



**Intermec
Printer Network
Manager v2.1**

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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.

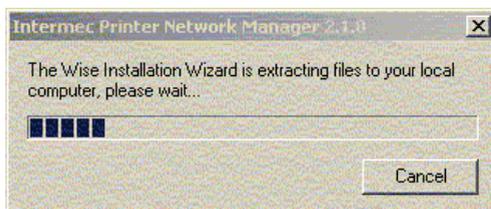
Installing IPNM

Instructions

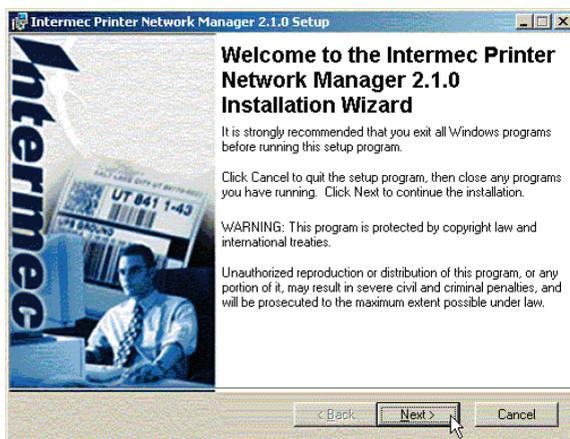
You can get the free installation file from the Printer Companion CD or from the Intermec web site (<http://www.intermec.com>).

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.



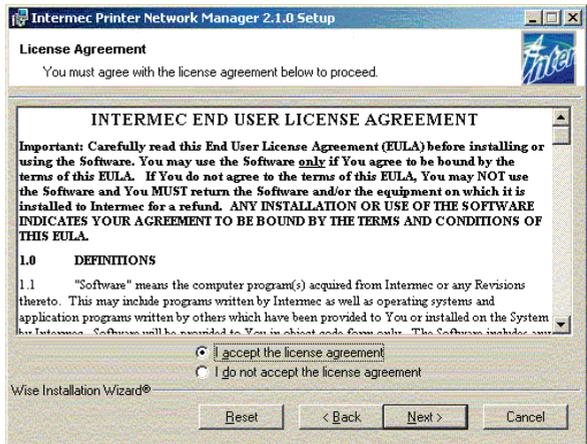
3. Read this introduction screen and then click Next.



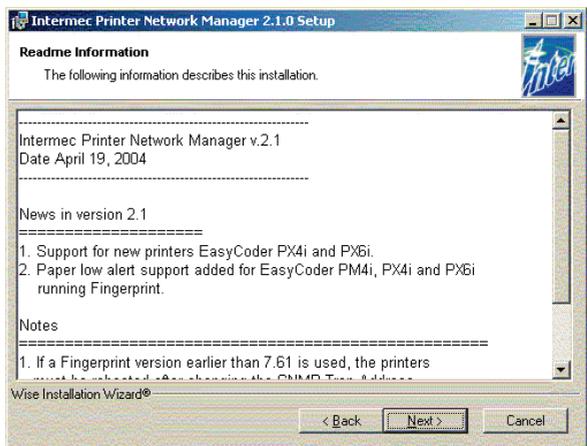
Instructions, cont.

- Carefully read this Intermecc 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.



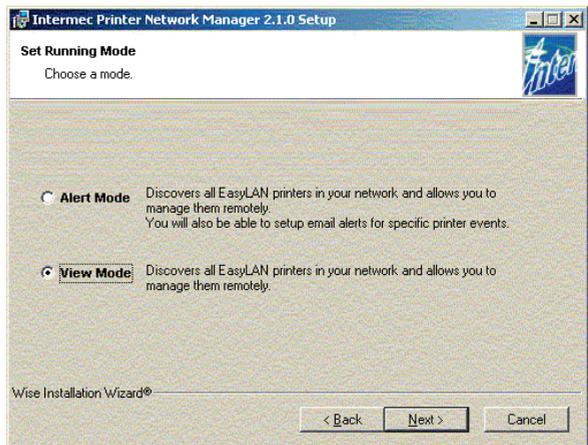
- Read the Readme information to find out what's new in this version of IPNM and then click Next.



Instructions, cont.

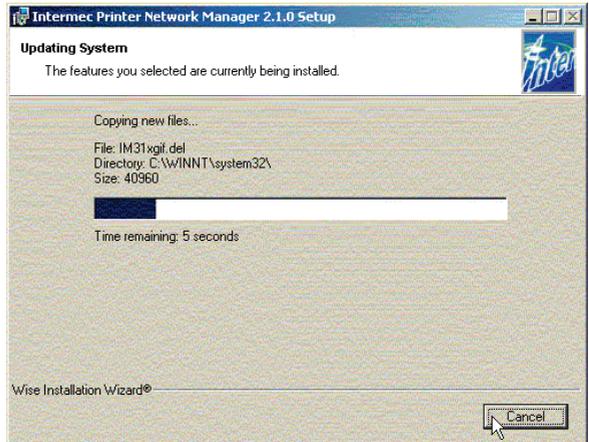
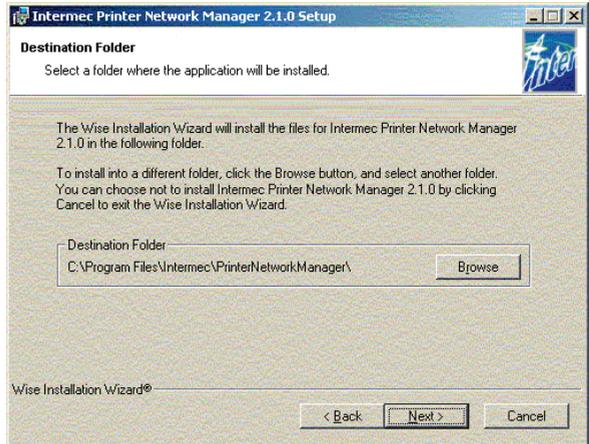
6. Choose which IPNM Configuration Console mode you want to use initially and then click Next.
 - View mode is the easiest mode to use. It simply lets you manage the networked printers.
 - Alert mode is a more advanced mode. It not only lets you do everything you could do in View mode, but also it lets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

