
  A0 |ANALOG |ANALOG | NUMBER OF SYSTEM FIRE ALARMS
  OR STATUS ON
  A24 |ANALOG | TIMER | FIRE ALARM CUTOUT TIMER
  AND STATUS ON
  P700 |DIGITAL | UTILITY |
[END INPUTS]
[OUTPUTS]
  HOLD OFF PRI=9,9
  P700 |DIGITAL | UTILITY |
[END OUTPUTS]
```

Figure A- 6. Custom Control Equation to Turn OFF Pseudo Point

#### Step 3: Program the LED to reference the assigned pseudo point.

1. Review the section detailing how to program the LED module, see Chapter 6.
2. Select a YELLOW LED to program. Set the Mode to ON and set the **Reference Address** to the pseudo assigned in Step 1, as shown in Figure A-7.
3. Click **OK**.

## Alarm Cutout Timer Feature, *Continued*

### Programming the LED

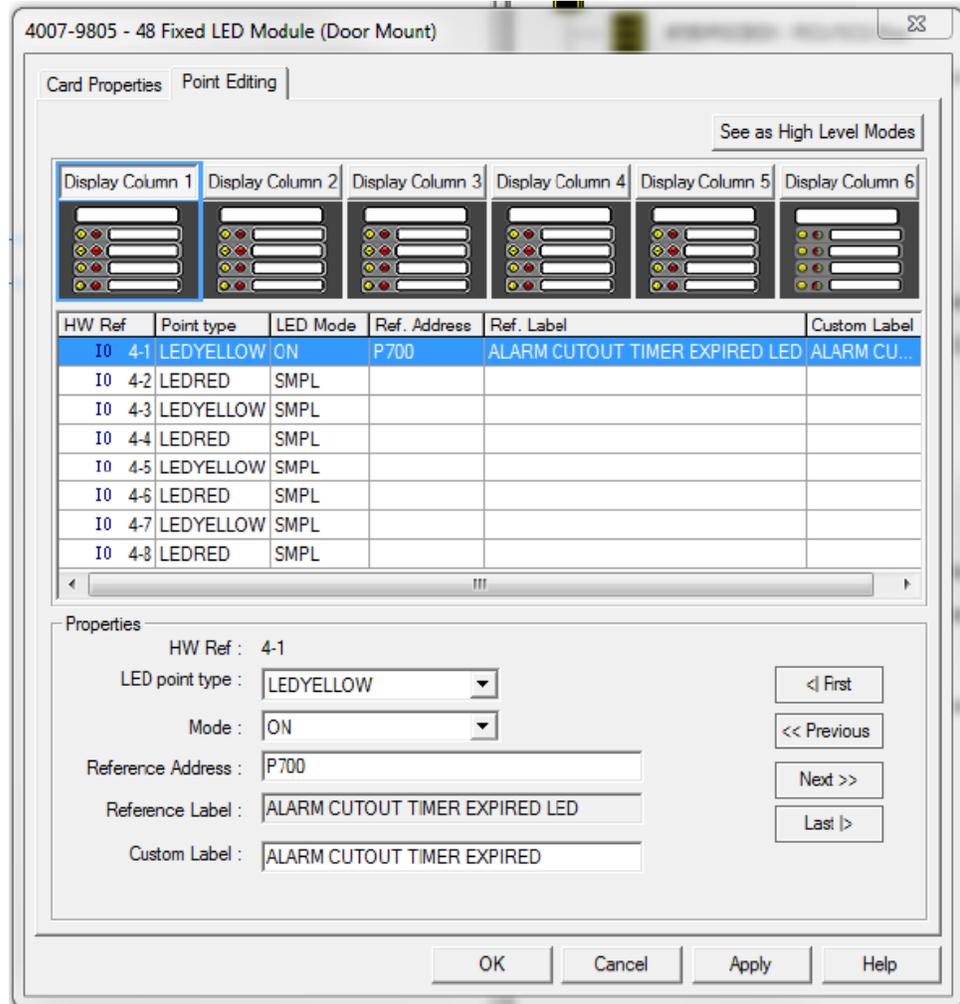


Figure A- 7. LED Module Properties

## Releasing Specific Controls and Indications

### Introduction

To comply with ULC standards when using the 4007ES for releasing service, program a *Pre-Discharge* red LED, a *Discharge* red LED, and the abort switches to cause a system trouble when activated (UL864 requires a system supervisory which is default). You may need to program a *Releasing Service Signal Silence button* with yellow LED. If your releasing job includes abort switches, you are required to program an abort trouble LED.

- Notes:**
1. Since the LEDs adjacent to the LCD must be used for other ULC indication requirements, the inclusion of releasing service in the panel requires the additional LED Module (4007-9805).
  2. If you have multiple Hazard Areas, repeat the steps below for each Hazard area as required. Label the insert for the LEDs appropriately to identify the function and the hazard zone that is being referred to.

### Pre-Discharge LED Programming (Red LED)

A Pre-Discharge LED Programming (Red LED) is **required for every Hazard Area**. The Pre-Discharge LED activates whenever the system is in the Pre-Discharge State. The LED will be off when the system has discharged.

An example program follows.

1. Open the suppression releasing wizard for that hazard and write down the list number created for Manual Release Points and Automatic Release Points (L268 and L269 in this example).



2. Pick any available digital pseudo point (P720 in this example) and program it to turn ON whenever a point in the lists from step 1 are detected going active.

