

PAT SYSTEM DATA MANAGER OPERATION MANUAL

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Software Version: 2.1.1

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Email:
techsupport@panduit.com

EU Website:
www.panduit.com/emea

EU Email: emeatoolservicecenter
@panduit.com



www.panduit.com

Panduit Corp. • USA Technical Support
Tel: 1-800-777-3300

Panduit Europe • EMEA Service Center
Almelo, Netherlands
Tel: +31 546 580 452 • Fax: +31 546 580 441

System Requirements

- Windows XP SP3, Windows Vista 32/64 bit, Windows 7 32/64 bit
- Internet Explorer 6.0 or later
- Pentium 4 processor or equivalent
- 1 GB of RAM
- 200 MB hard disk space available
- Mouse or compatible pointing device
- 1024 x 768 or higher-resolution display with 16-bit color or better
- CD-ROM
- Network Connection with Fixed IP Address
- Administrator privileges required for software installation

Server versus Client

Server and Client Requirements

The Data Manager Server is the computer that communicates with all the Ethernet-enabled Panduit Automatic Cable Tie Installation systems. There should be only one server in the network running the server version of the Data Manager Software. All the Ethernet-enabled PAT Systems must be configured with the IP Address of the Data Manager server.

The Data Manager client is a computer that accesses the Data Manager Server to display the information retrieved from the dispensers. The client is "Read-only". To edit or add anything to the database, the Data Manager server computer must be used.

In order for the Data Manager client to display the information on the Data Manager server, the server must have the Data Manager Installation directory accessible from the network through a folder share. The folder share must allow read/write privileges. The computer running the Client version of the Data Manager Software must have a drive letter mapped to the shared folder on the Data Manager server. After installing and running the Client version of the Data Manager Software, the software will ask for the path to the Data Manager database.

Data Manager Features

- Tree View – This tree contains all the Dispensers and Tools sorted by both serial number and location.
- Location Editor – This is used to enter the location of the Dispenser. The location of the tool will automatically be the same as the Dispenser to which it is connected. If a tool is not connected to a Dispenser, the tool will be at location "Unknown".
- List of Tools – This list contains all the Dispensers and Tools that match the selection in the Tree View.
- Message Log – Contains all the messages stored in the database. If a particular dispenser or tool is selected in the Tree View, then the message log will show only the messages pertaining to the selected device. The message log can be filtered to show only the messages that match the user's selected criteria (Filter Message Log button).
- Maintenance Log – This log can be used to enter any information pertaining to a particular Dispenser or Tool. The log will automatically record the date and time of the entry along with the serial number and cycle count of the selected Dispenser or Tool. The Maintenance Log will automatically record any "Dispenser needs routine maintenance" and "Tool requires routine maintenance" messages that appear in the message log.
- E-mail – The system can automatically send e-mails for any message that appears in the message log. The e-mail is sent upon the creation of the message and is sent only to the user or users designated.

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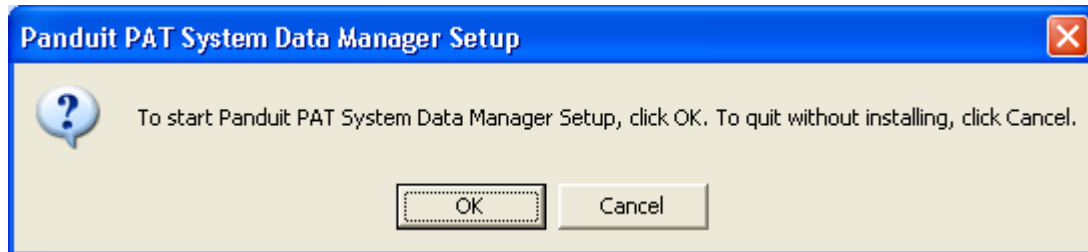
- Settings – Offline Mode – the Data Manager program will wait for the Dispenser(s) to send data. Online Mode – the Data Manager program will query the Dispensers for its current status at the interval specified by the “Scanning Interval” entry.

Dispenser Requirements

- PDM-DI, PDM4.0 or PDS-DI
- Network Connection with Fixed IP Address

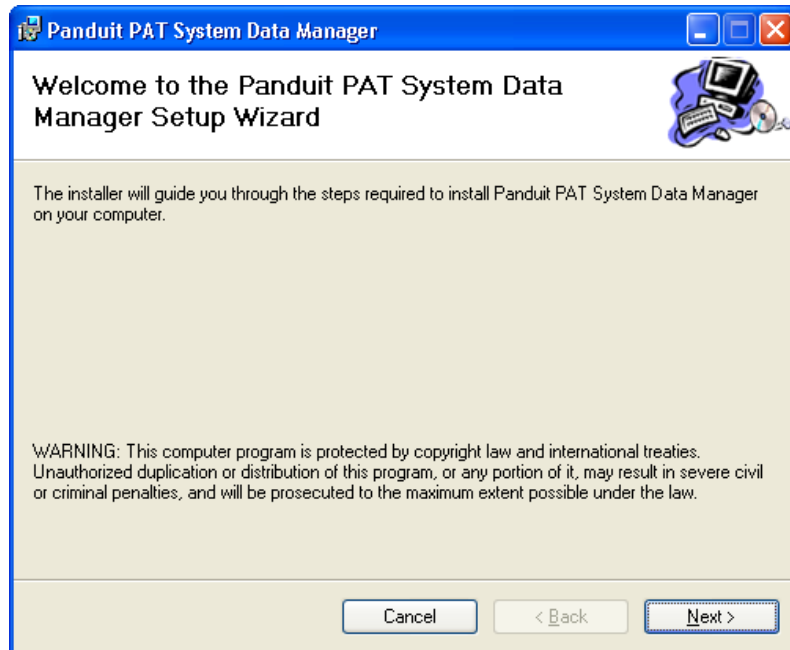
Software Installation

1. Insert the CD into the CD-ROM drive of the target computer.
2. On the Windows desktop (or on the Start Menu in Windows XP), click on the icon called **My Computer**.
3. Double-click the icon for the CD-ROM drive containing the CD.
4. Find the file called **Setup.exe** and double-click on it.

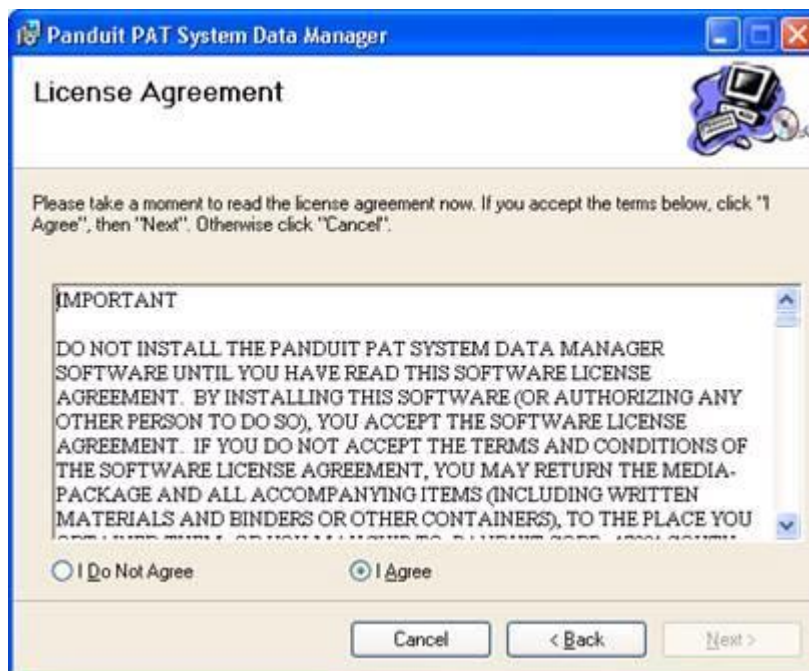


5. Click on **OK**.
6. If you get a dialog box asking to install .NET Framework, click on Yes. Otherwise, go to step 8.
7. Follow the prompts to install .NET Framework 1.1.
8. If MDAC 2.7 or later is already installed on the computer, go to the next step. Otherwise, follow the prompts to install MDAC 2.7.
9. The PAT System Data Manager Setup Wizard starts.