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



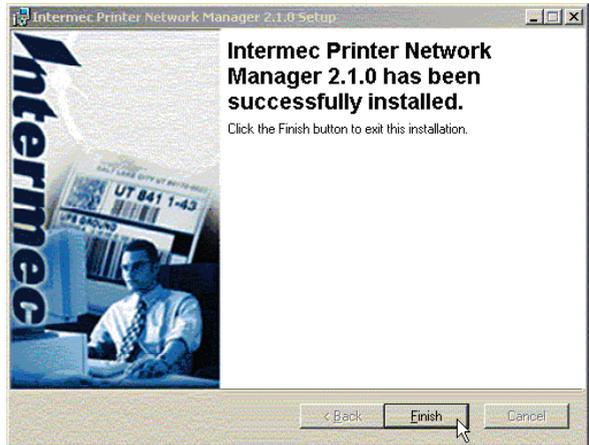
Instructions, cont.

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

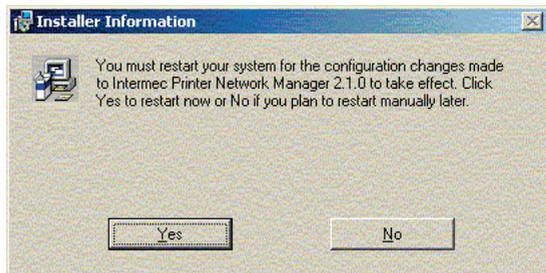


Instructions, cont.

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



- 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.

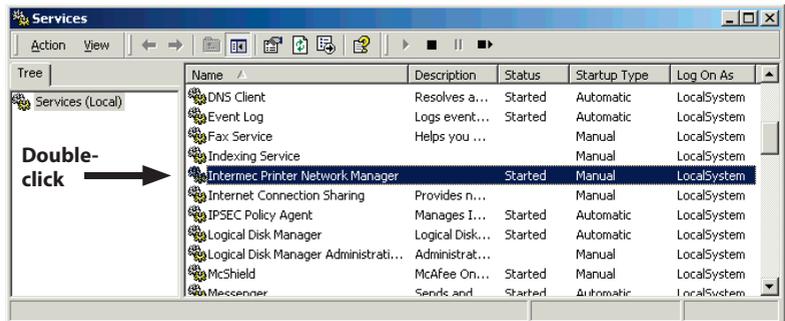
You can start IPNM by opening the Start Menu and then selecting Programs → Intermecc Printer Network Manager → Intermecc Printer Network Manager.

Or, you can open the Control Panel and then double-click the Intermecc Printer Network Manager icon.

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

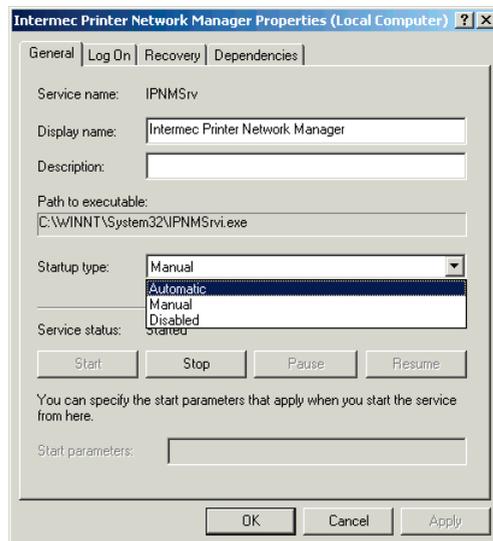
To configure Windows to start IPNM automatically

1. From the Start menu, select Settings → 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 Intermecc Printer Network Manager option.



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).



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 → Intermecc Printer Network Manager → Intermecc 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).



Intermecc 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

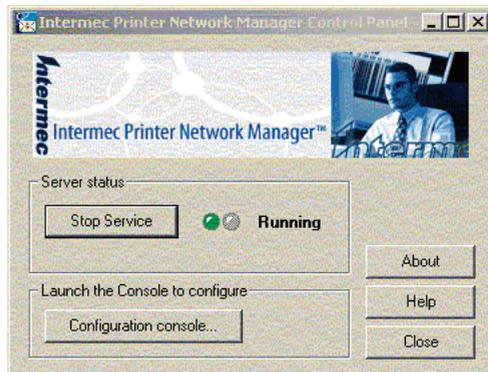
From the Start Menu, select Programs → Intermec Printer Network Manager → Intermec Printer Network Manager. Or, in the Windows Control Panel window, double-click the Intermec Printer Network Manager icon.



Intermec Printer Network Manager icon

The Intermec Printer Network Manager Control Panel appears.

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



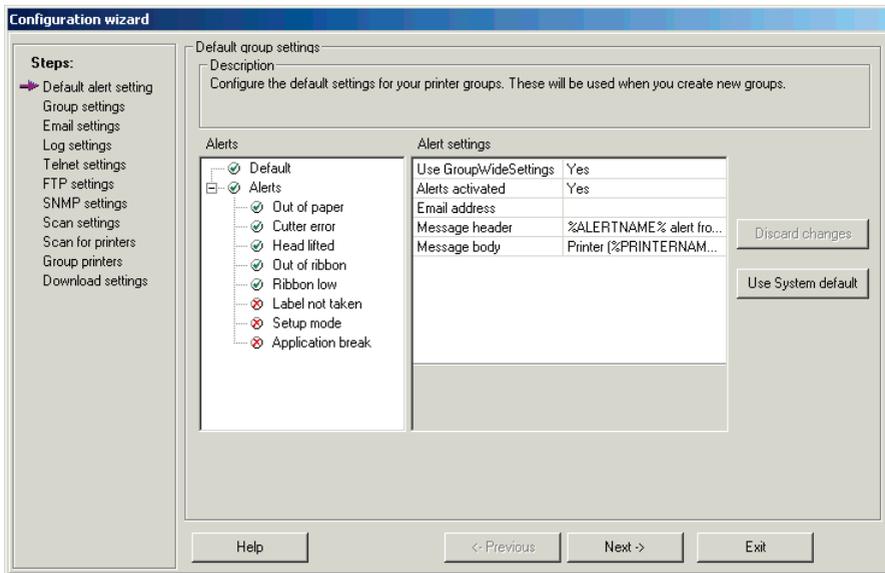
In the IPNM Control Panel, you can start and stop the Intermec Printer Network Manager service manually or you can launch the Configuration Console.