```
[INPUTS]
STATUS DETECT
L268 | LIST | MONITOR | SupRel Manual Rel Points - CrossZone
OR STATUS DETECT
L269 | LIST | MONITOR | SupRel Auto Rel Points - CrossZone
[END INPUTS]
[OUTPUTS]
HOLD ON PRI=9,9
P720 | DIGITAL | UTILITY | PRE-DISCHARGE ACTIVE
[END OUTPUTS]
```

*Continued on next page*

## Releasing Specific Controls and Indications, *Continued*

### Pre-Discharge LED Programming (Red LED)

3. Write an equation to turn off the LED when the zone releases.

```

[[INPUTS]
STATUS ON
L274 | LIST | CONTROL | SupRel Dump Points - CrossZone
[END INPUTS]
[OUTPUTS]
HOLD OFF PRI=9,9
P720 | DIGITAL | UTILITY | PRE-DISCHARGE ACTIVE
[END OUTPUTS]

```

4. Write (or add to an existing equation) the equation to turn off the digital pseudo during system startup or upon system reset.

```

[[INPUTS]
STATUS ON
A21 | ANALOG | TIMER | SYSTEM RESET PULSE TIMER
OR STATUS ON
A34 | ANALOG | TIMER | SYSTEM STARTUP PULSE TIMER
[END INPUTS]
[OUTPUTS]
HOLD OFF PRI=9,9
P720 | DIGITAL | UTILITY | PRE-DISCHARGE ACTIVE
[END OUTPUTS]

```

5. Choose an available RED LED on the LED Module (under the **Hardware** tab in the programmer) and set its mode as "ON" and set the reference address to the list that was assigned.

HW Ref :	4-10
LED point type :	LEDRED
Mode :	ON
Reference Address :	P720
Reference Label :	PRE-DISCHARGE ACTIVE

## Releasing Specific Controls and Indications, *Continued*

### Discharge LED Programming (RED LED)

Discharge LED Programming (RED LED) is **required for every Hazard Area**. The Discharge LED activates when the suppression release device is in the released state (solenoid is activated). The LED clears upon system reset or when the solenoid is deactivated. Below is an example program.

1. Click the **Custom Control** tab.
2. Click the **Suppression Release Wizard** subtab.
3. Right-click the title (next to the wizard graphic) and select **Properties** to open the Hazard Area.
4. Select the **Points** tab and write down the List assigned to **Suppression Dump Points**.

Summary	Name/Comments	Options	Timers	Abort	Points
CrossZone Lists					
L268	Manual Release Points			L275	Release Notification Audible NACs
L269	Automatic Release Points			L276	Release Notification Visible NACs
L270	Abort Switches				
L271	Release Warning Points				
L274	Suppression Dump Points				

5. Choose an available RED LED on the LED Module located under the **Hardware** tab. Set its mode as "ON" and set the reference address to the list that was assigned.

Properties	
HW Ref :	4-4
LED point type :	LEDRED
Mode :	ON
Reference Address :	L274
Reference Label :	SupRel Dump Points - CrossZone
Custom Label :	
Alternate Custom Label :	

## Releasing Specific Controls and Indications, *Continued*

### Abort Switch Active

Program a LED to display that an abort switch is active in a hazard area. The LED will be on whenever an abort is activated in during a releasing service alarm. It will not turn on during normal supervisory conditions.

1. Open the digital Pseudo Point list and look for a digital pseudo point created by the **Suppression Release Wizard** called **SupRel Abort Switch Activate- *yourhazardname***. It should be towards the end of the list as the wizard just selects the next available digital pseudo point.

JIG	130-10	P522	DIGITAL	UTILITY	SupRel 1st Alarm Active - CrossZone
JIG	130-11	P523	DIGITAL	UTILITY	SupRel Abort Switch Activate- CrossZone
JIG	130-12	P524	DIGITAL	UTILITY	SupRel Manual Dump Timeout - CrossZone

2. Choose an available Yellow LED on the LED Module located under the **Hardware** tab. Set its mode as "ON" and set the reference address to the digital pseudo point that was assigned.

Properties

HW Ref : 4-21

LED point type : LEDYELLOW

Mode : ON

Reference Address : P523

Reference Label : SupRel Abort Switch Activate- CrossZone

