hp embedded web server for hp LaserJet printers
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for hp LaserJet printers

user guide
### Contents

Introducing the HP Embedded Web Server ............................................... 3
  Overview ........................................................................................................ 3
  Features ......................................................................................................... 4
    Additional Features with a Permanent Storage Device .................... 5
    Introducing ChaiVM (Embedded Virtual Machine) ....................... 6
  Accessing the HP Embedded Web Server ............................................ 7
    System Requirements ........................................................................... 7
    Viewing the HP Embedded Web Server .............................................. 7
  Navigating the HP Embedded Web Server ........................................... 8

Viewing Printer Status with the Home Pages ........................................ 9
  Overview ........................................................................................................ 9
  Printer Status ............................................................................................ 10
  Configuration Page ................................................................................ 11
  Supplies Status ....................................................................................... 12
  Event Log ............................................................................................. 13
  Usage Page ............................................................................................ 14
  Device Information .................................................................................. 15

Configuring the Printer with the Device Pages ....................................... 17
  Overview ........................................................................................................ 17
  Configure Printer ..................................................................................... 18
    Selecting Paper Size ........................................................................... 20
  Alerts ......................................................................................................... 21
    Configuring Alert Notification ............................................................. 23
    Refining Event Notification .................................................................. 27
  Email .......................................................................................................... 30
    Configuring Outgoing Mail ................................................................... 31
    Configuring Incoming Mail ................................................................... 32
    Using Email Command and Response ............................................... 33
  Security ..................................................................................................... 35
  Other Links .............................................................................................. 36
    Adding a Link ........................................................................................ 37
    Removing a Link .................................................................................. 37
  Device Information ................................................................................ 38
  Language ................................................................................................. 39

Managing the Network with the Networking Pages ................................ 41
  Overview ..................................................................................................... 41
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A – HP Web JetAdmin and the HP Embedded Web Server</td>
<td>43</td>
</tr>
<tr>
<td>Appendix B – How Do I?</td>
<td>45</td>
</tr>
<tr>
<td>Sharing Printer Information</td>
<td>45</td>
</tr>
<tr>
<td>Setting Up the Printer to Send E-mail Messages</td>
<td>46</td>
</tr>
<tr>
<td>Setting Up the Printer to Receive and Respond to E-mail Messages</td>
<td>52</td>
</tr>
<tr>
<td>Index</td>
<td>57</td>
</tr>
</tbody>
</table>
Introducing the HP Embedded Web Server

Overview

A web server provides an environment in which web programs may run, much in the same way that an operating system, such as Windows, provides an environment for programs to run on your PC. The output from these programs can then be displayed by a web browser, such as Microsoft Internet Explorer or Netscape Navigator.

When a web server is “embedded”, that means it resides on a hardware device (such as a printer) or in firmware, rather than as software that is loaded on a network server.

The advantage of an embedded web server is that it provides an interface to the printer that anyone with a network-connected PC and a standard web browser can access. There is no special software to install or configure.

The HP Embedded Web Server helps you to display status information, change settings, and manage the printer from the comfort of your PC. The top of the Home page is shown below.

Note
The HP Embedded Web Server screens shown in this guide are for the HP Color LaserJet 4550 series printer. If you are using a different printer model, you will notice slight variations in the embedded web server appearance and features.
Features

The HP Embedded Web Server allows you to view printer and network card status and manage printing functions from your PC. With the HP Embedded Web Server, you can do the following:

- View printer control panel messages and status lights.
- Determine the remaining life on all consumables.
- Order consumables.
- View and change tray configurations.
- View and change the printer configuration.
- View and print internal pages.
- Receive notification of printer events.
- Add or customize links to other web sites.
- Select the language in which to display the embedded web server pages.
- View and change network card configuration.
Additional Features with a Permanent Storage Device

If you have a permanent storage device installed in your printer (such as a hard disk), you can view, set up, and retain additional information.

- **Usage Page**—With a hard disk, you can view the Usage Page, which gives a page count for each size of media that has passed through the printer and shows the average percentage of toner coverage per page for each color; without the extra storage, the Usage Page is not available.

- **Alerts**—With a hard disk, you can set up four different notification lists, with up to 20 recipients on each of the four lists; without the extra storage, you can send alerts to only two e-mail addresses.

- **Other Links**—With a hard disk, you can add up to five additional links to the web sites of your choice; without the extra storage, you can add one additional link.