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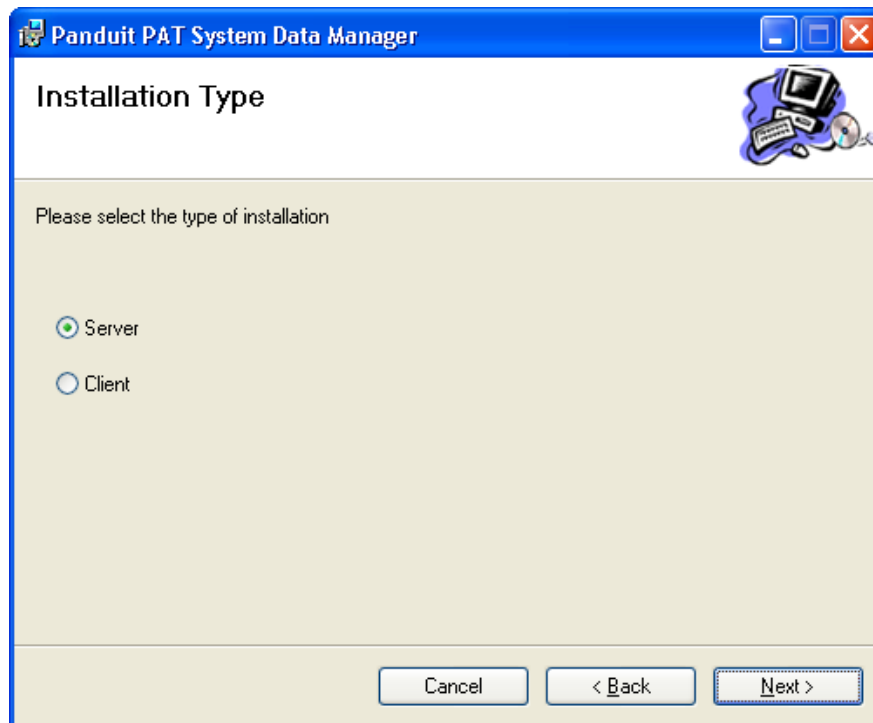


10. Click on **Next**.

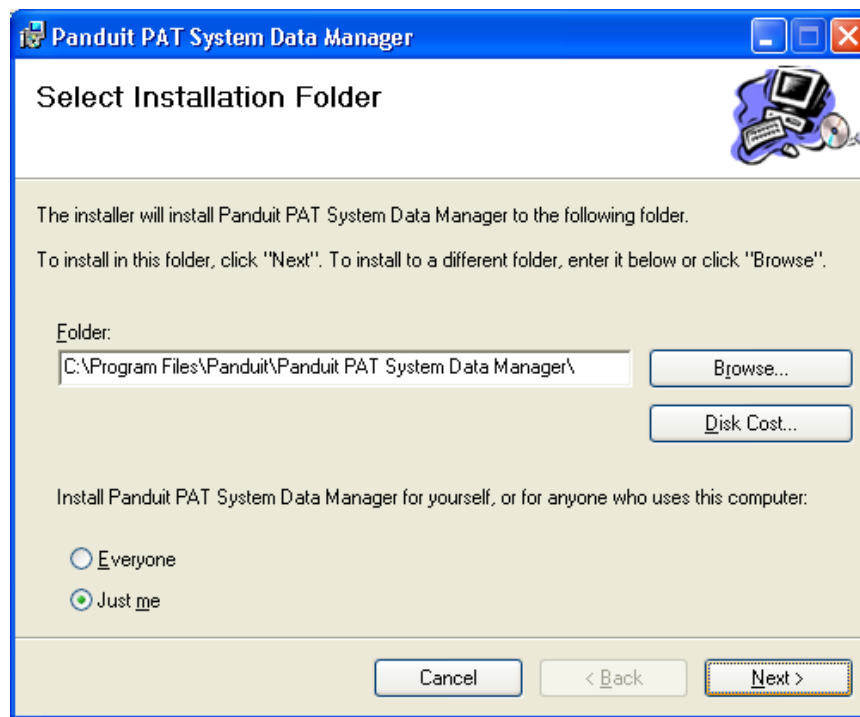


11. Click on **I Agree** and on **Next**.

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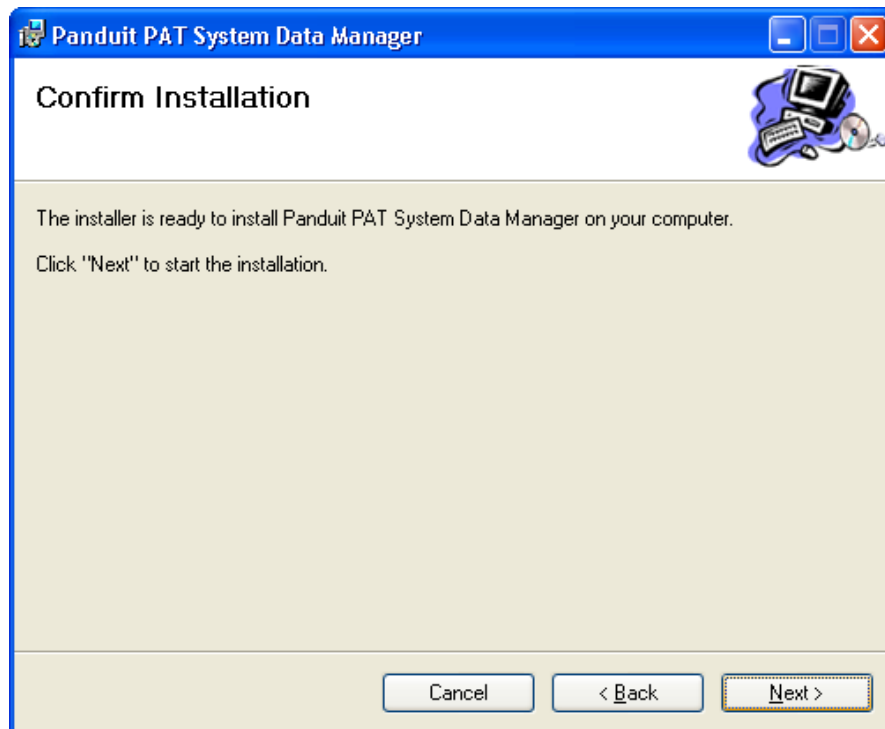


12. Click on **Server** if installing the Data Manager on the computer that will be gathering data from the dispensers. Click on **Client** if installing the Data Manager on a computer that will access the data remotely for viewing purposes only.
13. Click on **Next**.

