

Intermec Printer Network Manager v2.1 Information in this manual is subject to change without prior notice and does not represent a commitment on the part of Intermec Printer AB.

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## Introduction

## Description

Intermec Printer Network Manager (IPNM) is a software tool that provides centralized remote printer management across a TCP/IP network. It runs under most Microsoft Windows operating systems. It ships with all printers on the Printer Companion CD.

The purpose of IPNM is to let you remotely manage, supervise, and control Intermec printers that are connected to an Ethernet network. Full functionality requires that the printer is fitted with an EasyLAN 100i interface board.

IPNM is a powerful tool that enables the printers to send real-time Email alerts in case of problems such as out-of-paper, head lifted, or out-of-ribbon. Alerts can be forwarded to any Email-enabled device, such as a text pager, a cellular phone, or a PC.

The Intermec Printer Network Manager gives the network administrator:

- Full management of all printers from a central location. Easy overview and access to all printers on the network.
- The ability to group printers into functional groups for easier management. Easy to use and easy to administrate large printer populations.
- Real-time alert messaging from each printer or group.
- Error and alert statistical reports by group or by printer.

You can also change printer settings using the printer's home page, Telnet, or remote keyboard. FTP lets you download files to the printer.

## Requirements

### Printer

- Intermec EasyCoder printer with the EasyLAN 100 interface, such as 501XP, 601XP, F2, F4, PF2i, PF4i, PM4i, PX6i, and PX4i (full functionality)
- Intermec EasyCoder printer with the EasyLAN 10 or the EasyLAN Wireless interface (limited functionality)
- Intermec Fingerprint v7.61 (or higher) or IPL v2.00 (or higher).

### Computer

- PC with at least 20 MB free disk space (more if you want to keep a log file).
- Microsoft Windows NT4/2000/XP (preferred) or Microsoft Windows 95/98/Me.
- Internet Explorer v5.01 or later.
- SNMP Port 161 and 162 must be available.

## **Installing IPNM**

## Instructions

You can get the free installation file from the Printer Companion CD or from the Intermec web site (http://www.intermec.com).

### **To install IPNM**

- 1. Copy or download the installation file to your PC.
- 2. Double-click the Install icon and the Wise Installation Wizard starts installing IPNM.



3. Read this introduction screen and then click Next.



4. Carefully read this Intermec End User License Agreement. If you accept the agreement, click the **I accept the license agreement** option and then click Next.

If you do not accept the agreement, click the **I do not accept the license agreement** option. The installation will be cancelled.

🔂 Intermec Printer Netw	vork Manager 2.1.0 Setup		
License Agreement You must agree with the	license agreement below to proceed.	t to dan	
INTERME	C END USER LICENSE AGREE	MENT	
Important: Carefully read this End User License Agreement (EULA) before installing or using the Software. You may use the Software only if You agree to be bound by the terms of this EULA. If You do not agree to the terms of this EULA, You may NOT use the Software and You MUST return the Software and/or the equipment on which it is installed to Interme for a refund. ANY INSTALLATION OR USE OF THE SOFTWARE INDICATES YOUR AGREEMENT TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS EULA.			
1.0 DEFINITIONS			
1.1 "Software" means thereto. This may include pr application programs written by Interneo, Software will be	the computer program(s) acquired from Interme rograms written by Intermec as well as operating by others which have been provided to You or i newrided to You is chiest order from only. The	c or any Revisions systems and installed on the System	
Wise Installation Wizard®	Image: constraint of the license agreement       Image: constraint of the license agreement       Beset       < Back	it>Cancel	

5. Read the Readme information to find out what's new in this version of IPNM and then click Next.



- 6. Choose which IPNM Configuration Console mode you want to use initially and then click Next.
  - View mode is the easiest mode to use. It simply lets you manage the networked printers.
  - Alert mode is a more advanced mode. It not only lets you do everything you could do in View mode, but also it lets you collect statistics and send Email alerts for common printer problems.

While running IPNM, you can switch modes at any time.

et Running Mode	r Network Manager 2.1.0 Setup	
Choose a mode.		Ma
C Alert Mode	Discovers all EasyLAN printers in your network and allows you to manage them remotely. You will also be able to setup email alerts for specific printer events.	
• View Mode	Discovers all EasyLAN printers in your network and allows you to manage them remotely.	
View Mode	Discovers all EasyLAN printers in your network and allows you to manage them remotely.	

7. Click Browse to browse to the folder where you want to install IPNM and then click Next.





8. This window indicates that the installation is complete. Click Finish.



9. You need to restart your PC before you can use IPNM. Click Yes to restart your PC now, or click No to restart your PC later.



After you restart your PC, you can run IPNM. Depending on your Windows operating system, you may operate IPNM differently. For help, see:

- Windows NT4, 2000, and XP in the next section.
- Windows 95, 98, and Me later in this chapter.

# Windows NT4, 2000, and XP

In Windows NT4, 2000, and XP, the preferred environment for IPNM is for it to run as a service.

You can start IPNM by opening the Start Menu and then selecting Programs  $\rightarrow$  Intermec Printer Nework Manager  $\rightarrow$  Intermec Printer Network Manager.

Or, you can open the Control Panel and then doubleclick the Intermec Printer Network Manager icon.

You can also configure the Windows operating system to start IPNM automatically when the PC is turned on.

### To configure Windows to start IPNM automatically

- 1. From the Start menu, select Settings  $\rightarrow$  Control Panel.
- 2. In the Control Panel, double-click the Administrative Tools icon and then double-click the Services icon.
- 3. In the Services dialog box, double-click the Intermec Printer Network Manager option.