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

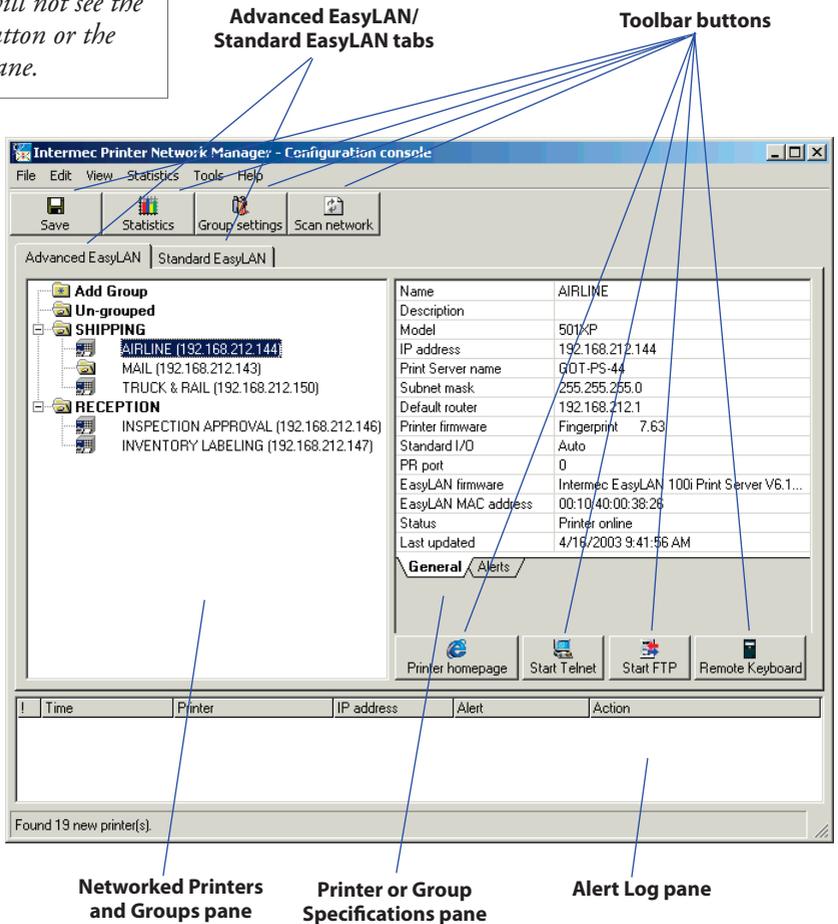
- Click Exit. If you made any changes, you are prompted to save them.

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.



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

Naming the Printers

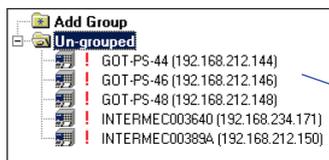
**Advanced EasyLAN =
EasyLAN 100
Standard EasyLAN =
EasyLAN 10/EasyLAN Wireless**

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.



**Networked Printers
and Groups pane**

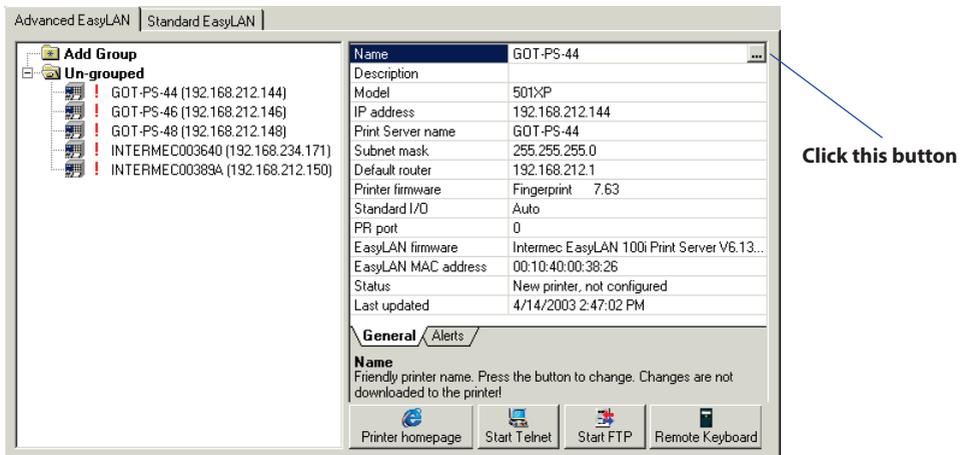
In the rest of this section, we will only discuss the printers under the Advanced EasyLAN tab. Standard EasyLAN printers are only shown as information.

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.



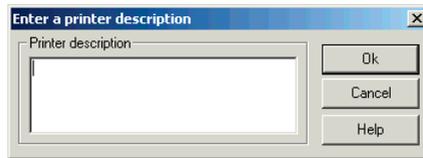
3. Click the button. The Enter a Printer Name dialog box appears.



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.