### Abort Switch Trouble during Normal Supervisory Conditions

This programs the panel such that an abort switch causes a trouble when activated during normal supervisory conditions. If the hazard area enters alarm while the abort switch is pressed, or the abort switch is activated while the hazard area is in alarm the abort switch will behave normally.

**IMPORTANT:** In order to program the Abort Switch Trouble During Normal Supervisory Conditions function, disable the **Suppression Release Wizard** in custom control. The equations stay in custom control but you are not able to edit them through the wizard. Any future changes to the hazard area will need to be manual.

1. Change / Program the abort IAMs type from SUPABRT to a UTILITY point type in the **Hardware** tab for the IDNet devices. These IAMs should have already been assigned to the **Hazard Area** in the Suppression Release Wizard. If not, assign them now.

Device Type : IAM

Point Type : UTILITY

*Continued on next page*

## Releasing Specific Controls and Indications, *Continued*

### Abort Switch Trouble during Normal Supervisory Conditions

- Configure three unused digital pseudo points to be used as two new troubles and a supervisory point. Label them as follows (change HAZNAME to the appropriate label for your hazard area):

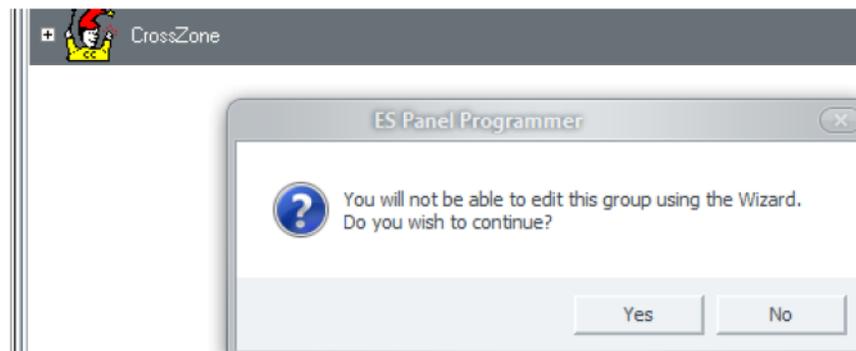
Point Name : P535 Device Type : DIGITAL Point Type : TROUBLE Custom Label : HAZNAME - ABORT ACTIVE - NO ALARM	Point Name : P536 Device Type : DIGITAL Point Type : TROUBLE Custom Label : HAZNAME - ABORT SWITCH SHORT TROUBLE
Point Name : P537 Device Type : DIGITAL Point Type : SUPERV Custom Label : HAZNAME - ABORT SWITCH ACTIVE	

- In the **Suppression Release Wizard** that you are working on, right click the title (next to the wizard graphic) and select **Properties** to open the **Hazard Area**.
- Select the points tab and write down the lists assigned to **Abort Switches** and **Automatic Release Points**.

- Enable Manual Editing of the suppression release wizard equations.

**IMPORTANT:** When you enable manual edit the **Suppression Release Wizard** cannot be used to modify this hazard area.

Right click the wizard for that hazard and select **Enable Manual Edit**. Click **Yes** in the confirmation box.



*Continued on next page*

## Releasing Specific Controls and Indications, *Continued*

### Abort Switch Trouble during Normal Supervisory Conditions

6. Click the **List** tab in the Programmer and right click the list for the abort switches made during step 3 and select **where used** to show all the custom control equations this list is referenced in.

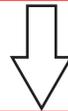
Point	Equation
LST L266 1	N/A Laura Detect ALARM
LST L267 2	N/A Laura Detect TA ADD
LST L268 1	N/A SupRel Manual Rel Points - CrossZone
LST L269 1	N/A SupRel Auto Rel Points - CrossZone
LST L270 1	N/A SupRel Abort Switches - CrossZone
LST L271	N/A SupRel Warning Points - CrossZone

Equation
Equation 3-18 : Abort : 10 Second Delay (1) - CrossZon
Equation 3-19 : Abort : 10 Second Delay (2) - CrossZon
Equation 3-20 : Abort : 10 Second Delay (3) - CrossZon
Equation 3-22 : Release Dump Points(1) - CrossZone

Find these equations in the custom control user equations and whenever the abort switches list is referenced for status SUPV, change it to ABNORM. For example:

NOT STATUS SUPV  
L270 | LIST | MONITOR | SupRel Abort Switches - CrossZone



NOT STATUS ABNORM  
L270 | LIST | MONITOR | SupRel Abort Switches - CrossZone

7. Add a **HAZNAME - Abort Switch Trouble** equation to annunciate troubles from this abort switch as shown below when the hazard area is not in alarm. Use the lists you wrote down from above as the input lists and the trouble digital pseudo point you created with the **Abort Active - No Alarm** as the output.