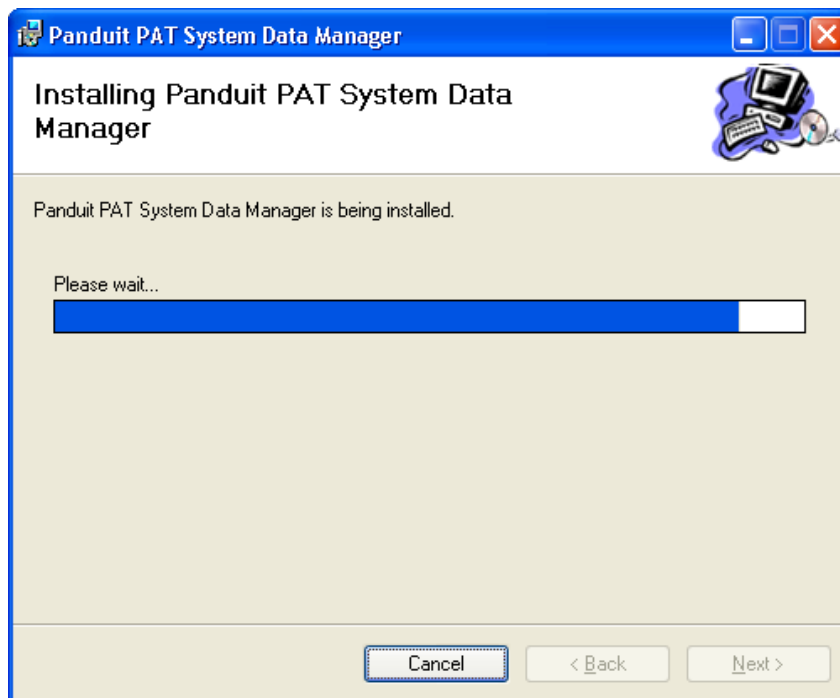


14. Click on **everyone** if many people will be using the computer under different Windows login names, and everyone wants access to the program. Otherwise, click on **Just Me**.

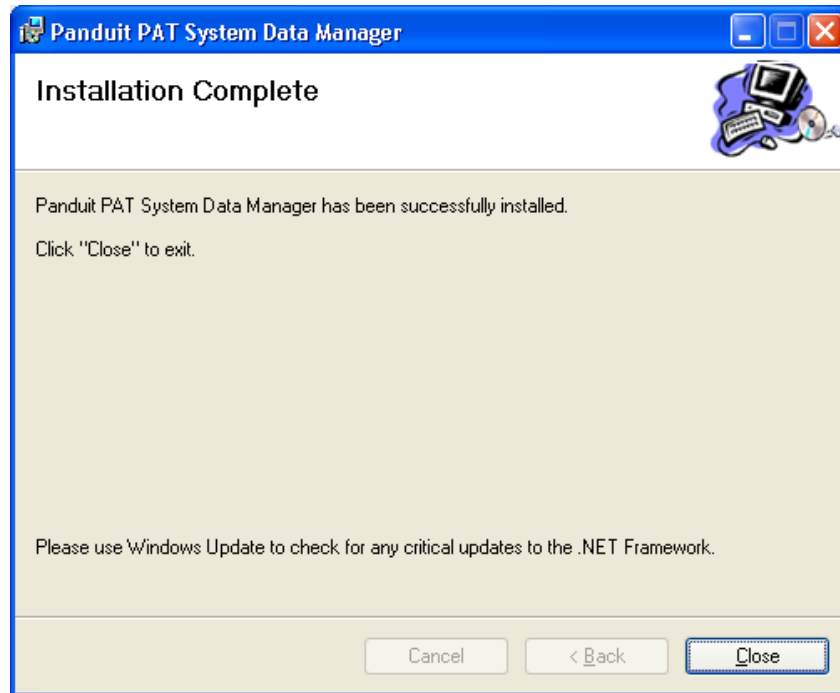
15. Click on **Next**.



16. Click on **Next**.



17. Wait until the installation is complete.



18. Click on **Close**.

Dispenser Configuration

In order for an Ethernet-enabled Panduit Automatic Cable Tie dispenser (PDM-DI, PDM4.0 or PDS-DI) to communicate on a network, the network parameters of the Serial Server inside of the dispenser need to be entered. To do this, please follow the instructions in the Serial Server User Manual that was provided with your dispenser.

The User Manual provides many options for configuring the Serial Server within the dispenser. These options include:

- Using the Management Software
- Web Browser
- Console Mode
- Telnet

Configure the Serial Server inside the dispenser using any of the methods described in the User Manual EXCEPT for Console Mode. Console Mode requires making a direct connection inside the dispenser and is NOT recommended. It is recommended to use any of the other methods that allow configuration through the Ethernet. The default IP Address of the dispenser is 192.168.0.1.

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All settings should be left at the factory defaults except for the ones listed below:

- Server Name (name of the dispenser)
- IP Address (IP Address of the dispenser)
- Netmask
- Gateway
- Remote IP Address (IP Address of the server computer running the Data Manager Software)

The screenshot shows the 'Server Properties' dialog box for a B&B Electronics VLINX ESP device. The dialog is organized into several sections:

- General Information:** Server name (ESP901), Serial number (0526012948), Password (empty), DHCP (Disable), IP address (192.168.0.1), Netmask (255.255.255.0), Gateway (192.168.0.254), MAC address (00:08:84:11:32:94), Version & Date (1.8 & 4/6/05), Link status (100/Full Duplex), and Hardware ID (NA).
- Serial Port Settings:** Serial port (1), Baud rate (9600), Data/Stop bits (8-1), Parity (None), Flow control (None), and Protocol (TCP).
- Connection Settings:** Delimiter HEX 1 (00), Delimiter HEX 2 (00), Force transmit (0 x100ms (0-65535)), Port status (Not Connected), TCP/UDP port (4000), Serial port mode (RS232), Serial timeout (0 (0-65535 sec)), Connection at (Power up), TCP alive timeout (0 (0-255 min)), Maximum connection (1), and Remote IP address (255.255.255.255).
- Buttons:** 'Update' and 'Cancel' buttons are located at the bottom.

Figure 1. Example Serial Server Properties (Default settings)

NOTE:

The Serial Server CD is needed only for configuring the dispenser. The installation package of the Data Manager Software installs on the server all the components needed to communicate with a dispenser. No additional drivers from the Serial Server CD need to be installed or configured on the computer running the Data Manager Software.

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Overview

The Panduit PAT System Data Manager user interface is divided into three sections.