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

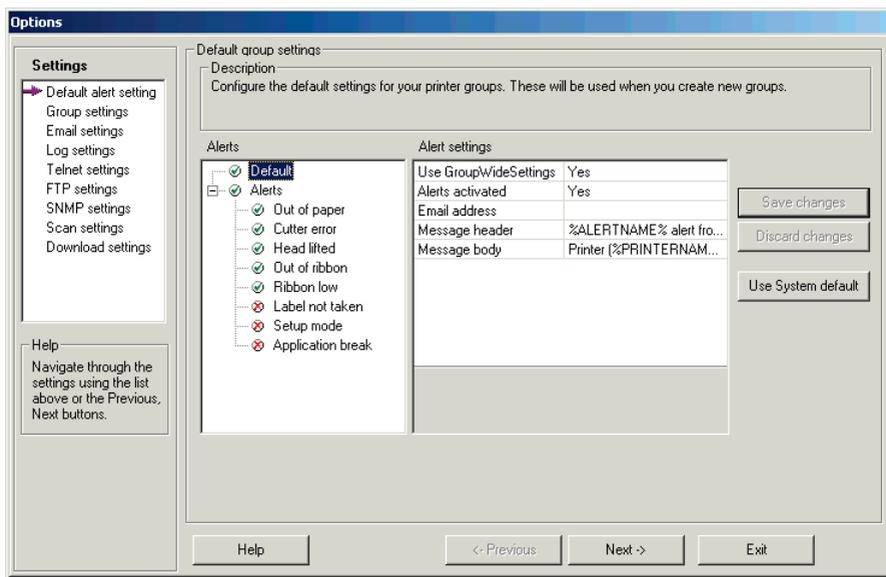
Defining Default Group and Alert Settings (Alert Mode Only)

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.



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*

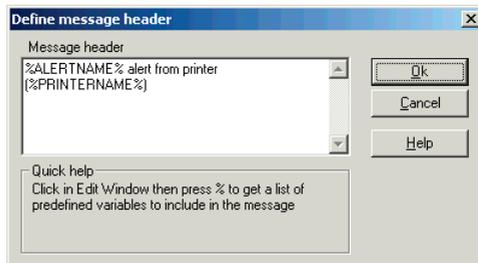
Select Yes or No. Enables and disables alerts from all printers using the default settings (except alerts that are disabled separately).

- *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.



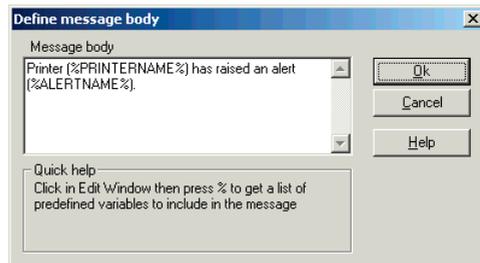
Defining Default Group and Alert Settings, cont.

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.



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

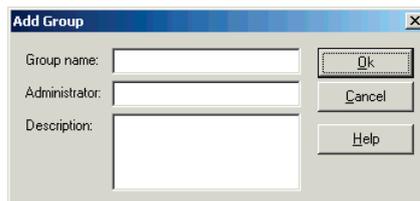
In the Advanced EasyLAN tab, you can group printers. You may want to group printers based on their location, organization, administrator, printer type, or function.

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

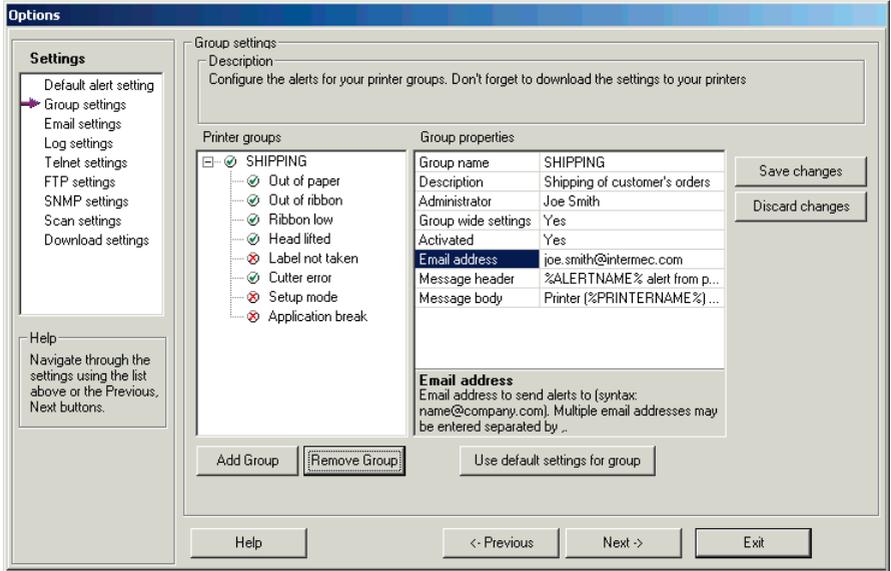
1. In the Networked Printers and Groups pane, click the Add Group folder. The Add Group dialog box appears.



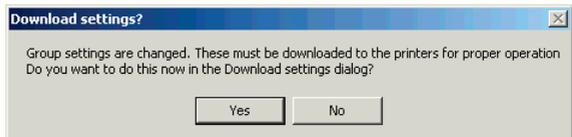
2. In the Group name field, enter the printer group name.
3. In the Administrator name field, enter the name of the person who is responsible for the printer group.
4. In the Description field, enter a description for the printer group.
5. Click Ok. The Group Settings dialog box opens.

Creating a New Group, cont.

- 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.