Services					_ 0	×
] <u>A</u> ction ⊻iew ] ← →	· 🖿 🖪 🗳 🖏 😫 🕽 🕨					
Tree	Name 🛆	Description	Status	Startup Type	Log On As	
Services (Local)	and the second s	Resolves a	Started	Automatic	LocalSystem	
olle	Svent Log	Logs event	Started	Automatic	LocalSystem	
	Service	Helps you		Manual	LocalSystem	
Double-	Service			Manual	LocalSystem	
click	🐝 Intermec Printer Network Manager		Started	Manual	LocalSystem	
	Sinternet Connection Sharing	Provides n		Manual	LocalSystem	
	IPSEC Policy Agent	Manages I	Started	Automatic	LocalSystem	
	🍓 Logical Disk Manager	Logical Disk	Started	Automatic	LocalSystem	
	School and	Administrat		Manual	LocalSystem	
	McShield	McAfee On	Started	Manual	LocalSystem	
	MaMessenger	Sends and	Started	Automatic	LocalSystem	-

### Windows NT4, 2000, and XP, cont.

- 4. Click the General tab.
- 5. Click the down arrow on the right side of the Startup type field. A drop-down list box appears.
- 6. Choose one of these options:
  - Automatic (IPNM starts automatically when the Windows operating system starts).
  - Manual (You must manually start IPNM).
  - Disabled (You will not be able to start IPNM until you select Automatic or Manual in this dialog box).

Intermec Printer N	etwork Manager Properties (Local Computer) 🙎 🗙
General Log On	Recovery Dependencies
Service name:	IPNMSrv
Display name:	Intermec Printer Network Manager
Description:	
Path to executable	e:
C:\WINNT\Syster	m32\IPNMSrvi.exe
Startup type:	Manual
Service status:	Disabled Stanteu
Start	Stop Pause Resume
You can specify th from here. Start parameters:	he start parameters that apply when you start the service
	OK Cancel Apply

7. Click Apply and then click OK.

### Windows 95, 98, and Me

In Microsoft Windows 95, 98, and Me, you can start IPNM by opening the Start Menu and then selecting Programs  $\rightarrow$  Intermec Printer Nework Manager  $\rightarrow$  Intermec Printer Network Manager.

Or, you can configure IPNM to start as soon as the Windows operating system has started and any login sequence has been completed.

The IPNM icon appears in the System Tray in the bottom right corner of your screen (next to the clock).



#### Intermec Network Printer Manager icon

When you click the IPNM icon, the following menu appears:

- Configuration console
- About
- Help
- Exit

### To configure IPNM to start automatically

- 1. Open the IPNM Configuration Console.
- 2. Check the Load on startup check box.
- 3. Click Apply.

The next time you turn on your PC, IPNM will start automatically and you will see the IPNM icon in the System Tray.

## **Starting IPNM**

## IPNM Control Panel

From the Start Menu, select Programs  $\rightarrow$  Intermec Printer Network Manager  $\rightarrow$  Intermec Printer Network Manager. Or, in the Windows Control Panel window, double-click the Intermec Printer Network Manager icon.



Intermec Printer Network Manager icon

If your PC is running Windows 95/98/Me, you also see a Load on startup check box on the IPNM Control Panel. The Intermec Printer Network Manager Control Panel appears.



In the IPNM Control Panel, you can start and stop the Intermec Printer Network Manager service manually or you can launch the Configuration Console.

## **Initial Setup**

When you click the Configuration console button to launch the Configuration Console for the first time after installation, a dialog box will ask you if you want to run the Configuration Wizard.



Click OK. The Configuration Wizard dialog box appears.



This Configuration Wizard dialog box shows all the steps for Alert mode. If you are using View mode, you will see fewer steps. For each step, enter the parameters and then click Next. For help, see the online help.

### To exit the Configuration Wizard

• Click Exit. If you made any changes, you are prompted to save them.

## Configuration Console

Your Configuration Console may look different depending on which mode you are using. In View mode you will not see the Statistics button or the Alert Log pane. The Configuration Console is the main window in IPNM. It is made up of a menu bar, buttons, tabs, and panes. Depending on if you are using View or Alert mode, the Configuration Console may look different.

- Across the top, you see a menu bar.
- Below the menu bar and below the right pane, you see the toolbar buttons.



## Configuration Console, cont.

• The Networked Printers and Groups pane contains two tabs: Advanced EasyLAN and Standard EasyLAN. In these tabs, you can see all the networked printers that IPNM found when it scanned the network.

The Advanced EasyLAN tab contains printers that can use the full functionality of IPNM. They can be grouped and they support alerts. They can be configured by accessing their home pages, by using Telnet, or by using a remote keyboard. You can also download files to them using FTP.

The Standard EasyLAN tab contains printers that cannot be grouped and do not support alerts. However, some printer information can be read and they can be configured by accessing their home pages and by using Telnet. You can also download files to them using FTP.

- The Printer or Group Specifications pane displays the specifications for the selected printer or group.
- (Alert mode only) The Alert Log pane contains the alert log, where you can view all alerts handled since the IPNM service was started.

You can sort the alerts in the Alert Log pane by clicking any of the column headings.

### To close the Configuration Console

• From the File menu, choose Exit.

The Save Settings dialog box may appear to prompt you to save any changed settings.

## Locating Networked Printers

Once you define the scan settings in the Configuration Wizard or in the Scan Settings dialog box, you scan the network to locate all your networked printers. By default, IPNM is configured to scan the local subnet (255.255.255.255).

You may also want to scan the network when you change printer settings or when you add a networked printer.

### To scan the network

1. Click the Scan network toolbar button.

At the end of the scan, the Scan result box states how many Advanced EasyLAN and Standard EasyLAN printers the scan found.

🖁 Scanning in progress, please wait 📃 📃	
Intermec Printer Network Manager*	
Progress status	
Networks to be scanned	
192.168.235.255	
Information	
Scanning the network for EasyLAN equipped printers. This may take several minutes depending on the Printer scan settings.	
Cancel	

2. Click Ok. You return to the Configuration Console.

## Naming the Printers

Advanced EasyLAN = EasyLAN 100 Standard EasyLAN = EasyLAN 10/EasyLAN Wireless Once IPNM has located all your networked printers, you will see them in the Networked Printers and Groups pane either under the Advanced EasyLAN tab or under the Standard EasyLAN tab.

Newly found printers are indicated by an exclamation mark (!), whereas printers that may have been detected by an earlier scan, but are no longer found, are indicated by a question mark (?).