A hard disk may have shipped with your printer, depending on your printer model. To find out if you have a hard disk, print a configuration page. (Or view the embedded web server Configuration Page. See page 11.) The configuration page provides a summary of all installed accessories.

**To print a configuration page:**

1. On the printer control panel, press **Menu** until INFORMATION MENU displays.
2. Press **Item** until PRINT CONFIGURATION displays.
3. Press **Select** to print the configuration page. After the process is completed, the printer will return to the READY state.

If your printer does not have a hard disk, you can order one. For more information, see the user guide that came with your printer, or go to: [http://www.hp.com/go/buy_hp](http://www.hp.com/go/buy_hp) (inside the United States) or [http://www.hp.com/country/us/eng/othercountriesbuy.htm](http://www.hp.com/country/us/eng/othercountriesbuy.htm).
Introducing ChaiVM (Embedded Virtual Machine)

The printer also includes an embedded virtual machine for running Java™ applications, called ChaiVM. This infrastructure inside the printer allows for development of extended solutions, helps solve problems, and makes printer management easier. The embedded virtual machine has been specifically designed to make communication over the network or Internet easy.

Once you have this generic virtual machine operating system, you have several new capabilities:

- Applications can be developed on a PC with confidence that they will run on the embedded virtual machine. No custom development environment is required. A Java application that can run on ChaiVM virtual machine in a Windows 98 environment can also run in a Macintosh or a printer. This makes it easier and faster for developers to create custom printer capabilities.

- Printer firmware, or other applications, can be released and updated later.

- All of this can be done dynamically: an application can be sent to run on the embedded virtual machine (a self-test diagnostic program, for example), and the application can be deleted when it is done. Applications don't have to be permanently stored on the printer.

These capabilities apply to all printers with ChaiVM.
Accessing the HP Embedded Web Server

System Requirements

To use the HP Embedded Web Server, you must have the following:

- a TCP/IP-based network
- a web browser installed on your computer, preferably either Netscape Navigator 4.7X or Microsoft Internet Explorer 5.0X and above

Note
The embedded web server can be accessed from any operating system that supports the TCP/IP protocol and a web browser.

The embedded web server does not support IPX-based network printer connections and cannot be accessed with a parallel cable.

You cannot view the embedded web server pages from outside a firewall.

Viewing the HP Embedded Web Server

1. Launch your web browser.
2. In the Address: or Go to: field, type the IP address assigned to the printer (for example: http://192.168.1.1) or the host name (for example: http://myprinter).

If you do not know the IP address for the printer, it is listed on the printer configuration page under Protocol Information in the TCP/IP section.

To print a configuration page:

a. On the printer control panel, press Menu until INFORMATION MENU displays.

b. Press Item until PRINT CONFIGURATION displays.

c. Press Select to print the configuration page. After the process is completed, the printer will return to the READY state.
Navigating the HP Embedded Web Server

The HP Embedded Web Server has three sets of internal web pages for viewing printer information and for changing configuration options. You can access these pages by clicking one of the following three tabs: Home, Device, and Networking.

- The **Home** pages are the informational pages for the printer. You cannot configure the printer from these pages. (For more information, see page 9.)
- The **Device** pages allow you to configure the printer from your PC. (For more information, see page 17.)
- The **Networking** pages allow you to view network status and configure the printer’s network card from your PC. (For more information, see page 41.)

These pages may also provide additional links. For more information, see “Other Links” on page 36.

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**Note**

The HP Embedded Web Server screens shown in this guide are for the HP Color LaserJet 4550 series printer. If you are using a different printer model, you will notice slight variations in the embedded web server appearance and features.
# Viewing Printer Status with the Home Pages

## Overview

The Home pages are the informational pages for the printer. You cannot configure the printer from these pages. The table below lists each of the Home pages and describes its features. For more information, see the page indicated.