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



- 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

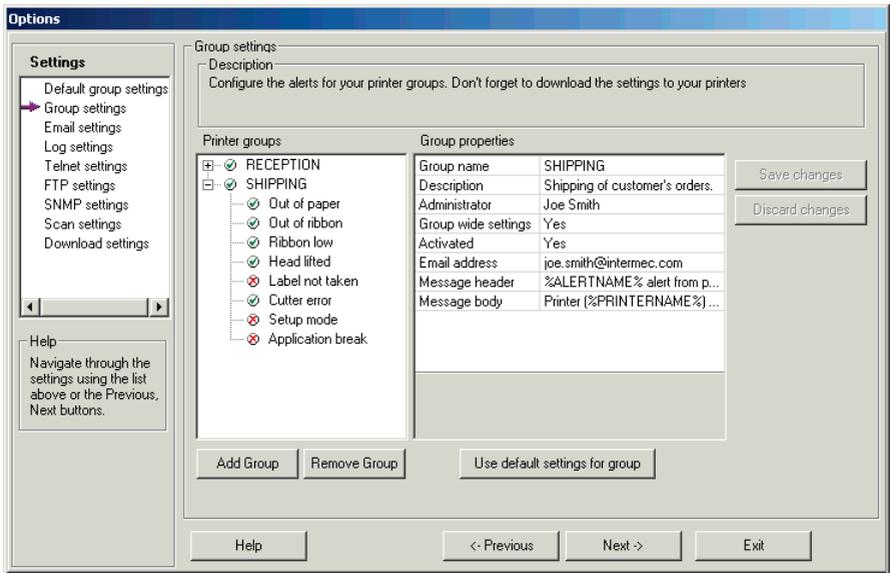
Once you have created all your groups, you can edit the parameters for each group at any time.

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.

Note.

You can also click the Group settings button.



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***

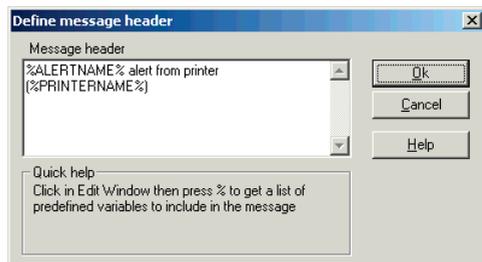
Select Yes or No. Choose yes to activate the alert and choose no to deactivate the alert. If you choose yes, you can also set these parameters.

- ***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.

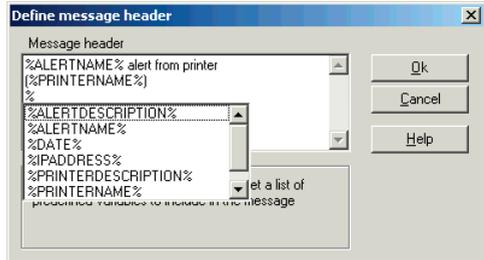


Editing a Group, cont.

Editing the Group Settings, cont.

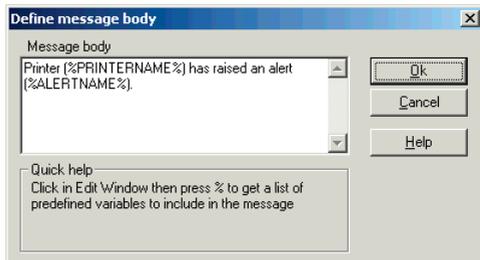
You can:

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



- 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.

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.

Editing the Group Alert Settings

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, right-click 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, right-click 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

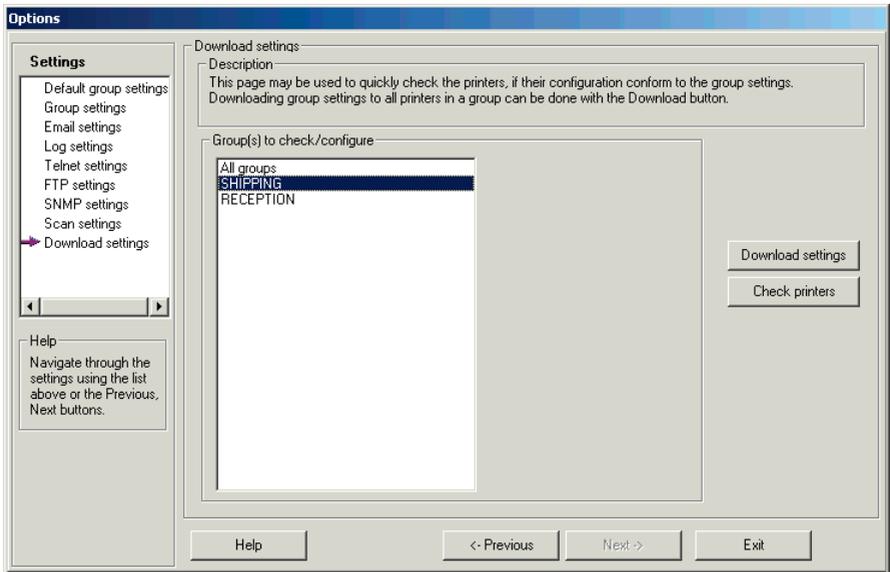
Now that you have grouped the networked printers and configured the group alerts, you must download these settings to the printers.

To download the group settings to the printers

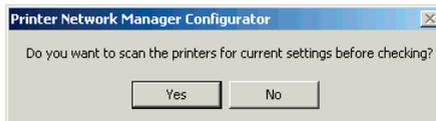
1. In the Networked Printers and Groups pane, right-click the group where you want to download the settings and select Download Settings.

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

The Download Settings dialog box appears:

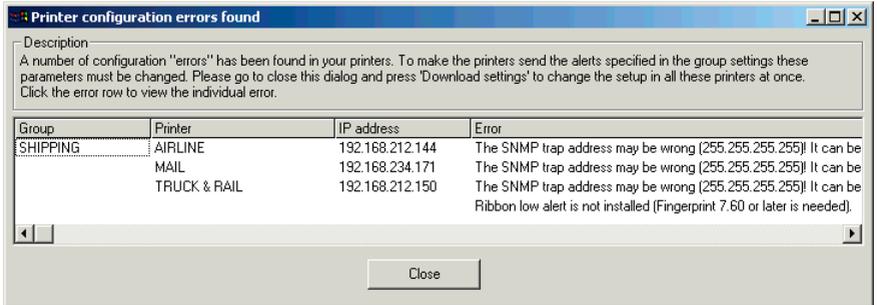


2. Click Check printers to check the printers for incompatible settings. A message box appears confirming that you want to check the printers.