In the Advanced EasyLAN tab, you will see at least two folders:

- Add group is used to create a new group.
- Un-grouped contains the list of printers that do not belong to any group.



In the rest of this section, we will only discuss the printers under the Advanced EasyLAN tab. Standard EasyLAN printers are only shown as information.

The un-grouped printers have incomprehensible names, so you should give them more appropriate names and descriptions. The names and the descriptions are only stored in IPNM; they are not downloaded to the printers. You can change name and description anytime.

# Naming the Printers, cont.

### To configure a printer name and description

- 1. In the Networked Printers and Groups pane, select a printer.
- 2. Click the Name field. A small button appears at the right side of the line.

Advanced EasyLAN Standard EasyLAN			
Add Group	Name	GOT-PS-44	
🖻 🗟 Un-grouped	Description		$\sim$
📰 ! GOT-PS-44 (192.168.212.144)	Model	501XP	
📰 📕 📒 GOT-PS-46 (192.168.212.146)	IP address	192.168.212.144	
📰 📕 ! GOT-PS-48 (192.168.212.148)	Print Server name	GOT-PS-44	
INTERMEC003640 (192.168.234.171)	Subnet mask	255.255.255.0	Click this button
INTERMEC00389A (192.168.212.150)	Default router	192.168.212.1	
	Printer firmware	Fingerprint 7.63	
	Standard I/O	Auto	
	PR port	0	
	EasyLAN firmware	Intermec EasyLAN 100i Print Server V6.13	
	EasyLAN MAC address	00:10:40:00:38:26	
	Status	New printer, not configured	
	Last updated	4/14/2003 2:47:02 PM	
	General Alerts Name Friendly printer name. Pre- downloaded to the printer Printer homepage St.	ss the button to change. Changes are not	

3. Click the button. The Enter a Printer Name dialog box appears.

Enter a Printer name	×
Friendly Printer name	OK I
GOT-PS-44	Cancel
	Help

- 4. In the Friendly printer name field, enter the printer name.
- 5. Click Ok. You return to the Configuration Console.
- 6. Click the Description field. A small button appears at the right side of the line.

# Naming the Printers, cont.

7. Click the button. The Enter a Printer Description dialog box appears.

Enter a printer description	×
Printer description	Ok
	Cancel
	Help

- 8. In the Printer description box, enter the printer description. You can use this description to help you remember the location of this printer or any other information that is useful.
- 9. Click Ok. You return to the Configuration Console.

For the rest of this chapter and the next chapter, let's assume that we are the network managers of a small company network. The company has five networked printers: two in the goods reception, three in the shipping department. Because the departments are located in each end of a long building, there is one administrator for each department. The administrator takes care of out-of-paper and out-of-ribbon conditions, clears various types of errors etc., so the company does not have to train everybody how to do it.

In our example, we will name the printers as follows:

- Airline
- Inspection Approval
- Inventory Labeling
- Mail
- Truck & Rail

## **Working With Groups**

Defining Default Group and Alert Settings (Alert Mode Only) If you are using Alert mode, you may want to define which parameters will be set by default whenever a new group is created. This feature is useful when you need to create many groups, or when you want to make extensive modifications. When you add or edit a group, you will be changing these default settings.

You can reset the settings to what they were when IPNM was installed by clicking the Use system default button.

### To define the default group and alert settings

1. From the Tools menu, choose Options. The Default Group Settings dialog box appears.

Options				
Settings Default alert setting Group settings Email settings	Default group settings Description Configure the default settings for y	our printer groups. These wi	II be used when you create no	ew groups.
Log settings Telnet settings FTP settings SNMP settings Scan settings	Alerts	Alert settings Use GroupWideSettings Alerts activated Email address Message beader	Yes Yes	Save changes
Download settings Help Navigate through the	O Head lifted     O Ut of ribbon     O Ribbon low     Ribbon low     S Label not taken     S Setup mode     Application break	Message body	Printer (%PRINTERNAM	Discard changes
settings using the list above or the Previous, Next buttons.				
	Help	<- Previous	Next ->	Exit

- 2. Define the default group settings and then define the default alert settings.
- 3. Click Save changes to save your changes and then click Exit.

## Defining Default Group and Alert Settings, cont.

### Defining the Default Group Settings

### • Use group wide settings

Select Yes or No. Choose yes if all alerts are sent to the same Email address as specified in the Email address field. Choose no if you want each alert sent to the Email addresses that is specified for the alert.

• Alerts activated

Select Yes or No. Enables and disables alerts from all printers using the default settings (except alerts that are disabled separately).

### • Email address

Enter the Email address of the person who will receive Emails for all alerts (for example, *name@company.com*). Separate multiple Email addresses with commas.

### • Message header

Specifies the header for all alert messages. Click the button at the end of the text line. The Define Message Header dialog box appears.



## Defining Default Group and Alert Settings, cont.

### Defining the Default Group Settings, cont.

You can:

- Select another variable from a list. To see the list, click in the Message header box and type % (percent sign).
- Enter text. Click in the Message header box and type the text for the message header. For example, you may want to translate to another language.
- Message body

Similar to the message header. Specifies the text for all alert messages. Click the button at the end of the text line. The Define Message Body dialog box appears.

Define message body		×
Message body		
Printer (%PRINTERNAME%) has raised an alert (%ALERTNAME%).	4	<u>D</u> k Cancel <u>H</u> elp
Ouick help Click in Edit Window then press % to get a list of predefined variables to include in the message		

You can:

- Select another variable from a list. To see the list, click in the Message body box and type % (percent sign).
- Enter text. Click in the Message body box and type the text for the message body. For example, you may want to translate to another language.

## Defining Default Group and Alert Settings, cont.

### Defining the Default Alert Settings

There are eight alerts for which you can define these default settings.

• Alert name

Name of the alert. Read-only information.

• Alert description

Enter a description of the alert.

• Alert activated

Select Yes or No. Choose yes to activate the alert and choose no to deactivate the alert. If you choose yes, you can also set these parameters.