<table>
<thead>
<tr>
<th>Home Page</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printer Status (page 10)</td>
<td>Provides remote Go and Job Cancel functions; displays control panel messages and status lights (including help); allows you to set the refresh rate; and displays consumable life levels, input tray configurations, and installed accessories.</td>
</tr>
<tr>
<td>Configuration Page (page 11)</td>
<td>Displays all printer configuration settings.</td>
</tr>
<tr>
<td>Supplies Status (page 12)</td>
<td>Shows consumables levels and assists with consumables ordering.</td>
</tr>
<tr>
<td>Event Log (page 13)</td>
<td>Shows the most recent printer events and errors.</td>
</tr>
<tr>
<td>Usage Page (page 14)</td>
<td>Displays the printer’s name and serial number, gives a page count for each size of media that has passed through the printer, and shows the average percentage of toner coverage per page for each color. (This page is only available if your printer has a permanent storage device installed.)</td>
</tr>
<tr>
<td>Device Information (page 15)</td>
<td>Displays the device description, asset number, company name, contact person, and the printer’s IP address, model, number, and serial number.</td>
</tr>
</tbody>
</table>
Printer Status

Under **Control Panel**, the messages and status lights that currently appear on the printer control panel are displayed. Click **Control Panel Help** to view any help that is currently available on the printer control panel. (This appears at the bottom of the screen.)

You can click the printer's Go button to continue printing or to begin a print job. The Job Cancel button must be enabled from the Security page. (From the top of the screen, click Device, then on the left navigational bar, click Security.)

- Displays the percentage of life remaining for each consumable.
- Displays the status and configuration information for the input trays and output bins.
- Shows which accessories are installed in the printer.
- Displays any help that is currently available on the printer control panel when you press `?` (Item key).

---

**Supplies**

<table>
<thead>
<tr>
<th>Consumable</th>
<th>% of Life Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>75%</td>
</tr>
<tr>
<td>Cyan</td>
<td>55%</td>
</tr>
<tr>
<td>Magenta</td>
<td>43%</td>
</tr>
<tr>
<td>Yellow</td>
<td>56%</td>
</tr>
<tr>
<td>Drum Kit</td>
<td>46%</td>
</tr>
<tr>
<td>Fuser Kit</td>
<td>99%</td>
</tr>
<tr>
<td>Transfer Kit</td>
<td>99%</td>
</tr>
</tbody>
</table>

**Media**

<table>
<thead>
<tr>
<th>Status</th>
<th>Input/Output</th>
<th>Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>TRAY 3</td>
<td>LETTER</td>
<td>PLAIN</td>
</tr>
<tr>
<td></td>
<td>TRAY 1</td>
<td>A4</td>
<td>PLAIN</td>
</tr>
<tr>
<td></td>
<td>STANDARD OUTBIN</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Capabilities**

- DISK Storage: 3102 MB Capacity
- DIMM Slot 1: Side 1: Empty
- DIMM Slot 1: Side 2: Empty
- DIMM Slot 2: Side 1: 128 MB SDRAM
- DIMM Slot 2: Side 2: Empty

*Control Panel Help*

This printer features an online help system. Messages marked with `?` have online help available whenever `?` appears. Press `?` (item key) to view help messages. Exit help by pressing Go.
Configuration Page

Use the Configuration Page to view current printer settings, to help troubleshoot printer problems, or to verify installation of optional accessories, such as memory (DIMMs) or paper handling devices.

**Note**
You can send the Configuration Page to anyone you like via e-mail. See page 45 for more information.
Supplies Status

The Supplies Status page shows the levels remaining for all consumables and the HP Part Numbers for each consumable. (It is helpful to have the part numbers available when it is time to order supplies.)

To order supplies over the Internet, click the Order Supplies link.

# Supplies Status Page

Hewlett-Packard Supplies can be ordered on the internet at https://www.hp.com/go/ordersupplies-na or by calling Hewlett-Packard. (Please refer to your printer User Manual for the telephone number.)

For highest print quality always use genuine Hewlett-Packard LaserJet supplies.

## Cartridge Information

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>% of Life Remaining</th>
<th>HP Part Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>79%</td>
<td>Black Toner Cartridge HP C4191A</td>
</tr>
<tr>
<td>Cyan</td>
<td>95%</td>
<td>Cyan Toner Cartridge HP C4192A</td>
</tr>
<tr>
<td>Magenta</td>
<td>43%</td>
<td>Magenta Toner Cartridge HP C4193A</td>
</tr>
<tr>
<td>Yellow</td>
<td>66%</td>
<td>Yellow Toner Cartridge HP C4194A</td>
</tr>
</tbody>
</table>

## Other Supplies Information

<table>
<thead>
<tr>
<th>Item</th>
<th>% of Life Remaining</th>
<th>HP Part Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drum Kit</td>
<td>45%</td>
<td>Drum Kit HP C4195A</td>
</tr>
<tr>
<td>Transfer Kit</td>
<td>99%</td>
<td>Transfer Kit HP C4196A</td>
</tr>
<tr>
<td>Fuser Kit</td>
<td>99%</td>
<td>Fuser Kit HP 120V C4197A Z220V C4199A</td>
</tr>
</tbody>
</table>

## Printer Information

- Total Printer Page Count: 4563
- Pages printed in Color: 36
- Pages printed in B&W: 4917
- Printer Serial Number: XXXXXXXXXXX

Please return your used HP cartridge to Hewlett-Packard. For more information see: http://www.hp.com/lsupplies/planet_recycle.html
Event Log

The Event Log displays the most recent printer events, including printer jams, service errors, and other printer errors.