```
[INPUTS]
STATUS ABNORM
L258 | LIST | MONITOR | SupRel Abort Switches - HazArea1
AND NOT STATUS FIRE
L269 | LIST | MONITOR | SupRel Auto Rel Points - CrossZone
[END INPUTS]
[OUTPUTS]
TRACK ON PRI=9,9
P535 | DIGITAL | TROUBLE | HAZNAME - ABORT ACTIVE - NO ALARM
[END OUTPUTS]
```

8. Add a **HAZNAME - Abort Switch Short Circuit** equation to annunciate short troubles from this abort switch as shown below. Use the abort list you wrote down from above as the input lists and the trouble digital pseudo point you created the Abort Switch Short as the output.

```
[INPUTS]
STATUS SHORT
L258 | LIST | MONITOR | SupRel Abort Switches - HazArea1
[END INPUTS]
[OUTPUTS]
TRACK ON PRI=9,9
P536 | DIGITAL | TROUBLE | HAZNAME - ABORT SWITCH SHORT
TROUBLE
[END OUTPUTS]
```

*Continued on next page*

## Releasing Specific Controls and Indications, *Continued*

---

### Abort Switch Trouble during Normal Supervisory Conditions

9. Add a **HAZNAME - Abort Switch Supervisory** equation to annunciate a supervisory when the abort switch is activated in alarm as shown below. Use the lists you wrote down from above as the input lists and the supervisory digital pseudo point you created the Abort Switch Active as the output.

```

[INPUTS]
STATUS ABNORM
L258 | LIST | MONITOR | SupRel Abort Switches - HazArea1
AND STATUS FIRE
L269 | LIST | MONITOR | SupRel Auto Rel Points - CrossZone
[END INPUTS]
[OUTPUTS]
TRACK ON PRI=9,9
P537 | DIGITAL | SUPERV | HAZNAME - ABORT SWITCH ACTIVE
[END OUTPUTS]
```

### Releasing Service Signal Silence Programming - Optional (Pushbutton and Yellow LED)

The Releasing Service Signal Silence button (and Yellow LED indicator) is used instead of a silence for all systems that contain releasing and standard evacuation zones. The separate silence LED is used to ensure that someone trying to silence the evac zone does not inadvertently silence a releasing zone thereby disabling the warning of a possible toxic release. When this feature is used, the normal signal silence will not silence the special service NACs (such as, releasing warning NACs). The Releasing Service Signal Silence button should not prevent the release, it only silences the warning NACs. Note that an escalation of the releasing sequence (going from warning to released) will **not** re-sound the warning NACs. An example program follows. In this example both the visual and audible Release Notification NACs are silenced.

See the following for a program example:

**IMPORTANT:** In order to program the Releasing Service Signal Silence function, disable the Suppression Release Wizard in **Custom Control**. The equations will stay in **Custom Control** but you will not be able to edit them through the wizard. Any future changes to the hazard area will need to be manual.

1. Program a button and a LED for Releasing Service Signal Silence (RSSS).
  - a. Move the power LED function to the 4010-9805 LED module because the panel defaults to the bottom LED programmed as power when configured for ULC operation. This vacates a LED next to the silence button.
  - b. If a second Hazard Zone is required, do the same for the ground fault trouble. To move the functionality of the LED mimic the mode, reference address, point type and any custom labels to an available LED.
  - c. Configure the switch as Mode PBT\* and select an available digital pseudo point as a reference address. The Custom Label appears on the display for the switch.  
\*Note: In this example, the lowest switch, next to the ground fault LED, is chosen.
  - d. Label it appropriately for the hazard area you are silencing.
  - e. Configure the LED to as Mode ON and have it track another available digital Pseudo.

*Continued on next page*

## Releasing Specific Controls and Indications, *Continued*

### Releasing Service Signal Silence Programming - Optional (Pushbutton and Yellow LED)

IO	3-1-3	PBT	P731	RSSS BUTTON	IO	3-2-3	ON	P730	RSSS LED
HW Ref :	3-1-3				HW Ref :	3-2-3			
Mode :	PBT				Mode :	ON			
Reference Address :	P731				Reference Address :	P730			
Reference Label :	RSSS BUTTON				Reference Label :	RSSS LED			
Point :	3-1-3				Point :	3-2-3			
Point Type :	SWITCH				Point Type :	LEDYELLOW			
Custom Label :	REL SERV SIG SIL				Custom Label :	RELEASING DEVICE SIGNAL SILENCE LED			
Alternate Custom Label :					Alternate Custom Label :				

- Check if there are any manual or automatic alarms in the system and if someone is requesting to silence the NACs. The equation below checks this.
  - If there is an alarm in the system AND someone is pressing the RSSS button (indicated by the pseudo chosen for the button) the output holds the NACs off at a higher priority than releasing would normally turn them on.
  - If your job specific requirements specify that the releasing NACs turn on at a higher priority you may need to adjust these numbers. The pseudo for the LED is also held on indicating the releasing NACs are silenced.

CrossZone Lists

L268	Manual Release Points	L275	Release Notification Audible NACs
L269	Automatic Release Points	L276	Release Notification Visible NACs
L270	Abort Switches		
L271	Release Warning Points		
L274	Suppression Dump Points		

<| First  
<< Previous  
Next >>  
Last |>

