PS-Tools

User's Guide
for the 50 Pt Addr Panel

Fire Alarm System Limitations

While a fire alarm system may lower insurance rates, it is not a substitute for fire insurance!

An automatic fire alarm system—typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control panel with remote notification capability—can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

The Manufacturer recommends that smoke and/or heat detectors are located throughout a protected premise following the recommendations of the National Fire Protection Association Standard 72 (NFPA 72), manufacturer's recommendations, State and local codes, and the recommendations contained in the Guides for Proper Use of System Smoke Detectors, which are made available at no charge to all installing dealers. These documents can be found at http://www.systemsensor.com/html/applicat.html.

A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in or behind walls, on roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level or floor of a building. A second-floor detector, for example, may not sense a first floor or basement fire.

Particles of combustion or "smoke" from a developing fire may not reach the sensing chambers of smoke detectors because:

• Barriers such as closed or partially closed doors, walls, or chimneys may inhibit particle or smoke flow.

• Smoke particles may become "cold," stratify, and not reach the ceiling or upper walls where detectors are located.

• Smoke particles may be blown away from detectors by air outlets.

• Smoke particles may be drawn into air returns before reaching the detector.

The amount of "smoke" present may be insufficient to alarm smoke detectors. Smoke detectors are designed to alarm at various levels of smoke density. If such density levels are not created by a developing fire at the location of detectors, the detectors do not go into alarm.

Smoke detectors, even when working properly, have sensing limitations. Detectors that have photo electronic sensing chambers tend to detect smoldering fires better than flaming fires, which have little visible smoke. Detectors that have ionizing-type sensing chambers tend to detect fast-flaming fires better than smoldering fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is necessarily best and a given type of detector may not provide adequate warning of a fire. Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially in bedrooms), smoking in bed, and violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

Heat detectors do not sense particles of combustion and alarm only when heat on their sensors increases at a predetermined rate or reaches a predetermined level. Rate-of-rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist. Heat detectors are designed to protect property, not life.

IMPORTANT! Smoke detectors must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power. If detectors are not so located, a developing fire may damage the alarm system, crippling its ability to report a fire.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building. Any warning device may fail to alert people with a disability or those who have recently consumed drugs, alcohol or medication.

Please note that:

• Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.

• Studies have shown that certain people, even when they hear a fire alarm signal, do not respond or comprehend the meaning of the signal. It is the property owner's responsibility to conduct fire drills and other training exercise to make people aware of fire alarm signals and instruct them on the proper reaction to alarm signals.

• In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.

A fire alarm system does not operate without any electrical power. If AC power fails, the system operates from standby batteries only for a specified time and only if the batteries are properly maintained and replaced regularly.
Equipment used in the system may not be technically compatible with the control panel. It is essential to use only equipment listed for service with your control panel.
Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled. For added protection against telephone line failure, backup radio transmission systems are recommended.
The most common cause of fire alarm malfunction is inadequate maintenance. To keep the entire fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations, and UL and NFPA standards.
At a minimum, the requirements of NFPA 72 shall be followed. Environments with large amounts of dust, dirt or high air velocity require more frequent maintenance. A maintenance agreement must be arranged through the local manufacturer's representative. Maintenance must be scheduled monthly or as required by National and/or local fire codes and must be performed only by authorized professional fire alarm installers only. Adequate written records of all inspections must be kept.

Installation Precautions

Adherence to the following helps in problem-free installation with long-term reliability.

WARNING - Several different sources of power can be connected to the fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit, until manuals are read and understood.
CAUTION - System Reacceptance Test after Software Changes: To ensure proper system operation, this product must be tested in accordance with NFPA 72 after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring. 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.
This system meets NFPA requirements for operation at 0-49ºC/32-120º F and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15-27º C/60-80º F.
Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.
Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to the lightning induced transients. Although no system is completely immune from lightning transients and interference, proper grounding reduces susceptibility. Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning strikes. Consult with the Technical Services Department if any problems are anticipated or encountered.
Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.
Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they do not interfere with battery, transformer, or printed circuit board location.
Do not tighten screw terminals more than 9 in-lbs. Over tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.
This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static suppressive packaging to protect electronic assemblies removed from the unit.
Follow the instructions in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation.

FCC Warning

WARNING: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause interference to radio communications. It is tested and found to comply with the limits for class A computing devices pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when devices are operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user must set right the required to correct the interference at his or her own expense.

Canadian Requirements
This digital apparatus does not exceed the Class A limits for radiation noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.
Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

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About This Guide

This guide describes the procedures for installing PS-Tools and using PS-Tools for configuring and monitoring the 50 Pt Addr Fire Alarm Control Panel (FACP).

Overview of Contents

This document contains the following chapters and appendix.

- Chapter 1, *Introduction*, introduces PS-Tools application and describes its features.
- Chapter 2, *Setting Up PS-Tools*, provides the steps for installing PS-Tools.
- Chapter 3, *Getting Started*, provides the steps for logging onto PS-Tools.
- Chapter 4, *Adding Customers,* describes the steps for adding and maintaining the details of the customers for the fire panel.
- Chapter 5, *Configuring Fire Panels*, details the steps to configure the fire panel for a customer.
- Chapter 6, *Upload/Download Configuration Data*, presents the technique to download configuration data to the fire panel and upload configuration data from the fire panel.
- Chapter 7,*Generating Report*, depicts the process to generate the Configuration Data report.
- Chapter 8, *Troubleshooting,* lists the events and faults that can occur in the fire panel.
- *Appendix,* gives additional information about the coding selections, two stage operation, and synchronized NAC operation.

Audience

This guide is intended for the installers and operators of PS-Tools, who are trained in configuring and monitoring the fire panel.

Assumed Knowledge

It is assumed that you are familiar with the Microsoft Windows user interface, configuring and monitoring the 50 Pt Addr fire panel.

Related Documents

For more information about topics that are relevant to the subject of this manual, refer to the following document.

Document Title	Contents
50 Pt Addr (Document Id: 51335)	Installation procedures and technical specifications for the Fire Alarm Control Panel.

Typographical Conventions

This document uses the following typographical conventions.

Style	What it represents	Example
Bold	Menu titles, user interface literals	Double-click **PS-Tools** icon.
	Buttons you click to perform actions	Click **Exit** to close the program.
Italic	Items you select	*2-Wire Detector*
	Cross-reference within document	For more information, see *Configuring Fire Panel.*
	Cross-reference to chapters	See *Getting Started*.

1

1 Introduction

This chapter provides an overview of the PS-Tools (Programming Software Tools) application and describes the profiles of the users.

Overview of PS-Tools

PS-Tools is a convenient and powerful tool which can be used for configuring the programming data for the 50 Pt Addr Fire Alarm Control Panel (FACP) from a computer or a laptop.

You can configure the fire alarm system in three ways.

1. Using PS-Tools
2. Using the fire panel keypad
3. Using PS2 Style Keyboard

Configuring through Fire Panel Keypad

Configuring through panel keypad involves making changes in several screens for a single control using the panel keypad. This way of configuration is tedious.

Configuring through PS-Tools

You can configure the fire panel using PS-Tools, instead of using a panel keypad. This way is more efficient because of the user-friendly screens in PS-Tools.

Configuring through PS2 Style Keyboard

You can configure the 50 Pt Addr fire panel by connecting a PS2 Style Keyboard, instead of using the panel keyboard.

PS-Tools Features

PS-Tools provides many features such as:

- Maintaining details of the fire panel customers.
- Configuring the settings for the fire panel for a customer.
- Verify Setup feature which helps in verifying the configuration before downloading to panel.
- Download utility to download the configuration information to the fire panel.
- Upload utility to upload the event logs, history data, and troubleshoot data from fire panel.
- File Comparison utility, which allows location by location comparison of separate upload and download files.
- Export Configuration feature to export the saved configuration to a file.
- Import Configuration details from the panel.
- Graphical representation of the installed devices.
- Simulation feature, which displays the correlation of the input and output devices.
- Migrate the database files from PK-Plus to PS-Tools.
- Fire panel troubles and events troubleshooting.

User Profile

Table 1-1 lists the roles and responsibilities for the PS-Tools users.

Table 1-1 User roles and responsibilities

User Role	Responsible for
Service Technician/Installer	• Commissioning and installing the fire alarm system. • Configuring the fire panel programmable data.
Support Engineer	• Attending the support calls from the fields. • Providing training to the service technicians.
Fire Panel distributors	• Marketing the fire panels.
Primary and Secondary Central Stations	• Reporting events, troubles, and alarms to the central station.

2

2 Setting Up PS-Tools

This chapter describes the procedures for installing and removing the PS-Tools.

The following table describes the tasks you can perform using different sections of this chapter.

Section	Description	Refer to
System Requirements	Lists the hardware and software requirements to install the PS-Tools application.	page 4
Complete Setup vs Custom Setup	Helps you to become familiar with the deployment scenario for PS-Tools.	page 4
Installing PS-Tools	Provides guidelines for installing the PS-Tools in your computer.	page 5
Removing PS-Tools	Outlines procedures for removing PS-Tools from your computer.	page 12

System Requirements

Before you begin the setup process, ensure that your laptop or computer has the necessary hardware, software, and support components.

Component	Requirement
Operating System	Windows 2000 Professional Service Pack 4 or Windows XP or Windows 2003 Server Standard Service Pack 2 or Windows Vista or Windows 7
Processor	GHZ P4 processor
RAM	Minimum 256 MB
Cache	512 K
Hard Disk Drive	20 GB with a minimum of 1 GB of available space
Graphic Board and Monitor	1024 x 768 pixel or higher resolution
Color Palette	256 colors, True Color, Font size: small or big.
Communication	Serial Port
Disk Drive	A CD-ROM Drive
Printer	HP LaserJet

Complete Setup vs Custom Setup

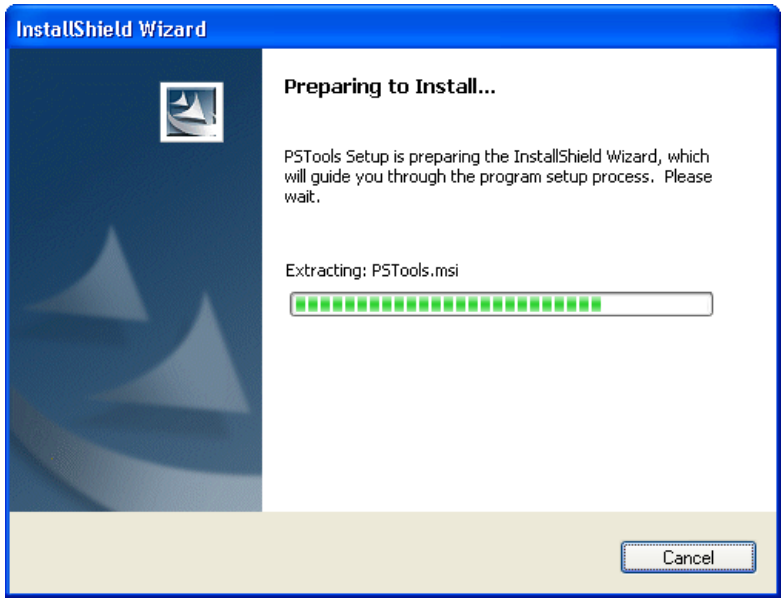
PS-Tools setup offers the following installation options.

- **Complete Setup (default)** installs both the PS-Tools Client and Server. The Complete setup is used in a stand-alone scenario, where the PS-Tools Client and Server is installed on the same computer.
- **Custom Setup** can be used for installing either the PS-Tools Client or the PS-Tools Server. The Custom setup is typically used in a network scenario, where the PS-Tools Server (database) is installed at a central location.

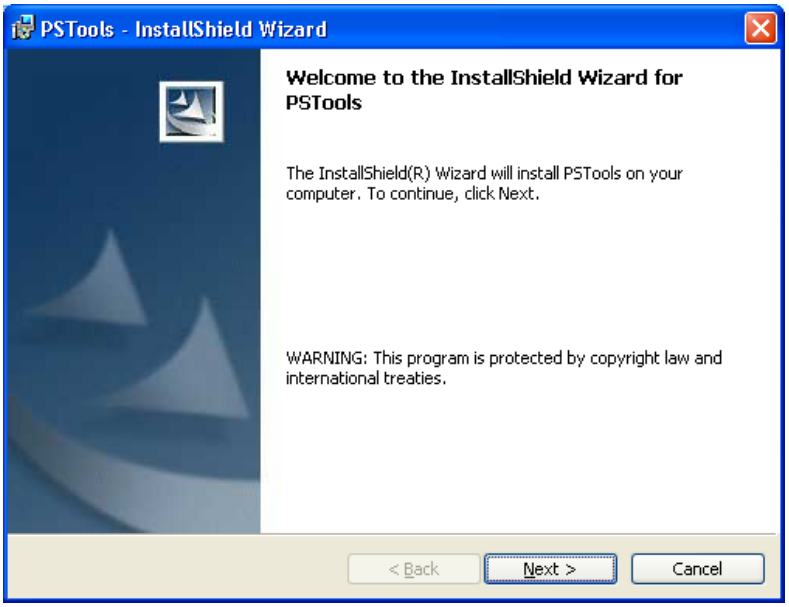
Installing PS-Tools

To install PS-Tools

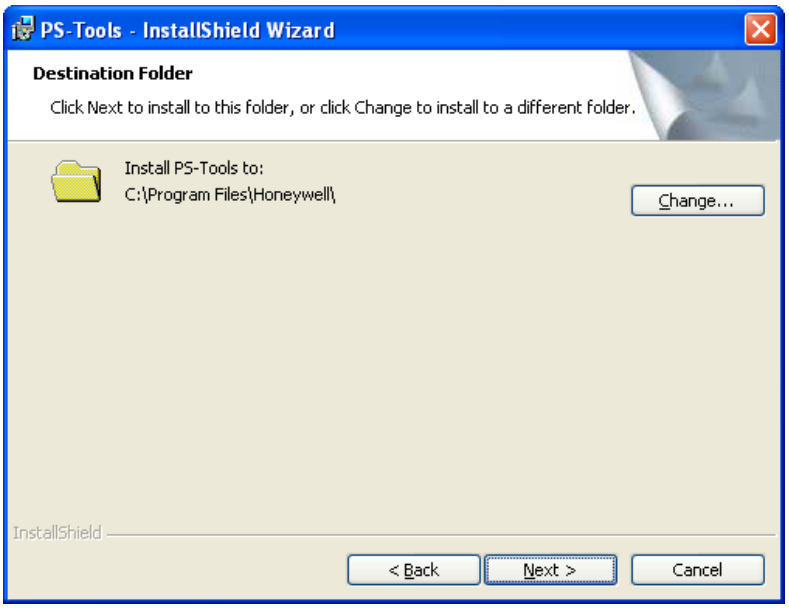
1. Insert the CD into the CD-ROM drive and go to the **PS-Tools** folder.
2. Double-click the **PS-Tools Setup.exe**. The **PS-Tools - InstallShield Wizard** dialog box appears.



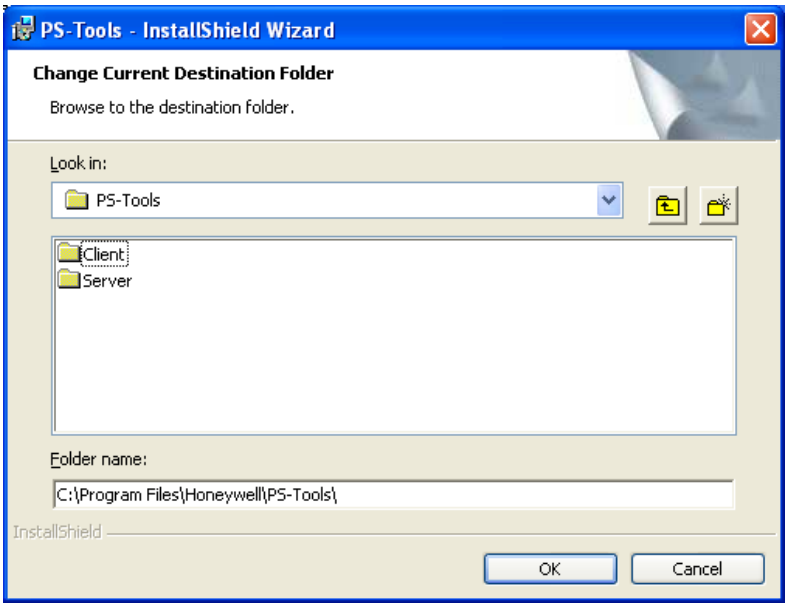
3. Click **Next**. The **Destination Folder** dialog box appears.



4. Click **Change** to change the destination folder.



The **Change Current Destination Folder** dialog box appears.

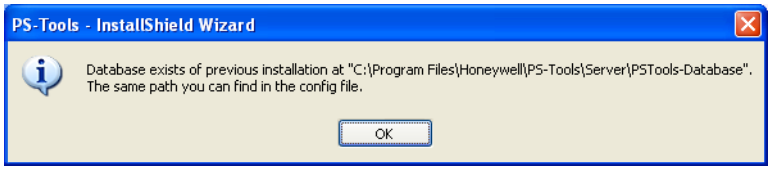


By default, the destination folder is **C:\Program Files\Honeywell\PS-Tools**.

5. Locate the folder where you want to install PS-Tools, and click **OK**.
6. Click **Next** to continue with the installation.

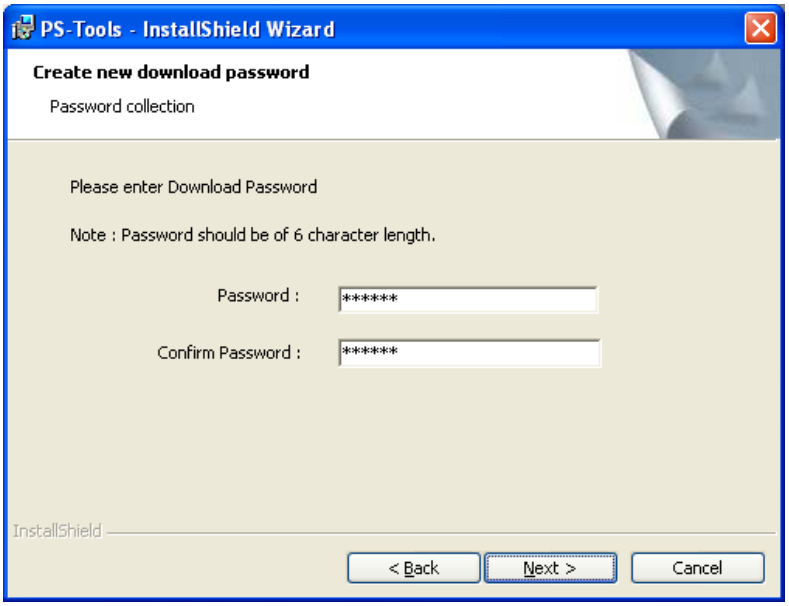
Note

- If there is no database of a previously installed PS-Tool, the **Create new download password** dialog box appears.
- If the database of a previously installed PS-Tools exists, a message indicating the folder path of the database appears.



7. Click **OK** to continue.

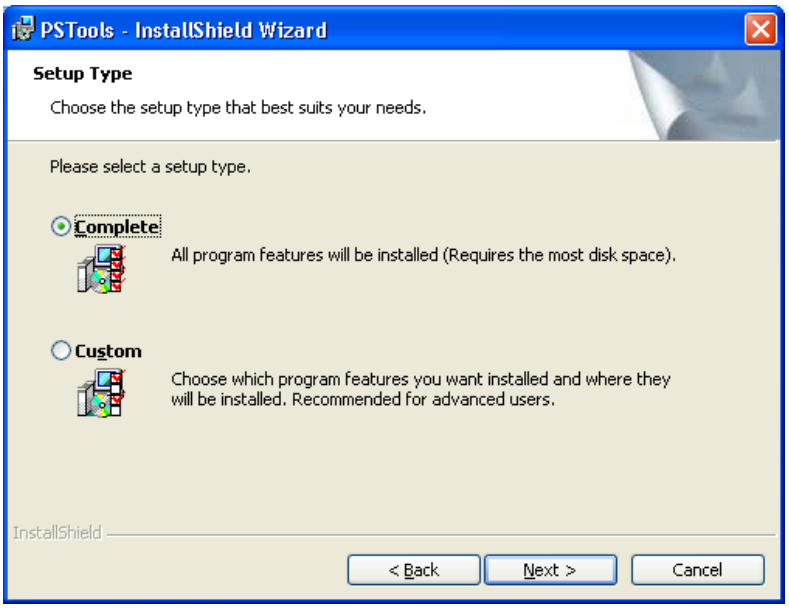
The **Create new download password** dialog box appears.



8. Type the download password in **Password** and then type the password again in **Confirm Password** box.

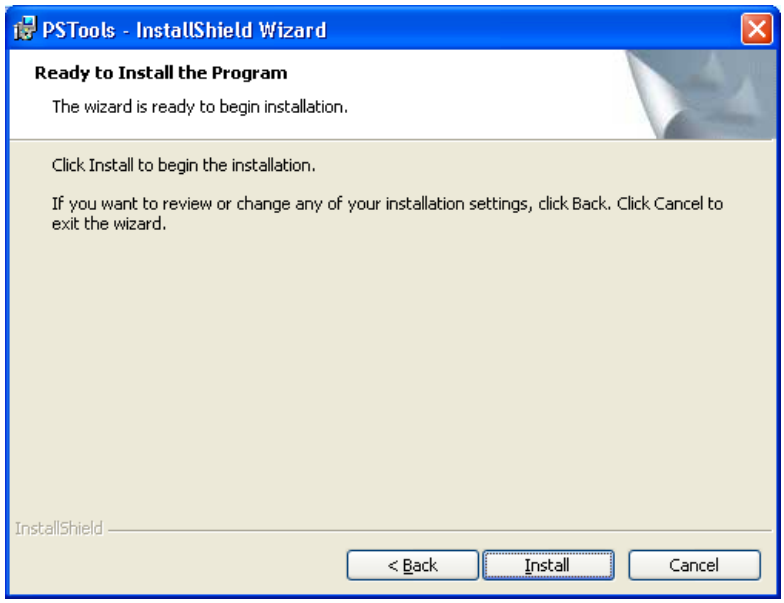
Note Ensure that the password is six characters long.

9. Click **Next**. The **Setup Type** dialog box appears.

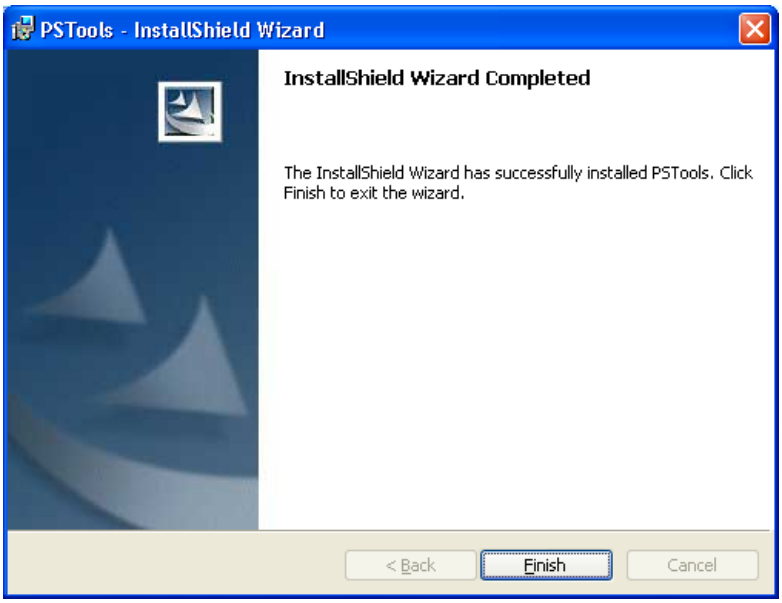


For Complete Setup

10. Select *Complete* to install both the PS-Tools Client and Server.
11. Click **Next**. The **Ready to Install** dialog box appears.



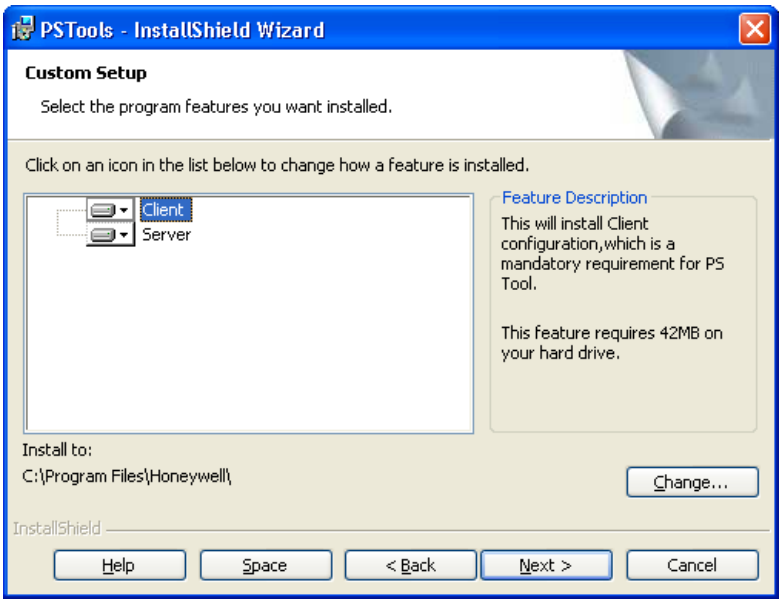
12. Click **Install**. A progress indicator appears, indicating the progress of installation to install the PS-Tools.