- Email address: Enter the Email address of the person who will receive Emails for this alert (for example, *name@company.com*). Separate multiple Email addresses with commas.
- Message header: Same as the Message header field in the default group settings.
- **Message body:** Same as the Message body field in the default group settings.
- Alert delay unit: Select Occurrences or Seconds. Occurrences counts the number of times this alert occurs before an Email is sent; seconds counts the number of seconds that elapses before an Email is sent.
- Alert delay: Depends on the alert delay unit setting.

If the alert delay unit is set to Occurrences, alert delay is the number of times an error must occur before a new alert is sent (0 or 1 is every time, 2 is every second time, etc.).

If the alert delay unit is set to Seconds, the alert delay is the minimum number of seconds that must elapse before a new alert is sent.

## Creating a New Group

In the Advanced EasyLAN tab, you can group printers. You may want to group printers based on their location, organization, administrator, printer type, or function.

For example, all printers in the Reception department may belong to one group with the same administrator and all printers in the Shipping department may belong to another group with a different administrator.

Using our example, let's create a group for Shipping. The administrator is Joe Smith and the description is "Shipping of customer's orders."

### To create a new group

1. In the Networked Printers and Groups pane, click the Add Group folder. The Add Group dialog box appears.

Add Group	X
Group name:	<u>k</u>
Administrator:	<u>C</u> ancel
Description:	<u>H</u> elp

- 2. In the Group name field, enter the printer group name.
- 3. In the Administrator name field, enter the name of the person who is reponsible for the printer group.
- 4. In the Description field, enter a description for the printer group.
- 5. Click Ok. The Group Settings dialog box opens.

# Creating a New Group, cont.

6. Click the Email address field and enter the Email address of the person who will receive all the alerts for this group. Usually, you enter the administrator's Email address.

Options					
Settings Default alert setting Group settings	Group settings Description Configure the alerts for your printer g	groups. Don't forget to	download the settings to your print	ers	
E mail settings	Printer groups	Group properties	perties		
Telnet settings FTP settings SNMP settings Scan settings Download settings	O SHIPPING     O Ut of paper     O Ut of ribbon     O nt of ribbon     O nt of ribbon low     Head lifted     S Label not taken     O Cutter error     S Setup mode     S Application break	Group name Description Administrator Group wide settings Activated Email address Message header Message body	SHIPPING Shipping of customer's orders Joe Smith Yes Yes joe.smith@intermec.com %ALERTNAME% alert from p Printer (%PRINTERNAME%)	Save changes Discard changes	
Navjaate through the settings using the list above or the Previous, Next buttons.	Add Group Remove Group	Email address Email address to sen name@company.cor be entered separated Use defaul	d alerts to (syntax: m). Multiple email addresses may d by t settings for group Next ->	Exit	

- 7. Change any other properties so they suit the group. For help, see "Editing a Group" later in this chapter.
- 8. Click Save changes to save your changes and then click Exit. This message box appears.

Download settings?				×
Group settings are changed. Do you want to do this now ir	These must be o In the Download	downloaded to ti settings dialog?	he printers for pi	oper operation
	Yes	No	]	

9. Click No. You will download the settings later.

## Moving Printers to Groups

### Hint!

Right-click to:

- Cut printer
- Scan printer
- Rename printer
- Move printer
- Delete printer
- Edit group
- Scan group
- Download settings
- Add group
- Delete Group
- Delete all printers in group

Now, we can organize the networked printers by moving them into groups. In our example, we are using a very small network, but for larger networks in big corporations with local offices in many states or countries, it is essential to organize the network in an orderly manner.

You can move a printer to a group by

- using the Move Printer command in the Edit menu.
- right-clicking the printer in the Networked Printers and Groups pane and choosing Move Printer(s).

You can see the properties of each printer by choosing it and reading the information in the Specifications pane. You may need to scroll the pane or resize the window to be able to see all the information. Only the first two lines can be changed in IPNM, the rest must be changed using the printer's home page.

### To move a printer

- 1. In the Networked Printers and Groups pane, choose the printer(s) you want to move.
- 2. From the Edit menu, choose Move Printer(s).

Or, right-click the printer and choose Move Printer(s).

The Move Printer to Group dialog box appears.



- 3. In the Move printer(s) to box, choose the group where you want to move the printer.
- 4. Click Ok. The printer is now part of the group.

## **Editing a Group**

Note.

You can also click the Group settings button. Once you have created all your groups, you can edit the parameters for each group at any time.

### To edit a group

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box appears.
- 2. In the Settings box, choose Group Settings. The Group Settings dialog box appears.

Options				
Settings Default group settings Group settings	Group settings Description Configure the alerts for your printer :	groups. Don't forget to	download the settings to your print	ters
L og settings	Printer groups	Group properties		
Telnet settings FTP settings		Group name Description	SHIPPING Shipping of customer's orders.	Save changes
Scan settings Download settings		Group wide settings Activated	Yes Yes	Discard changes
	🧭 Head lifted 😵 Label not taken	Email address Message header	joe.smith@intermec.com %ALERTNAME% alert from p	
Help Navigate through the settings using the list above or the Previous, Next buttons.	O Cutter error     Setup mode     Setup mode     Setup fication break	Message body	Printer (%PRINTERNAME%)	
	Add Group Remove Group	Use defaul	t settings for group	
	Help	<- Previous	Next ->	Exit

- 3. In the Printer groups box, click the name of the printer group that you want to edit. The group's properties appear in the Group properties box.
- 4. Edit the parameters. For help, see the next pages.
- 5. Click Save changes to save your changes and then click Exit.

## Editing a Group, cont.

### Editing the Group Settings

### • Group name, Description, and Administrator

You specified these parameters when you created the group. To edit the parameters, click in the field and enter new information.

### • Group wide settings

Select Yes or No. If yes, all alerts will be sent to the same Email address. If no, alerts will be sent to Email addresses as specified by each alert.

### • Activated

Select Yes or No. Choose yes to activate the alert and choose no to deactivate the alert. If you choose yes, you can also set these parameters.

### • Email address

Enter the Email address of the person who will receive Emails for all alerts (for example, *name@company.com*). Separate multiple Email addresses with commas.