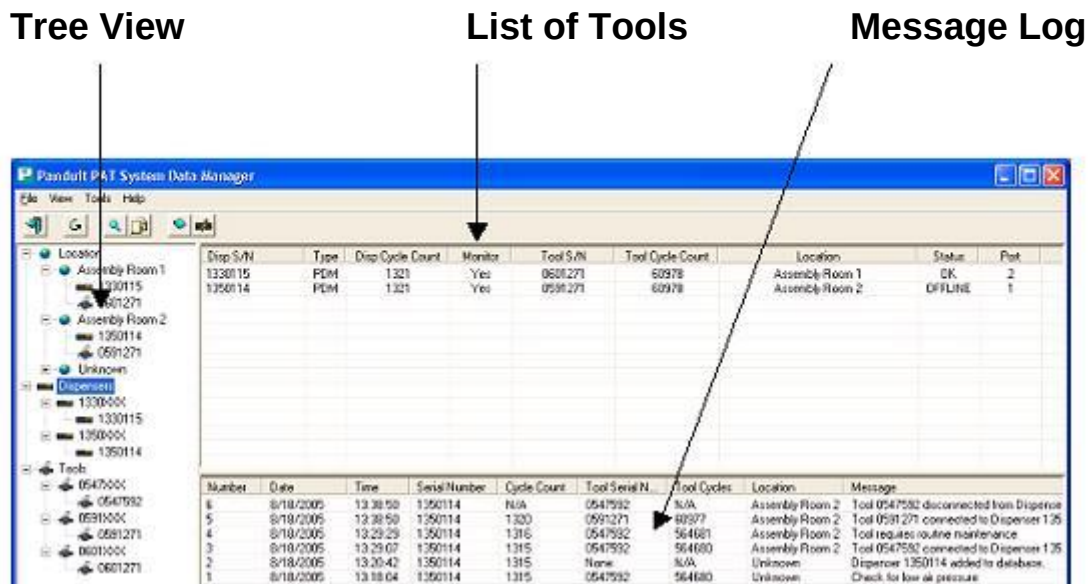


Figure 2. Panduit PAT System Data Manager User Interface Layout

Tree View

The tree view shows a list of dispensers and tool heads sorted by location and serial number.

Selecting “Location” will cause all the dispensers and tool heads to be shown in the List of Tools. Selecting a particular location (such as Assembly Room 1) will cause all the dispensers and tool heads in that location to be shown in the List of Tools.

Selecting “Dispensers” will cause all the dispensers to be shown in the List of Tools. Selecting a serial number family (such as 1330XXX) will cause all dispensers in that serial number family to be shown in the List of Tools.

Selecting “Tools” will cause all the tool heads to be shown in the List of Tools. Selecting a serial number family (such as 0547XXX) will cause all tool heads in that serial number family to be shown in the List of Tools.

Selecting a serial number will show the details for the selected device.

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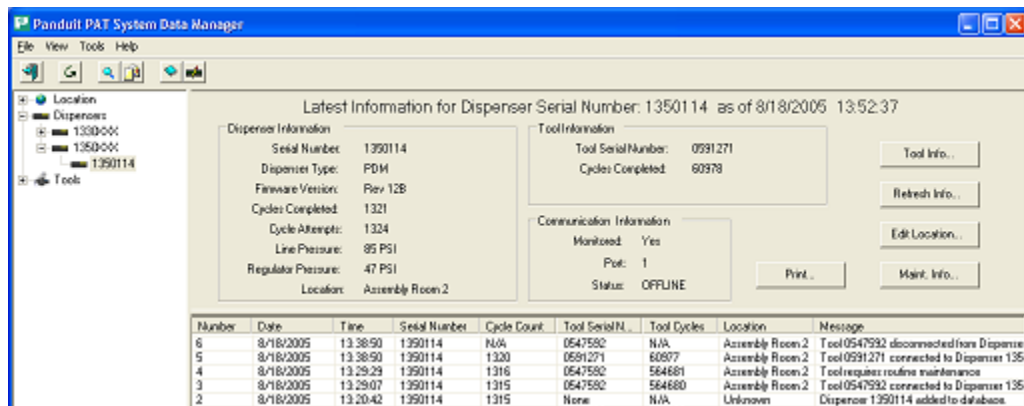


Figure 3. Details for Dispenser.

List of Tools

The list of tools contains all the dispensers and/or tool heads in the database that match the selection in the Tree View.

The list of tools contains basic information such as Dispenser Serial Number, Dispenser Type, Dispenser Cycle Counts, Tool Serial Number, Tool Cycle Counts, Location, Communication Status, Communication Port Number, and Monitoring Status.

Disp S/N	Type	Disp Cycle Count	Monitor	Tool S/N	Tool Cycle Count	Location	Status	Port
1330115	PDM	1321	Yes	0601271	60978	Assembly Room 1	OK	2
1350114	PDM	1321	Yes	0591271	60978	Assembly Room 2	OFFLINE	1

Figure 4. List of Tools Information.

Message Log

The message log contains all the messages stored in the database. If a particular dispenser or hand tool is selected in the Tree View, then the message log changes to display only the messages pertaining to the selected device.

Location Editor

The location of each dispenser is manually entered into the Panduit PAT System Data Manager. The Location Editor can be launched in three ways:

- Select “**Location Editor...**” from the main menu under “Tools”
- Click on the  button on the toolbar.
- Click on the “**Edit Location...**” button while viewing the details of a particular dispenser.

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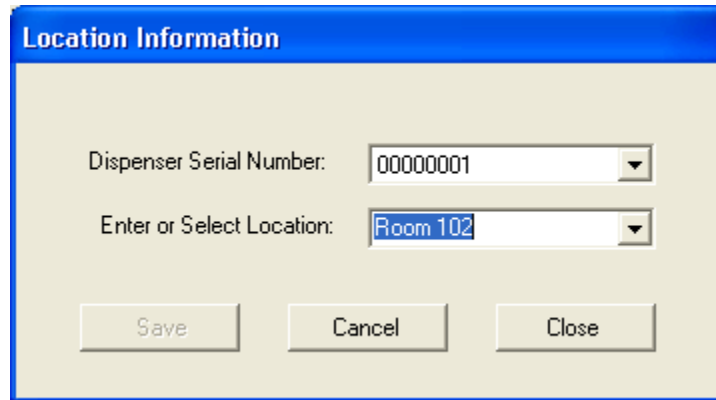


Figure 5. Location Information Dialog Box.

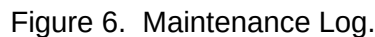
Editing Location Information

1. If the desired dispenser is not already selected, select the dispenser serial number from the Serial Number drop down box.
2. Select the location from the Location drop down box. If the desired location is not listed, enter the location in the text box.
3. Click on the **“Save”** button.
4. Repeat steps 1 to 3 for other dispenser serial numbers.
5. Click on the **“Close”** button.

Maintenance Log

The Panduit PAT System Data Manager contains an electronic Maintenance Log. This log can be used to enter any information pertaining to a particular dispenser or hand tool. The log will automatically record the date and time of the entry along with the serial number and cycle count of the selected dispenser or hand tool. The Maintenance Log can be launched three ways:

- Select **“Maintenance Log...”** from the main menu under “Tools”
- Click on the  button on the toolbar.
- Click on the **“Maint. Info...”** button while viewing the details of a particular dispenser.



After launching the Maintenance Log, the entries in the log will be shown. The entries shown can be filtered using the Tool Type and Serial Number drop down boxes. Double-clicking on a maintenance log entry will automatically cause the log to be filtered to show only the messages pertaining to that same device.

1. Select the desired dispenser or hand tool using the “Tool Type” and “Serial Number” drop down boxes.
2. Click on the **“Add Msg...”** button at the bottom of the Maintenance Log window.



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Exporting the Maintenance Log

The Maintenance Log can be exported to a file.