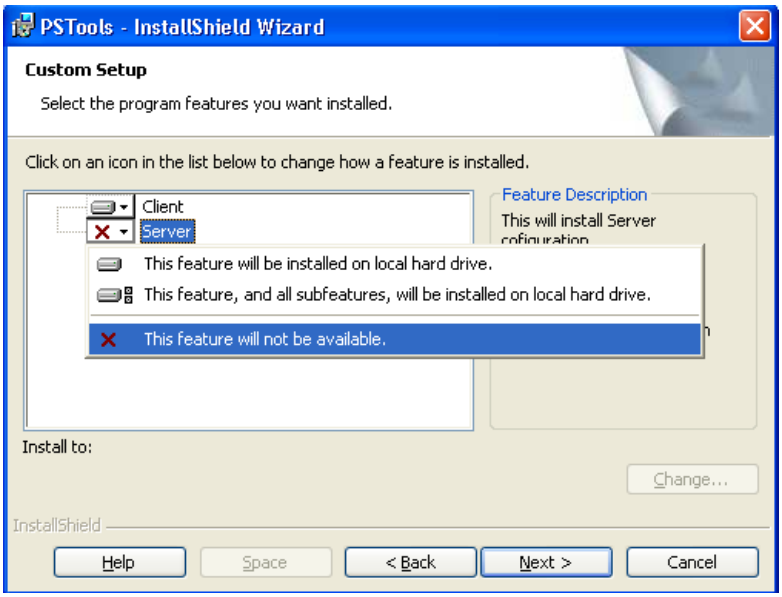
13. Click **Finish**. The PS-Tools is installed on your computer.

For Custom Setup

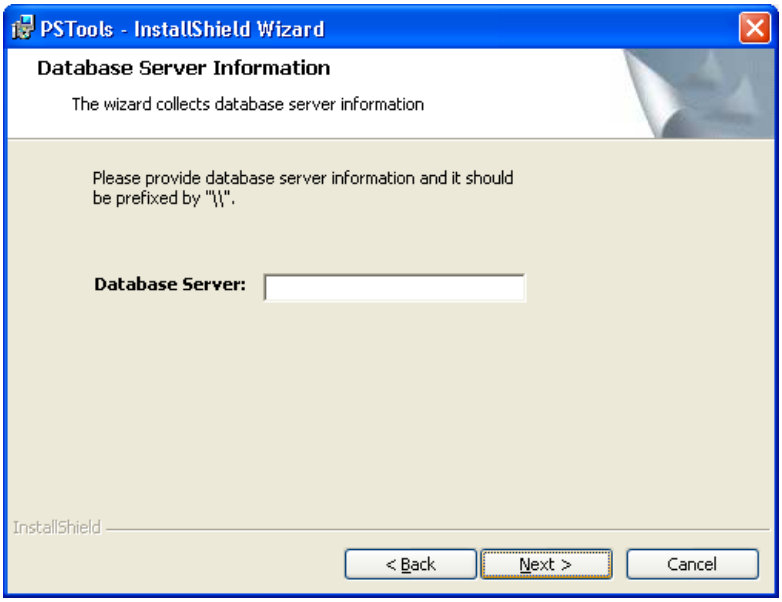
14. In the **Setup Type** dialog box, select **Custom** setup to install only the PS-Tools Client.
15. Click **Next**. The **Custom Setup** dialog box appears.



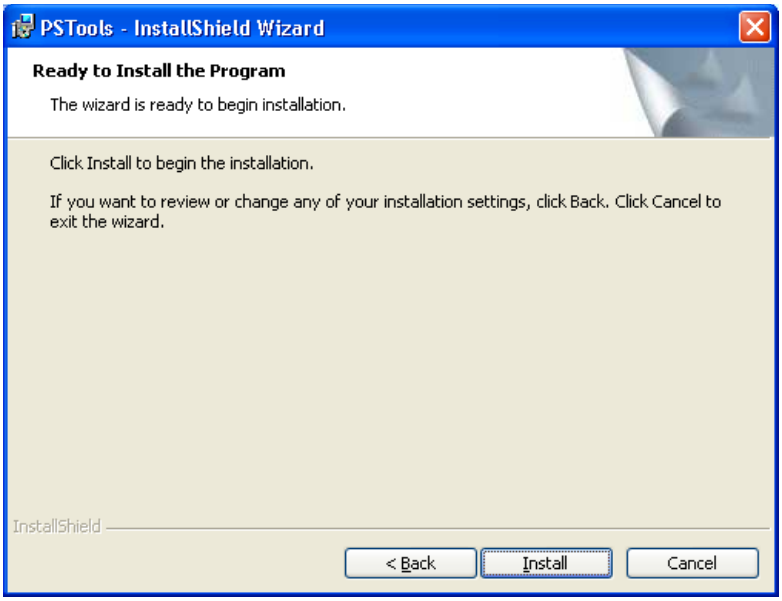
16. In the **Custom Setup** dialog box, select the option in the Server list to disable the PS-Tools Server, to install only the PS-Tools Client.



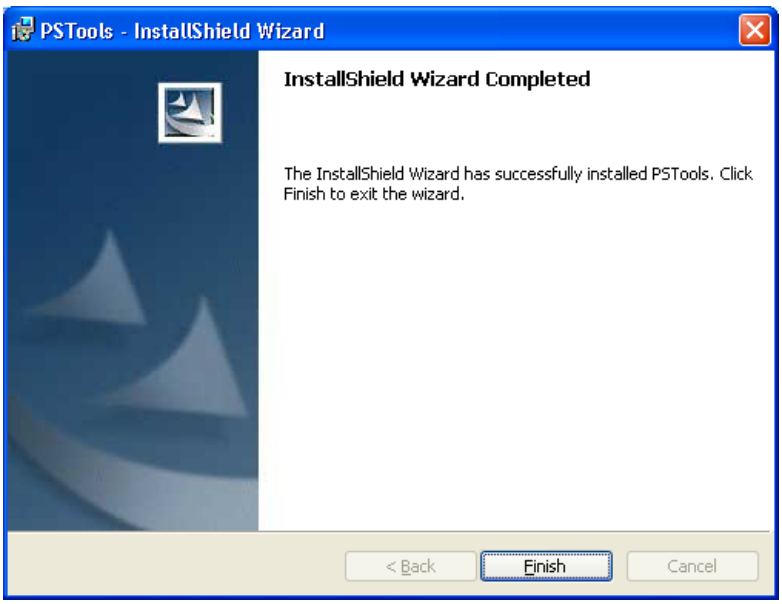
17. Click **Next**. The **Database Server Information** dialog box appears, if you have selected the *Client* setup.



18. Type the IP address of the PS-Tools Server in **Database Server**.
19. Click **Next**. The **Ready to Install** dialog box appears.



20. Click **Install**. A progress indicator appears, indicating the progress of installation.



21. Click **Finish**. The PS-Tools is installed on your computer.

Removing PS-Tools

PS-Tools can be removed using the Control Panel.

Removing PS-Tools using Control Panel

1. Click **Start**, and then choose **Settings > Control Panel**. The **Control Panel** window appears.
2. Double-click **Add or Remove Programs**.
3. In the **Add or Remove Programs** window, select *PS-Tools* in the **Currently installed programs** list.
4. Click **Remove**. A message asking for your confirmation appears.
5. Click **Yes**. The PS-Tools application is removed from your computer.

3

3 Getting Started

This chapter describes how to log on to and quit the PS-Tools.

The following table describes the tasks you can perform using different sections of this chapter.

Section	Description	Refer to
Logging On	Log on to PS-Tools	page 14
Quitting	Exit PS-Tools.	page 14

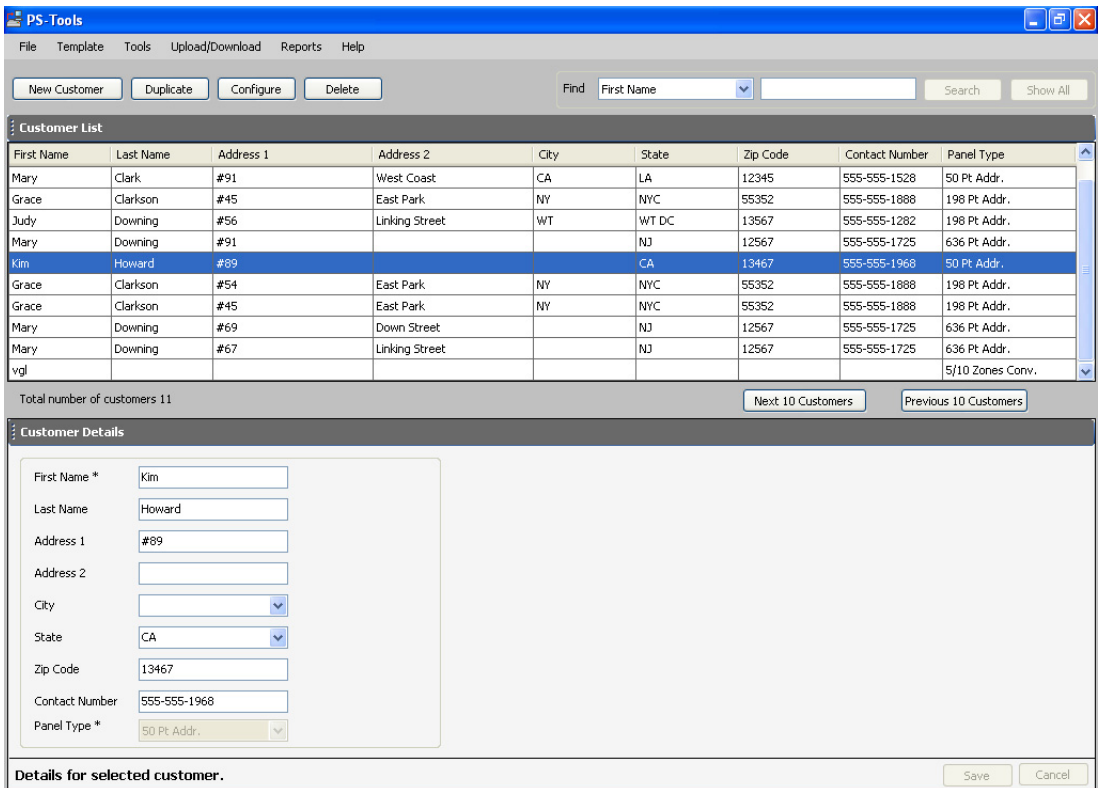
Logging On

To log on to PS-Tools

1. Click **Start**, and then choose **Programs > PS-Tools > PS-Tools**

   or

   Double click the **PS-Tools** icon on the desktop. The initial customer details window appears.



2. On this window, you can add the details of the customers for the fire panel. For more information on adding customers, see *Adding Customers*.

Quitting

To quit the PS-Tools application, click in the upper-right corner of the window

or

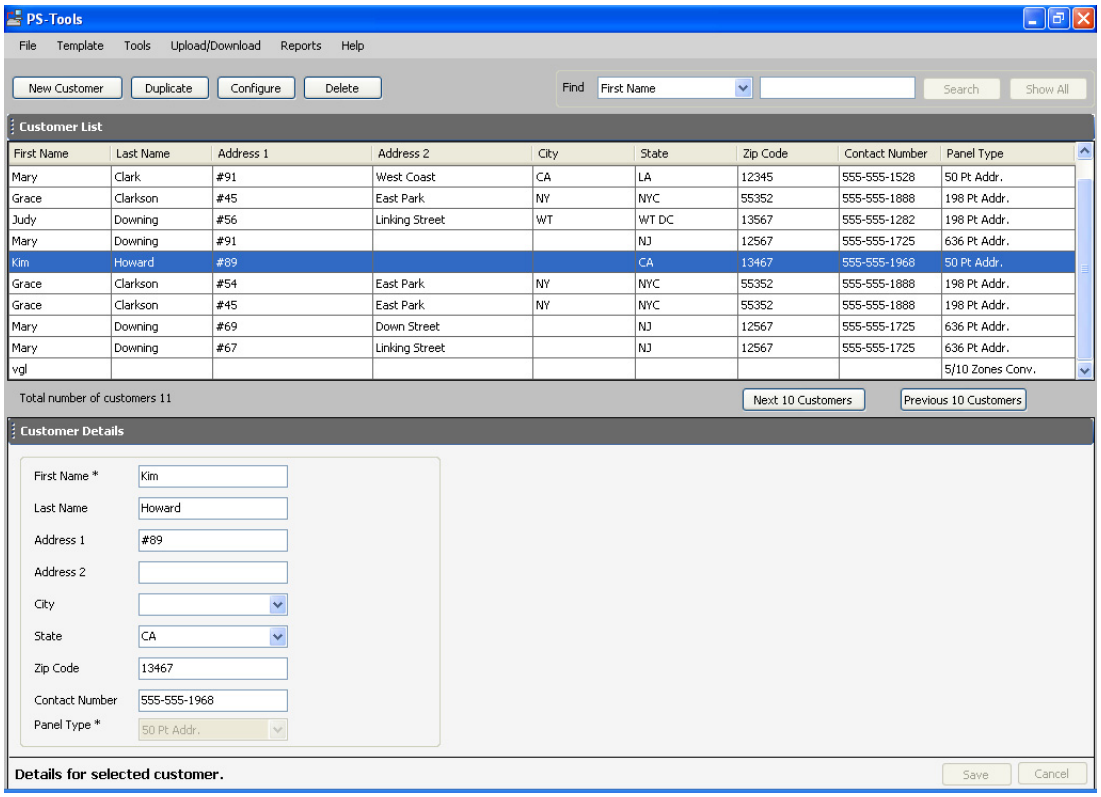
Click **Exit** in the **File** menu.

4 Adding Customers

Using PS-Tools, you can configure the settings of the 50 Pt Addr Fire Alarm Control Panel (FACP) and in addition, maintain the details of the fire panel customers.

Before you configure the fire panel settings, you need to add the customer information to the PS-Tools database. The customer details such as First Name, Last Name, Address 1, Address 2, City, State, ZipCode, Contact Number, and Panel Type (panel version) must be added.

When you log on to the PS-Tools, the customer details window appears. This window consists of the **Customer List** and the **Customer Details** sections. The **Customer List** section displays the list of existing customers for the fire panel and the **Customer Details** section displays the details of a selected customer.



The customer details window in the PS-Tools helps you to:

- Add a new customer.
- Find an existing customer.
- Configure the fire panel for a customer.
- Delete a customer record.

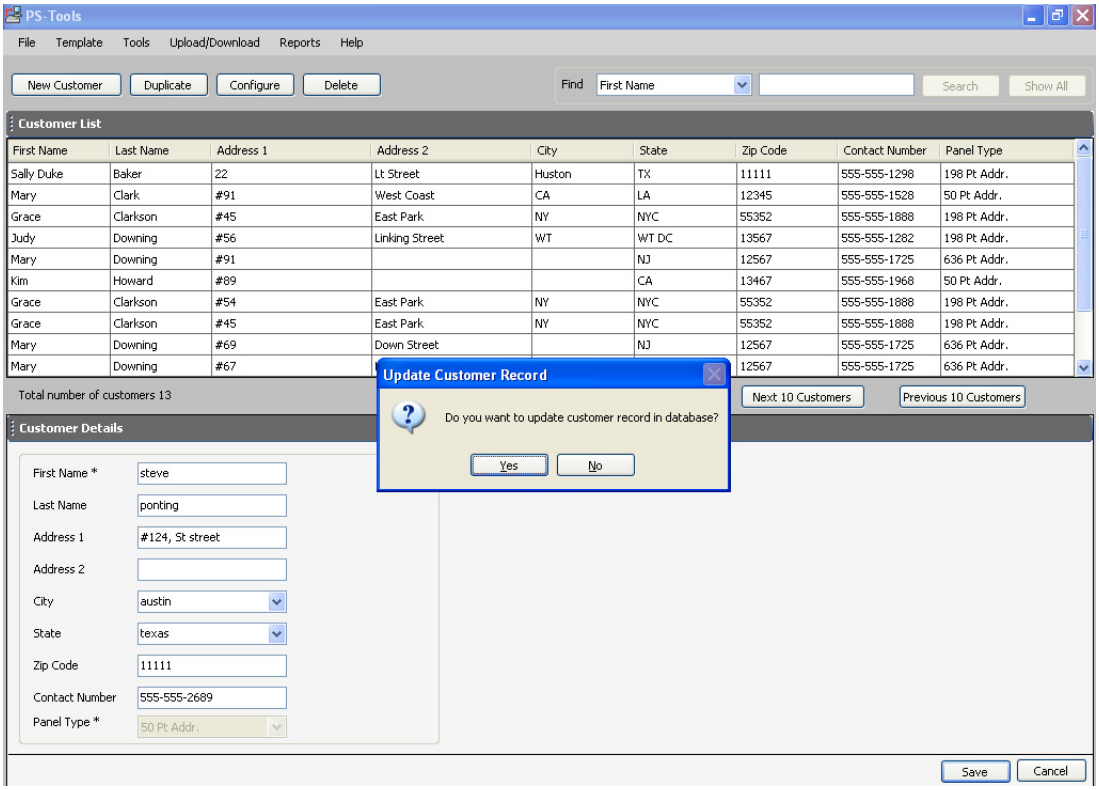
Adding a New Customer

A new customer can be the protection services staff for campuses such as museums, universities, or schools, where the 50 Pt Addr Fire Alarm Control System is installed. Details such as First Name, Last Name, Address 1, and so on can be added for each customer of the fire panel.

To enter the new customer details

1. Click **New Customer**.
2. Type the First Name, Last Name, Address 1, Address 2, City, State, ZipCode, and Contact Number for the customer. The First Name and the Panel Type information are mandatory.
3. Select the 50 Pt Addr fire panel version.
4. Click **Save**. A message asking for confirmation appears.

Note Fields marked with * are mandatory.



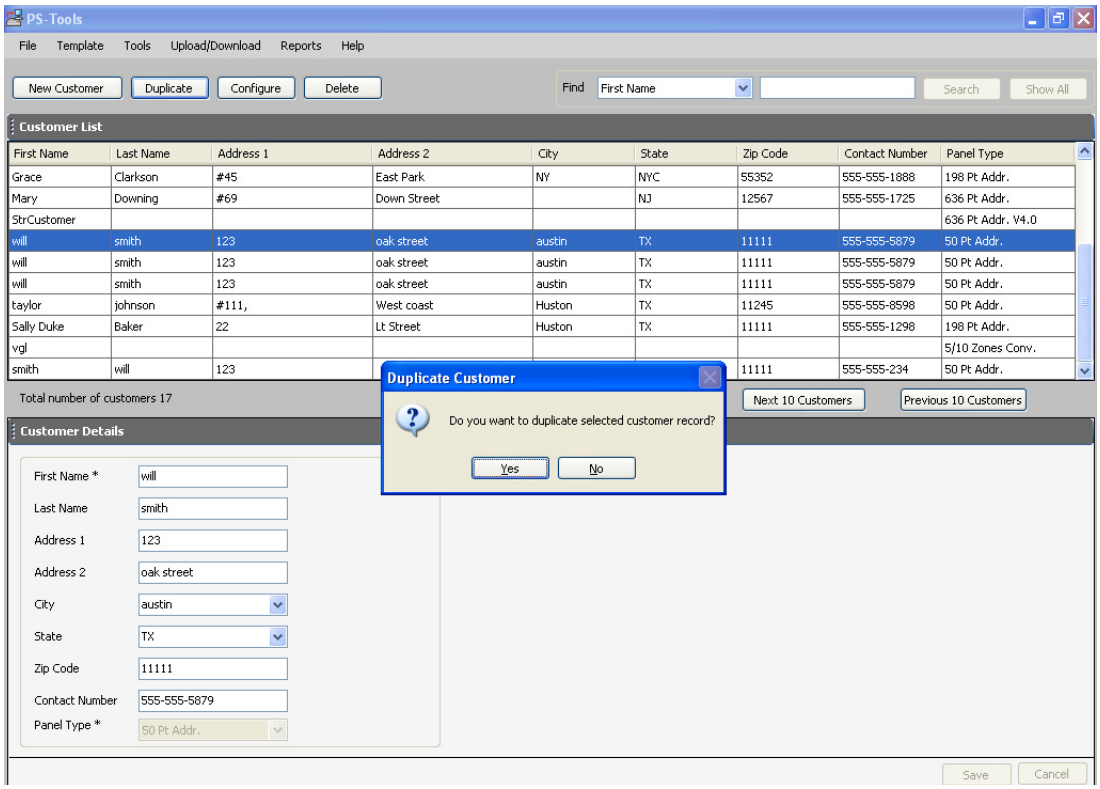
5. Click **Yes**. The details for the new customer are added in PS-Tools.

Duplicating a Customer Record

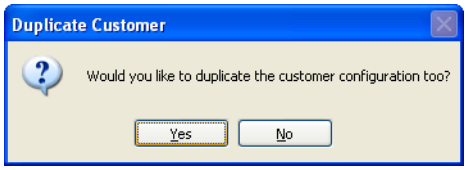
You can also add a new customer in PS-Tools by making a copy of an existing customer record and modifying the information.

To duplicate the customer record

1. Select the customer record and click **Duplicate**. A message asking for confirmation appears.



2. Click **Yes** in the confirmation message to proceed.



3. To duplicate the configuration information along with the customer record, click **Yes** in the Duplicate Customer dialog box. To duplicate only the customer record, click **No**.

Finding a Customer

Using the **Find** option, you can find the details of a customer. You can search by the First Name, Last Name, Address 1, Address 2, City, State, ZipCode, Contact Number, or the Panel Type. The **Search** results are displayed in the **Customer List** section.

To find a customer

1. From the **Find** list, select the search option.
2. In the text box provided alongside, type the keyword for the search.
3. Click **Search.** The search results are displayed in the **Customer List**.

To retrieve all customer records, click **Show All**. All the customer records appears in the Customer List.

Configuring Fire Panel for a Customer

Using the **Configure** option, you can configure all the fire alarm system settings. Before you configure the fire panel, ensure you add the new customer details to the PS-Tools database.

To configure the fire panel for a customer

1. Using the **Find** option, select the customer record.
2. Click **Configure**.

For more information about configuring the fire panels, see *Configuring Fire Panels*.

Editing Customer Details

You can update all the customer details using the PS-Tools.

To edit the customer details

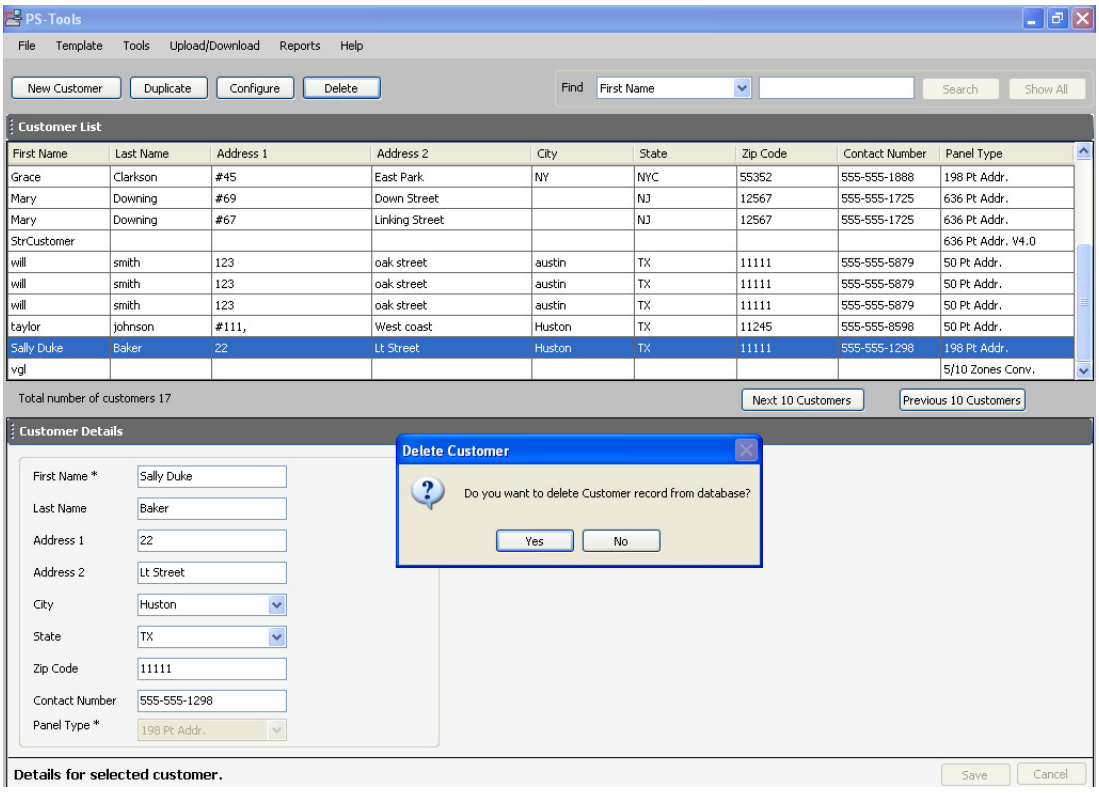
1. Using the **Find** option, select the customer record you want to edit.
2. Update the customer data in the **Customer Details** section.
3. Click **Save**. If you select another customer record without saving, you are prompted to save the updated record.
4. Click **Yes** to update the customer details in PS-Tools.

Deleting a Customer

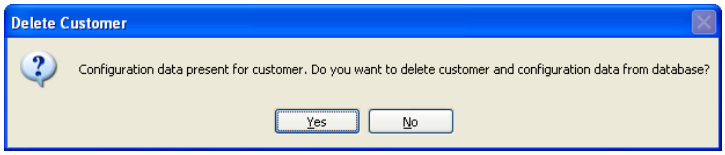
When a customer account is considered inactive, you can delete the customer record. The saved configuration information for the fire panel also gets deleted.

To delete a customer record

1. Using the **Find** option, select the customer record you want to delete.
2. Click **Delete**. A message asking for confirmation appears.



3. Click **Yes** to delete the customer record. If configuration settings exist for the customer record, a message, asking for confirmation to delete the configuration information, is displayed. The following screen appears:



4. To delete the customer record along with the configuration information, click **Yes**.

5

5 Configuring Fire Panels

Using PS-Tools, you can configure the fire panel settings. Configuring a fire panel involves:

- Configuring the settings for input and output modules.
- Configuring the fire panel settings such as date and time, banner display, fire panel passwords, and other panel settings.
- Configuring the SLC loop setup for the detectors and modules.
- Verifying the SLC loop setup.
- Simulating the setup to evaluate SLC loop.
- Modifying the customer details in the server.
- Migrating the configuration information from PK-Plus to PS-Tools database.

After you configure the fire panel settings, connect the computer to the fire panel and download the configuration settings. In addition, you can upload the configuration information from the fire panel, and view the fire alarm system settings in PS-Tools.

The following table describes the tasks you can perform using different sections of this chapter.