For quick access to more information regarding error messages, click the Solve A Problem link, then select Error Messages. (This link takes you to hp.com on the World Wide Web; it is not part of the embedded web server.)
Usage Page

The Usage Page displays the printer's name and serial number, gives a page count for each size of media that has passed through the printer, and shows the average percentage of toner coverage per page for each color.

**Note**
The Usage Page is only available if your printer has a permanent storage device (such as a hard disk) installed.

---

### HP Color LaserJet 4550

**Usage Totals**

<table>
<thead>
<tr>
<th>Page Size</th>
<th>Simplex Units</th>
<th>Duplex Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>Letter</td>
<td>12</td>
<td>1.0</td>
</tr>
<tr>
<td>Legal</td>
<td>0</td>
<td>1.3</td>
</tr>
<tr>
<td>A4</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>Exec</td>
<td>0</td>
<td>0.8</td>
</tr>
<tr>
<td>COM10</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>Monarch</td>
<td>0</td>
<td>0.3</td>
</tr>
<tr>
<td>GS</td>
<td>0</td>
<td>0.5</td>
</tr>
<tr>
<td>DL</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>JISB6</td>
<td>0</td>
<td>0.7</td>
</tr>
<tr>
<td>ES</td>
<td>0</td>
<td>0.7</td>
</tr>
<tr>
<td>Custom</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>A6</td>
<td>0</td>
<td>0.5</td>
</tr>
<tr>
<td>16K</td>
<td>0</td>
<td>0.3</td>
</tr>
<tr>
<td>JISFSC</td>
<td>0</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Total Printer Usage:** 44.0

**Black Coverage:** 7.63%
**Cyan Coverage:** 9.12%
**Magenta Coverage:** 9.28%
**Yellow Coverage:** 9.18%

---

*Usage totals are displayed for each media size. (Shows the number of pages that were printed on one side, the number that were printed on two sides (duplexed), and totals of the two printing methods.)*

*Displays the average percentage of toner coverage per page for each color. (This value is not separated for color and monochrome pages but is combined into one value for all pages printed.)*
Device Information

The Device Information page displays the device description, asset number, company name, contact person, and the printer’s IP address, model, number, and serial number.

Note

The device description, asset number, company name, and contact person must be entered from the Device pages. (From the top of the screen, click Device, then on the left navigational bar, click Device Information. See page 38 for more information.)
Configuring the Printer with the Device Pages

Overview

The Device pages allow you to configure the printer from your PC. The table below lists each of the Device pages and describes its features. For more information, see the page indicated.

<table>
<thead>
<tr>
<th>Device Pages</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure Printer</td>
<td>Provides a list of menus that let you <em>remotely</em> print internal printer pages and configure the printer.</td>
</tr>
<tr>
<td>(page 18)</td>
<td></td>
</tr>
<tr>
<td>Alerts</td>
<td>Lets you set up the printer to send problem and status alerts to anyone you choose via e-mail.</td>
</tr>
<tr>
<td>(page 21)</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td>Lets you configure e-mail settings for outgoing and incoming mail.</td>
</tr>
<tr>
<td>(page 30)</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>Lets you set a password to control who can remotely cancel jobs or access the Device pages.</td>
</tr>
<tr>
<td>(page 35)</td>
<td></td>
</tr>
<tr>
<td>Other Links</td>
<td>Lets you add or customize links to the web sites of your choice. These links are displayed on the left navigational bar throughout the embedded web server pages.</td>
</tr>
<tr>
<td>(page 36)</td>
<td></td>
</tr>
<tr>
<td>Device Information</td>
<td>Lets you name the printer and assign an asset number to it. You can add the name of the primary contact for information about the printer. This page also shows the printer’s IP address, printer model, printer number, and serial number.</td>
</tr>
<tr>
<td>(page 38)</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Lets you select which language is used to display the embedded web server pages.</td>
</tr>
<tr>
<td>(page 39)</td>
<td></td>
</tr>
</tbody>
</table>
Configure Printer

The Configure Printer page provides the capability to remotely print internal printer pages and configure the printer. From the internal printer pages, you can configure the paper trays and change other printer settings.