To export the Maintenance Log:

1. Click on the **“Export...”** button at the bottom of the Maintenance Log window.

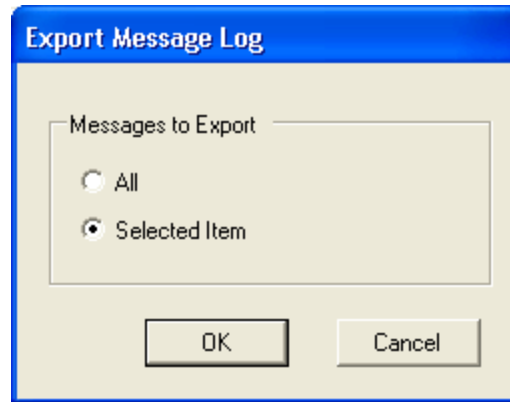


Figure 8. Export Maintenance Log Dialog Box

2. Select which messages to export.
3. Click on the **“OK”** button. The **“Save Maintenance Log As”** dialog box opens.

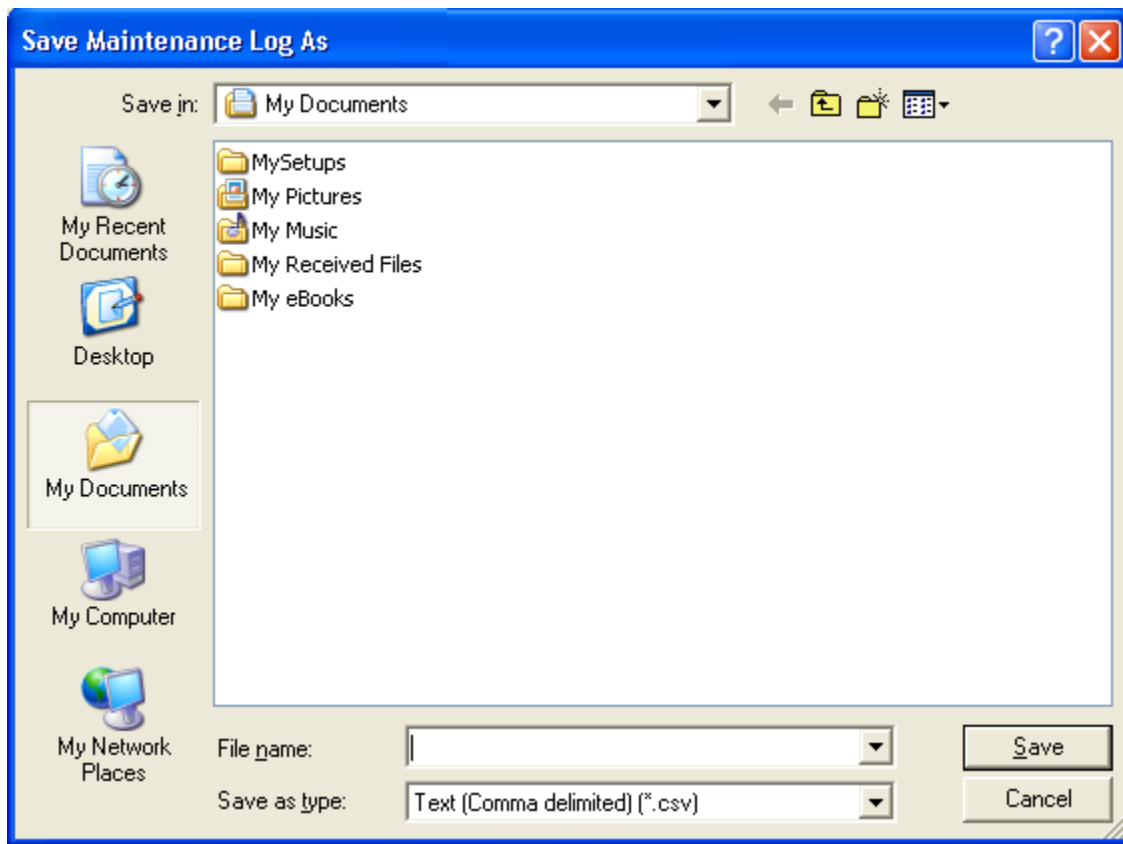


Figure 9. Save Maintenance Log As Dialog Box

4. Enter the desired filename.

5. Click on the **“Save”** button.

Clearing the Maintenance Log

Entries in the Maintenance Log can be cleared.

To clear the Maintenance Log:

1. Click on the **“Clear...”** button at the bottom of the Maintenance Log window.

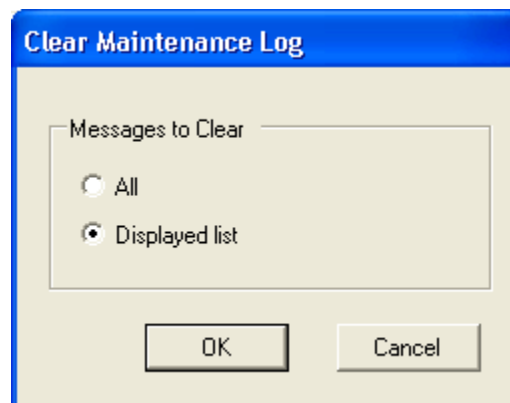


Figure 10. Clear Maintenance Log Dialog Box

2. Select which messages to clear.
3. Click on the **“OK”** button. The **“Save Log”** dialog box will appear.

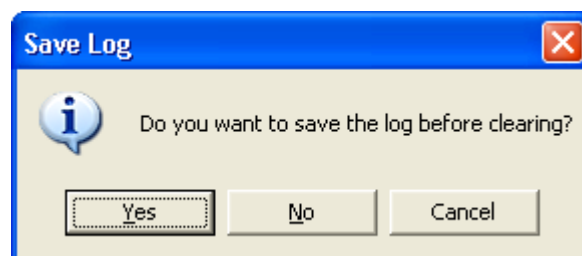


Figure 11. Save Log Dialog Box

4. Make the desired selection.

Messages

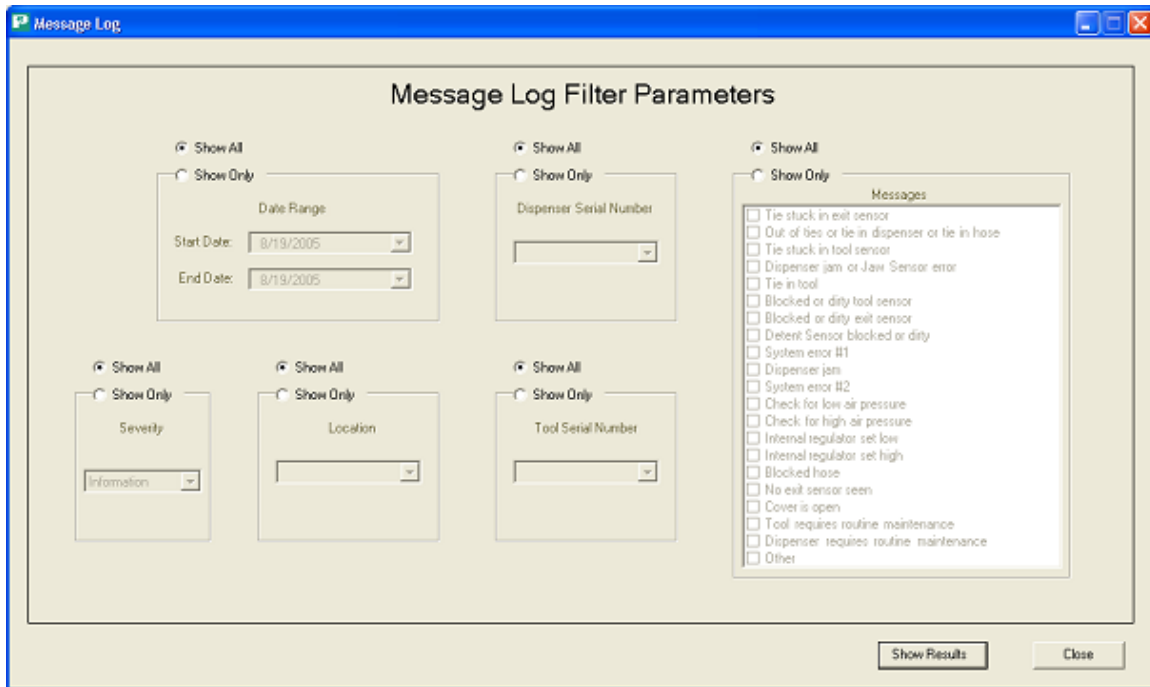
The message log contains all the messages stored in the database. If a particular dispenser or hand tool is selected in the Tree View, then the message log changes to display only the messages pertaining to the selected device.