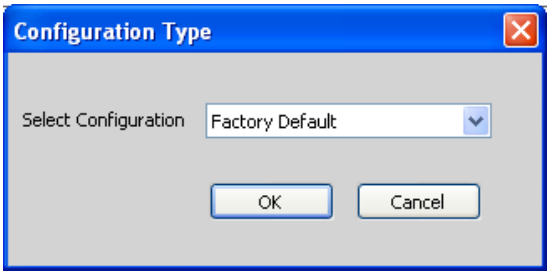
Section	Description	Refer to
Selecting Configuration Type	To select a configuration type in PS-Tools.	page 23
Configuring System Info	To configure the communicator settings, input/output modules, and the general system settings.	page 23
SLC Loop Setup	To add detectors and modules to the SLC loop.	page 39
Save to Database	To save the configuration in the PS-Tools database.	page 51
Save as Template	To save the configuration as a template.	page 52
Verify Setup	To verify the SLC loop setup.	page 52
Simulation	To view the zone correlations for the installed devices, to confirm the programming.	page 54
Upload Information	To view the uploaded information from the 50 Pt Addr panel.	page 57
Comparing Configuration	To compare the configuration for two different customers.	page 60

Section	Description	Refer to
Database Backup	To save the database backup.	page 62
Database Restore	To restore the database.	page 63
Database Migration	To migrate the information from PK-Plus to PS-Tools database.	page 64
Viewing Last Configuration Date	To view the configuration date	page 65
Viewing Migration Information	To view information on migration.	page 66
Modifying Customer Details	To modify the customer details in the server.	page 68
Connecting to the Database	To connect to the database cent or server	page 66
Importing Configuration	To import a configuration from panel	page 69
Importing all Configuration	To import all the saved configuration	page 70
Exporting Configuration	To export a saved configuration.	page 71
Deleting Template	To delete a configuration template not operational.	page 73

Selecting Configuration Type

To select a configuration type

1. Using the **Find** option in the initial screen, select a customer record. For more information, see *Finding a Customer*.
2. Click **Configure** to program the fire panel settings. The **Configuration Type** dialog box appears.



3. From the **Select Configuration** list:
   - *S*elect the default option *Factory Default,* if you are configuring for the first time.

   or

   - Select a previously saved configuration which appears in the list.
4. Click **OK**. The **System Info -> Communicator Settings -> Central Station** pane appears (see *Figure 5-1*).

Configuring System Info

In PS-Tools, configuring the system information involves the following steps.

1. Configuring the communicator settings (see *Communicator Settings*).
   a. Central Station (see *Central Station*).
   b. Primary Central Station (see *Primary Central Station*).
   c. Secondary Central Station (see *Secondary Central Station*).
2. Configuring the input/output modules (see *Configuring Input/Output).*
   a. Relays (see *Relay*).
   b. Zones (see *Zones*).
   c. Special Zones (see *Special Zones*).
   d. NACs (NAC 1, NAC 2) (see *NAC (Notification Appliance Circuits)*).
3. Configuring the general system settings which include the timers, clock format, trouble reminder, and other settings (see *Configuring General System Settings*).
4. Configuring the SLC Loop Setup (see *SLC Loop Setup*).

a. Detectors (see *Detectors*)

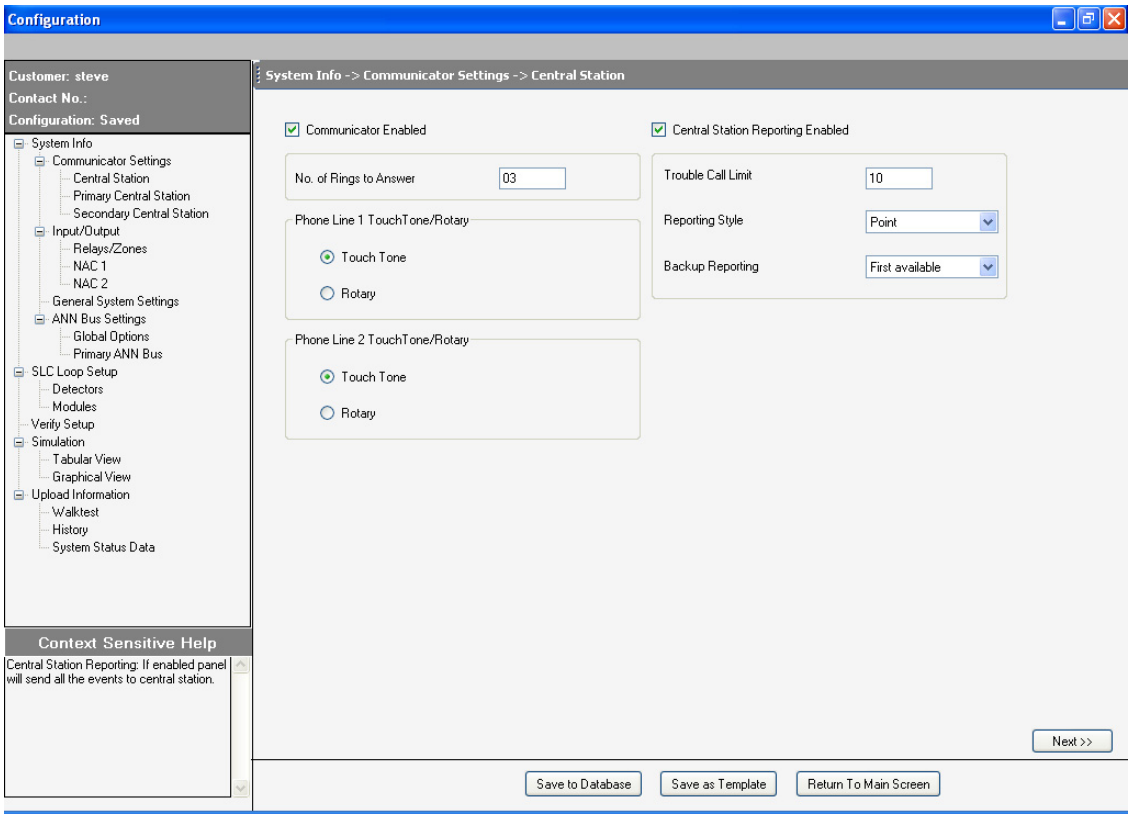
b. Modules (see *Modules*)

Communicator Settings

The Digital Alarm Communicator/Transmitter (DACT) module is used for transmitting system status to central station receivers through the public switched telephone network. All circuitry and connectors are contained on a compact module, which is located near the lower - center of the main circuit board.

In PS-Tools, you must enable the reporting from the communicator, to report the fire alarm system status, alarm, and trouble conditions to the central station through the public switched telephone network. The **System Info -> Communicator Settings ->Central Station** pane appears after you select the configuration type.

Figure 5-1 Configure Communicator Settings



To configure the communicator

1. Click **Communicator Enabled**, to enable the reporting from the communicator.
2. Type the **No. of Rings to Answer**, which is the number of rings after which a call is answered by the panel.

Central Station

Program the communicator to configure the modules, to enable reporting of fire alarm system status, alarm, and trouble conditions to the central station.

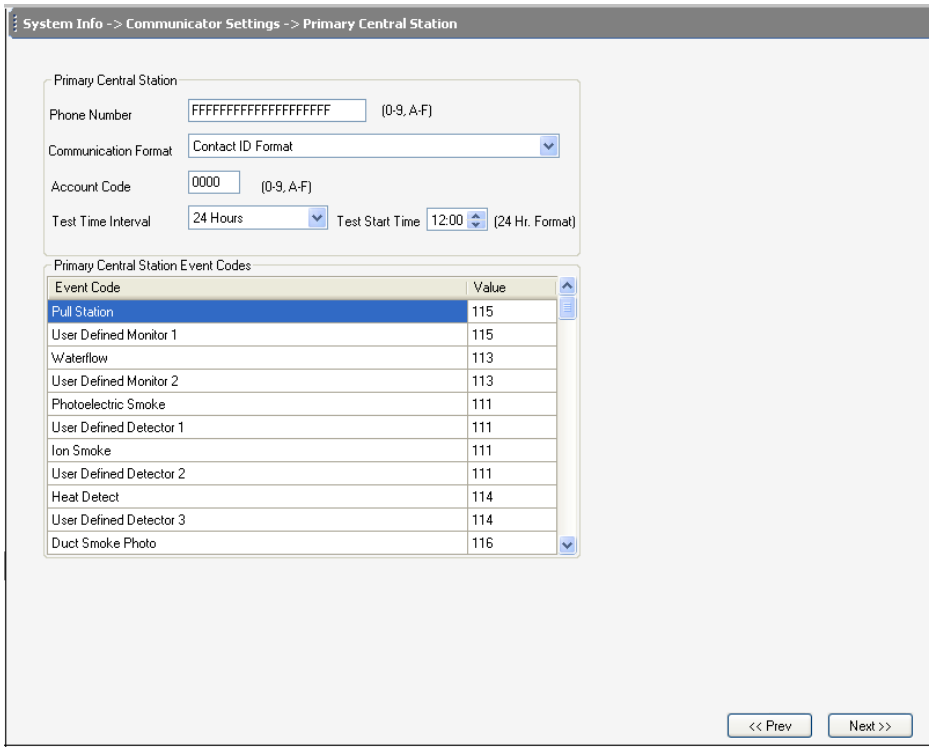
To configure the central station

1. Click **Central Station Reporting Enabled**, to enable reporting to the central station (see *Figure 5-1*).
2. Set the **Trouble Call Limit**, to limit the number of troubles sent to the central station at a particular instant. The **Trouble Call Limit** is a programmed value between 0 and 99, for each unique trouble within a 24-hour period.
3. Select the **Reporting Style** for the troubles and events. The options provided are *Point* or *Zone*. The communicator can report up to 19 software zones or 50 addressable points.
4. Select the **Backup Reporting** option. The available options are *First available, Backup only,* or *Both*.
   - If you select *First available,* the communicator transmit the system reports, alarm, and trouble conditions to the primary or secondary central station, based on which station can be contacted first.
   - If you select *Backup only*, the communicator transmit the system reports, alarm, and trouble conditions to the secondary central station. This happens only when communication with the primary central station fails.
   - If you select *Both,* the communicator transmit the system reports, alarm, and trouble conditions to both the primary and secondary central stations.
5. Click **Save to Database** to save the configuration to the PS-Tools database.
6. Click **Next** or click **Primary Central Station** in the left pane, to view the **Primary Central Station** configuration pane.

Primary Central Station

The primary central station is the first available central station to report the fire alarm system status, alarm, and trouble events.

Figure 5-2 Configuring Primary Central Station



Primary Central Station window provides information on the primary central station programming which includes:

- Phone Number
- Communication Format
- Account Code
- Test Time Interval
- Test Start Time
- Event Codes

To configure the primary central station

1. Type the **Phone Number** of the primary central station. You can type a maximum of 20 characters with valid entries being 0 through 9 and A through F.
2. Select the **Communication Format** of the reports sent to the primary central station. The primary event codes are displayed based on the communication format used.

Note If the communication format changes, the event codes are set to default values.

3. Type the **Account Code** for the panel. Each panel has a unique account code, depending on the primary central station and the communication format being used.
4. Select the desired **Test Time Interval** (6, 8, 12 or 24 hours) to send the test report to the primary central station.

5. Type the **Test Start Time** to program the time at which the modules run the test. Type a four digit number using military time (0000 refers to 12:00AM and 2359 refers to 11:59 PM).
6. Click **Save to Database** to save the configuration.

If you want to view the central station settings, click **Prev**.

7. Click **Next** or click **Secondary Central Station** in the left pane, to configure the secondary central station.

Secondary Central Station

The secondary central station is the next available central station that the modules contact to report the fire alarm system status, alarm, and trouble events. The configuration of the secondary central station involves the same steps as the primary central station. In addition you can specify if the phone line requires supervision. For more information, see *Primary Central Station*.

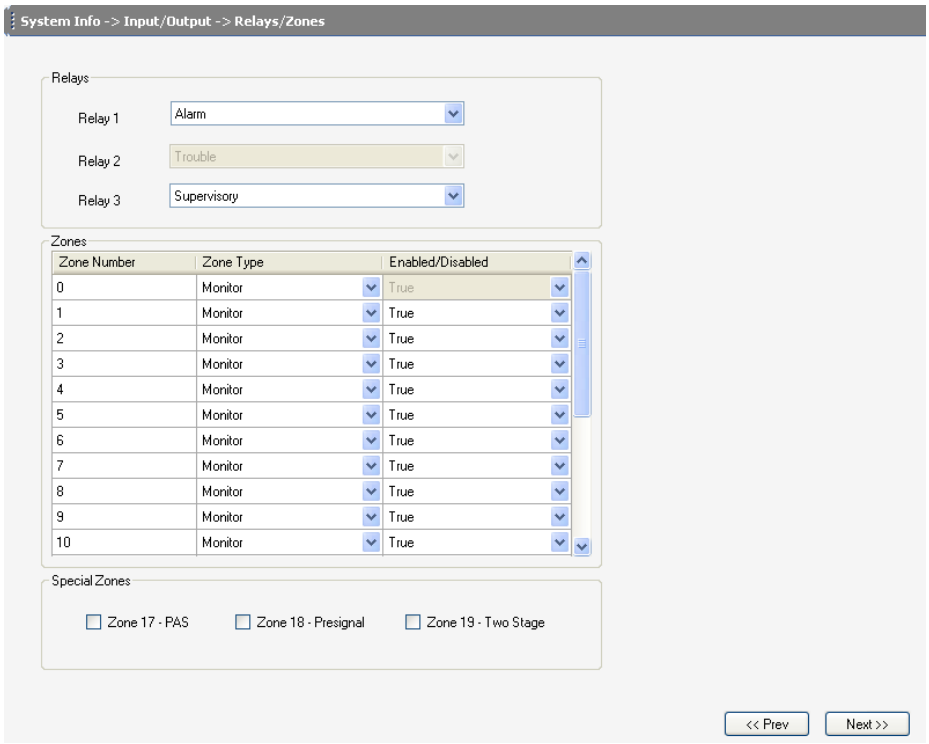
After you configure the secondary central station:

- Click **Next** to configure the input/output modules.
- Alternatively, you can click **Input/Output** in the left pane to view the **Input/Output** configuration pane.

Configuring Input/Output

The input/output devices include the zones, NACs, and relays. You can configure each relay, zone, special zone and NACS in the **Input/Output Configuration** pane.

Figure 5-3 Configuring Input/Output



Relay

The fire panel consists of one fixed and two programmable Form-C dry contact relays. The fixed fail-safe relay monitors the system troubles. The two programmable relays are factory default. By default, Relay 1 is Alarm, and Relay 3 is Supervisory. They can be programmed for system alarm and system supervisory, and configured for the following operations;

- Alarm
- Supervisory
- Supervisory Auto Reset
- Trouble
- Communication Fail
- Process Monitoring
- Process Monitoring Auto Reset
- AC loss
- Hazard
- Medical
- Silenceable Alarm

To configure the relays

1. Under **Relays**, select the type for **Relay 1** from the drop-down list.

By default, **Relay 2** is disabled and set to *Trouble*.

2. Select the type for **Relay 3**. (see *Figure 5-3*)

Zones

In the input/output zones configuration, you can specify the zone type only if a DACT programmed for zone reporting is installed on the fire alarm control panel.

To configure each zone

1. Under **Zones**, select the **Zone Type** from the list. Selecting *WATERFLOW* option assigns a Waterflow silenceable zone type to the selected zone. Any signaling devices programmed to the same zone can be silenced by pressing the Alarm Silence key or by using the Auto-silence feature.
2. Under **Enabled/Disabled**, select *Enable* to enable the zone. If you select *Disable*, the zone is disabled by the fire panel, preventing the zone circuit from reporting alarms and troubles to the panel. Disabling a zone disables all the functionalities associated with that zone.

Note Programming the **Zone Message** is not supported for this panel.

Special Zones

The zones 17, 18, and 19 can be programmed for normal zone operation or for special purpose applications. If the zones are not selected, they are assigned to input and output devices.

To configure the special zones

1. Click **Zone 17 - PAS** to activate Zone 17 for a PAS (Positive Alarm Sequence) activation of any device. Do not assign Zone 17 to a NAC when using the zone to indicate a PAS condition.
2. Click **Zone 18 - Presignal** to activate Zone 18 for a Presignal activation of any device. Do not assign Zone 18 to a NAC when using the zone to indicate a Presignal condition. The Presignal option programs the zone to delay the panel activation for a pre-programmable time delay of up to three minutes, while allowing for visual verification by a person. The alarm relay and the communicator respond to the initial alarm immediately.

Note **Zone 19 - Two Stage** is reserved for future use.

3. Click **Save to Database** to save the configuration in the PS-Tools database.

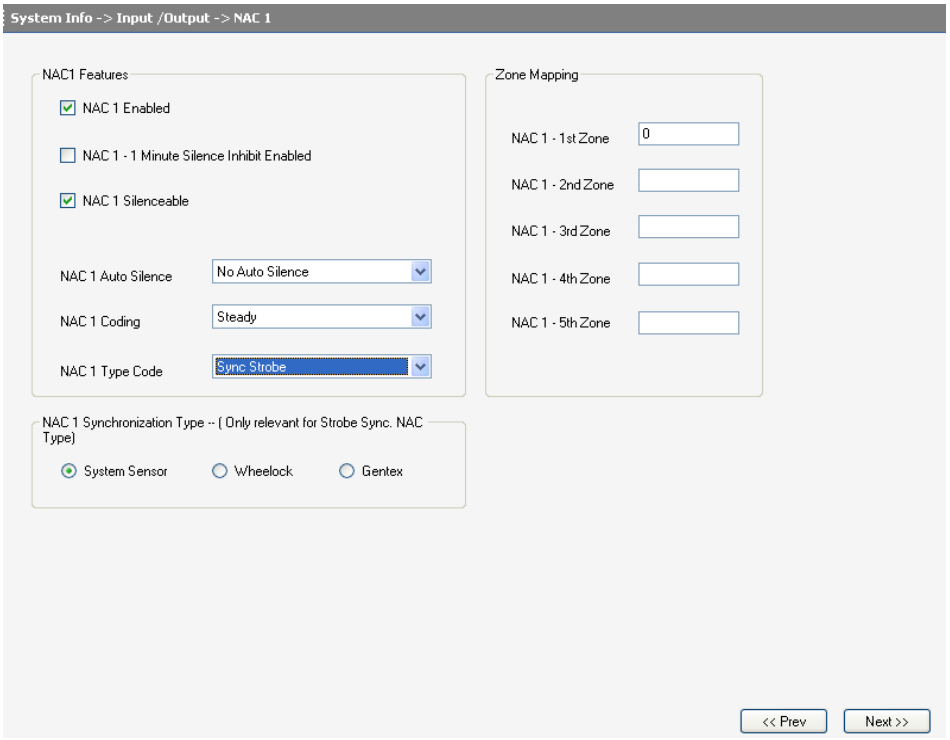
If you want to view the secondary central station configuration settings, click **Prev**.

4. Click **Next** or click **NAC 1** in the left pane, to configure the NACs.

NAC (Notification Appliance Circuits)

The notification appliances include speakers, horns, strobes, bells, and other type of sounder appliances. There are four notification appliance circuits, which can be configured for the 50 Pt Addr panel.

Figure 5-4 Configuring Notification Appliance Circuits



To configure NAC 1

1. Click **NAC 1 Enabled**, to enable **NAC 1**, If you select *Disable*, the fire panel prevents the selected NAC from activating its devices.
2. Click **NAC 1 - 1 Minute Silence Inhibit Enabled**, to enable the silencing of the audible devices in NAC 1, only after 60 seconds. If this option is enabled, the audible devices can be silenced by pressing the Alarm Silence key, only after 60 seconds.
3. Click **NAC 1 - Silenceable**, to indicate if the notification appliance can be silenced by pressing the Alarm Silence key. If the Silenceable option is not enabled, the selected NACs cannot be silenced by pressing the Alarm Silence key or by the Auto Silence feature.
4. Select the delay for **NAC 1 Auto Silence** from the list, to automatically silence the main circuit board silenceable NACs after a programmed length of time. This option is disabled if the **Silenceable** option is not selected.
5. Select the **NAC 1 Coding** option to specify the type of output the main circuit board notification appliances generates, when activated. For more information about each coding selection, see *Appendix*.
6. Select the **NAC 1 Type Code** from the list.

7. Select the **NAC 1 Synchronization Type** which can be *System Sensor*, *Wheelock*, or *Gentex*. Synchronization is a panel feature that controls the activation of notification appliances in such a way that devices turn on and off at exactly the same time. For more information about synchronization, see *Synchronized NAC Operation*.

Note **NAC Synchronization Type** can be selected only for *Sync Strobe* or *Strobe Sil Sync* **NAC Type Code**.

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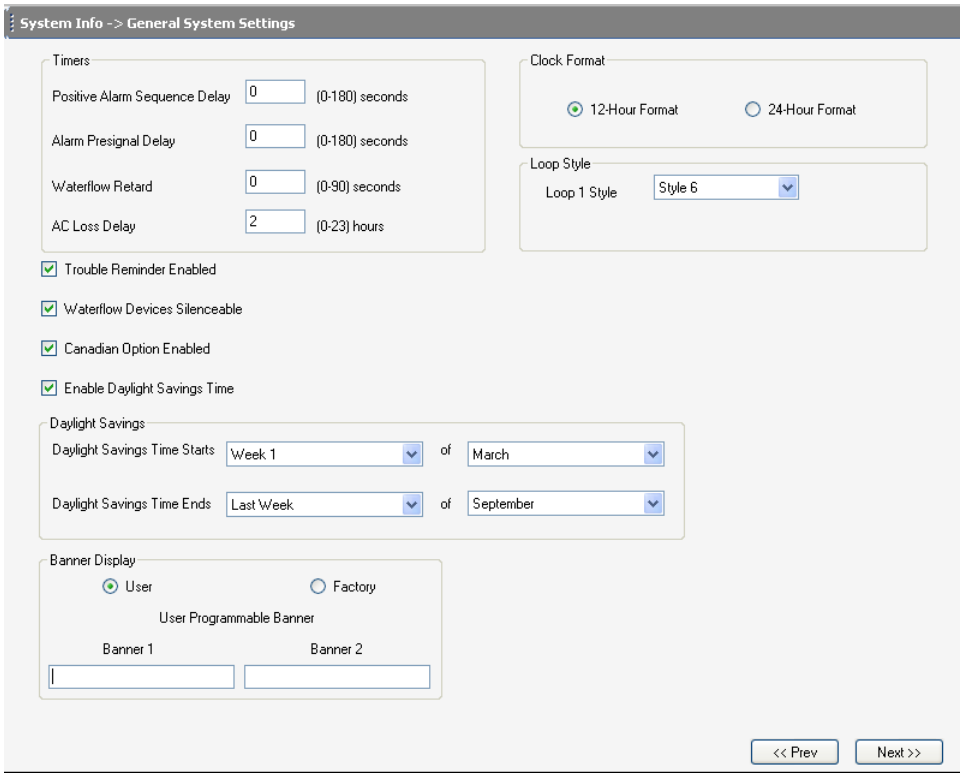
8. Under **Zone Mapping**, Type the two digit number corresponding to the zone assigned to NAC 1. A maximum of five zones can be configured for each main circuit board NAC. The factory default for an unprogrammed device is Z00 for general alarm zone.
9. Click **Save to Database** to save the configuration in the PS-Tools database.
10. Click **Next** or click **NAC 2** in the left pane to configure NAC 2.
11. Repeat steps 1 through 9 to configure NAC 2.
12. Click **Next** or click **General System Settings** in the left pane, to view the **General System Settings** configuration pane.

Configuring General System Settings

You can configure the timers, clock format, trouble reminder, daylight savings, loop style, and banner display, for the fire panel in the **General System Settings** pane. You can program the following fire panel features.

- **Timers** option allows you to set the PAS (Positive Alarm Sequence) time delay, Pre-Signal time delay, Waterflow Retard delay, and AC Loss delay.
- **Clock Format** feature allows you to set the display format (24 hour or 12 hour) for time in the FACP memory.
- **Trouble Reminder** feature, when enabled, provides an audible reminder that an alarm or trouble still exists on the FACP, after the control panel is silenced. If the Trouble Reminder feature is disabled and a trouble condition is not cleared within 24 hours, the panel sends an *abnormal* 24 hour test message to the central station, if connected.
- **Canadian Option** feature, when enabled, automatically monitors addressable ionization smoke detector sensitivity as per Canadian specifications. By default, this option is disabled.
- **Water Flow Devices Silenceable** option provides the ability to silence any output circuit programmed as a waterflow type, using the fire panel keypad.
- **Loop Style** option allows you to select the loop style for Loop1.
- **Daylight Savings**, feature if enabled, allows you to set the start and end date for day light savings in the fire panel memory.
- **Banner Display** option allows you to change the top two lines of the LCD display in the fire panel. You can change the factory default readout to a custom defined readout, when the fire panel is in Normal condition.

Figure 5-5 Configuring System Setup Options



Timers

You can program the fire panel for PAS or Presignal operation, not for both. If you set the PAS Delay timer with a value greater than 000, and then set the Presignal Delay timer with a value greater than 000, the PAS Delay timer is automatically reset to 000. Only one of the two timers can have a delay time set.

To configure the timers

1. Select a **Positive Alarm Sequence Delay** of 001 to 180 seconds for all devices programmed for PAS. The factory default setting is 000 for no delay.
2. Select a **Alarm Presignal Delay** of 001 to 180 seconds for all devices programmed for Presignal. The factory default setting is 000 for no delay.
3. Select a **Waterflow Retard** of 01 to 90 seconds for all devices programmed for Waterflow delay. The factory default setting for Waterflow delay is 000 for no delay. A delay can be added prior to declaring a waterflow type of alarm.

Note Ensure to include the built-in delays of the waterflow device.

4. You can delay the reporting of an AC power loss to a central station by setting the length of the desired delay. Type the **AC Loss Delay** in hours (00 to 23 hour delay). The factory default setting is 02 hours (see *Figure 5-5*).