### • Message header

Specifies the header for all alert messages. Click the button at the end of the text line. The Define Message Header dialog box appears.



## Editing a Group, cont.

Editing the Group Settings, cont.

You can:

 Select another variable from a list. To see the list, click in the Message header box and type % (percent sign).

Define message header			x
Message header			
%ALERTNAME % alert from printer (%PRINTERNAME %)         %         %ALERTNAME %         %ALERTNAME %         %ALERTNAME %         %PRINTERNAME %         %PRINTERDESCRIPTION %         %PRINTERDESCRIPTION %         %PRINTERNAME %         %PRINTERNAME %         %PRINTERNAME %         %PRINTERNAME %         %PRINTERNAME %	×	<u>O</u> k <u>C</u> ancel <u>H</u> elp	

- Enter text. Click in the Message header box and type the text for the message header. For example, you may want to translate to another language.
- Message body

Similar to the message header. Specifies the text for all alert messages. Click the button at the end of the text line. The Define Message Body dialog box appears.



## Editing a Group, cont.

Editing the Group Settings, cont.

### Editing the Group Alert Settings

You can:

- Select another variable from a list. To see the list, click in the Message body box and type %.
- Enter text. Click in the Message body box and type the text for the message body. For example, you may want to translate to another language.

There are eight alerts for which you can define these group settings.

• Alert name

Name of the alert. Read-only information.

• Alert activated

Select Yes or No. Choose yes to activate the alert and choose no to deactivate the alert. If you choose yes, you can also set these parameters.

- Alert delay unit: Select Occurrences or Seconds. Occurrences counts the number of times this alert occurs before an Email is sent; seconds counts the number of seconds that elapses before an Email is sent.
- Alert delay repeat: Depends on the alert delay unit setting.

If the alert delay unit is set to Occurrences, alert delay is the number of times an error must occur before a new alert is sent (0 or 1 is every time, 2 is every second time, etc.).

If the alert delay unit is set to Seconds, the alert delay is the minimum number of seconds that must elapse before a new alert is sent.

### **Deleting a Group**

You should move all printers from the group you are deleting before you delete the group. There are two ways to delete a group:

- In the Networked Printers and Groups pane, rightclick the group and choose Delete Group.
- In the Group Settings dialog box, choose the group and then click Remove Group.

### To delete a group in the Networked Printers and Groups pane

- 1. Move or remove all the printers from the group you want to delete.
- 2. In the Networked Printers and Groups pane, rightclick the group you want to delete.
- 3. Choose Delete Group. A message box appears asking you to confirm that you want to delete the group.
- 4. Click Yes. The group is deleted.

### To delete a group in the Group Settings dialog box

- 1. Click the Group settings button. The Group Settings dialog box appears.
- 2. In the Printer groups box, choose the group you want to delete.
- 3. Click Remove Group. A message box appears asking you to confirm that you want to delete the group.
- 4. Click Yes. The printers that were in the group are moved to the Un-grouped folder and the group is deleted.

## Downloading Settings

Now that you have grouped the networked printers and configured the group alerts, you must download these settings to the printers.

### To download the group settings to the printers

1. In the Networked Printers and Groups pane, rightclick the group where you want to download the settings and select Download Settings.

Or, from the Tools menu choose Options and then in the Settings box choose Download Settings.

Options	
Settings Default group settings Group settings Log settings Telnet settings FTP settings	Download settings     Description     This page may be used to quickly check the printers, if their configuration conform to the group settings.     Downloading group settings to all printers in a group can be done with the Download button.     Group(s) to check/configure     All groups     SHIPPING     BETCEPTION
Scan settings Download settings Help Navinate through the	Download settings Check printers
settings using the list above or the Previous, Next buttons.	
	Help K-Previous Next-> Exit

The Download Settings dialog box appears:

2. Click Check printers to check the printers for incompatible settings. A message box appears confirming that you want to check the printers.

Printer Network Manager Configura	ator		×
Do you want to scan the printers for o	turrent se No	ttings befo	re checking?

## Download Settings, cont.

3. Click Yes. If IPNM finds any errors, it will show you a dialog box. You need to correct the errors before you can download the settings. For example:

📲 Printer config	guration errors found			
Description A number of configuration "errors" has been found in your printers. To make the printers send the alerts specified in the group settings these parameters must be changed. Please go to close this dialog and press "Download settings" to change the setup in all these printers at once. Click the error row to view the individual error.				
Group	Printer	IP address	Error	
SHIPPING	AIRLINE	192.168.212.144	The SNMP trap address may be wrong (255.255.255.255)! It can be	
	MAIL	192.168.234.171	The SNMP trap address may be wrong (255.255.255.255)! It can be	
	TRUCK & RAIL	192.168.212.150	The SNMP trap address may be wrong (255.255.255.255)! It can be	
			Ribbon low alert is not installed (Fingerprint 7.60 or later is needed).	
•			Þ	
		Close		

4. Once you fix any errors in Step 3, go to the Download Settings dialog box, select the group and click Download settings. A message box appears confirming you want to download the settings to the group.

Printer Network Manager Configurator
Are you sure you want to download new settings to all printers in this group (SHIPPING)?
Vec No
ICS NU

5. Click Yes. A status box appears showing you the progress of the download.

## Download Settings, cont.

Downloading settings to printer(s)
Intermec Printer Network Manager
Progress status
Printers to be set
TRUCK & RAIL (192.168.212.150)
MAIL (192.168.212.143)
AIRLINE (192.168.212.144)
Information
Setting values in listed printers.
Cancel

6. The Information box tells you if the download was successful. Click Ok.

If the download was not successful, an error box appears. You need to fix the errors before you can download the settings.

When you have successfully downloaded the settings to all printers (groups), you have these basic functions of the IPNM running.

- Alert Emails will be sent.
- Alerts will be listed in the Alert log pane.
- Alerts will be logged in a log file.

In Chapter 5, this guide explains how to continue to manage your groups and printers using IPNM.

## **Managing the Groups and Printers**

## Defining the Email Sender (Alert Mode only)

You need to specify Email information about the IPNM server that is sending the Email alerts. You can also send a test Email to verify that you entered the Email sender information correctly.