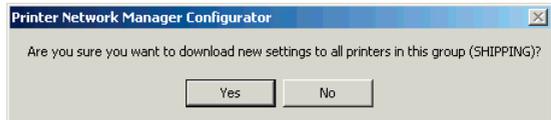


Download Settings, cont.

- 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:

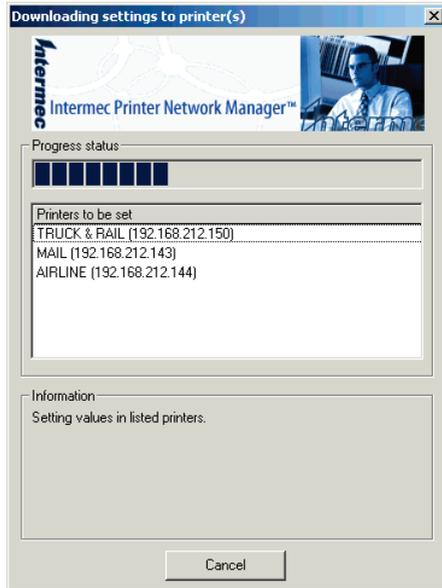


- Once you fix any errors in Step 3, go to the Download Settings dialog box, select the group and click Download settings. A message box appears confirming you want to download the settings to the group.



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

Download Settings, cont.



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.

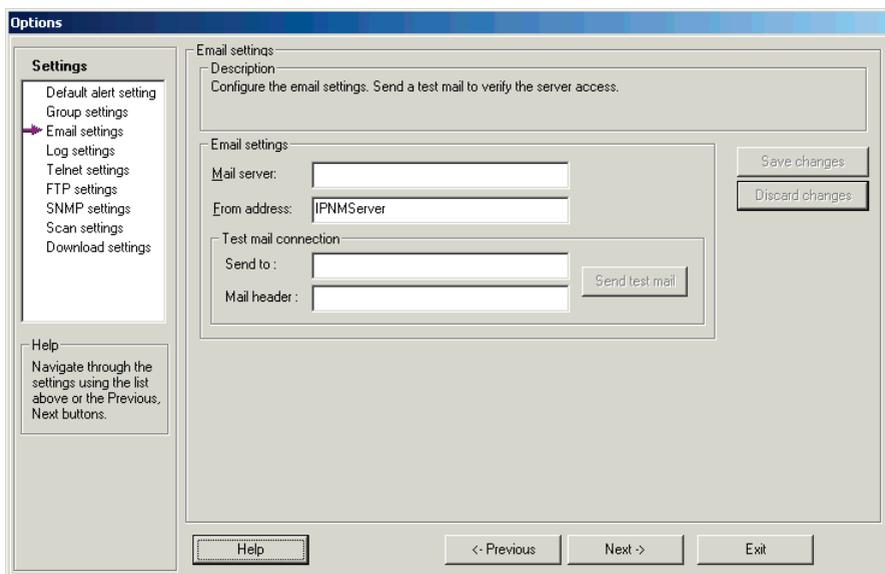
Managing the Groups and Printers

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.



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.

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.

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.

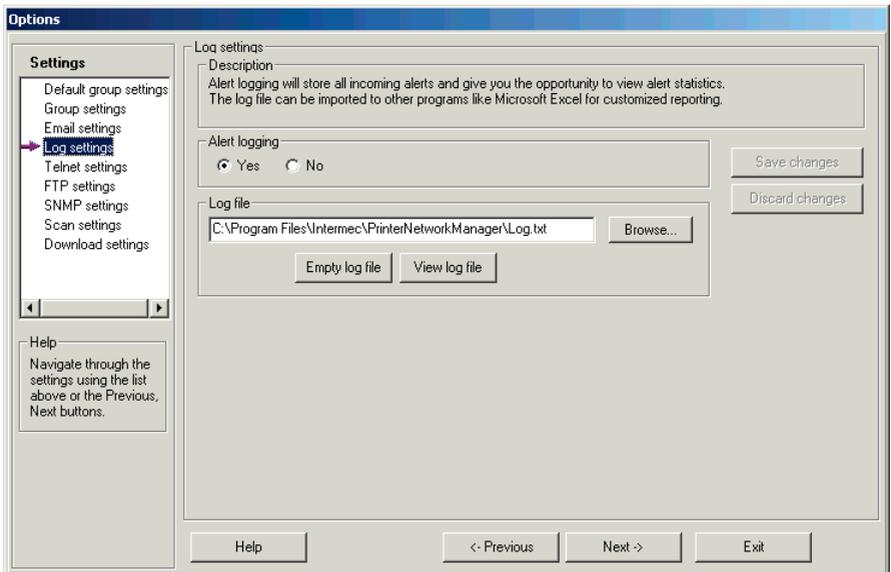
Using a Log File and Statistics (Alert Mode Only)

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.



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:

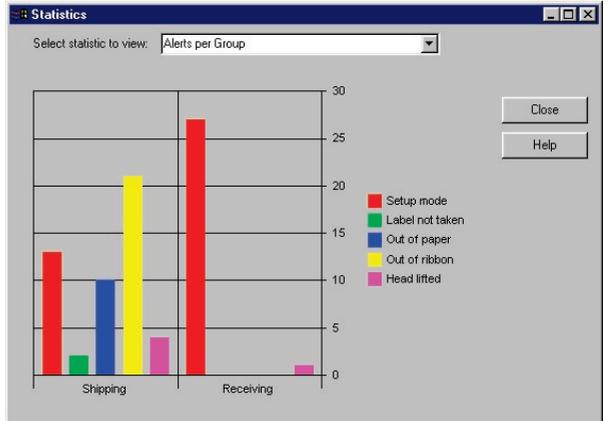
In order for IPNM to generate statistics, there must be at least one alert in the log file and error alerts must be enabled.