Clock Format

To configure the Clock Format

1. Select the clock format as *24 hour*s or *12 hours*.
   a. If you set the *24 Hour Format*, the **Time** is in military format (00:00:00 to 23:59:59) and the **Date** is in DD/MM/YYYY format.
   b. If you set the *12 Hour Format*, the **Time** is in 12 hours format (AM/PM) and the **Date** is in MM/DD/YYYY format (see *Figure 5-5*).

Trouble Reminder

- Click **Trouble Reminder**, to enable the trouble reminder option. By default, this option is disabled.

Water Flow Devices Silenceable

- Click **Water Flow Devices Silenceable**, to enable the Water Flow Devices Silenceable option. By default, this option is disabled.

Canadian Option Enabled

To configure Canadian Option

1. Click **Canadian Option Enabled**.
   a. Ensure the input/output zone types are defined as in *Table 5-1*.
   b. You can set the **Auto Silence** option for NACs, only to *No AutoSilence or 20 minutes*. NACs, which are programmed as *No AutoSilence,* remain in the same mode when Canadian Option is enabled.
   c. If NAC is programmed for **Auto Silence**, the default time is 20 minutes. If you set the auto silence time to a value such as 10 or 30 minutes, it is automatically reset to 20 minutes.

Note

- If the Canadian option is enabled, then the silence inhibit for NACs becomes a "global" option. That is, in the panel if you change any NAC to silence inhibit, the remaining NACs change to silence inhibit. Similarly, if you set any one NAC to no silence inhibit all the NACs silence inhibit is turned off.
- When importing a customer database file from the previous version of PS-Tools, a check must be performed to ensure whether the Canadian option is enabled. If the Canadian option is enabled, then the NAC's silence inhibit must be checked. If either of them is enabled, then all the NAC's silence inhibit must be turned off, and a corresponding message must be displayed to the user.
- If Canadian option is ON, then the PAS and Pre-signal timers must be set to 0 and no editing is allowed.
- If Canadian option is ON, then the secondary Ann Bus must be enabled. You can toggle between the secondary Ann Bus enable and disable option.

Table 5-1 Module and Zone types available for Canadian option

Module types blocked from selection	Changes to
Monitor	Pull Station
MON User defined 3	Pull Station
Medical Alert, Hazard Alert, and Tornado Alert	Supervisory
Supervisory AR (Non-Latching)	Supervisory
MON User defined 7, 8, 9, 13, 16, and 17	Supervisory
Drill Switch AR (Non-Latching)	Drill Switch
Process Monitor AR and Process Monitor	Supervisory

Zone types blocked from selection	Changes to
AR(auto-resettable) Supervisory	Supervisory
Drill Switch AR	Drill Switch
Process monitor, hazard, tornado, and medical alert	Supervisory

Loop Style

Under Loop Style, select the **Loop 1 Style**, for the loop. The wiring style can be *Style 4* or *Style 6*. The default wiring type is *Style 4*.

Daylight Savings

To configure the Daylight Savings feature

1. Under **Daylight Savings**, specify the starting day and month in the **Daylight Savings Time Starts** list.
2. Specify the last day and month in the **Daylight Savings Time Ends** list. (see *Figure 5-5*).

Banner Display

To configure the banner settings

1. Under **Banner Display**, click *User* to use a custom display. You can Type the banner display text in **Banner Text 1** and **Banner Text 2**.
2. Click *Factory* option to display the default banner text when the fire panel is in normal mode of operation. (see *Figure 5-5*).
3. Click **Save to Database** to save the configuration in the PS-Tools database.

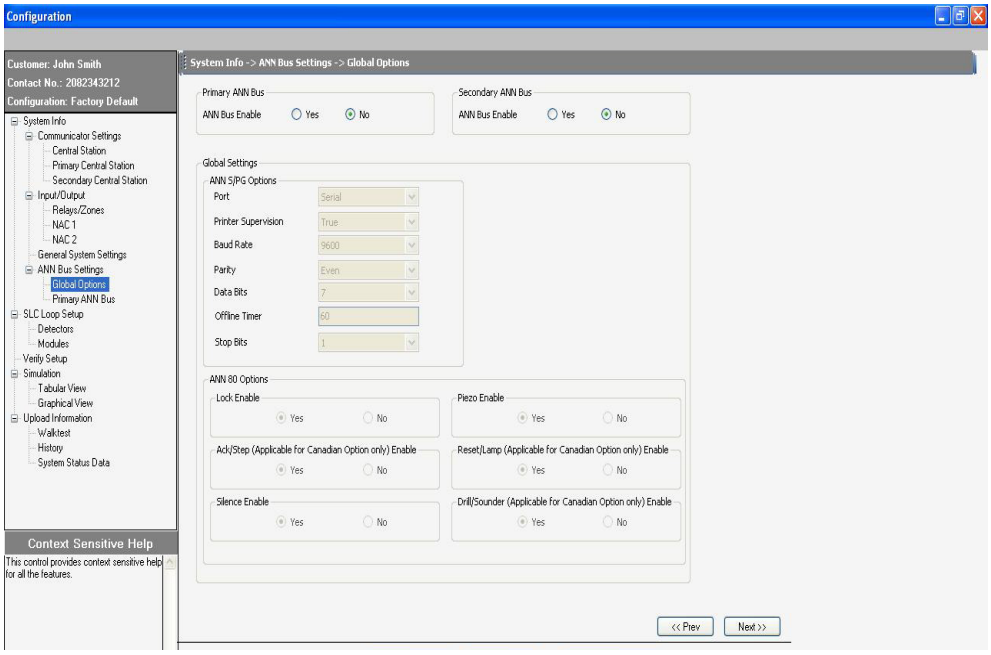
Configuring ANN Bus

ANN-Bus is a communication terminal in the fire panel over which different ANN devices can be installed to communicate with FACP. ANN devices such as ANN-S/PG Printer Interface module, ANN-I/O LED Driver Module, ANN-LED Annunciator Module, ANN-RLY Relay module, and other types can be installed in the fire alarm system. You can configure the ANN-Bus, when any ANN devices are installed.

To configure the ANN Bus

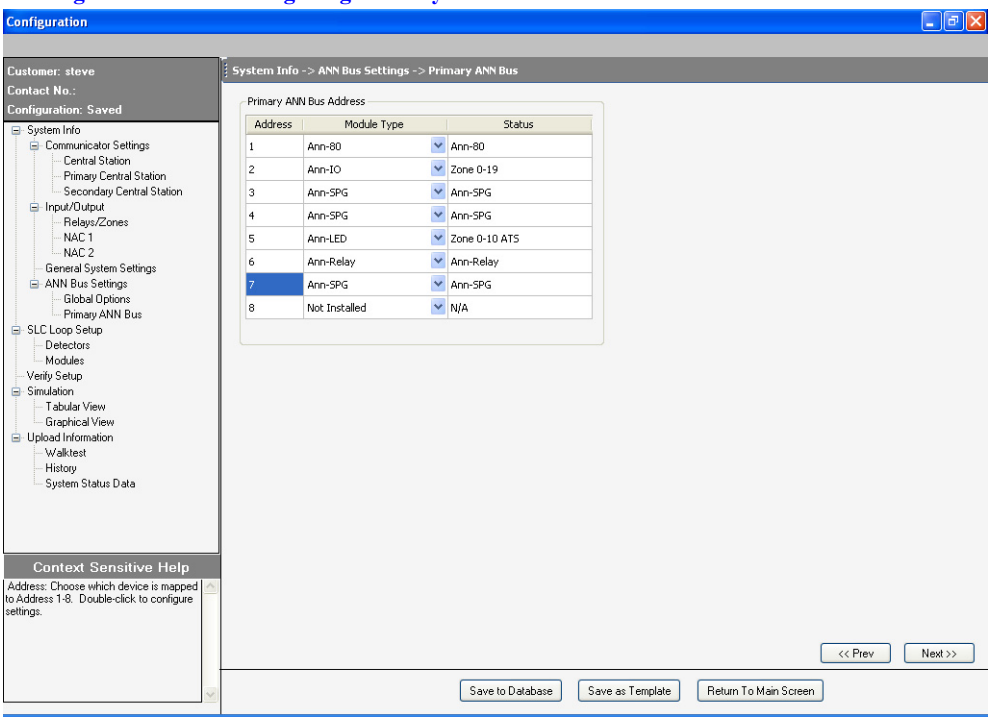
1. Click **Next** at the lower-right corner of the **General System Settings** pane to view the ANN Bus pane or click **ANN Bus Settings > Global Options** in the left pane. (see *Figure*)
2. Click *Yes* for **ANN Bus Enable**, to enable the ANN Bus. You must enable the ANN Bus, if ANN devices are installed on the ANN Bus terminals.
3. In **ANN Bus Address**, select the **Module Type** for each address.

Figure 5-6 Configuring ANN Bus Global Options



4. Click **Next** or click **Primary ANN Bus** in the left pane, to configure the Primary ANN Bus.

Figure 5-7 Configuring Primary ANN Bus Address



ANN Bus

Click **Yes**, to enable the ANN Bus. You must enable the ANN Bus if any modules are connected to the ANN Bus terminal.

The following are the compatible devices that you can connect to the FACP ANN-Bus communication circuit;

- ANN-80 LCD Annunciator
- ANN-S/PG Serial/Parallel Printer Interface Module
- ANN-I/O LED Driver Module
- ANN-LED Annunciator Module (alarm, trouble, supervisory LEDs)
- ANN-RLED Annunciator Module (red alarm LEDs only)
- ANN-RLY Relay Module to the ANN Bus

The ANN S/PG and ANN 80 settings are applicable globally for any ANN Bus address of the same type. The ANN -IO and ANN LED settings are specific to an ANN Bus address.

ANN S/PG Options

The ANN-S/PG options allows you to the connect a remote serial or parallel printer to the FACP. This helps you to log system events, detector status reports, and event history. If Parallel port is selected, you can supervise and set the offline timer for the printer. If Serial port is selected, you can set the Baud Rate, Parity, Data Bits, and Stop Bits.

To configure ANN S/PG Options

1. Under **ANN S/PG options**, select the type of **Port** for the printer connection.
   a. If you select **Parallel** port, then perform the following:
      - In the **Printer Supervision** list, select *True* to enable printer supervision.
      - In the **Offline Timer** box, type the offline for delay between 0 and 255.
   b. If you select **Serial** port, perform the following:
      - In **Baud Rate** list, select a baud rate in the range *2400*, *9600*, or *19200*.
      - In **Parity** list, select *Even*, *None or Odd.*
      - In **Data Bits** list, select *7* or *8* bits.
      - In **Stop Bits** list, select 0.5, 1, or 2.

ANN-80 Options

The ANN-80 Annunciator is a compact, 80 character, backlit LCD remote fire annunciator. It mimics the display on the control panel annunciates device type, point alarm, trouble or supervisory condition, zone assignment plus any custom alpha labels programmed into the FACP. Communication between the ANN-80 and FACP is accomplished over a two wire RS-485 serial interface employing the ANN-Bus communication format.

To configure the ANN-80 module

1. Select *Yes* to enable the **Lock Enable** option which allows you to unlock the ANN-80 keypad with its own key. If you select *No*, the keylock is ignored and the ANN-80 keypad buttons are always enabled.
2. Select *Yes* in **Piezo Enable** to enable the sounding of the piezo sounder on any installed ANN-80 module. The piezo sounder is disabled when you select *No*.
3. Select *Yes* in **ACK Enable** to enable the normal function of the ACK Button on any installed ANN-80 annunciator. This option is ignored if you select *No*.
4. Select *Yes* in **Silence Enable** to enable the Silence Button on any installed ANN-80 annunciator.
5. Select *Yes* in **Reset Enable** to enable the Reset Button on any installed ANN-80 annunciator.
6. Select *Yes* in **Drill Enable** to enable the Drill Button on any installed ANN-80 annunciator(see *Figure*).

Note You must enable the canadian option to configure the following ANN-80C modules.

To configure the ANN-80C module

1. Select *Yes* in **Piezo Enable** to enable the sounding of the piezo sounder on any installed ANN-80C module. The piezo sounder is disabled when you select *No*.
2. Select *Yes* in **Step Enable** to enable the normal function of the Step Button on any installed ANN-80C annunciator. This option is ignored if you select *No*.
3. Select *Yes* in **Silence Enable** to enable the Silence Button on any installed ANN-80C annunciator.
4. Select *Yes* in **LampTest Enable** to enable the lamptest Button on any installed ANN-80C annunciator.
5. Select *Yes* in **Sounder Test Enable** to enable the sounder Button on any installed ANN-80C annunciator.

ANN-Bus Address

ANN-Bus Address allows you to install the modules type in their respective 1-8 addresses.

To configure the ANN-Bus Address

1. Under **Primary ANN Bus Address**, select the **Module Type** for each address. (see *Figure 5-7*).
2. Click **Next** or click **Detectors** in the left pane, to configure the detectors.

SLC Loop Setup

SLC loops provide communication to addressable detectors, monitor (initiating device), and control (output device) modules. One SLC loop is provided by default on the fire panel main circuit board. You can plug the optional SLC module into the connector, on the main circuit board for the second SLC loop. The 50 Pt Addr fire panel addressable device capacity is 50 which is the sum of detectors and control/monitor modules per SLC loop.

You can configure the SLC Loop for NFPA Style 4, 6, or 7. The wiring styles Style 4 or Style 6 are mostly used. Style 7 wiring is same as Style 6 with the added requirement that each addressable device on the loop must have a pair of isolator modules, one on each side. To program a system for Style 7, you must select the loop setup for Style 6. You can configure all the addressable devices to SLC *Loop 1*, in the SLC Loop Setup screen.

Detectors

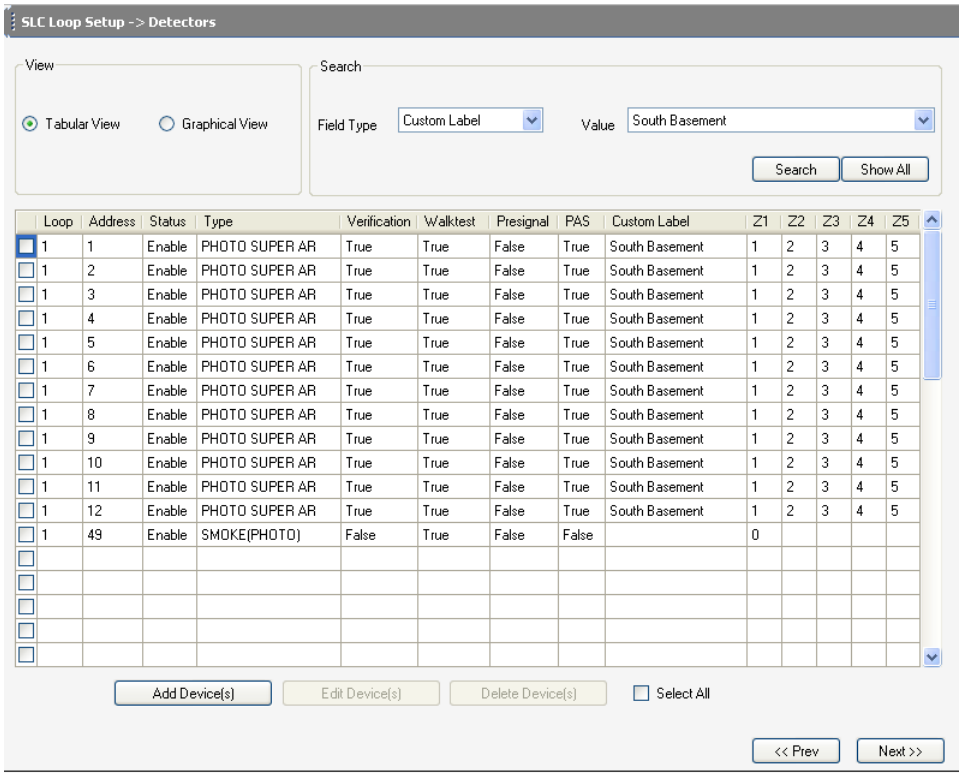
The **SLC Loop Setup > Detectors** pane helps you to perform the following:

- View the added detector in a tabular or graphical form.
- Add a new addressable detector to an SLC loop.
- Change the programming for an existing detector.
- Delete an existing detector from a loop.
- Search for detector in a zone.

Viewing Devices

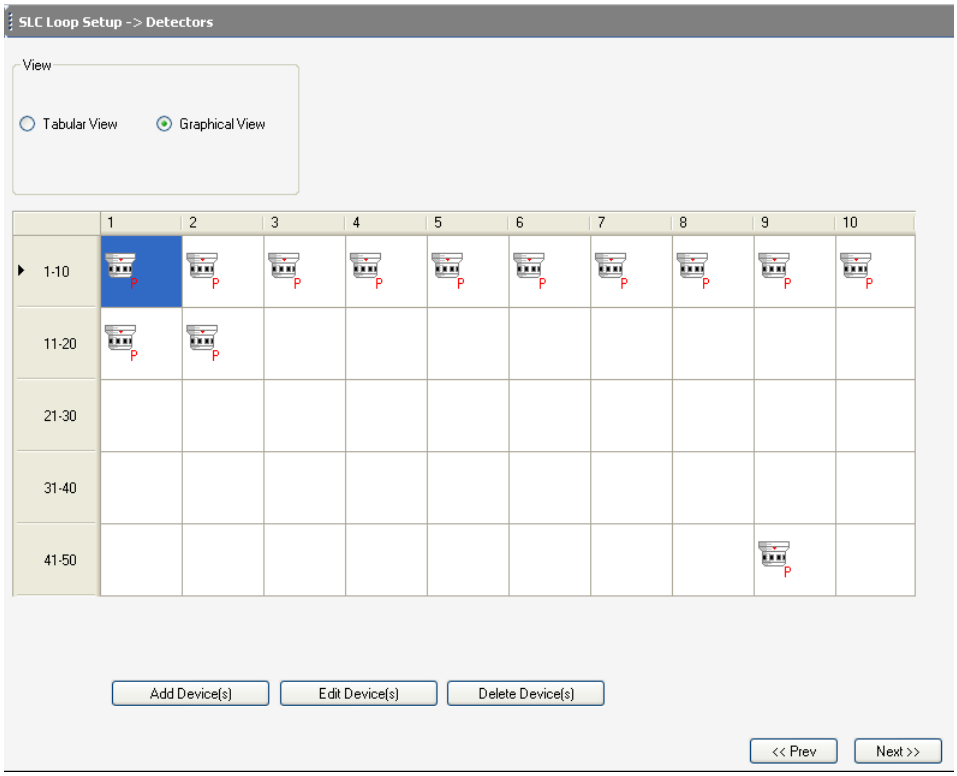
You can view all the addressable devices in tabular or graphical view.

- Under **View**, click **Tabular View** option, to view the device information such as device type, address, status, and other information in a tabular format.



Loop	Address	Status	Type	Verification	Walktest	Presignal	PAS	Custom Label	Z1	Z2	Z3	Z4	Z5
1	1	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	2	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	3	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	4	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	5	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	6	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	7	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	8	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	9	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	10	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	11	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	12	Enable	PHOTO SUPER AR	True	True	False	True	South Basement	1	2	3	4	5
1	49	Enable	SMOKE(PHOTO)	False	True	False	False		0				

- Under **View**, click **Graphical View** option, to view a pictorial representation of all the devices in the SLC Loop.

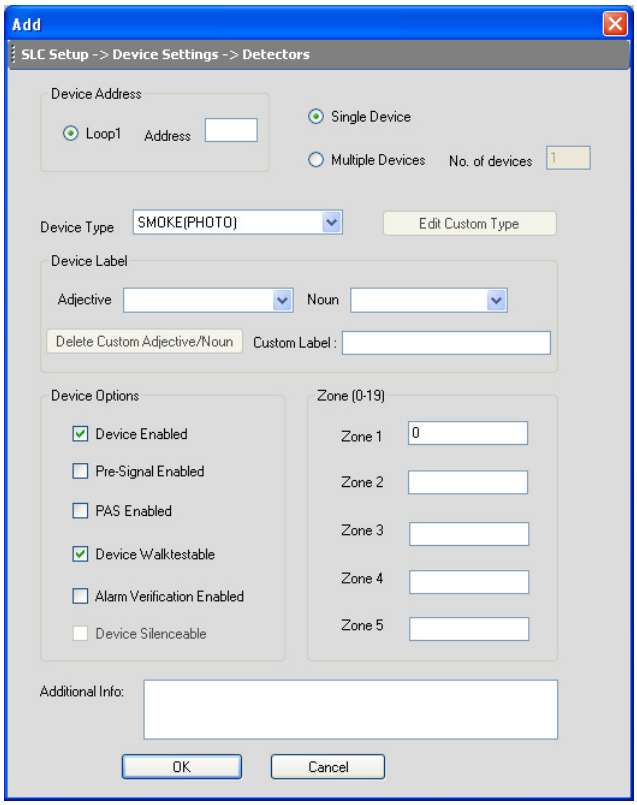


Adding Devices

You can use the **Add Devices** option to add a new device, specify the device options, and assign zones to the device.

To add an addressable device to the SLC Loop

1. In **SLC Loop Setup > Detectors** pane, click **Add Devices**. The **Add** dialog box where you can add detector devices to the SLC Loop.



By default, Under **Device Address**, **Loop 1** is selected.

2. Specify the device **Address** which is a three digit value between 01 to 50.
3. To add only one device, click **Single Device**.
4. To add more than one device, click **Multiple Devices**.
5. Specify the number of devices you want to add in **No. of devices**.
6. Select the **Device Type** from the list.
7. To add a user defined device type, select *USER-DEF-1* from the list, and click **Edit Custom Type**. Type the new type label in the displayed window and click **OK**.
8. In **Device Label**, select the **Adjective** and the **Noun** which specify the device location. The adjective and noun are specific descriptors to identify the device location. To add a custom adjective/noun, select the *Add New* option from the adjective/noun list and specify the custom adjective/noun in the displayed window. **Custom Label** displays the selected **Adjective** and **Noun**.

9. In **Device Options**, the **Device Enabled** option is selected by default (when you click Add Device). If this option is not selected, the detector is not polled by the control panel, which prevents the detector from reporting alarms and troubles to the panel. The control panel displays the device type and address of the disabled device and activates the Trouble and Disable LEDs.
10. To enable the Pre-Signal option for the device, click **Pre-Signal Enabled**. This option programs the detector to delay panel activation for a preprogrammed time delay of up to three minutes, while allowing for visual verification. The alarm relay and communicator respond to the initial alarm immediately. In addition, Zone 98 activates immediately and can be programmed to a control module, to activate a sounder or indicator designated for Presignal indication (*do not use a Notification Appliance Circuit for this purpose).*
11. To enable the PAS option for the device, click **PAS Enabled**. The PAS option programs the detector to delay panel activation (including alarm relay and communicator) for a period of fifteen seconds plus a programmable time of up to three minutes. Zone 97, however, activates immediately and can be used for connecting a signaling device to indicate PAS activation (*do not use a Notification Applicance Circuit for this purpose).*

Note For a device, you can enable the PAS option or the Pre-Signal option. You cannot enable both options together.

12. The **Device Walktestable** option is selected by default. The Walktest feature allows you to test the system devices without manually resetting the control panel after each device activation.
13. To enable the Alarm Verification option for the device, click **Alarm Verification Enabled**. Alarm verification is used for confirming that a smoke detector activation is a true alarm condition and not a false alarm.
14. You can map each device to five **Zones**. Type the two digit number corresponding to the zone assigned to the device for **Zone 1** to **Zone 5**. The factory default for an unprogrammed device is *Z00* for a general alarm zone.
15. Type the **Additional Information** about the detector being programmed. This information is displayed as part of the device label on the panel display.
16. Click **OK**. The device is added to the SLC loop setup.

Note The **Device Silenceable** option is disabled for the detectors.

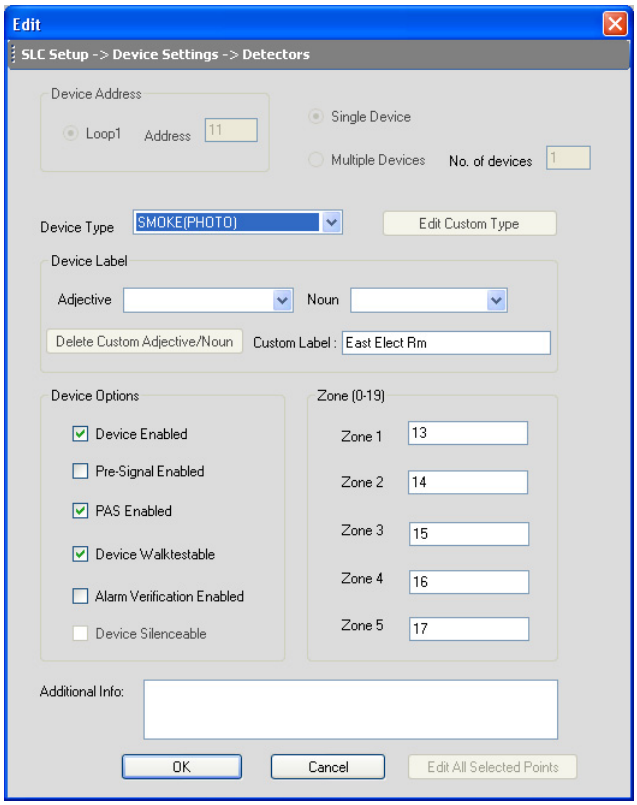
Editing Devices

Using the **Edit Device(s)** option, you can edit the device type, device options, and change the zone mapping. You can also edit the devices by double clicking the tabular column and graphical grid.

To edit the devices in the SLC loop

1. Select the check box corresponding to the device you want to edit in the **SLC Loop Setup > Detectors**. You can select more than one device at a time.

2. Click **Edit Device(s)** to edit the device information. The **Edit** dialog box appears.



3. Update the device information such as **Device Type, Device Label**, **Device Options,** and **Zone** assignments.
4. Click **OK**. The device information is updated in SLC loop setup.

Note

- To edit more than one device at once, click **Edit All Selected Points**.
- You cannot modify the loop and device address using the **Edit Device(s)** option.

Deleting Devices

When a device is no longer used, you can delete the device from the SLC Loop.