Filtering Messages

The message log can be manually filtered. The Message Log Filter dialog window can be launched in two ways:

- Select **“Filter Message Log...”** from the main menu under **“Tools”**
- Select the **“Filter Log...”** button on the bottom of the main screen

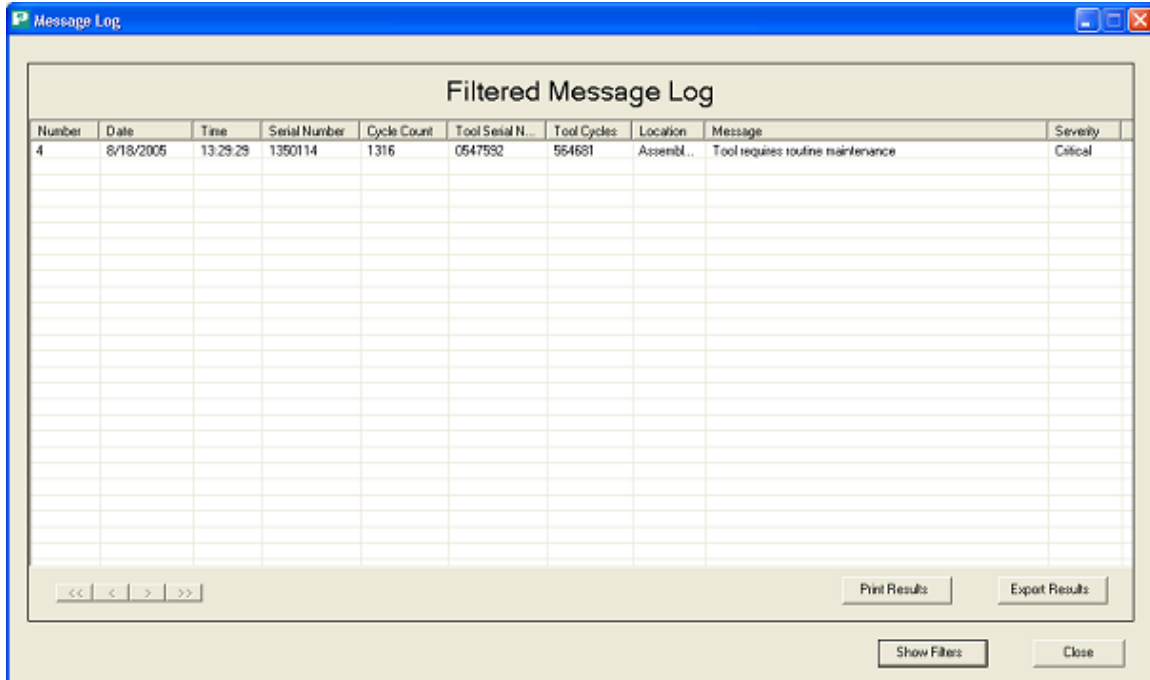
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The "Message Log Filter Parameters" dialog window is used to filter messages. It contains several sections with "Show All" and "Show Only" radio buttons. The "Date Range" section has "Start Date" and "End Date" dropdowns, both set to 8/19/2005. The "Dispenser Serial Number" and "Tool Serial Number" sections have empty dropdown menus. The "Severity" section has a dropdown menu set to "Information". The "Location" section has an empty dropdown menu. The "Messages" section is a list of checkboxes for various error types, including "Tie stuck in exit sensor", "Out of ties or tie in dispenser or tie in hose", "Tie stuck in tool sensor", "Dispenser jam or Jaw Sensor error", "Tie in tool", "Blocked or dirty tool sensor", "Blocked or dirty exit sensor", "Detent Sensor blocked or dirty", "System error #1", "Dispenser jam", "System error #2", "Check for low air pressure", "Check for high air pressure", "Internal regulator set low", "Internal regulator set high", "Blocked hose", "No exit sensor seen", "Cover is open", "Tool requires routine maintenance", "Dispenser requires routine maintenance", and "Other". At the bottom right are "Show Results" and "Close" buttons.

Figure 12. Message Log Dialog Window

Enter the filter parameters and click on the **"Show Results"** button.



The "Filtered Message Log" window displays a table of filtered messages. The table has columns for Number, Date, Time, Serial Number, Cycle Count, Tool Serial N., Tool Cycles, Location, Message, and Severity. The first row shows a message with Number 4, Date 8/18/2005, Time 13:29:29, Serial Number 1350114, Cycle Count 1316, Tool Serial N. 0547592, Tool Cycles 554681, Location Assembl..., Message Tool requires routine maintenance, and Severity Critical. At the bottom left are navigation buttons: <<, <, >, >>. At the bottom right are "Print Results", "Export Results", "Show Filters", and "Close" buttons.

Number	Date	Time	Serial Number	Cycle Count	Tool Serial N.	Tool Cycles	Location	Message	Severity
4	8/18/2005	13:29:29	1350114	1316	0547592	554681	Assembl...	Tool requires routine maintenance	Critical

Figure 13. Message Log Filter Results.

If needed, click on the **"Show Filters"** button to redefine the filter parameters.

If desired, click on the **"Export Results"** button to export the results that are displayed.

Exporting Messages

The message log can be exported for further analysis. The Export Messages dialog box can be launched two ways:

- Select **“Export Message Log...”** from the main menu under “Tools”
- Select the **“Export Log...”** button on the bottom of the main screen

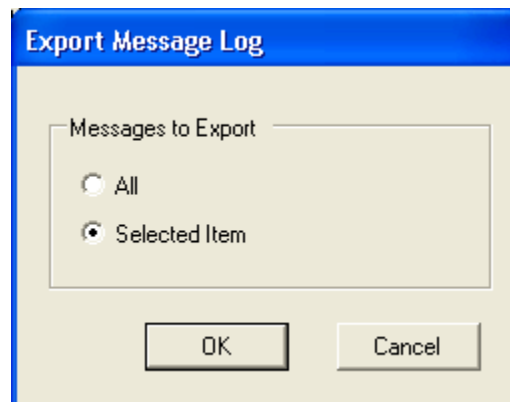


Figure 14. Export Messages Dialog Box.

Select which messages to export and click the **“OK”** button.

NOTE: The Export Messages Dialog Box will appear only if a dispenser or hand tool is selected in the Tree View. Otherwise, the “Save Message Log As” dialog box will appear.