### To define the Email sender

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box appears.
- 2. In the Settings box, choose Email settings. The Email Settings dialog box appears.

Options	
Options Settings Default alert setting Group settings Log settings Telnet settings FIP settings SNMP settings Scan settings Download settings Help Navigate through the settings using the list	Email settings         Description         Configure the email settings. Send a test mail to verify the server access.         Email settings         Mail server:         From address:       IPNMServer         Test mail connection         Send to :       Send test mail         Mail header :       Send test mail
above or the Previous, Next buttons.	Help <- Previous Next -> Exit

You need to specify Email information about the IPNM server that is sending the Email alerts. You can also send a test Email to verify that you entered the Email sender information correctly.

## Defining the Email Sender, cont.

Note:

The Email address that you enter in the Send to field does not need to be the same Email address as the alerts, but obviously you would prefer to test the communication to the address where you want the alerts to go.

### To define the Email sender

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box appears.
- 2. In the Settings box, choose Email settings. The Email Settings dialog box appears.
- 3. In the Mail server field, enter the mail server in your network.
- 4. In the From address field, enter the name of the IPNM server.

Or, if you want to send alerts via the internet, enter an Email address. For example, you might enter IPNMServer@yourcompany.com.

5. Click Save changes to save your changes and then click Exit.

### To send a test Email

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box appears.
- 2. In the Settings box, choose Email settings. The Email Settings dialog box appears.
- 3. In the Send to field, enter the Email address where you want to send the test Email.
- 4. In the Mail header field, enter the header for the Email.
- 5. Click Send test mail. The header in the Mail header field will be sent to the Email address in the Send to field.
- 6. Verify that the Email address received the test Email.

## Using a Log File and Statistics (Alert Mode Only)

You can configure IPNM to keep a log file, which contains all the alerts that appear in the Alert Log pane. The log file is a text file (.TXT) whose fields are separated by semicolons. You can easily import the log file into another program, such as Microsoft Excel, where you can present the information in your own customized format.

Also, using this log file, IPNM can generate statistics for the alerts per group or for the ten printers that have the most frequent alerts. You must turn on alert logging in order to generate statistics.

### To turn on alert logging

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box opens.
- 2. In the Settings box, choose Log settings. The Log Settings dialog box appears.

Options		
Settings Default group settings Group settings	Log settings Description Alert logging will store all incoming alerts and give you the opportunity to view alert statistics. The log file can be imported to other programs like Microsoft Excel for customized reporting.	
Log settings Telnet settings FTP settings	Alett logging	
SNMP settings Scan settings Download settings	C.\Program Files\Intermec\PrinterNetworkManager\Log.txt Browse Empty log file View log file	*
	Help <- Previous Next -> Exit	

3. In the Alert logging box, choose Yes.

### Using a Log File and Statistics, cont.

- 4. In the Log file box, enter the path and filename of where you want to store the log file.
- 5. Click Save changes to save your changes and then click Exit.

### To view the log file

• From the Statistics menu, choose Log file.

Or, from the Log Settings dialog box, choose View log file.

The log file opens in whatever program you have designated to open .TXT files (for example, Microsoft Notepad). Here is an example of a log file:

Ok;2001-10-08 11:23:39;SHIPPING;MAIL;192.168.234.199;00:10:40:00:36:07;Setup Mode;; Ok;2001-10-08 11:38:15;SHIPPING;MAIL;192.168.234.199;00:10:40:00:36:07;Head lifted;; Ok;2001-10-08 11:41:29;SHIPPING;MAIL;192.168.234.199;00:10:40:00:36:07;Out of paper;; Ok;2001-10-08 11:47:12;SHIPPING;MAIL;192.168.234.199;00:10:40:00:36:07;Out of ribbon;;

Syntax:

Status;Date\_time;Group;Printer name;IP address;MAC address;Alert name;reserved;reserved

Status can be "Ok" or "Not ok".

Fields are separated by semicolons (;).

## Using a Log File and Statistics, cont.

Note:

In order for IPNM to generate statistics, there must be at least one alert in the log file and error alerts must be enabled.

### To display statistics

1. From the Statistics menu, choose Statistics.

Or, click Statistics.

The Statistics dialog box appears.



- 2. In the Select statistic to view field, click the down arrow on the right side of the field and choose which statistic you want to display on the screen.
- 3. Click Close to close this dialog box.

## Defining the SNMP Settings

This dialog box defines the SNMP settings for error alerts (SNMP traps) and remote configuration. You can let IPNM set SNMP settings for a group to make it easier to configure multiple printers. This feature can be useful if all printers do not have the correct settings to run with IPNM.

If you are using View mode, the only setting you can define is the read community.

Intermec recommends that you change all the community passwords to make your network more secure.

### To define the SNMP settings

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box (Alert mode) or the Group Settings dialog box (View mode) appears.
- 2. In the Settings box, choose SNMP settings. The SNMP Settings dialog box appears.

Options		
Options       Settings       Default group settings       Group settings       Email settings       Telnet settings       FIP settings       Sinth Settings       Scan settings       Download settings	SNMP settings         Description         Configure the SNMP settings. The communities must be the same as specified in your printers.         SNMP settings         SNMP settings         SNMP rap address:       255.255.255         Read community:       ******         Write community:       ******         Trap community:       ******	
Help Navigate through the settings using the list above or the Previous, Next buttons.	Help <- Previous Next -> Exit	

## Defining the SNMP Settings, cont.

3. (Alert mode only) In the SNMP trap address field, enter the address where the printer sends alerts. This address should be the IP address of the IPNM server.

You may want to use a broadcast address (255.255.255.255) if the server is located on the same subnet as the printers.

- 4. In the Read community field, enter the password for reading the printer settings. The default is public.
- 5. In the Write community field, enter the password for writing to the printer. This password must be the same on the printer and on the IPNM server or you will not be able to download settings or use the remote keyboard. The default is pass.
- 6. (Alert mode only) In the the Trap community field, enter the password for the trap community. This password must be same on the printer and on the IPNM server. The default is public.
- 7. Click Save changes to save your changes and then click Exit.