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

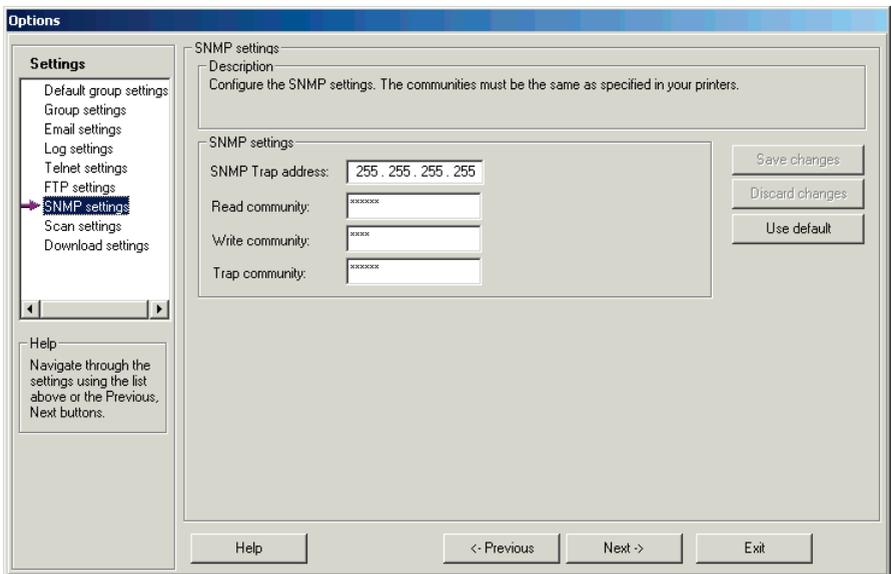
This dialog box defines the SNMP settings for error alerts (SNMP traps) and remote configuration. You can let IPNM set SNMP settings for a group to make it easier to configure multiple printers. This feature can be useful if all printers do not have the correct settings to run with IPNM.

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.



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.

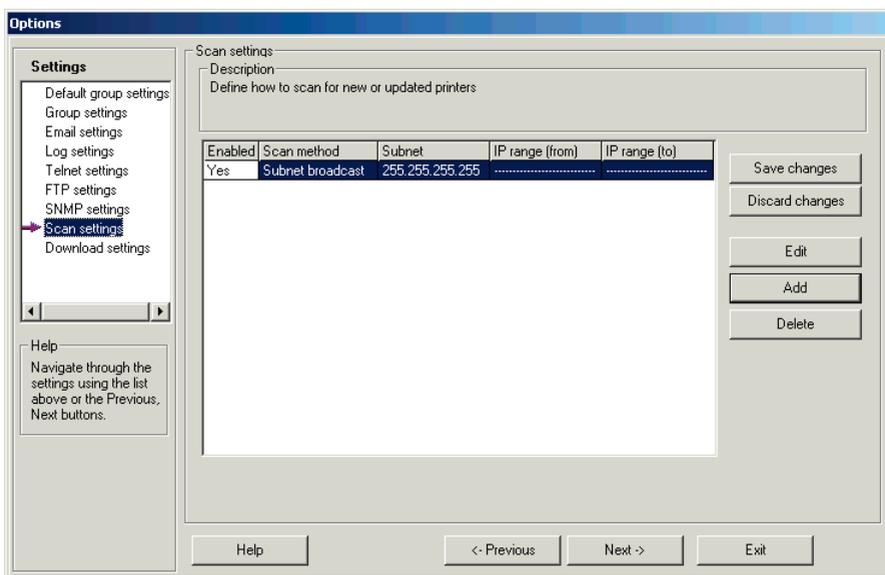
When you are done configuring the SNMP, you need to download the settings to the printers. For help, see “Downloading Settings” in Chapter 4.

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 (255.255.255.255) 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.



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

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.

Accessing the Printer's Home Page



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.



Communicating With the Printers, cont.

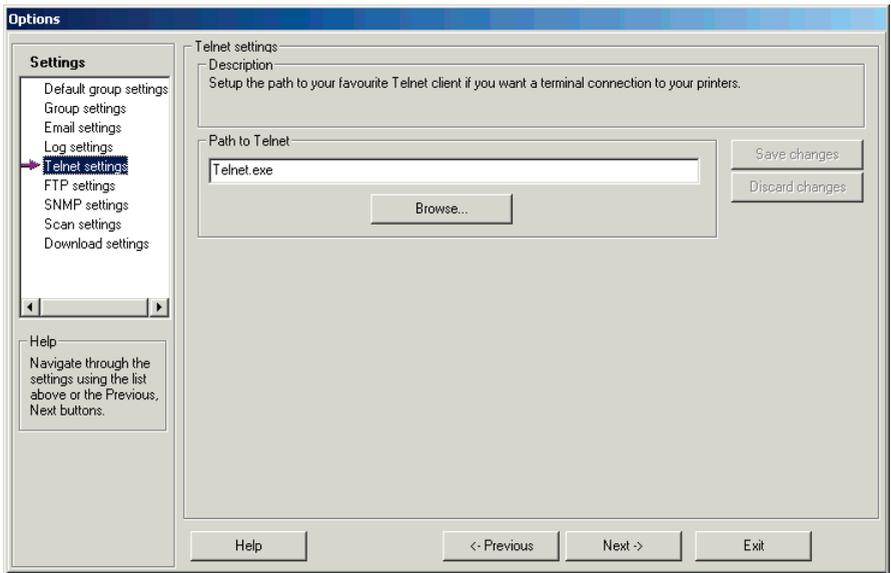
Establishing a Telnet Session With a Printer

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.