Clearing Messages

The message log can be cleared using one of the following two methods:

- Select **“Clear Message Log...”** from the main menu under “Tools”
- Select the **“Clear Log...”** button on the bottom of the main screen

The Clear Message Dialog box will appear:

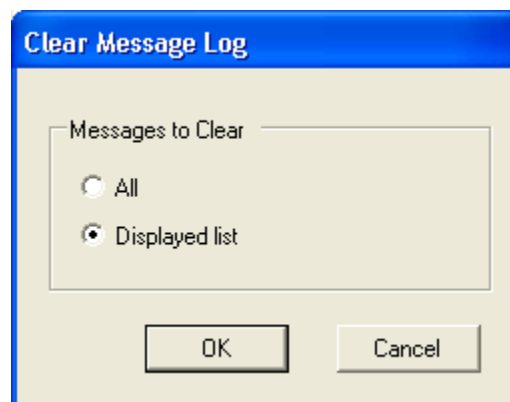


Figure 15. Clear Message Log Dialog Box

Select which messages to clear, and click on **OK**. The following dialog box will appear:

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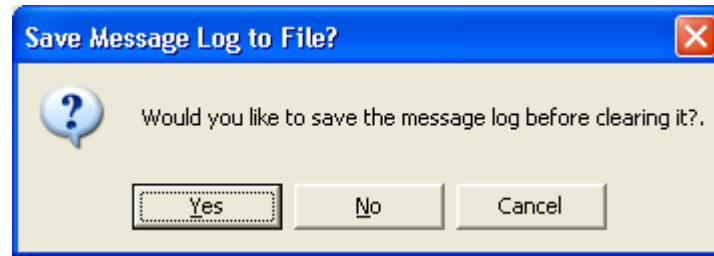


Figure 16. Save Message Log to File

Click on the desired selection.

E-mail Settings

E-mails can be sent when specific messages are generated. The Mail Settings dialog window can be launched in two ways:

- Select "**E-mail Settings...**" from the main menu under "Tools"
- Click on the  icon on the toolbar

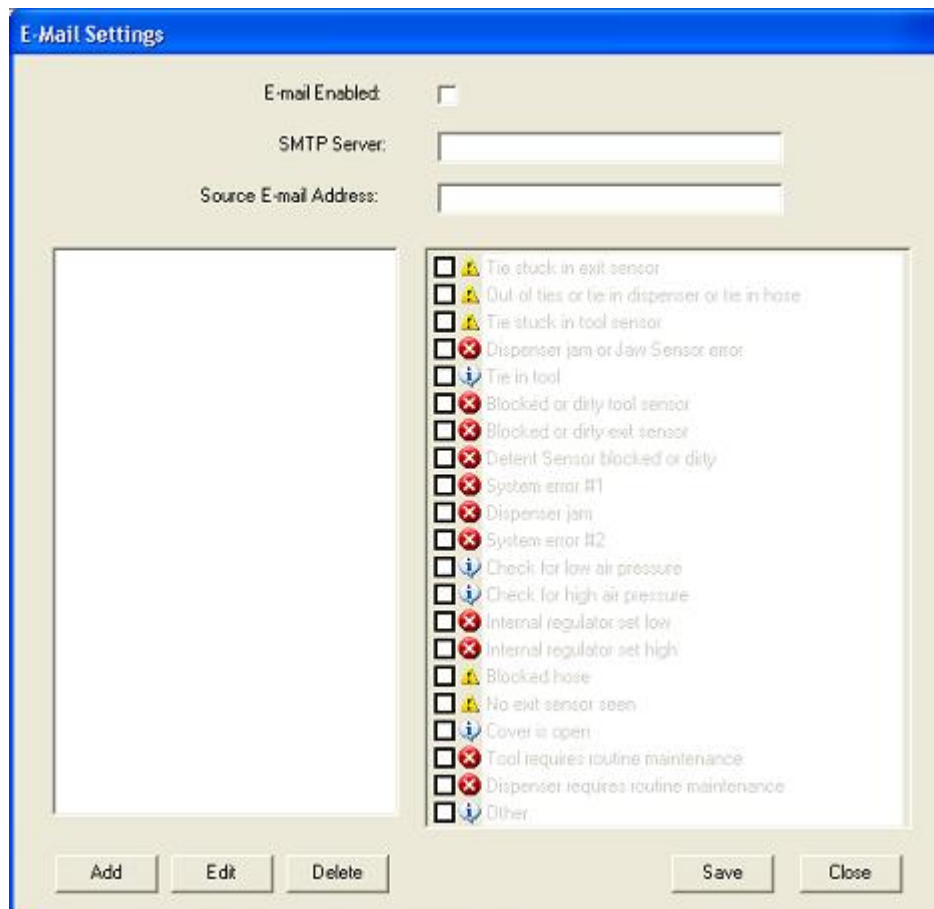


Figure 17. E-Mail Settings Dialog Window.

E-mail Server Settings

Before any e-mails can be sent, the server settings have to be established.

1. Enter the IP Address or Computer Name of the SMTP Server in the “SMTP Server” text box.
2. Enter the E-mail Address to appear in the “From” field of the outgoing e-mails in the “Source E-mail Address” text box.
3. Click on the “**E-mail Enabled**” check box.
4. Click on the “**Save**” button.

NOTE: The validity of the SMTP Server and Source E-mail Address entries are not checked.

Adding E-mail Addresses and Selecting the Messages to be Sent

The e-mail addresses and the messages that will be sent to each e-mail address need to be defined.

1. Click on the “**Add**” button in the E-mail Settings Dialog Window.

The Add E-mail Address dialog box appears.

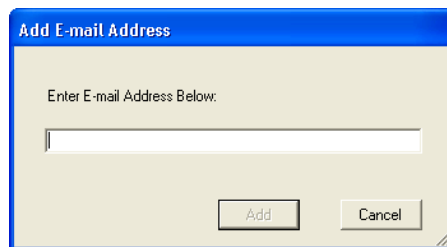


Figure 18. Add E-mail Address Dialog Box.

2. Enter the E-mail Address of the recipient.

NOTE: The validity of the E-mail Address that is entered is not checked.

3. Click on the “**Add**” button.
4. Select the e-mail address that was just entered if it is not already highlighted.
5. Select the messages to be sent to the selected e-mail address.

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The E-Mail Settings dialog box is titled "E-Mail Settings" and has a blue header bar. It contains the following elements:

- E-mail Enabled:** A checkbox that is currently unchecked.
- SMTP Server:** A text input field.
- Source E-mail Address:** A text input field.
- Recipient List:** A list box on the left containing the email address "abc@mycompany.com".
- Message List:** A list of 18 messages on the right, each with a checkbox and an icon (warning triangle or error X). The messages are:
 - ☐ Tie stuck in exit sensor
 - ☐ Out of ties or tie in dispenser or tie in hose
 - ☐ Tie stuck in tool sensor
 - ☒ Dispenser jam or Jaw Sensor error
 - ☐ Tie in tool
 - ☒ Blocked or dirty tool sensor
 - ☒ Blocked or dirty exit sensor
 - ☒ Detent Sensor blocked or dirty
 - ☒ System error #1
 - ☒ Dispenser jam
 - ☒ System error #2
 - ☐ Check for low air pressure
 - ☐ Check for high air pressure
 - ☒ Internal regulator set low
 - ☒ Internal regulator set high
 - ☐ Blocked hose
 - ☐ No exit sensor seen
 - ☐ Cover is open
 - ☒ Tool requires routine maintenance
 - ☒ Dispenser requires routine maintenance
 - ☐ Other

At the bottom, there are five buttons: "Add", "Edit", "Delete", "Save", and "Close".