To delete the devices in the SLC loop

1. Select the check box corresponding to the device you want to delete in the **SLC Loop Setup > Detectors** pane. You can select multiple devices at a time.
2. Click **Delete Device(s)** to delete the device from the SLC loop. A message asking for confirmation appears.
3. Click **Yes** to delete the device details. The detector device is deleted from the SLC Loop.

Finding Devices

Using the **Search** option, you can find a device when there are multiple devices in the SLC loop. You can search by the Field Type, Status, or Value. The search results are displayed in the Tabular View.

Note The **Search** option is available only with the **Tabular View**.

To search for devices in the SLC Loop Setup > Detectors pane

1. In **Loop**, select *Loop 1,* to search for the devices in the selected loop.
2. To find devices with specific custom label or status, select an option in **Field Type**. The available options are *Custom Label, Status, Address, Type, Verification, Walktest, presignal,* and *PAS.*
3. Select a **Value** from the list which corresponds to the selected **Field Type** *Custom* or *Status*.
4. Click **Search**. The search results are displayed in the **SLC Loop Setup - Tabular View**.
5. Click **Show All** to retrieve all the device records.
6. Click **Save to Database** to save the configuration in the PS-Tools database.
7. Click **Next** or click **Modules** in **SLC Loop Setup** in the left pane, to view the **SLC Loop Setup > Modules** pane.

Modules

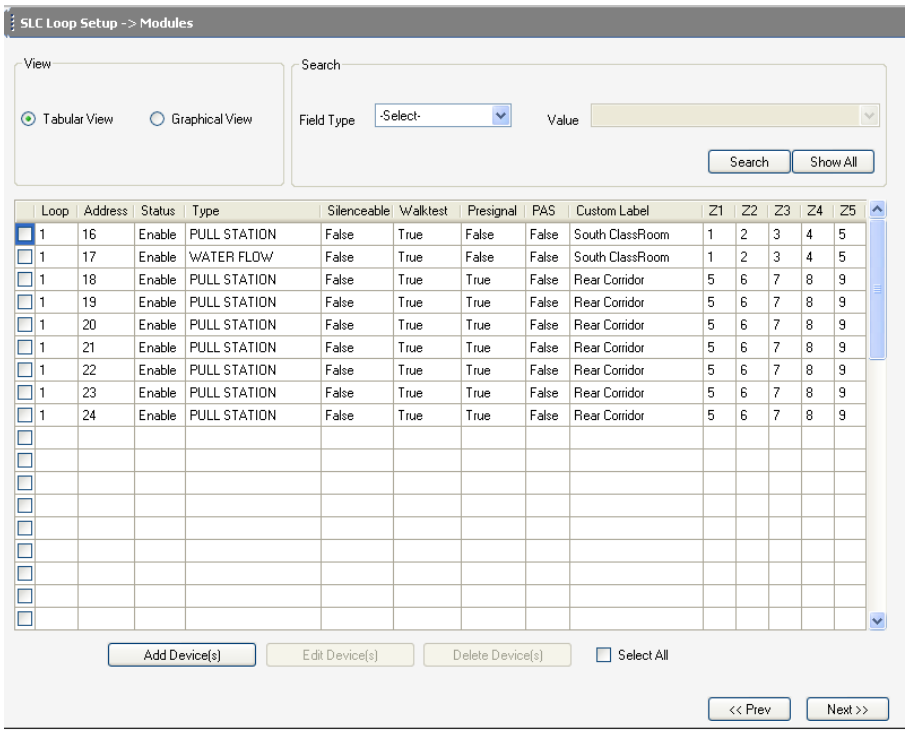
The **SLC Loop Setup > Modules** screen helps you to perform the following:

- Add a new addressable module to an SLC loop.
- Delete an existing module from a loop.
- Change the programming for an existing module.
- Search for modules in a zone.
- View the added modules in a tabular or graphical form.

Viewing Modules

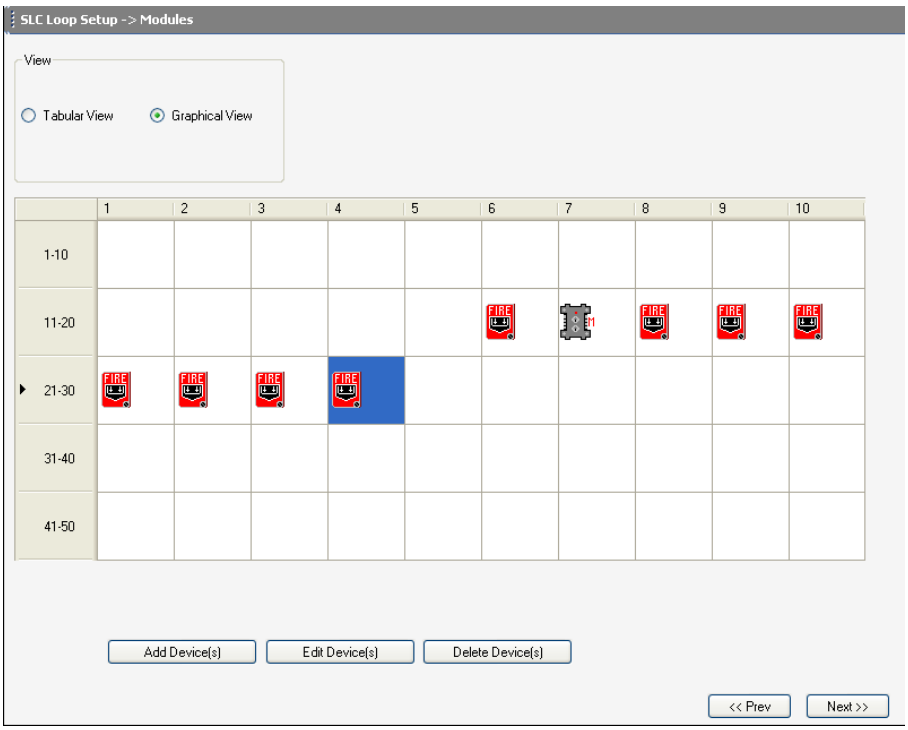
You can view all the addressable devices in tabular or graphical view.

- Click **Tabular View** option to view the module device information such as, device type, address, status, zone details, and other information in a tabular format.



Loop	Address	Status	Type	Silenceable	Walktest	Presignal	PAS	Custom Label	Z1	Z2	Z3	Z4	Z5
1	16	Enable	PULL STATION	False	True	False	False	South ClassRoom	1	2	3	4	5
1	17	Enable	WATER FLOW	False	True	False	False	South ClassRoom	1	2	3	4	5
1	18	Enable	PULL STATION	False	True	True	False	Rear Corridor	5	6	7	8	9
1	19	Enable	PULL STATION	False	True	True	False	Rear Corridor	5	6	7	8	9
1	20	Enable	PULL STATION	False	True	True	False	Rear Corridor	5	6	7	8	9
1	21	Enable	PULL STATION	False	True	True	False	Rear Corridor	5	6	7	8	9
1	22	Enable	PULL STATION	False	True	True	False	Rear Corridor	5	6	7	8	9
1	23	Enable	PULL STATION	False	True	True	False	Rear Corridor	5	6	7	8	9
1	24	Enable	PULL STATION	False	True	True	False	Rear Corridor	5	6	7	8	9

- Click **Graphical View** option to view a pictorial representation of all the modules in the SLC Loop.

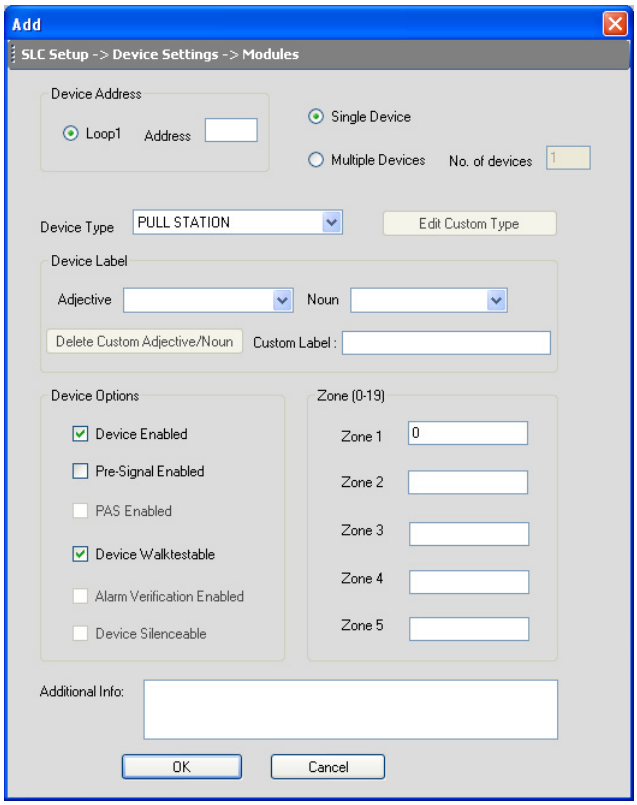


Adding Modules

You can use the **Add Devices** option to add a new module, specify the module options, and assign zones to the device. You can add monitor or control modules to the SLC Loop.

To add an addressable device to the SLC Loop

1. In the **SLC Loop Setup > Modules** pane, click **Add Devices**. The **Add** dialog box appears.



2. Under **Device Address**, click **Loop 1** and specify the device **Address** which is a three digit value between 01 to 50.
3. To add only one module, click **Single Device**.
4. To add more than one module, click **Multiple Devices**.
5. Specify the number of modules you want to add in **No. of devices**.
6. Select the **Device Type** from the list.
7. To add a user defined device type select *USER-DEF-1* from the list and click **Edit Custom Type**. Type the new type label in the displayed window and click **OK**.
8. In **Device Label**, select the **Adjective** and the **Noun**, which specify the module location. The adjective and noun are specific descriptors to identify the module location. To add a custom adjective/noun, select the *Add New* option from the adjective/noun list and specify the custom adjective/noun in the displayed window. **Custom Label** displays the selected **Adjective** and **Noun**.
9. In **Device Options**, the **Device Enabled** option is selected by default (when you click Add Device). If this option is not selected, the module is not polled by the control panel, which prevents the module from reporting alarms and troubles to the panel. The control panel displays the device type and address of the device disabled and activates the Trouble and Disable LEDs.
10. To enable the Pre-Signal option for a module, click **Pre-Signal Enabled** option. The Pre-signal option programs the module to delay panel activation for a preprogrammed time delay of up to three minutes while allowing for visual verification.

Note The **PAS Enabled**, **Alarm Verification Enabled**, and **Device Silenceable** options are not enabled when you add modules to the SLC loop.

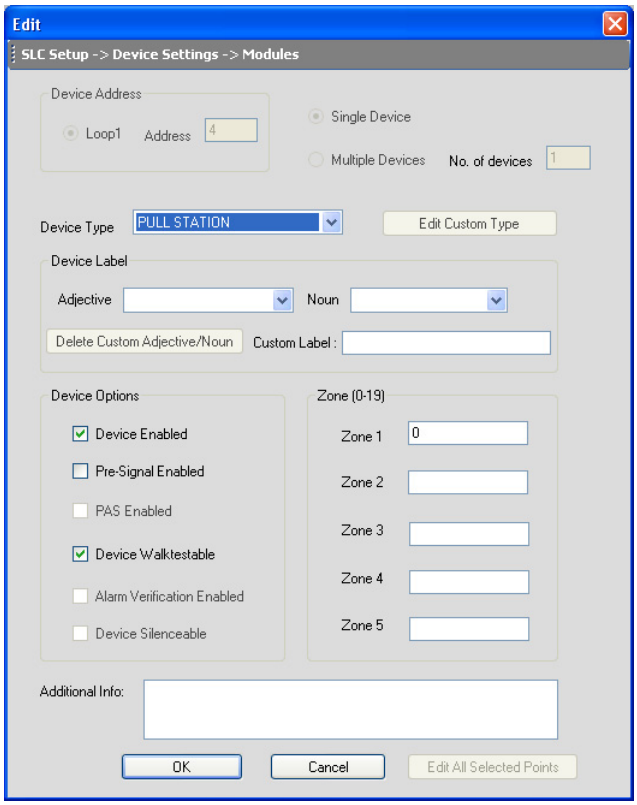
11. The **Device Walktestable** option is selected by default. The Walktest feature allows you to test the system devices without manually resetting the control panel after each device activation.
12. You can map each module to five **Zones**. Type the two digit number corresponding to the zone assigned to the device for **Zone 1** to **Zone 5**. The factory default for an unprogrammed device is Z00 for a general alarm zone.
13. Type **Additional Information** about the module being programmed. This information is displayed as part of the device label on the fire panel display.
14. Click **OK**. The module is added to the SLC loop setup.

Editing Modules

Using the **Edit Device(s)** option, you can edit the module type, module options, and the zone mapping. You can also edit the modules by double clicking the tabular column and graphical grid.

To edit the modules in the SLC loop

1. Select the check box corresponding to the device you want to edit, in the **SLC Loop Setup > Modules** pane. You can select more than one device at a time.
2. Click **Edit Device** to edit the device information. The **Edit** dialog box appears.



3. Update the device information such as **Device Type, Device Label**, **Device Options,** and **Zone** assignments.
4. Click **OK**. The device information is updated in SLC loop setup.

Note

- To edit more than one module at once, click **Edit All Selected Points**.
- You cannot modify the loop and device address using the **Edit Device(s)** option.

Deleting Modules

When a module is no longer used, you can delete the module from the SLC Loop.

To delete the modules in the SLC loop

1. Select the check box corresponding to the module you want to delete, in the **SLC Loop Setup > Modules** pane. You can select multiple modules at a time.
2. Click **Delete Device(s)** to delete the module from the SLC loop. A message asking for confirmation appears.
3. Click **Yes** to delete the module details. The module is deleted from the SLC Loop.

Finding Modules

Using the **Search** option, you can search for modules by the Loop, Field Type, Status, or the Value. The Search results are displayed in the Tabular View.

Note The **Search** option is available only with the **Tabular View**.

To search for devices

1. In **Loop**, select *Loop 1*, to search for the modules in the selected loop.
2. To find modules with specific custom label or status, select the **Field Type.** The available options are *All*, *Custom Label* or *Status*.
3. Select a **Value** from the list, which corresponds to the selected **Field Type** *Custom* or *Status*. The **Value** field is disabled when the selected **Field Type** is *All*.
4. Click **Search**. The search results are displayed in the **SLC Loop Setup > Tabular View** pane.
5. If you want to retrieve all the device records, click **Show All**.
6. Click **Next** or click **Verify Setup** in the left pane, to verify the SLC Loop setup.
7. Click **Prev** to view the **SLC Loop Setup** > **Detectors pane**.

Save to Database

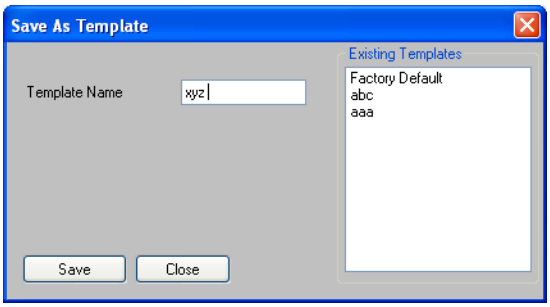
To save the configuration information to database

1. Click **Save to Database** to save the configuration data to the database. If a saved configuration exists for a customer, a confirmation message to overwrite the existing configuration data appears.
2. Click **OK**.

Save as Template

To save the configuration information as a template

1. Click **Save As Template** at the lower-right corner of the configuration. The **Save As Template** dialog box appears.



The saved template can be used for configuring other fire panels using the same computer or laptop

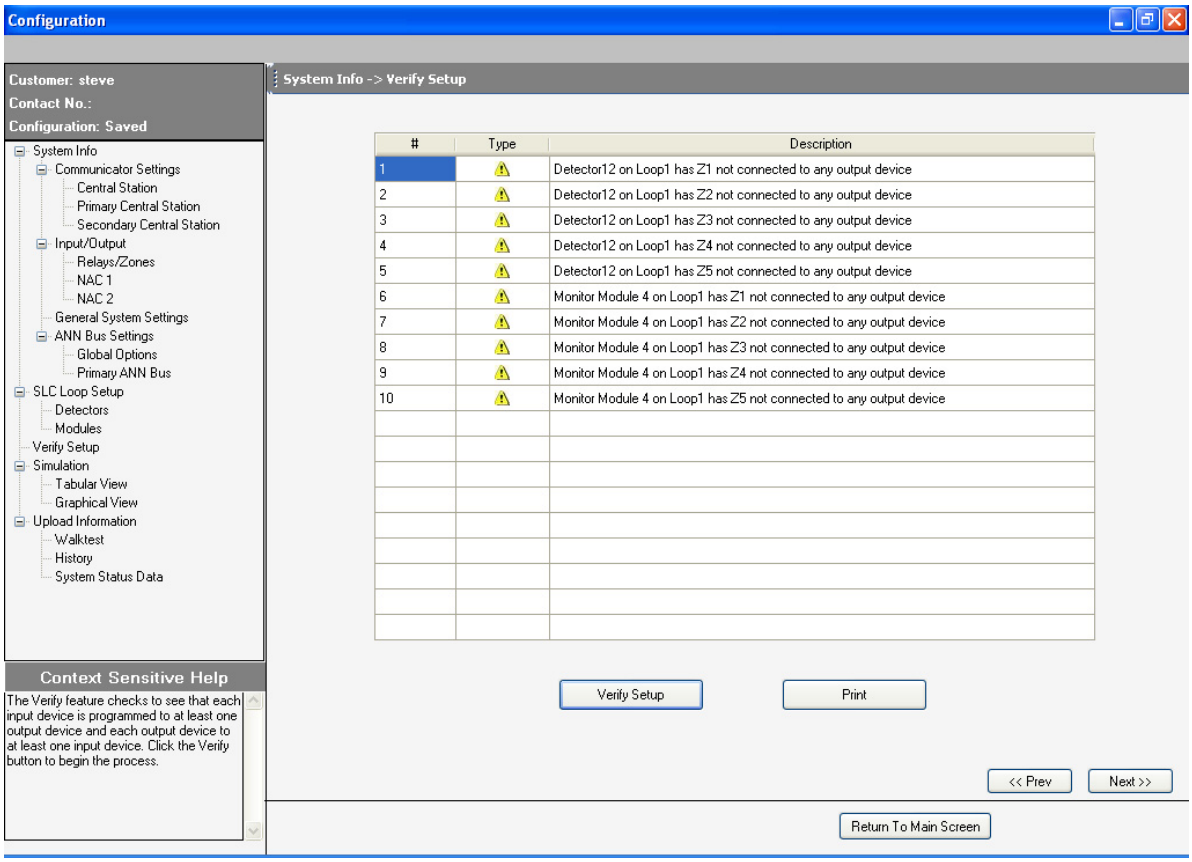
2. Type the new **Template Name**, then click **Save**, to save the fire panel configuration as a template.

Verify Setup

The **Verify Setup** feature helps to check if each input device is programmed to at least one output device and vice versa. This feature verifies the loop configuration and displays a warning message if there is a mismatch.

To verify the SLC Loop Setup

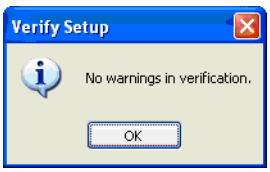
1. Click **Verify Setup** option in the left pane or click **Next** at the lower-right corner in the **SLC Loop Setup > Modules** pane.



2. Click **Verify Setup** to check the mapping of the input and output devices.

   A warning in the right pane, is displayed listing all the detector devices and monitor modules, which are not connected to an output/input device.

   If there is a proper mapping between each input device and output device, a message appears to indicate there are no warnings in verification.



3. Click **OK**. The **Verify Setup** pane appears.
4. If you want to create a *PDF*, click **Print**.
5. If you want to view the **SLC Loop Setup** > **Modules pane**, click **Prev**.
6. Click **Next** or click **Simulation** > **Tabular View** in the left pane, to view the Simulation > **Tabular View** pane.

Simulation

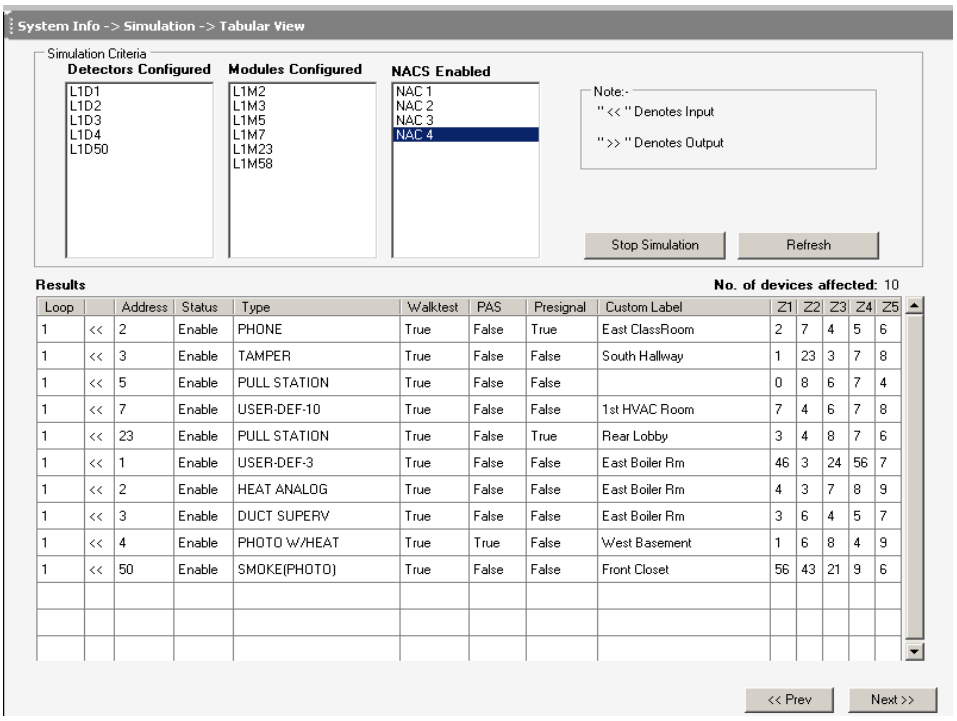
The **Simulation** feature helps to view the zone correlations for the installed devices to confirm the programming. Using this feature, you can find any mismatch in the zone correlations not detected through the **Verify Setup** option. This feature is available with both the tabular and graphical views.

Tabular View

To perform simulation in tabular view

1. Click **Tabular View** under **Simulation** in the left pane or click **Next** in the **Verify Setup** screen.
2. Click **Start Simulation**.
3. Click the address of an input device to view the output correlations or click the address of an output device to view the input correlations

Note The Input devices are denoted by << and the Output devices are denoted by >>, in the displayed Results.



Loop		Address	Status	Type	Walktest	PAS	Presignal	Custom Label	Z1	Z2	Z3	Z4	Z5
1	<<	2	Enable	PHONE	True	False	True	East ClassRoom	2	7	4	5	6
1	<<	3	Enable	TAMPER	True	False	False	South Hallway	1	23	3	7	8
1	<<	5	Enable	PULL STATION	True	False	False		0	8	6	7	4
1	<<	7	Enable	USER-DEF-10	True	False	False	1st HVAC Room	7	4	6	7	8
1	<<	23	Enable	PULL STATION	True	False	True	Rear Lobby	3	4	8	7	6
1	<<	1	Enable	USER-DEF-3	True	False	False	East Boiler Rm	46	3	24	56	7
1	<<	2	Enable	HEAT ANALOG	True	False	False	East Boiler Rm	4	3	7	8	9
1	<<	3	Enable	DUCT SUPERV	True	False	False	East Boiler Rm	3	6	4	5	7
1	<<	4	Enable	PHOTO W/HEAT	True	True	False	West Basement	1	6	8	4	9
1	<<	50	Enable	SMOKE(PHOTO)	True	False	False	Front Closet	56	43	21	9	6

4. Click **Refresh** to refresh the displayed results when you select another detector.
5. Click **Stop Simulation** to stop the simulation.

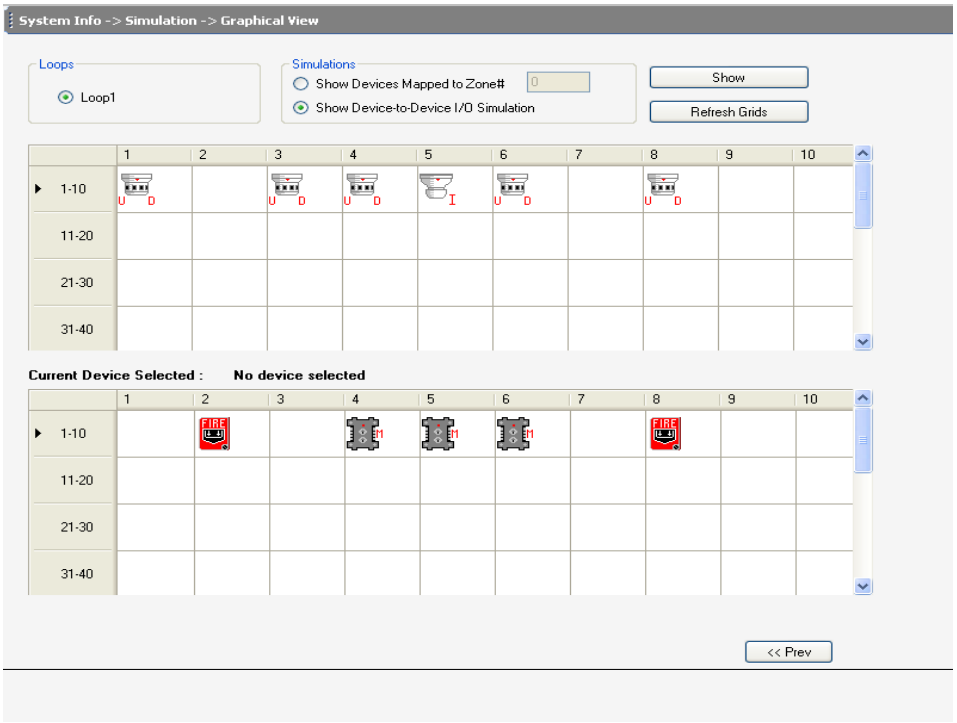
Graphical View

To perform simulation in graphical view

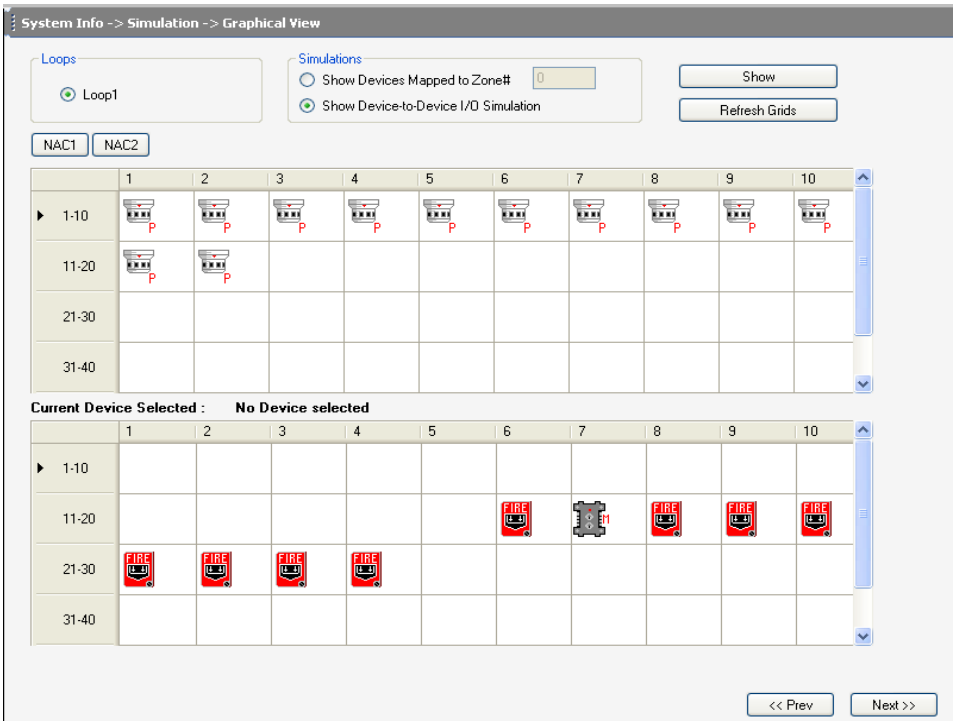
1. Click **Graphical View** under **Simulation** in the left pane or click **Next** in the **Simulation > TabularView** pane.