Communicating With the Printers, cont.

Establishing a Telnet Session With a Printer, cont.



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

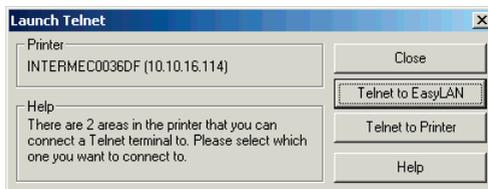
To establish a Telnet session with the printer

- 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.



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.”

Communicating With the Printers, cont.

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.

Communicating With the Printers, cont.

Using the Remote Keyboard

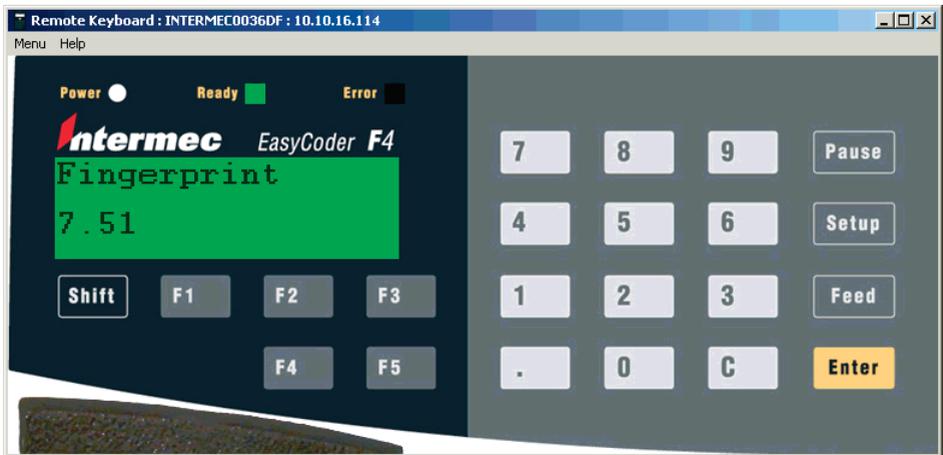
This feature is only available for printers with an EasyLAN 100i interface. It displays the front panel (including LEDs and keyboard) of the printer.

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.

Communicating With the Printers, cont.

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.

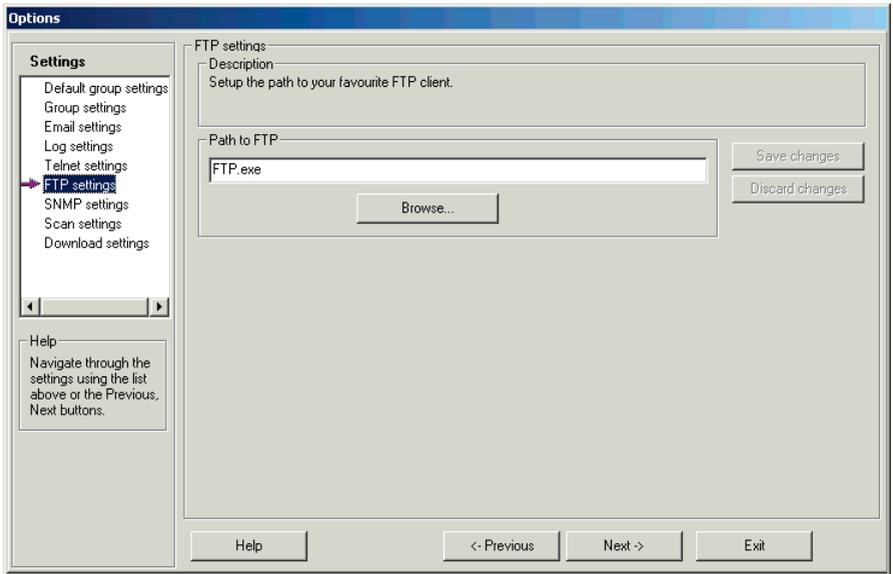
Before you can launch FTP, you must tell IPNM where it can find the FTP application. The FTP application that you use must be able to accept the IP address as the first parameter. This is because when IPNM launches the FTP application, it sends the IP address in one command string.

Communicating With the Printers, cont.

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.



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

Communicating With the Printers, cont.

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:).

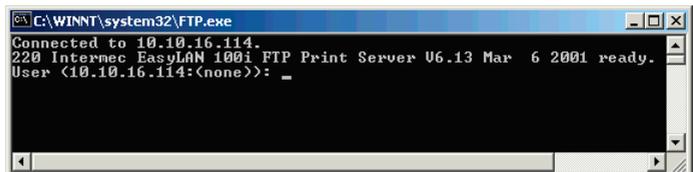
Submit the new settings and **reboot** the printer. When your FTP session is completed, you may want to change back the settings.

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.



Communicating With the Printers, cont.

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

```
C:\WINNT\system32\FTP.exe
Connected to 10.10.16.114.
220 Intermec EasyLAN 100i FTP Print Server U6.13 Mar 6 2001 ready.
User <10.10.16.114:(none)>: intermec
331 User name ok, need password
Password:
230 User logged in
ftp>
```

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 downloading 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.

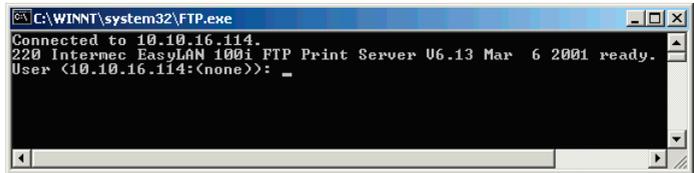


Communicating With the Printers, cont.

Using FTP to Download Files to the Printer, cont.



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
```

Communicating With the Printers, cont.

Using FTP to Download Files to the Printer, cont.



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

```
put EL100I.BIN FLASH
```

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

Note:

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



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Intermec Printer Network Manager v2.1, User's Guide



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