When you are done configuring the SNMP, you need to download the settings to the printers. For help, see "Downloading Settings" in Chapter 4.

## Defining the Network Scan

The Scan Settings dialog box defines how IPNM scans your network for printers when you click the Scan network button. By default, only the local network (255.255.255) is scanned.

### To define the scan settings

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box (Alert mode) or the Group Settings dialog box (View mode) appears.
- 2. In the Settings box, choose Scan settings. The Scan Settings dialog box appears.

Options		
Settings Default group settings Group settings Email settings	Scan settings Description Define how to scan for new or updated printers	
Log settings Tehet settings FTP settings SNMP settings Download settings United Settings Help Navigate through the settings using the list above or the Previous, Next buttons.	Enabled Scan method Subnet IP range (from) IP range (to) Yes Subnet broadcast 255.255.255	Save changes Discard changes Edit Add Delete
	Help <- Previous Next ->	Exit

Note:

Scanning only takes place when you click the Scan network button. After the initial scan, you only need to scan the network when you install a new printer or change the information in an existing printer. You can add, edit, or delete fields until your network is properly specified. You can also define an IP address range or subnet to scan and then enable or disable it at a later date.

For large ranges, such as Class B networks, it may be better to use a broadcast. (Verify with your network administrator that your routers will allow broadcasts.)

## Communicating With the Printers

### Accessing the Printer's Home Page



There are several ways that you can communicate with the networked printers:

- Access the printer's home page to configure the printer.
- Establish a Telnet session with the printer to configure the printer.
- Use the remote keyboard to configure and manage the printer.
- Use FTP to download new printer firmware or EasyLAN interface firmware to the printer.

While running IPNM, you can open a printer's home page and configure it.

### To access the printer's home page

• In the Networked Printers and Groups pane, select the printer whose home page you want to open and then click Printer homepage.

A web browser opens with the printer's home page. You can configure the printer. For help, see the printer's user's manual.

EasyCoder PF4i - 192.168.234.174 -	- Microsoft Internet Explorer			
File Edit View Favorites Tools	Help			
UNO Home Configuration Support				
Firmware Version:	MCS 1663, 10-Apr-03 09:28:06			
Active Command Set:	Fingerprint 8.00 Beta 13			
MAC Address: IP Address:	00:10:40:00:39:ea			

### Establishing a Telnet Session With a Printer

Telnet lets you communicate with the printer and the EasyLAN interface over Ethernet as if you are using a terminal program, such as HyperTerminal. In the Telnet window, you can type any Fingerprint instructions or programs.

Before you can establish a Telnet session, you must tell IPNM where it can find the Telnet application. The Telnet application that you use must be able to accept the IP address as the first parameter. When IPNM launches the Telnet application, it sends the IP address in one command string.

### To configure IPNM for Telnet

- 1. From the Tools menu, choose Options. The Default Group Settings dialog box (Alert mode) or the Group Settings dialog box (View mode) appears.
- 2. In the Settings box, choose Telnet settings. The Telnet Settings dialog box appears.

Options	
Settings Default group settings Group settings Email settings Log settings	Telnet settings Description Setup the path to your favourite Telnet client if you want a terminal connection to your printers. Path to Telnet Save changes
Fennet settings FTP settings SNMP settings Scan settings Download settings	Browse Discard changes
Help Navigate through the settings using the list above or the Previous, Next buttons.	
	Help <- Previous Next -> Exit

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### Establishing a Telnet Session With a Printer, cont.

- 3. In the Path to Telnet field, enter the path and filename of the Telnet application on your PC.
- 4. Click Save changes to save your changes and then click Exit.

### To establish a Telnet session with the printer



In the Networked Printers and Groups pane, select the printer to which you want to establish a Telnet session and then click Start Telnet.

If you have an EasyCoder PF2i, PF4i, PM4i, PX6i, or PX4i printer, a Telnet screen appears. The printer firmware and the firmware of the EasyLAN interface board are integrated. Telnet communicates with the printer firmware. For helps, see "Using Telnet to Printer."

If you have a printer with an EasyLAN 10 interface or an EasyLAN Wireless interface, you can only communicate with the firmware of the EasyLAN interface. A Telnet screen appears. For helps, see "Using Telnet to Printer."

If you have printer with an EasyLAN 100i interface, the Launch Telnet dialog box appears.

Launch Telnet	×
Printer INTERMEC0036DF (10.10.16.114)	Close
	Telnet to EasyLAN
There are 2 areas in the printer that you can connect a Telnet terminal to. Please select which	Telnet to Printer
one you want to connect to.	Help

You select which area of the printer you want to communicate with. You can choose:

• Telnet to Printer, which lets you communicate with the printer firmware (Intermec Fingerprint). To communicate with the printer's firmware the printer communication settings must be correct. For helps, see "Using Telnet to Printer."

Establishing a Telnet Session With a Printer, cont. • Telnet to EasyLAN, which lets you communicate with the firmware of the EasyLAN 100i interface. For helps, see "Using Telnet to EasyLAN."

### **Using Telnet to Printer**

Before you can communicate with the printer's firmware, make sure the printer settings are correct by viewing the printer's home page in the web browser. Check that these settings are correct:

- The Standard I/O is set to net1: or auto (see Configuration/Printer Web Shell).
- The New Line parameter for net1: is CR/LF (see Configuration/Printer/Communication).
- A TCP port is assigned (see Configuration/Network Interface/TCP/IP/PRx TCP Port number:).

Submit the new settings and reboot the printer. When your Telnet session is completed, you may want to change back the settings.

### To use Telnet to printer

• Click Telnet to Printer.

The Telnet application opens with an empty window. You can type any Intermec Fingerprint instructions.

### **Using Telnet to EasyLAN**

- 1. Click Telnet to EasyLAN. The Telnet application opens.
- 2. In the User field, enter root and in the Password field, enter pass.
- 3. At the root prompt, type the desired command, or type help for a list of commands.