By default, Under **Loops**, *Loop1* is selected to view the input output device correlations.

2. To view the devices mapped to a specific zone, click **Show Devices Mapped to Zone#**.
3. Type the zone number.



4. Click **Show** to display the detectors and modules mapped to the selected zone.
5. Click **Refresh Grid** to restore the normal display.
6. Click **Stop**.
7. To view the device-to-device mapping, click **Show Device-to-Device I/O Simulation**.



8. Click **Show** to display the output devices mapped to a selected input device.
9. Click **Next** to view the uploaded data from the fire panel.
10. Click **Prev** to view the **Simulation > TabularView** pane.

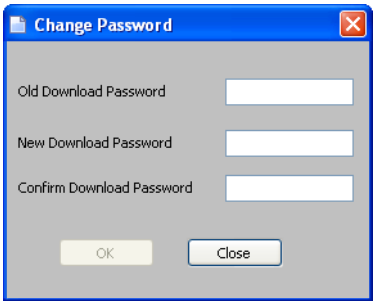
Changing the Download Password

To download the configuration data to the fire panel, you must connect the computer to the fire panel. In PS-Tools you can change the download password for downloading the configuration data to the fire panel only if you have administrator rights.

Note You must add at least one customer record before changing the download password.

To change the password to download configuration data to the fire panel

1. On the **File** menu in the initial customer screen, click **Change Download Password**. The **Change Password** dialog box appears.



2. Type the **Old Download Password**.
3. Type the **New Download Password**, and then type the password again in **Confirm Download Password**.
4. Click **OK**. The download password is changed.

Upload Information

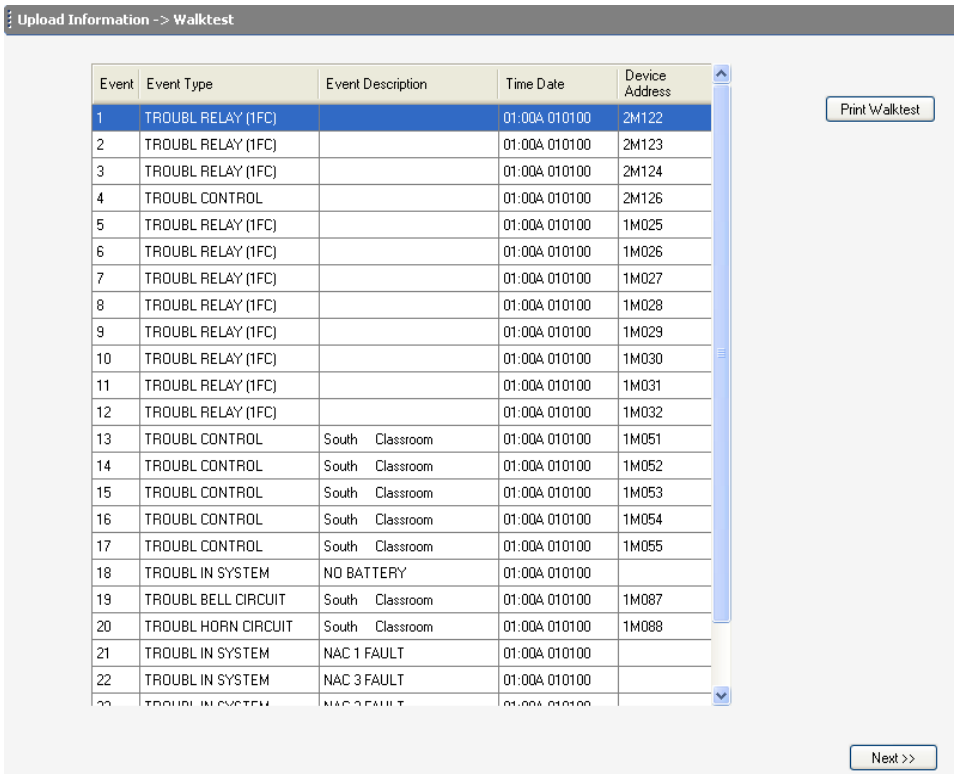
The uploaded information displays all the configuration information retrieved from the fire panel to the computer, using PS-Tools. In addition to the configuration information, the following data can be uploaded from the fire panel:

- Walktest Data
- History Data
- Troubleshoot Data

The uploaded information from the fire panel helps to monitor troubles, alarms, and other fire panel events.

Walktest Data

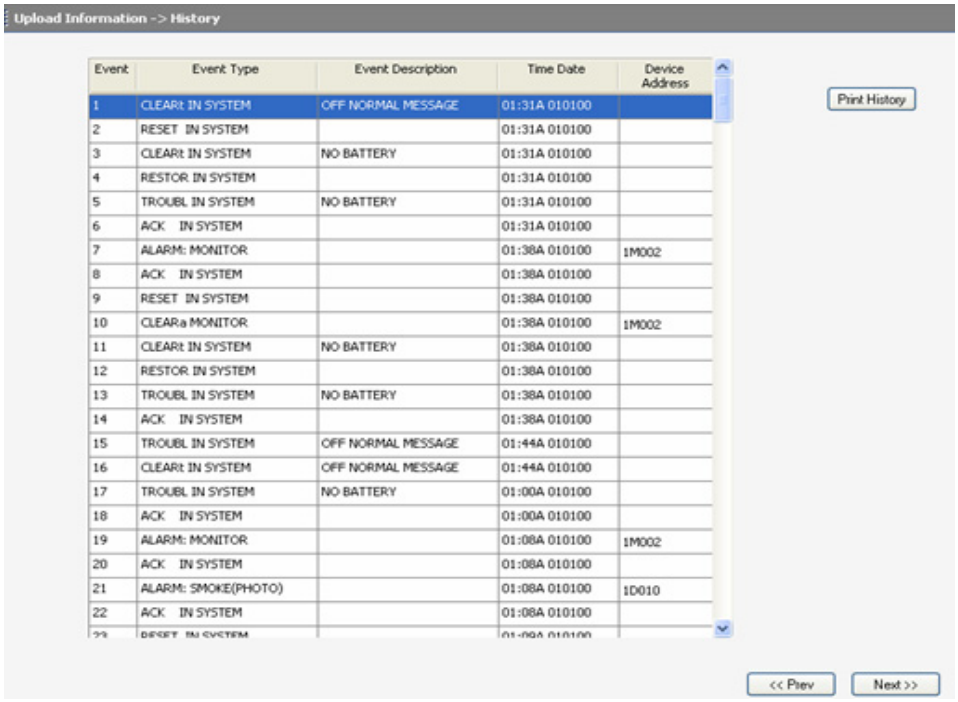
Walktest is a feature which allows you to test the fire alarm system. The walktest data displays the time and date of events at various zones in the fire alarm system, after you conduct a walktest. You can generate a PDF file of walktest data, by clicking the **Print Walktest** button.



Event	Event Type	Event Description	Time Date	Device Address
1	TROUBL RELAY (1FC)		01:00A 010100	2M122
2	TROUBL RELAY (1FC)		01:00A 010100	2M123
3	TROUBL RELAY (1FC)		01:00A 010100	2M124
4	TROUBL CONTROL		01:00A 010100	2M126
5	TROUBL RELAY (1FC)		01:00A 010100	1M025
6	TROUBL RELAY (1FC)		01:00A 010100	1M026
7	TROUBL RELAY (1FC)		01:00A 010100	1M027
8	TROUBL RELAY (1FC)		01:00A 010100	1M028
9	TROUBL RELAY (1FC)		01:00A 010100	1M029
10	TROUBL RELAY (1FC)		01:00A 010100	1M030
11	TROUBL RELAY (1FC)		01:00A 010100	1M031
12	TROUBL RELAY (1FC)		01:00A 010100	1M032
13	TROUBL CONTROL	South Classroom	01:00A 010100	1M051
14	TROUBL CONTROL	South Classroom	01:00A 010100	1M052
15	TROUBL CONTROL	South Classroom	01:00A 010100	1M053
16	TROUBL CONTROL	South Classroom	01:00A 010100	1M054
17	TROUBL CONTROL	South Classroom	01:00A 010100	1M055
18	TROUBL IN SYSTEM	NO BATTERY	01:00A 010100	
19	TROUBL BELL CIRCUIT	South Classroom	01:00A 010100	1M087
20	TROUBL HORN CIRCUIT	South Classroom	01:00A 010100	1M088
21	TROUBL IN SYSTEM	NAC 1 FAULT	01:00A 010100	
22	TROUBL IN SYSTEM	NAC 3 FAULT	01:00A 010100	

History Data

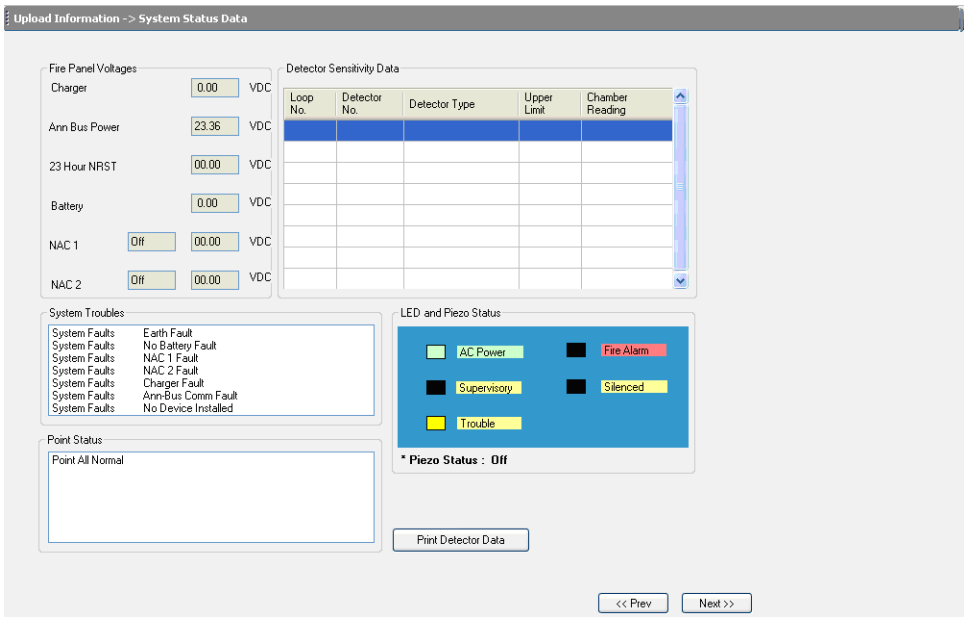
The history data lists all the events and event types such as alarms, troubles, activations, and other information with the date and time of occurrence. You can generate a PDF file of walktest data, by clicking the **Print History** button.



Event	Event Type	Event Description	Time Date	Device Address
1	CLEARt IN SYSTEM	OFF NORMAL MESSAGE	01:31A 010100	
2	RESET IN SYSTEM		01:31A 010100	
3	CLEARt IN SYSTEM	NO BATTERY	01:31A 010100	
4	RESTOR IN SYSTEM		01:31A 010100	
5	TROUBL IN SYSTEM	NO BATTERY	01:31A 010100	
6	ACK IN SYSTEM		01:31A 010100	
7	ALARM: MONITOR		01:38A 010100	1M002
8	ACK IN SYSTEM		01:38A 010100	
9	RESET IN SYSTEM		01:38A 010100	
10	CLEARa MONITOR		01:38A 010100	1M002
11	CLEARt IN SYSTEM	NO BATTERY	01:38A 010100	
12	RESTOR IN SYSTEM		01:38A 010100	
13	TROUBL IN SYSTEM	NO BATTERY	01:38A 010100	
14	ACK IN SYSTEM		01:38A 010100	
15	TROUBL IN SYSTEM	OFF NORMAL MESSAGE	01:44A 010100	
16	CLEARt IN SYSTEM	OFF NORMAL MESSAGE	01:44A 010100	
17	TROUBL IN SYSTEM	NO BATTERY	01:00A 010100	
18	ACK IN SYSTEM		01:00A 010100	
19	ALARM: MONITOR		01:08A 010100	1M002
20	ACK IN SYSTEM		01:08A 010100	
21	ALARM: SMOKE(PHOTO)		01:08A 010100	1D010
22	ACK IN SYSTEM		01:08A 010100	

Troubleshoot Data

The troubleshoot data displays the detector data which is used for maintenance scheduling, actual voltage, freeze condition, combo supervisory, open circuit, and maintenance information for the zones. The actual voltage data is displayed for the NACs. Any abnormal data indicates trouble in the fire alarm system.



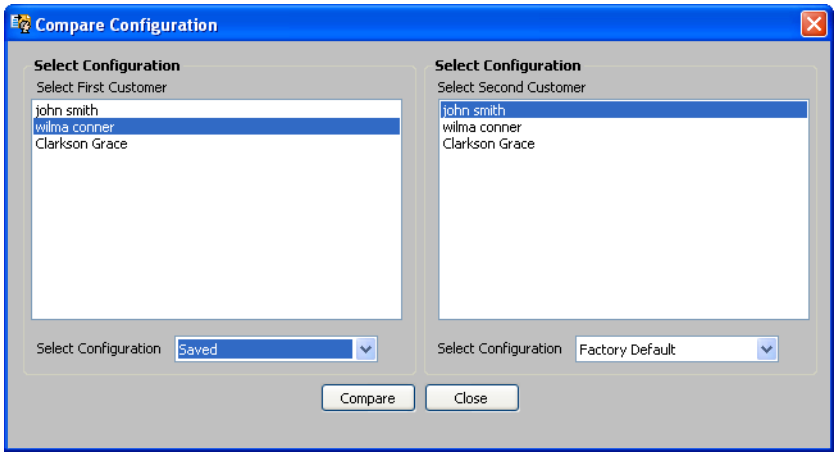
Comparing Configuration

The **Compare Configuration** option shows the differences in fire panel configurations for two different customers or two different configurations for the same customer.

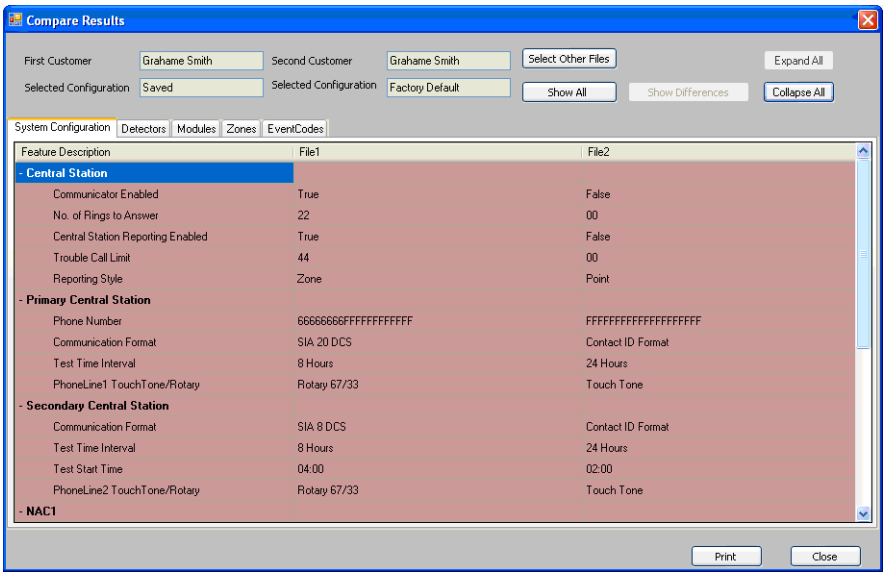
To compare two configurations

1. Choose **Tools** > **Compare Configuration** from the initial customer details window in PS-Tools. The **Compare Configuration** dialog box appears.

Note You cannot compare the two Factory default configurations.



2. Select **Customer1** and **Customer2**.
3. Select the **Configuration** for **Customer1** and **Customer2**.
4. Click **Compare**. The **Compare Results** dialog box appears displaying the compared **System Configuration** data for the two customers.



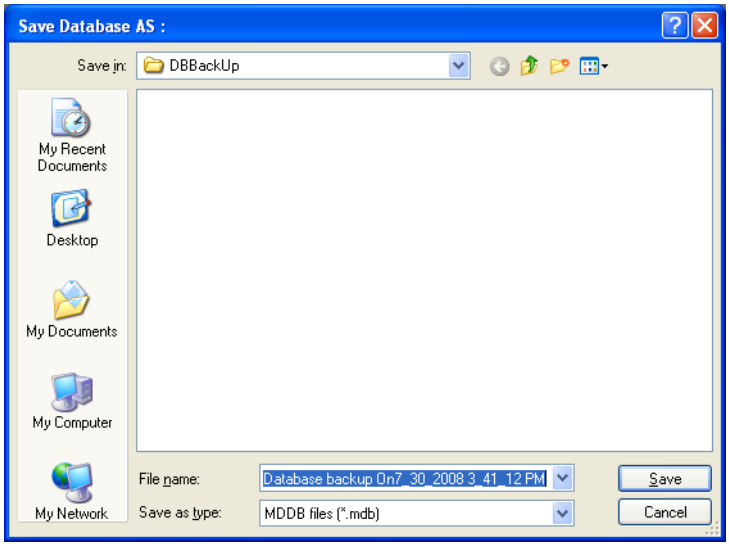
Using the **Compare Results** dialog box, you can also perform the following.

5. Click **Expand All**, to see an expanded view of all the configuration data on the **System Configuration** tab.
6. Click **Collapse All** for an collapsed view of all the configuration data in **System Configuration** tab.
7. Click **Show All** to view the configuration details of both the customers.
8. Click **Show Differences** to view the difference in configuration in the customers.
9. Click the **Detectors**, **Modules**, **Zones**, or **EventCodes** tabs to view the configuration data.
10. Click **Select Other Files** to select another customer for configuration.
11. Click **Print** to generate a *PDF* file of the displayed data.

Database Backup

To save a backup of the database

1. Choose **Tools** > **Database Backup** from the initial customer details window in PS-Tools. The **Save Database AS** dialog box appears.



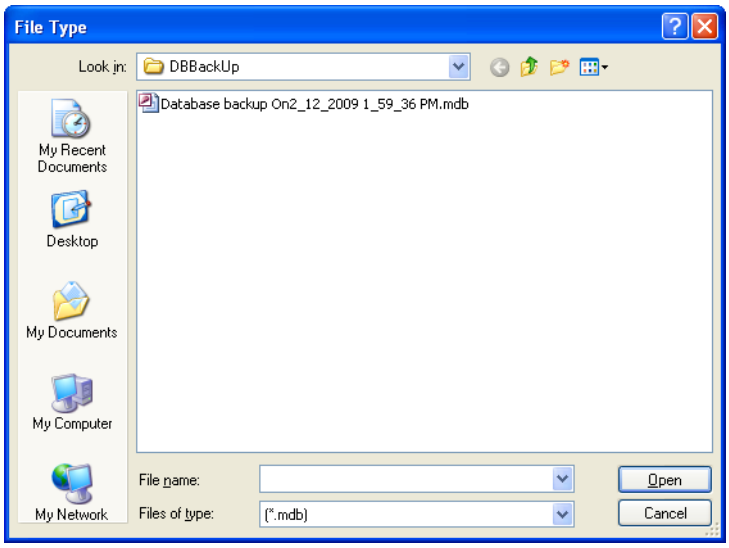
2. Select the folder to save the database backup.
3. Click **Save**. The database backup is saved in the selected folder.

Database Restore

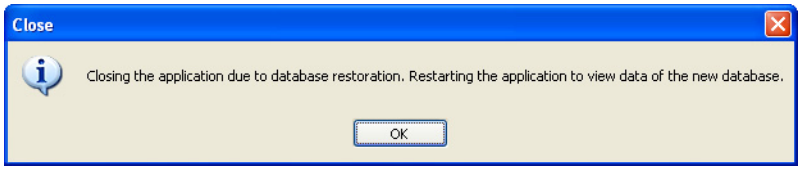
There can be situations, where the current working database encounters problems. In such cases, you can restore a backup of the working database. You can restore the database that was last backed up to ensure minimum data loss.

To restore the database

1. Choose **Tools** > **Restore Backup** from the initial customer details window in PS-Tools. The **File Type** dialog box appears.



2. Select the database file to restore.
3. Click **Open**. A message, informing you about the application being closed, is displayed.



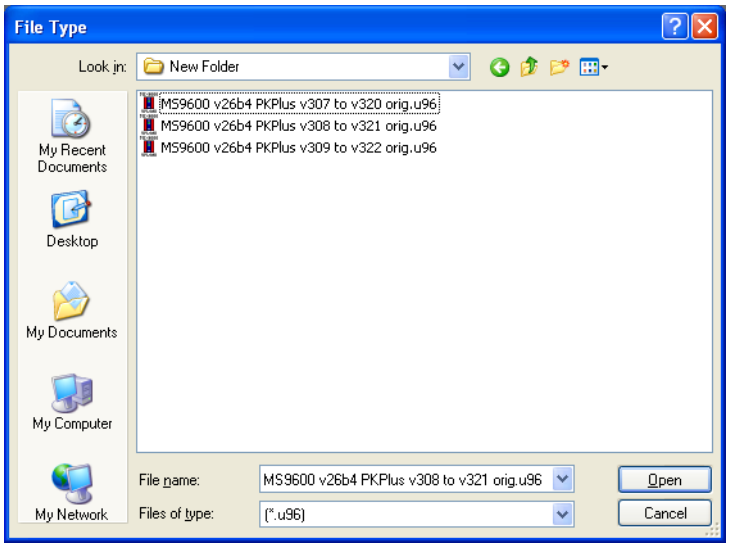
4. Click **OK**. A message asking you to close the PS-Tools appears.
5. Click **Yes** to close the PS-Tools.

Database Migration

Using PS-Tools, you can migrate the database files from PK-Plus to PS-Tools. After migration, the customer and configuration details are imported to PS-Tools database.

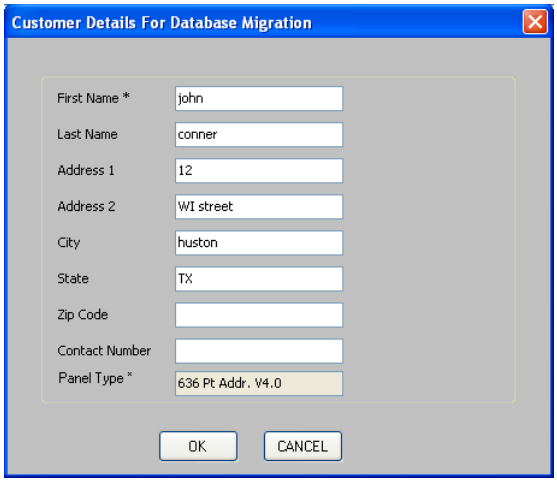
To migrate the configuration settings

1. Choose **Tools** > **Database Migration from PK-Plus to PS-Tools** from the initial customer details window in PS-Tools. The **File Type** dialog box appears.

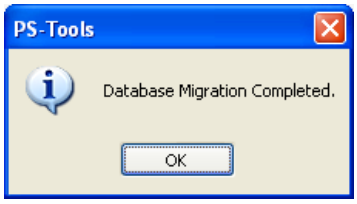


Note If there is no customer details in the PK-Plus file, then you must provide the details when you migrate the file to PS-Tools.

2. Select the PK-Plus file. The **Customer Details For Database Migration** dialog box appears.



3. Type the details of the customer and click **OK**. A message, informing you about the status of database migration appears.



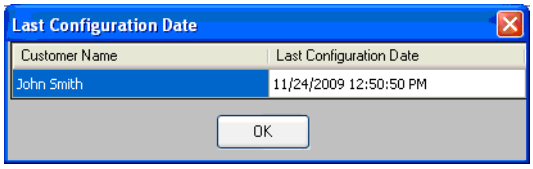
4. Click **OK**.The details are updated to the database.

Viewing Last Configuration Date

Using PS-Tools, you can view the details of a particular customer such as configuration date, when there are multiple customers with the same name, panel type, and so on.