```

[INPUTS]
STATUS ON
L256 | LIST | EMPTY | SupRel Manual Rel Points - HazArea1
OR STATUS ON
L257 | LIST | MONITOR | SupRel Auto Rel Points - HazArea1
SAVE 1
RECALL 1
AND STATUS ON
P731 | DIGITAL | UTILITY | RSSS BUTTON
[END INPUTS]
[OUTPUTS]
HOLD OFF PRI=6,6
L275 | LIST | CONTROL | SupRel Notif Audible NAC's - CrossZone
HOLD OFF PRI=6,6
L276 | LIST | CONTROL | SupRel Notif Visual NAC's - CrossZone
HOLD ON PRI=9,9
P730 | DIGITAL | UTILITY | RSSS LED
[END OUTPUTS]

```

- Add to the reset equation for the pre-discharge LED above to reset the NACs and the LED during a system reset or startup.

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## Releasing Specific Controls and Indications, *Continued*

### Releasing Service Signal Silence Programming - Optional (Pushbutton and Yellow LED)

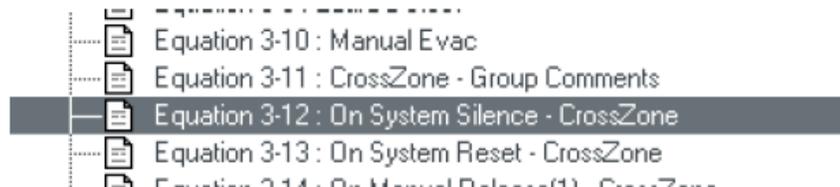
```
[INPUTS]
STATUS ON
A21 | ANALOG | TIMER | SYSTEM RESET PULSE TIMER
OR STATUS ON
A34 | ANALOG | TIMER | SYSTEM STARTUP PULSE TIMER
[END INPUTS]
[OUTPUTS]
HOLD OFF PRI=9,9
P720 | DIGITAL | UTILITY | PRE-DISCHARGE ACTIVE
HOLD OFF PRI=3,9
L275 | LIST | CONTROL | SupRel Notif Audible NAC's - CrossZone
HOLD OFF PRI=3,9
L276 | LIST | CONTROL | SupRel Notif Visual NAC's - CrossZone
HOLD OFF PRI=3,9
P730 | DIGITAL | UTILITY | RSSS LED
[END OUTPUTS]
```

4. Disable the **Suppression Release Wizard** to delete the default equation written by the **Suppression Release Wizard** to silence the NACs on system silence. If it is not deleted it will still silence the hazard area.

- a. Right click the wizard for that hazard and select **enable Manual Edit**.
- b. Click **Yes** in the confirmation box that follows.



- c. Return to your custom control equations and find the equation that the **Suppression Release Wizard** labeled **On System Silence - yourhazardname**
- d. Right click and select **Delete**.



```
[INPUTS]
STATUS ON
P6 | DIGITAL | UTILITY | ALARM SILENCE
[END INPUTS]
[OUTPUTS]
HOLD OFF PRI=7,9
L275 | LIST | CONTROL | SupRel Notif Audible NAC's - CrossZone
HOLD OFF PRI=9,9
L277 | LIST | EMPTY | SupRel Investigation Points - CrossZone
[END OUTPUTS]
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**579-1167**  
**Rev. D**



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