### Using the Remote Keyboard

This feature is only available for printers with an EasyLAN 100i interface. It displays the front panel (including LEDs and keyboard) of the printer.

You can view the front panel and LEDs on the printer as if you were standing in front of the printer.

You can also click the buttons on the remote keyboard and the printer acts as if you were pressing the buttons on the printer itself. For example, if you click the Feed button, a label will feed out from the printer.

### To use the remote keyboard



• In the Networked Printers and Groups pane, select the printer whose front panel you want to access and then click Remote Keyboard.



The remote keyboard does not continuously scan the printer for updates to its display. If you want to retrieve the most current display values, choose Menu and then choose Refresh.

### Using FTP to Download Files to the Printer

#### Note:

You cannot FTP to printers with EasyLAN Wireless. You must download firmware using TFTP. For more information, see the EasyLAN Wireless manuals. In older printers, FTP lets you download files to the printer or to the EasyLAN interface. That is, you can upgrade the printer firmware or the EasyLAN interface firmware. You can only transfer files with the file extension .bin.

If you have a newer printer, such as the EasyCoder PF2i, PF4i, PM4i, PX6i, or PX4i printer, the firmware of the printer and the EasyLAN interface are integrated. FTP communicates with the printer firmware. You can also upgrade Fingerprint and IPL. You can only transfer files with the extension .net.

Before you can launch FTP, you must tell IPNM where it can find the FTP application. The FTP application that you use must be able to accept the IP address as the first parameter. This is because when IPNM launches the FTP application, it sends the IP address in one command string.

### Using FTP to Download Files to the Printer, cont.

### To configure IPNM for FTP

- 1. From the Tools menu, choose Options. The Default Alert Settings dialog box (Alert mode) or the Group Settings dialog box (View mode) appears.
- 2. In the Settings box, choose FTP settings. The FTP Settings dialog box appears.

Options	
Settings	FTP settings
Default group settings Group settings	Setup the path to your favourite FTP client.
Log settings Telnet settings	Path to FTP Save changes
FTP settings	Browse
Download settings	
Help Navigate through the	
above or the Previous, Next buttons.	
	Help <- Previous Next -> Exit

- 3. In the Path to FTP field, enter the path and filename of the FTP client on your PC.
- 4. Click Save changes to save your changes and then click Exit.

### Using FTP to Download Files to the Printer, cont.

#### Note:

For newer PF2i, PF4i, PM4i, PX6i, or PX4i printers, only use files that have the extension **.bin**.

For all other Easy-Coder printers, if you are upgrading printer firmware, only use files that have the extension .net. If you are upgrading EasyLAN firmware, only use files that have the extension .bin. Before you can communicate with the printer firmware or EasyLAN interface firmware, you need to access the printer's home page to make sure that:

- The Standard I/O is set to net1: or auto: (see Configuration/Printer Web Shell).
- The New Line parameter for net1: is set to CR/LF (see Configuration/Printer/Communication).
- A TCP port is assigned (see Configuration/Network Interface/TCP/IP/PRx TCP Port number:).

Submit the new settings and <u>reboot</u> the printer. When your FTP session is completed, you may want to change back the settings.

## To use FTP to download files to a PF2i, PF4i, PM4i, PX6i, or PX4i printer

- 1. Copy the file (.bin) you want to download to your PC.
- 2. In the Networked Printers and Groups pane, select the printer that is receiving the new firmware and



### then click Start FTP.



### Using FTP to Download Files to the Printer, cont.

- 3. Click FTP to Printer.
- 4. Log in to the printer. When you have successfully logged into the printer, the ftp prompt appears. The default user is admin and the default password is



pass.

- 5. Enter the command bin and press Enter.
- 6. Enter the command lcd and then specify the path and filename of the firmware you want to transfer. For example,

#### lcd C:\FIRMWARE

7. Enter the command put and then specify the destination of the file. For example, if you are down-loading the MCS1667.BIN file to an EasyCoder PF2i printer, you enter:

#### put MCS1667.BIN FLASH

The download starts, and you can watch the progress in the window.

#### To download printer firmware to an older EasyCoder printer

- 1. Copy the file (.net) you want to download to your PC.
- 2. In the Networked Printers and Groups pane, select the printer that is receiving the new firmware and

Note:

FLASH is case-sensitive. Enter this command in uppercase letters.



Using FTP to Download Files to the Printer, cont.

Launch FTP				
Printer INTERMEC0036DF (10.10.16.114)	FTP to Printer			
Help Press the help buttons to the right to learn more about firmware	Help on EasyLAN firmware download			
download using FTP.	Help on Printer firmware download			
LIOSE				

then click Start FTP.



- 3. Click FTP to Printer.
- 4. Log in to the printer. When you have successfully logged into the printer, the ftp prompt appears. The



default user is root and the default password is pass.

- 5. Enter the command bin and press Enter.
- 6. Enter the command hash and press Enter.
- 7. Enter the command lcd and then specify the path and filename of the firmware you want to transfer. For example,



### Using FTP to Download Files to the Printer, cont.



Note:

FLASH is case-sensitive. Enter this command in uppercase letters. 8. Enter the command put and then specify the destination of the file. For example, if you are down-loading the MCS1648.NET file to an EasyCoder 501XP printer, you enter:

### put MCS1648.NET pr1

The download starts, and you can watch the progress in the window.

### To download EasyLAN interface firmware to an older Easy-Coder printer

- 1. Copy the file (.bin) you want to download to your PC.
- 2. In the Networked Printers and Groups pane, select the printer that is receiving the new firmware and then click Start FTP.
- 3. Click FTP to Printer.
- 4. Log in to the printer. When you have successfully logged into the printer, the ftp prompt appears. The default user is root and the default password is pass.
- 5. Enter the command bin and press Enter.
- 6. Enter the command hash and press Enter.
- 7. Enter the command lcd and then specify the path and filename of the firmware you want to transfer. For example,

### lcd C:\FIRMWARE

8. Enter the command put and then specify the destination of the file. For example, if you are down-loading the EL100I.BIN file, you enter:

### put EL100I.BIN FLASH

The download starts, and you can watch the progress in the window.



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