To view the configuration date

1. Select the Customer.
2. Choose **Tools** > **Last Configuration Date** from the initial customer details window in PS-Tools. The **Last Configuration Date** dialog box appears, displaying the details of the particular customer.



3. Click **OK**.

Viewing Migration Information

Using PS-Tools, you can verify the migration history and walktest information imported from the PK-Plus to the computer.

To view the migration information

1. Select the **Customer** from the initial customer details window in PS-Tools.
2. Choose **Tools** > **View Migrated History and Walktest Data f**rom the initial customer details window in PS-Tools. See *Walktest Data* and *History Data* for more information.

Connecting to the Database

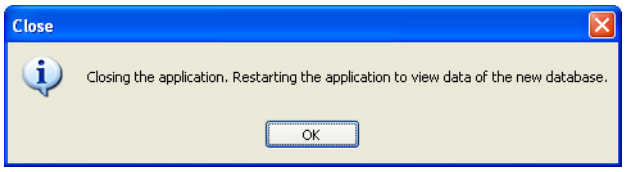
Using PS-Tools, you can connect to the database installed on your computer (client database) or to the database installed on a remote computer (server database).

Note: If you have installed the client and the server on the same computer, then your computer acts as both client and server.

To connect to the server database

1. Choose **Tools > Run from Database > Server Machine** from the initial customer details window in PS-Tools. The **Server Machine** dialog box appears.

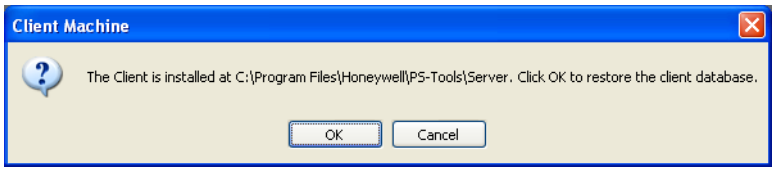
2. In the **Database Server** text box, type the IP address or the machine name of the computer on which you have installed the database.
3. Click **OK**. A message informing you about the application being restarted, is displayed.



4. Click **OK**. The details of the server database are listed in the initial customer window of PS-Tools.

To connect to the client database

1. Choose **Tools > Run from Database > Client Machine** from the initial customer details window in PS-Tools. A message appears, informing you about the path where you have installed the client database.



2. Click **OK** to restore the client database.

Modifying Customer Details

You can modify or view the customer details from the database server. To view, you need only a need only read-only permission, but to modify, you must obtain the write permission.

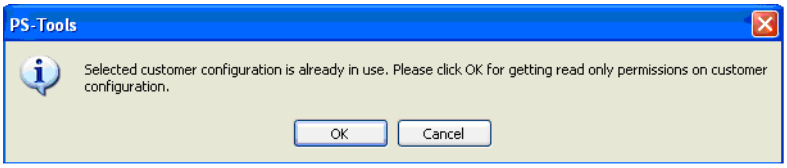
To obtain the write permission

1. Select a **Customer** from the initial customer details window in PS-Tools.
2. Choose **Tools** > **Get Write Access** from the initial customer details window in PS-Tools. A message, indicating the status for obtaining the write permission, appears. If the customer details are currently modified by another user, you might get only a read-only access. Try again after some time, to obtain the write access.
3. After obtaining the write permission, click **Configure** in the initial customer details window in PS-Tools, to modify the configuration settings.

Note If you click **Tools**->**Get Write Access** on a computer running Windows ®7/ Windows ® Vista/Windows ® XP SP2, the networked computer does not display any message.This is applicable only to Custom Setup.

To view the configuration details

1. Double-click a **Customer** from the initial customer details window in PS-Tools. A message asking for confirmation appears.



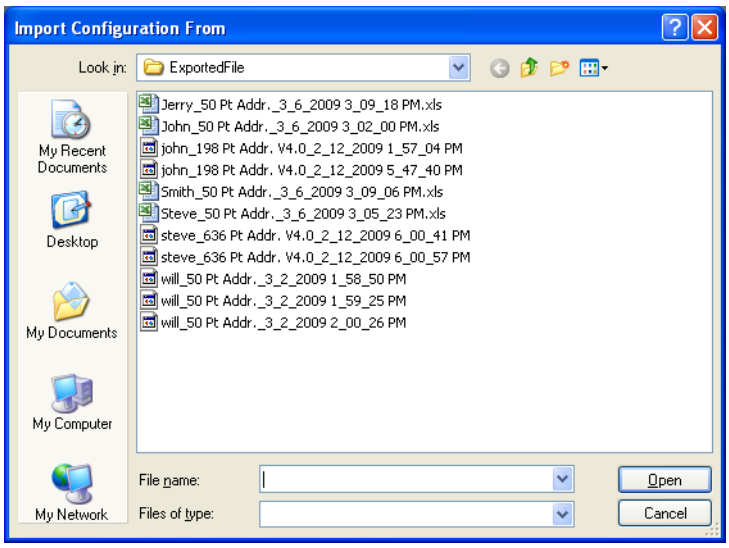
2. Click **OK** to view the customer details in read only mode.

Importing Configuration

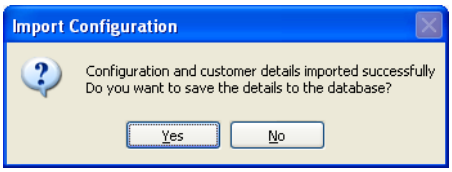
You can import configuration details from the panel to PS-Tools.

To import a configuration

1. Choose **Tools** > **Import** from the initial customer details window in PS-Tools. The **Import Configuration From** dialog box appears.

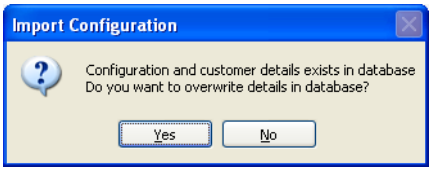


2. Select a configuration file and then click **Open**. The configuration details are imported in the binary format. A message, prompting you to save the configuration details to the database is displayed.



3. Click **Yes** to save the details to the database.

If the customer and configuration details are already present in the database, a message prompting you to overwrite the details in the database is displayed.



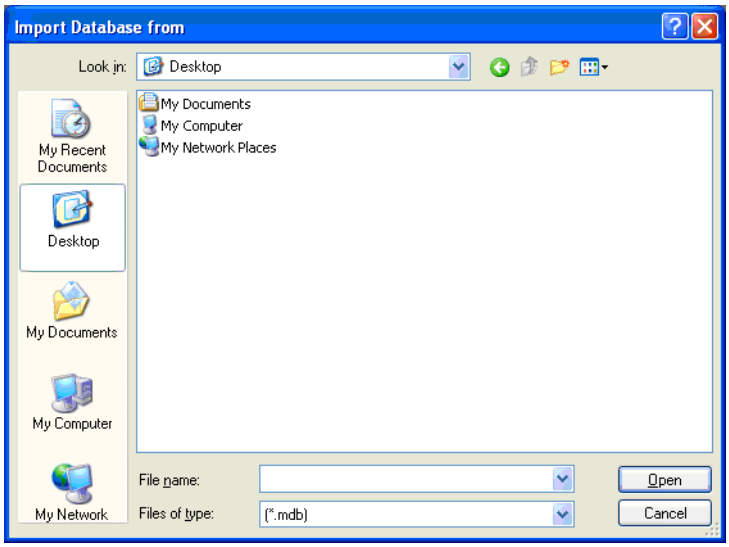
4. Click **Yes** to overwrite the details in the database. You can verify the imported customer details from the initial customer details window in PS-Tools.

Importing all Configurations

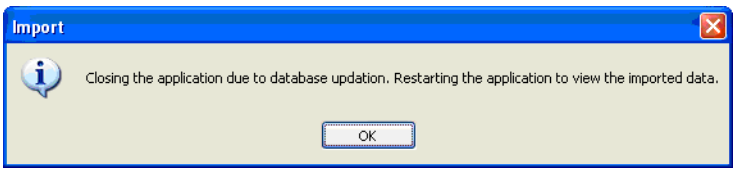
Using PS-Tools, You can import and update all the configuration details from to the PS-tools database without modifying the existing information.

To import all the configuration

1. Choose **Tools** > **Import all** from the initial customer details window in PS-Tools. The **Import Database from** dialog box appears.



2. Select the configuration files, and then click **Open**. The configuration details are updated. After updating the configuration details, a message appears, prompting you to restart the application, to view the changes.



3. Click **OK**.

Exporting Configuration

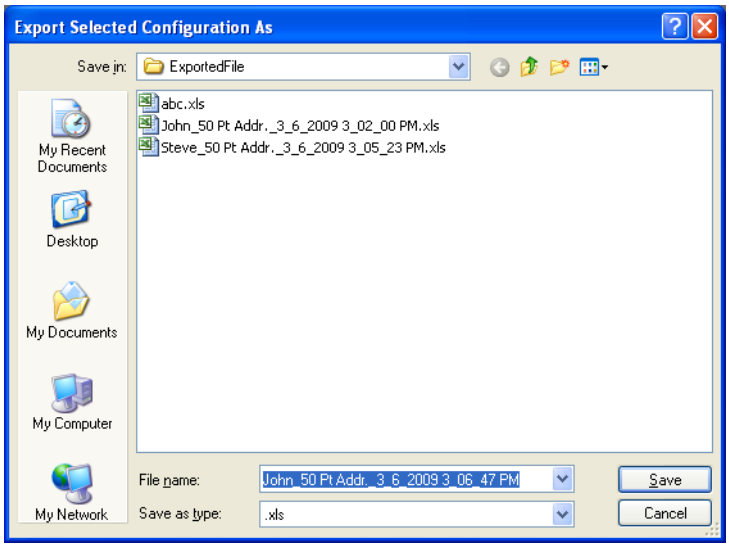
The export configuration option is used when the same configuration needs to be used for configuring a fire panel, in another location with a different computer. The exported configuration can be saved into a floppy disk or a CD-ROM and reused.

You can export the configuration in two ways:

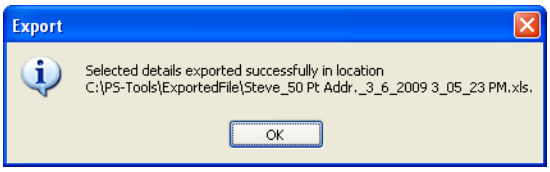
- Export To Excel
- Export To Disk

To export the configuration to an excel sheet

1. Choose **Tools** > **Export > Export To Excel** from the initial customer details window in PS-Tools. The **Exported Selected Configuration As** dialog box appears.

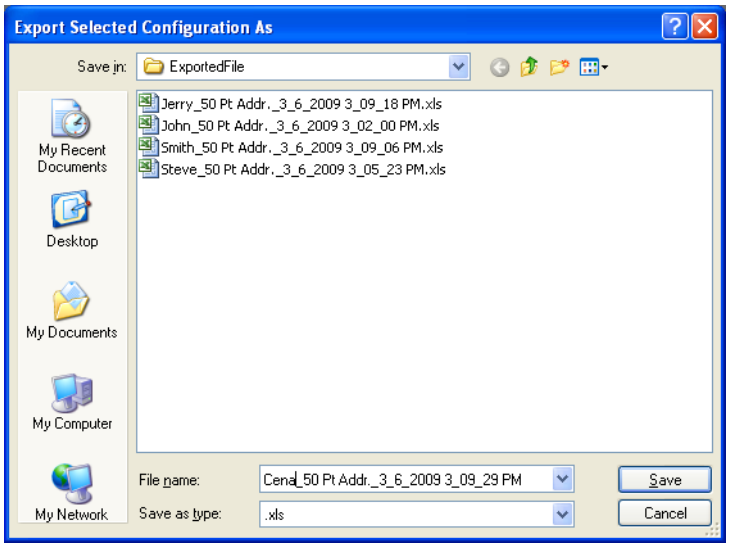


2. Select the folder in which the exported configuration file must be saved.
3. Click **Save**. A message, indicating that the details are successful exported is displayed.

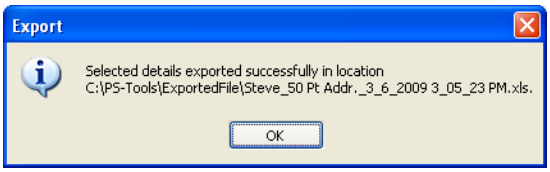


To export the configuration to a disk

1. Choose **Tools** > **Export** > **Export To Disk** from the initial customer details window in PS-Tools. The **Exported Selected Configuration As** dialog box appears.



2. Select the folder in which the exported configuration file must be saved.
3. Click **Save** to save the configuration information in the binary format. A message, indicating that the details are successful exported is displayed.



6

6 Upload/Download Configuration Data

The configuration process is completed only when you download the saved configuration to the fire panel. Using the Upload/Download option in PS-Tools, you can:

- Download saved configuration and other panel settings to the fire panel.
- Upload Configuration Data, History Data, Walktest Data, Troubleshoot Data, System Status, and Point Status information from the fire panel to the computer.
- View all the uploaded data from the fire panel to monitor the fire alarm system and identify troubles, alarms, and other events.

Ensure the fire panel remains in the 'Normal' state when you download or upload data to and from the fire panel. You can connect the computer to the fire panel, using a serial port, or modem.

The following table describes the tasks you can perform using different sections of this chapter.

Section	Description	Refer to
Viewing Connection Settings	To view the connection settings.	page 75
Connect/Disconnect to Fire Panel	To connect/disconnect to the fire panel.	page 77
Download Configuration Data to Fire Panel	To download configuration data from PS-Tools to the fire panel.	page 79
Upload Configuration Information from Fire Panel	To upload configuration data from the fire panel.	page 82

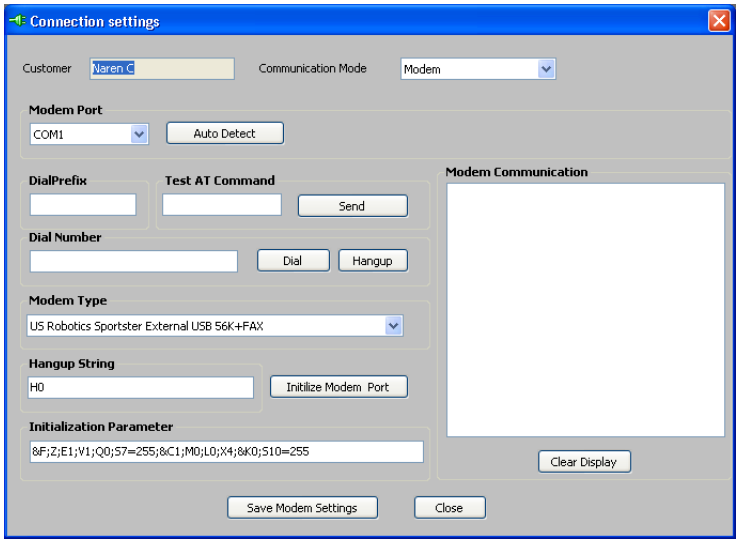
Connection Settings

The connection settings option displays the details of the Modem or Serial port, attached to the computer for communication with the fire panel. The modem can be a Serial Modem.

Modem Settings

To view the modem settings

1. Using the **Find** option, select the customer for whom the connection settings needs to be viewed.
2. Choose **Upload/Download > Connection Settings** from the initial customer details window in PS-Tools. The **Connection Settings** dialog box appears.
3. In **Communication Mode** list, select *Modem*. The information to view/modify the modem settings appears in the Connection Settings dialog box.

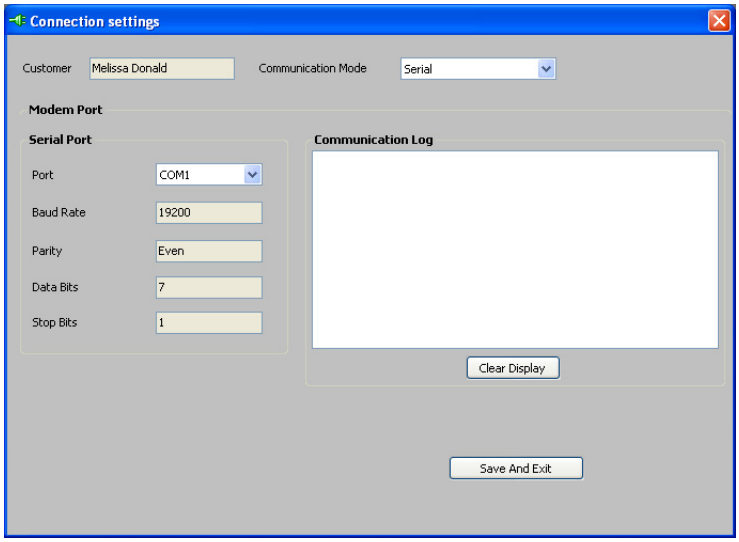


4. In **Modem Port**, select the port to connect the computer to the modem.
5. Click **AutoDetect** to detect any modem, attached to the system. The details of the attached modem (if any) are displayed in **Modem Communication**.
6. Click **Clear Display** to clear the displayed data if there are multiple lines of data to scroll through in **Modem Communication**.
7. Type the **DialPrefix**, which is a number added before the Dial Number.
8. Type a test string in **Test AT Command**, and then click **Send** to check the modem connection.
9. Type the **Dial Number**, and then click **Dial** to connect to the fire panel.
10. Click **Hangup** to end the connection.
11. Select the **Modem Type** from the list. Based on the selected modem type, the Initialization Parameter is displayed.
12. Type the **Hangup String**.
13. Click **Initialize Modem Port** to initialize the port.
14. Type a test string in **Initilization Parameter**.
15. Click **Save Modem Settings** to save the settings.
16. Click **Close** to close the Connection Settings dialog box.

Serial Port Settings

To view the serial port settings

1. Using the **Find** option, select the customer for whom the connection settings needs to be viewed.
2. Choose **Upload/Download > Connection Settings** in the initial customer screen in PS-Tools. The **Connection Settings** dialog box appears.
3. In **Communication Mode** list, select *Serial*. The information to view/modify the serial port settings appears in the **Connection Settings** dialog box.



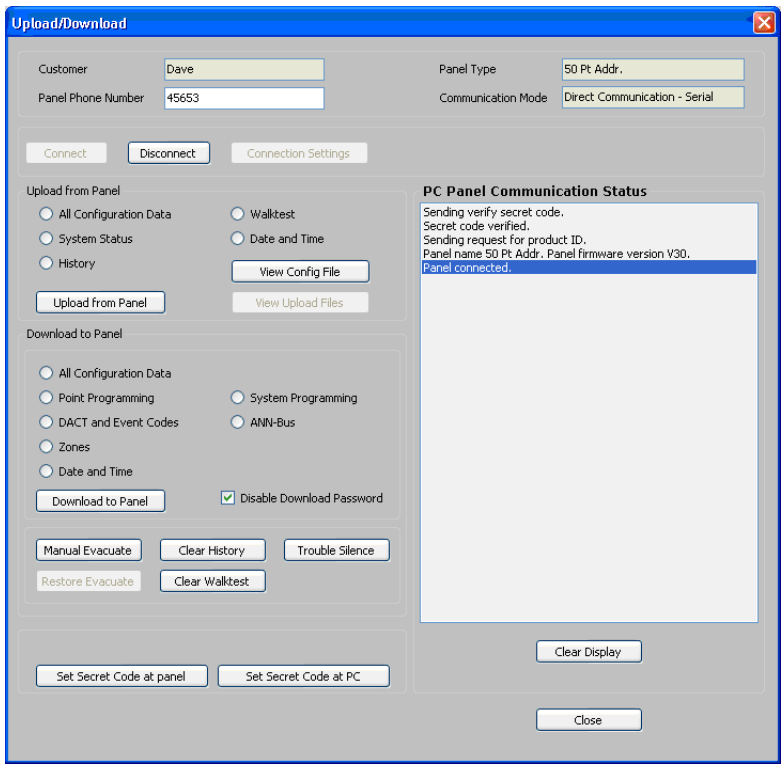
4. Under **Serial Port**, select the port to connect to the computer from the **Port** list. The details of the attached serial port (if any) are displayed in **Communication Log**.
   - If you select *COM1,* then the following fields are set to default values under serial port:
     - **Baud Rate** is set to *19200*
     - **Parity** is set as *Even*
     - **Data Bits** is set to *7*
     - **Stop bits** is set to *1*
5. Click **Clear Display** to clear the displayed data if there are multiple lines of data to scroll through the **Communication Log**.
6. Click **Close** to close the **Connection Settings** dialog box.

Connect/Disconnect to Fire Panel

The fire panel can be connected through serial port and modem.

To connect to the fire panel

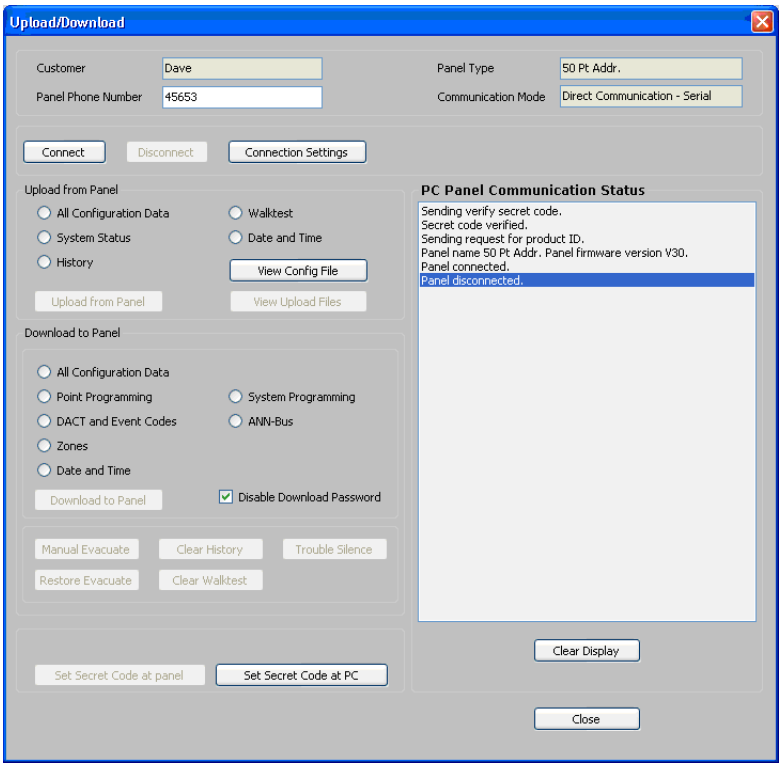
1. Using the **Find** option in the initial customer screen in PS-Tools, select the customer for whom the configuration data needs to be downloaded to the fire panel.
2. Choose **Upload/Download** > **Upload/Download** from the initial customer details window in PS-Tools. The **Upload/Download** dialog box appears.
3. Click **Connect** to connect to the fire panel. The connection progress and the status is displayed in **PC Panel Communication Status**.



Note Every fire panel has a unique **Secret Code** which needs to be verified before connecting to the fire panel. If the secret code verification is successful, the computer and fire panel are connected.

4. Click **Set Secret Code at Panel** to change the secret code of the panel.
5. Click **Set Secret Code at PC** to change the secret code of the panel in PS-Tools.

6. Click **Disconnect** to disconnect the fire panel from the computer, after the upload/download process is completed.



7. Click **Clear Display** to clear all the status messages in **PC Panel Communication Status**.

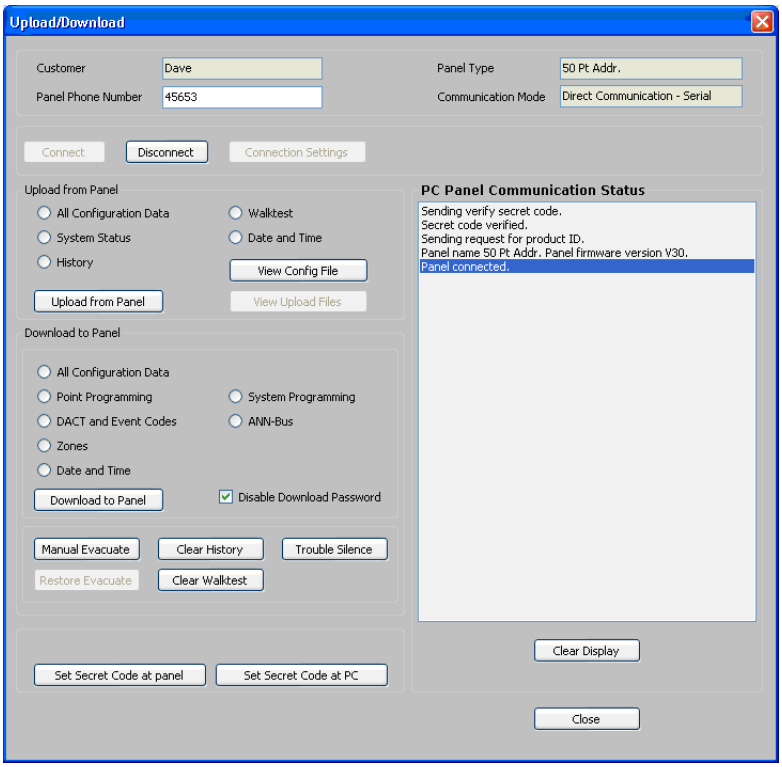
Download Configuration Data to Fire Panel

Using **Download to Panel** option, you can download the Point Programming, DACT, Event Codes, Zones, System Programming, Options, ANN-Bus, Date and Time configuration data to the fire panel. First time when you are downloading, ensure that all the configuration data are downloaded to the fire panel.

To download the configuration information to the fire panel

1. Click **Download to Panel** to download Point Programming, DACT, Event Codes, Zones, System Programming, Options, ANN-Bus, Date and Time configuration data to the fire panel.

When download to fire panel is complete, the status that the configuration data is saved in the database is displayed in **PC Panel Communication Status**.



Note For first time configuration, under **Download to Panel**, you must select **All Configuration Data** to select all the configuration data options to be downloaded to the panel. This downloads all the configuration data to the fire panel.

2. Under **Download to Panel**, you can select any of the following configuration data option and then click **Download to Panel**.

Table 0-1 Download Options

Options	Function
Point Programming	Downloads point programming information to the fire panel.
DACT	Downloads DACT information to the fire panel.
Event Codes	Downloads event information to the fire panel.
Zones	Downloads zone information to the fire panel.
System Programming	Downloads system programming information to the fire panel.