Figure 19. Mail Settings for Selected Recipient.

6. Click on the **"Save"** button.
7. Repeat steps 1 through 6 for each additional e-mail address.

Modifying the Messages Sent to an E-mail Address

1. Select the e-mail address from the list.
2. Make the necessary changes to the message list.
3. Click on the **"Save"** button.

Modifying an E-mail Address

1. Select the e-mail address to modify.
2. Click on the **"Edit"** button.
3. Make the necessary changes.
4. Click on the **"Save"** button.

Deleting an E-mail Address

1. Select the e-mail address to delete.
2. Click on the **"Delete"** button. A confirmation message appears.
3. Click on the **"Yes"** button.

Settings

The Settings dialog box contains general settings for the Panduit PAT System Data Manager. These settings are: Online status and Scanning Interval. To launch the Settings dialog box, select “Settings...” from the main menu under “Tools”.

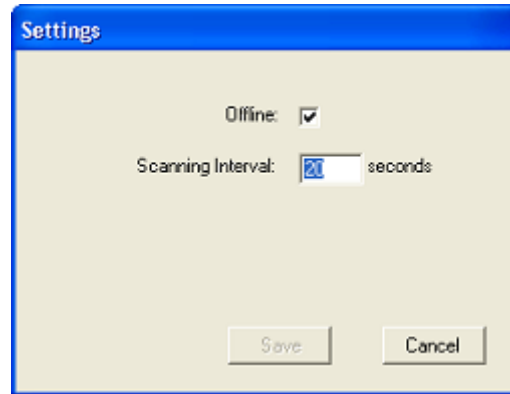


Figure 20. Settings Dialog Box.

Online

When the Panduit PAT System Data Manager is Online, the Data Manager will automatically attempt to retrieve the latest information from each dispenser that has been configured for monitoring. The information will be retrieved at the interval defined in the Scanning Interval section. When the Data Manager is not Online, information for each dispenser will be updated only when information is received from the dispenser.

Scanning Interval

The “Scanning Interval” is the time between polls for the latest dispenser information. This value is valid only when the system is Online.

Port Settings

The Panduit PAT System Data Manager uses a communication port to communicate with each dispenser. The communication ports are numbered from 1 to 250. Each communication port needs to be configured with the IP Address of the dispenser to be monitored. Each communication port can be individually enabled or disabled. The Port Settings dialog box can be launched two ways:

- Select “**Port Settings...**” from the main menu under “Tools”
- Click on the  icon on the toolbar

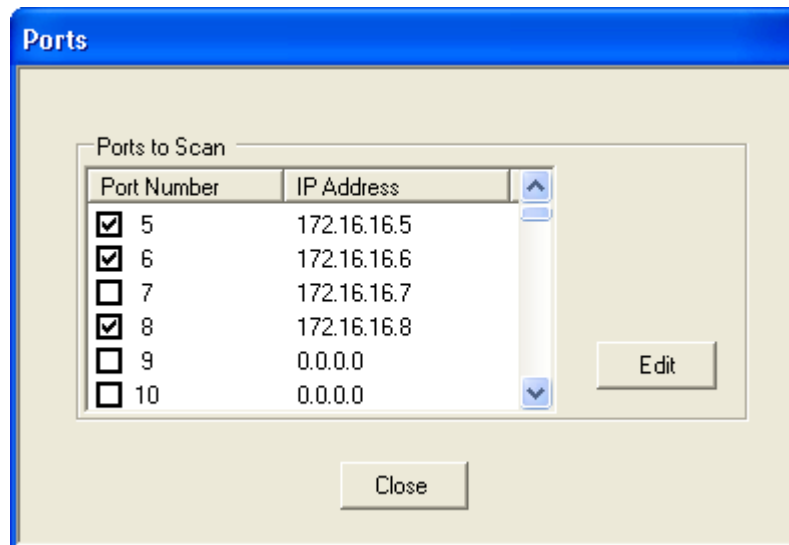


Figure 21. Port Settings Dialog Box.

Editing the IP Address

1. Highlight the port to edit by clicking on the port in the Port Settings Dialog box.
2. Click on the **"Edit"** button.

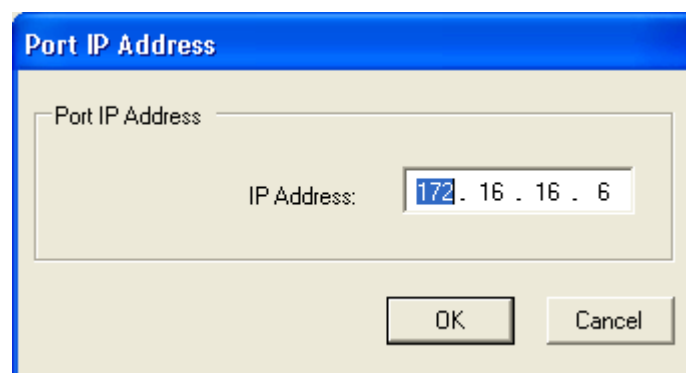


Figure 22. Port IP Address Dialog Box.

3. Enter the IP address of the dispenser assigned to the selected communication port.
4. Click on the **"OK"** button.

Enable and Disable Dispenser Monitoring

When dispenser monitoring is enabled, the Panduit PAT System Data Manager will monitor the communication port for any information from the dispenser. When dispenser monitoring is disabled, the Data Manager will not monitor the communication port and any information from the dispenser will be lost.

A ☒ indicates that the port will be monitored. A ☐ indicates that the port will not be monitored.

PAT SYSTEM DATA MANAGER OPERATION MANUAL

Troubleshooting

Problem	Possible Cause	Resolution
Dispenser information is not appearing in Data Manager Software	IP Address of Dispenser not set or enabled in the Port Settings Module.	Verify the IP Address of Dispenser is listed in the Port Settings Module of the Data Manager Software and that the checkbox for the IP Address is checked.
	Remote IP Address in Dispenser is not correct.	Confirm that the Remote IP Address setting in the Dispenser is the same as the IP address of the server computer running the Data Manager Software.
	No network connection.	Verify that both the Dispenser and computer running the Data Manager Software are connected to the network.
	Multiple network connections enabled.	Disable unused network connections.
Messages are appearing the Data Manager Software, but the cycle information is not updating.	Data Manager Software is offline.	Change the Data Manager Software mode to Online. Also, set the polling interval to the desired number.
E-mail is not being sent.	Incorrect E-mail settings.	Check the E-mail Settings: 1) Verify that E-mail is enabled. 2) Verify that the SMTP server is correct. 3) Verify that the checkbox for the desired messages are checked.

Known Issues

- If a user with Administrator privileges installs the Data Manager Software with the “Everyone” option and subsequently a user without Administrator privileges attempts to run the Data Manager Software, a “Database error” occurs. This error can be eliminated by having the Network Administrator provide to all users “write” privileges to the directory in which the Data Manager Software is installed.
- If the computer running the server version of the Data Manager Software program contains more than one active network interface card, it is possible that the Data Manager Software program will not be able to communicate with any of the dispensers in the network. If this is the case, disable all of the network cards except for the one used to communicate with the dispenser(s).