Table 0-1 Download Options

Options	Function
Options	Downloads option modules information to the fire panel.
ANN-Bus	Downloads ANN-Bus information to the fire panel.
Date and Time	Downloads date and time information to the fire panel. • You must enter the time in **Download Date and Time** dialog box, to set the download time. • Specify and/or verify the time, and then click **OK**.

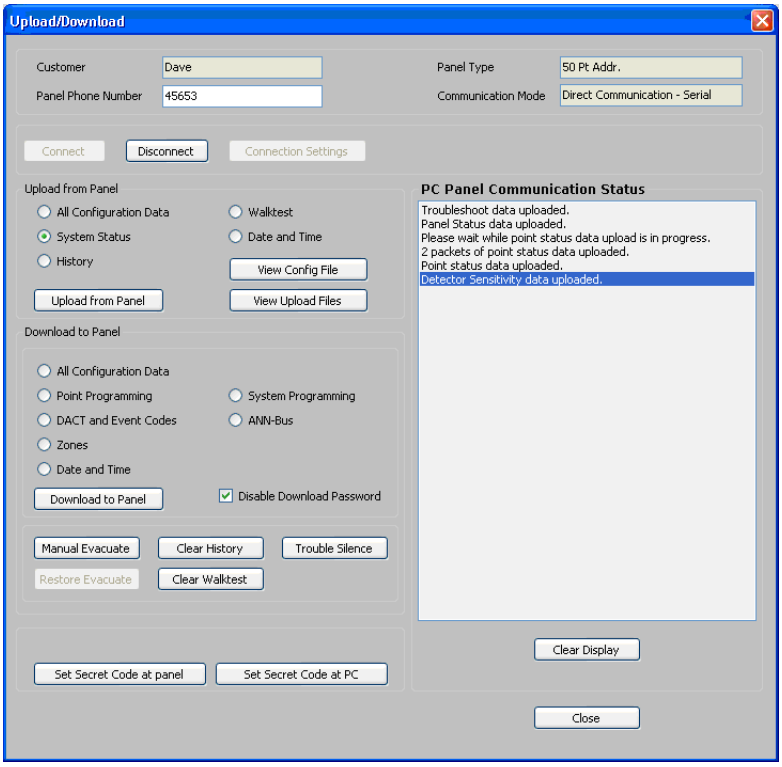
3. Click **Manual Evacuate** to generate a *Drill Activated* Trouble at fire panel. The *Drill Activated* trouble sounds all Silenceable devices and NACs connected to the FACP.
4. Click **Restore Evacuate** to clear the *Drill Activated* trouble and restore the fire panel to Normal state. The sounding of the Silenceable devices and the NACs continues. Press **Signal Silence** button in the fire panel keypad to stop the sounders and NACs.
5. Click **Trouble Silence** to silence all the trouble events in the fire alarm system.
6. Click **Clear History** to clear all the History data in the fire panel. For more information about History Data, see *History Data*.
7. Click **Clear Display** to clear the display of the status information in **PC Panel Communication Status**.
8. Click **Close** to close the **Upload/Download** dialog box after the upload/download process is completed.

Upload Configuration Information from Fire Panel

Using the **Upload From Panel** option, you can view the System Status data, History data, Walktest data, Date and Time data from the fire panel. The uploaded information is useful for monitoring the fire alarm system status and identifying troubles, alarms, and other events. For more information about uploaded information from fire panel, see *Upload Information*.

To upload information from the fire panel

1. Under **Upload from Panel**, select **All Configuration Data** and then click **Upload From Panel** in the **Upload/Download** dialog box. The configuration information is uploaded from the fire panel to the computer.



2. A message appears to indicate the configuration data is saved in PS-Tools as *Saved*. Click **OK**.

Note For first time configuration, under **Upload from Panel**, you must select **All Configuration Data** to select all the configuration data options you want to upload to the panel. This uploads all the configuration data to the computer.

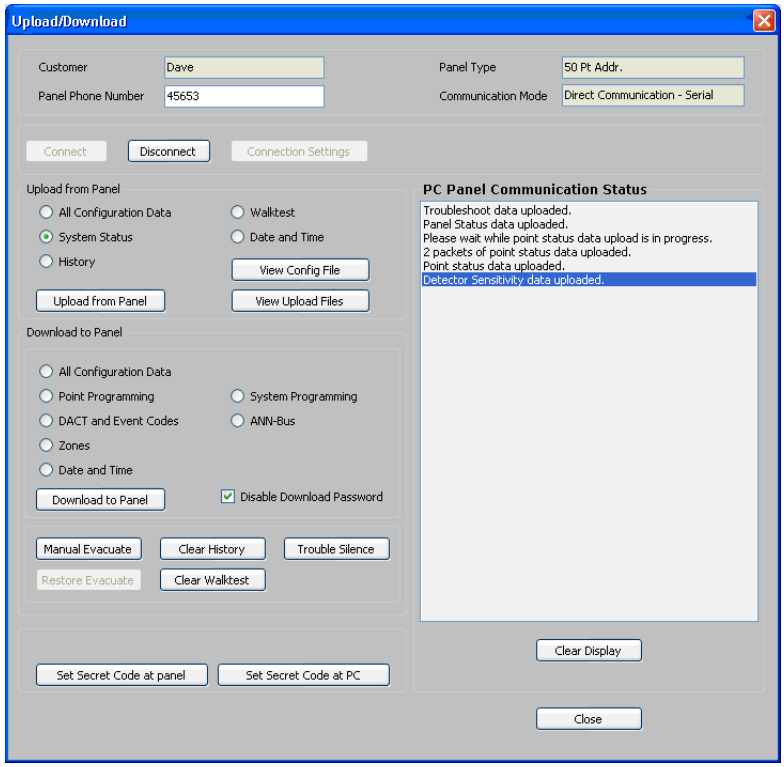
3. Under **Upload from Panel**, you can select any of the following configuration data option and then click **Upload from Panel**.

Table 0-2 Upload Options

Options	Function
System Status	Uploads all the system status information from the fire panel.
History Data	Uploads all the history data from the fire panel.
Point Status	Uploads the point status information from the fire panel.
Walktest Data	Uploads the walktest data from the fire panel.
Date and Time	Uploads the Date and Time from the fire panel.

Note To view the uploaded configuration, select the customer record and view the saved configuration.

4. Click **View Upload Files** to view all the uploaded information from the fire panel such as history data, system status data, walktest data, point status data, and detector sensitivity data, saved in the PS-Tools database. All the uploaded information are displayed in **PC Panel Communication Status**.



5. Click **Panel Reset** to reset all the panel settings.
6. Click **Alarm Silence** to silence all the alarm in the panel.
7. Click **Close** to close the **Upload/Download** dialog box after the upload/download process is completed.

7 Generating Report

Using the **Reports** option in PS-Tools, you can generate the configuration data report, which gives the configuration information of the input, output, and the fire alarm system settings. This report is generated as a *PDF* file. You can store the reports to maintain the configuration information of the fire panel at different times and dates. A printout of the configuration data report helps in manual verification of the fire alarm system settings.

To generate the report

1. Using the **Find** option from the initial customer details window in PS-Tools, select a customer record.
2. Choose **Reports** > **Configuration Data** from the initial customer details window in PS-Tools. The configuration data report for the selected customer is generated as a *PDF* file.

Fire Panel Configuration Report For 50 Pt Addr.

Customer Name: John Contact Number: 203-484-9980

System configuration

Communicator Settings

Central Station		Primary	Secondary
Communicator Enabled:	True		
No. of Rings to Answer:	00		
Trouble Call limit:	00		
Backup Reporting:	First available		
Reporting Style:	Point		
Phone Line1:	Touch Tone		
Phone Line2:	Touch Tone		
Phone Number:		FFFFFFFFFFFFFFFFFFFF	FFFFFFFFFFFFFFFFFFFF
Test Time Interval:		24 Hours	24 Hours
Account Code:		0000	0000
Test Start Time:		01:00	02:00
Communication Format:		Contact ID Format	Contact ID Format

Primary Central Station Event Codes

Event Code	Active	Restoral
Pull Station	0115	
User Defined Monitor 1	0115	
Waterflow	0113	
User Defined Monitor 2	0113	
Photoelectric Smoke	0111	
User Defined Detector 1	0111	
Ion Smoke	0111	
User Defined Detector 2	0111	
Heat Detect	0114	
User Defined Detector 3	0114	

Event Code	Active	Restoral
Duct Smoke Photo	0116	
User Defined Detector 4	0116	
Photo Heat	0111	
User Defined Detector 5	0111	
Duct Supervisory	0200	
User Defined Detector 6	0200	
Photo Super Auto Resettable	0200	
Used Defined Detector 7	0200	
Photo Adapt	0111	
User Defined Detector 8	0111	

Note You can generate the configuration report only for the configuration saved in the PS-Tools database. You cannot generate the report for *Factory Default* configuration.

By default, the configuration data report is stored in the C:\PS-Tools\Reports folder.

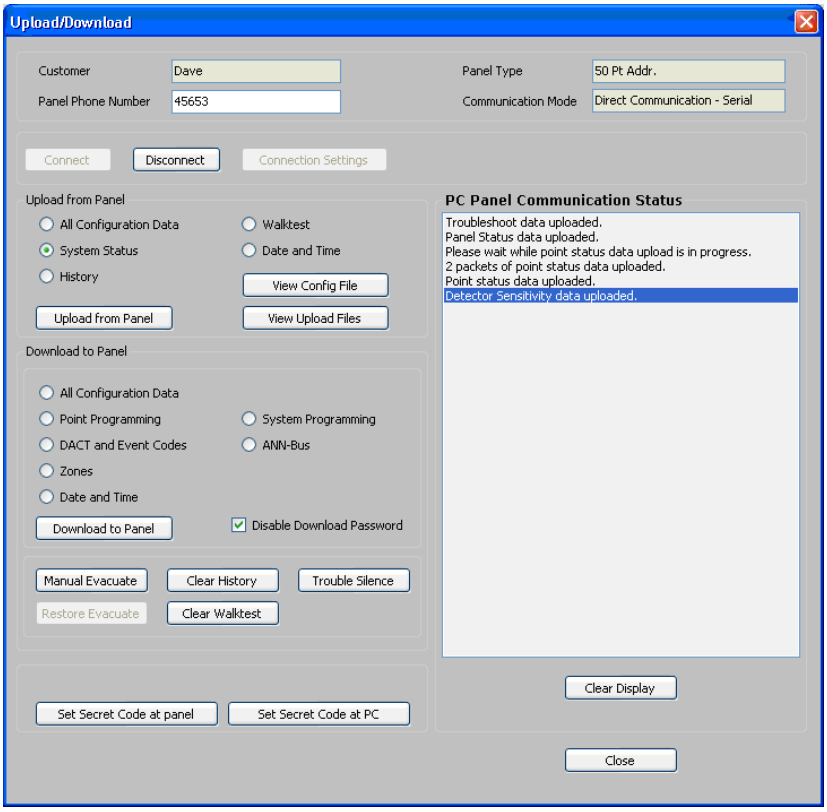
8

8 Troubleshooting

This section provides information about the commonly encountered alarms, troubles, and events in the 50 Pt Addr fire panel and the steps to resolve them.

Panel Connection Busy

Fault: The following message is displayed when you are connecting PS-Tools to fire panel.

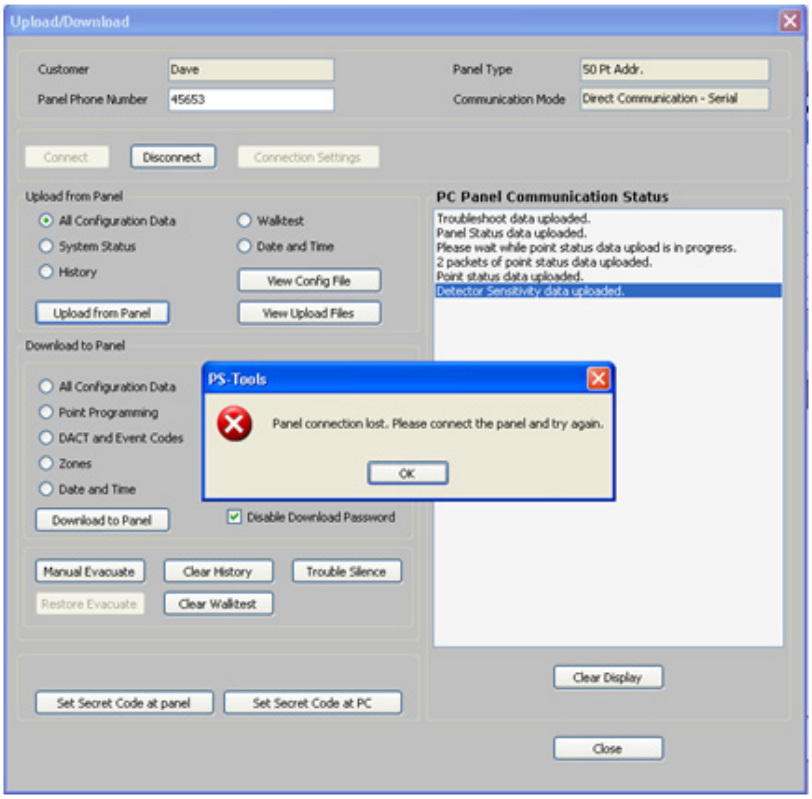


This happens when fire panel is sending panel information, alarms, or troubles to central station, if reporting is enabled.

Resolution: Reporting panel information is of priority. Hence, reconnect PS-Tools to fire panel after some time.

Panel Connection Lost

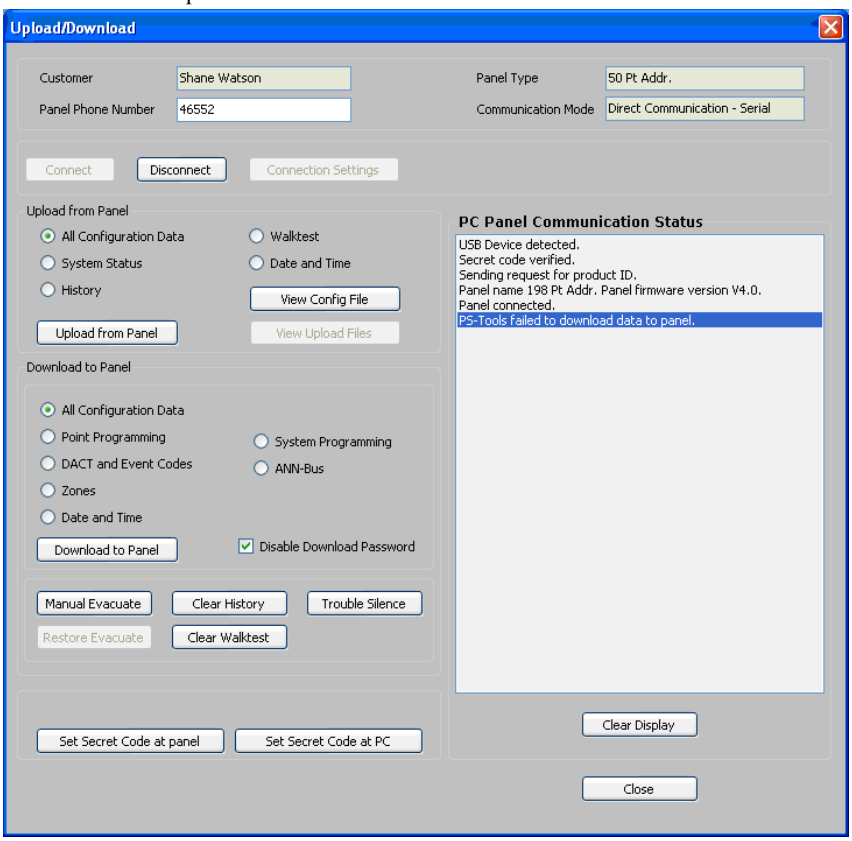
Problem: The following message is displayed when the connection between the computer and fire panel is lost.



Resolution: Check the serial port connection between the computer and the fire panel.

PS-Tools Failed to Download Data to Panel

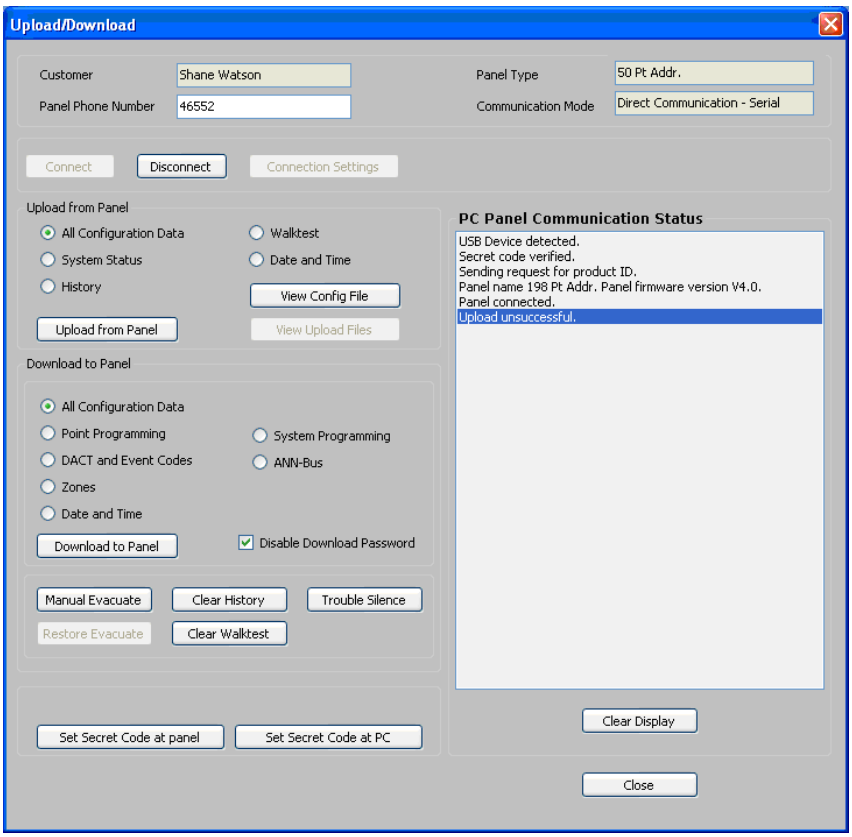
Problem: The following message is displayed in **PC Panel Comm Status** when PS-Tools cannot download data to fire panel.



Resolution: Check the power connection for the fire panel which might be turned off and also check for the serial port connection.

PS-Tools Failed to Upload Data from Panel

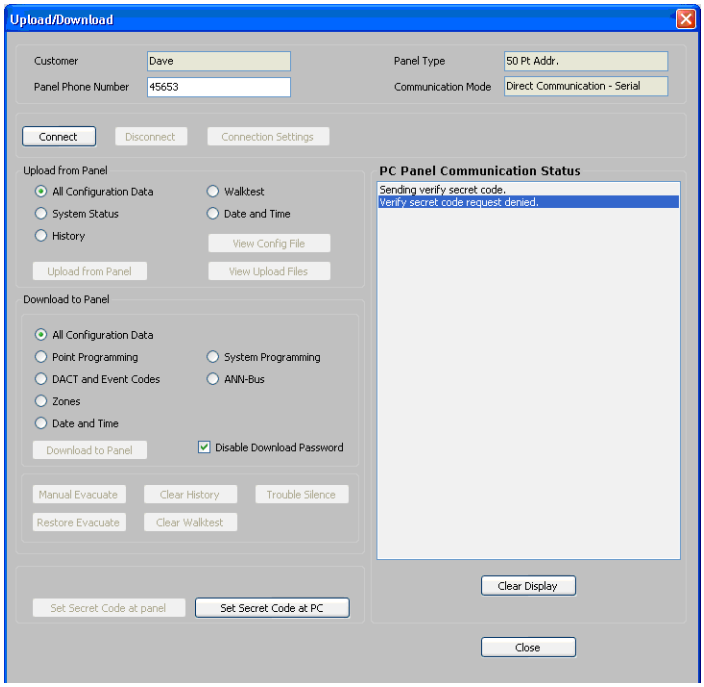
Problem: The following message is displayed in **PC Panel Comm Status** when PS-Tools cannot upload data from fire panel.



Resolution: Check the power connection for the fire panel which might be turned off also check for the serial port connection.

Request Denied for Verify Secret Code

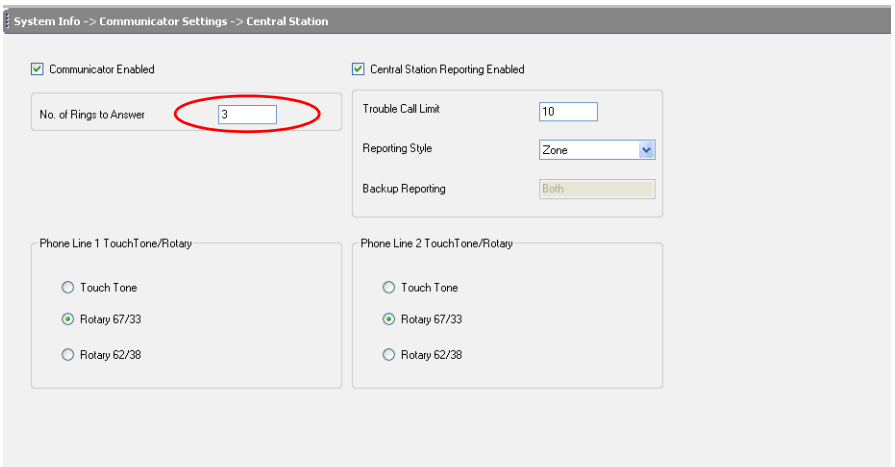
Problem: The following message is displayed in **PC Panel Comm Status** when the secret code verification fails.



Resolution: In the **Upload/Download** screen, use the **Set Secret Code at panel** option to verify and if required, change the panel secret code.

Ring Count Error

Fault: The following message is displayed when you are connecting PS-Tools to the fire panel.

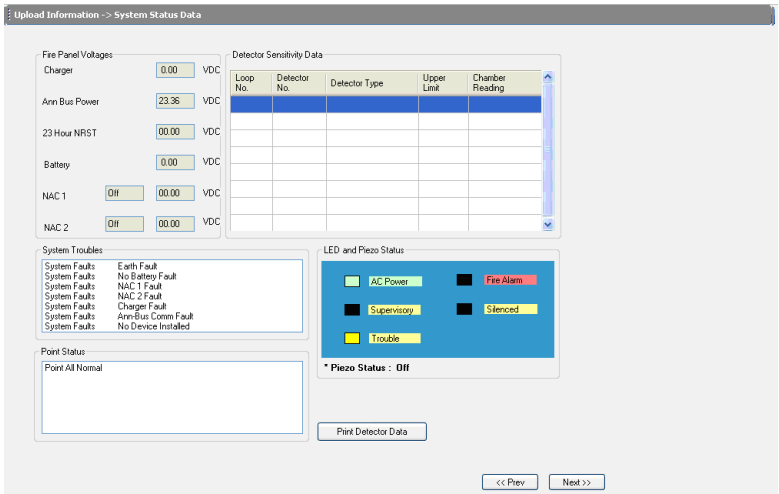


This happens when ring count is set to zero.

Resolution: Set the ring count to a value other than zero, to establish the connection.

Other Fire Alarm System Events

Problem: The troubleshoot data, uploaded from the fire panel into PS-Tools, displays the detector sensitivity data, LED and piezo status, and NAC status. In addition, it displays the list of currently active system or point events such as troubles, alarms, and supervisory.



A

Appendix

Coding Selection

The Coding feature allows you to specify the type of output the main circuit board NAC generates, when activated. The various coding selections are:

- **Steady** - a continuous output with no coding.
- **March Time** - 120 ppm (pulse-per-minute) output.
- **California** - 10 seconds on and 5 seconds off.
- **Temporal** - ½ second on, ½ second off, ½ second on, ½ second off, ½ second on, 1½ second off.
- **Two Stage 3 Minutes or 5 Minutes** - For more information about Two Stage Operation, see *Two Stage Operation*.
- Synchronized output for System Sensor, Wheelock, Gentex, Faraday, or Amseco. For more information about Synchronized NAC Operation, see *Synchronized NAC Operation*.

Two Stage Operation

Two Stage operation consists of the following:

- 1st stage output - 20 ppm (pulse-per-minute) coding
- 2nd stage output - Temporal coding

If Two Stage operation is programmed as the Coding option, the following sequence of events occurs during an alarm.

1. The on-board NACs are activated with a 1st stage output on activation of any alarm point.
2. If the activated alarm point is directly mapped to a zone which is programmed to an on-board NAC, that NAC goes directly to 2nd stage coding output. All other NACs not directly mapped to the activated alarm point's zone but assigned to Zone 0, activate with a 1st stage output.
3. If, after the programmed time of 3 or 5 minutes, the Acknowledge switch is <u>not</u> pressed, all NACs presently in 1st stage activation go to the 2nd stage activation.

4. If an Acknowledge switch is pressed, the NACs currently in 1st stage activation remain in 1st stage. Pressing the Acknowledge switch does not affect NACs already in 2nd stage activation.
5. If another alarm point is activated and the countdown timer is counting, the alarm point has no effect on the NACs unless the alarm point's zones are directly mapped to one of the NACs. In this case it follows the procedure outlined in step 2.
6. If another alarm point is activated and the countdown timer has stopped counting due to the Acknowledge switch being pressed, the countdown timer restarts and the NACs respond as outlined in step 2. NACs already in 2nd stage activation are not affected.
7. Any control modules assigned to special Zone 99 are activated either by direct mapping of an input device programmed to Zone 99 or if the timer counts down to zero.
8. Control modules programmed to the same zone as the activated input device are activated without delay.

Synchronized NAC Operation

Synchronization is a panel feature that controls the activation of notification appliances in such a way that all devices turn on and off at exactly the same time. This is particularly critical when activating strobes which must be synchronized to avoid random activation and a potential hazard or confusion. The FACP can be programmed to operate with a variety of manufacturer's devices.

Note When a Notification Appliance Circuit with a mix of audible and visual devices is programmed for silenceable and the synchronization feature is selected, only the audible devices are turned off if the Silence key is pressed. The visual devices (strobes and other devices) continue to operate.

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