Click the menu name to display a menu and remotely manage the printer. These menus are similar to the menus that are available from your printer's control panel. (Some of the printer control panel menus are not available from the embedded web server.)

Note
The HP Embedded Web Server screens shown are for the HP Color LaserJet 4550 series printer. If you are using a different printer model, you will notice slight variations in the embedded web server appearance and available features.
The table below describes each of the menus.

<table>
<thead>
<tr>
<th>Menu Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Menu</td>
<td>This menu contains printer information pages that give details about the printer and its configuration.</td>
</tr>
<tr>
<td>Paper Handling Menu</td>
<td>Using this menu, you can set the type of paper in each tray.</td>
</tr>
<tr>
<td>Printing Menu</td>
<td>In this menu, you can select printing options, such as number of copies. You can also configure custom paper size.</td>
</tr>
<tr>
<td>Configuration Menu</td>
<td>Items in this menu affect the printer’s behavior. For example, you can configure PowerSave and printer personality settings from this menu.</td>
</tr>
<tr>
<td>I/O Menu</td>
<td>Items in the I/O (input/output) Menu affect the communication between the printer and the computer.</td>
</tr>
<tr>
<td>Resets Menu</td>
<td>Use this menu with caution. You can lose buffered page data or printer configuration settings when you select these items. Only reset the printer under the following circumstances:</td>
</tr>
<tr>
<td></td>
<td>• You want to restore the printer’s default settings.</td>
</tr>
<tr>
<td></td>
<td>• Communication between the printer and computer has been interrupted.</td>
</tr>
<tr>
<td></td>
<td>• You are having problems with a port.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> If there isn’t communication between the printer and your computer, you won’t be able to reset the printer.</td>
</tr>
<tr>
<td></td>
<td>The items in the Resets Menu will clear all memory in the printer, while the Cancel Job button clears only the current job. You can access the Cancel Job button from the Security page. (For more information, see page 35.)</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> After performing a reset you will need to configure the printer IP address.</td>
</tr>
</tbody>
</table>
Selecting Paper Size

This procedure is provided as an example. Other menu items can be set in a similar manner.

**Note**
Printer drivers and software applications frequently override selections made in the Printing menu and the Paper Handling menu. For more information, see the user guide that came with your printer.

Follow the steps below to select the paper size for Tray 1:

1. Click **PAPER HANDLING MENU**.
2. Next to **TRAY 1 SIZE**, select LETTER.
3. Click **Apply** to save the change.

**Note**
Any changes will be reflected on the Printer Status page, the Configuration Page, and the Paper Handling menu.
Alerts

From the Alerts page, the system administrator can set up the printer to send problem and status alerts to anyone through e-mail. More than one individual can receive alerts, with each person receiving only specific alerts. For example, an administrative assistant might be responsible for keeping toner loaded in a printer or fixing paper jams, while major consumables are handled by an external service provider. Alerts can be set up so the administrative assistant gets advanced warning on toner low situations, and the external service provider gets alerts on fusers, print drums, and transfer belts.

**Note**

For step-by-step instructions on setting up the printer to send an e-mail alert, see page 46.

**Note**

Some of the embedded web server features require a permanent storage device (such as a hard disk) in order to set up and retain specific information on a permanent basis. This applies to the Alerts feature, as discussed below.

The screen below shows the Alerts page and options with a permanent storage device. With a hard disk you can set up four different lists, with up to 20 notification recipients on each of the four lists. For more information, see page 24.
Without a hard disk, there is room for only two e-mail addresses. Since there are no lists to edit, you add e-mail recipients directly on the Alerts page. The screen below shows the Alerts page without a hard disk. For more information, see page 23.

The table below describes each link under **Select Events**. For more information, see “Refining Event Notification” on page 27.

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplies</td>
<td>Select specific supplies, such as toner, fuser kit, or transfer kit.</td>
</tr>
<tr>
<td>Service</td>
<td>Select specific events that require service, such as “EIO not functional” or “Install drum kit”.</td>
</tr>
<tr>
<td>Media Path</td>
<td>Select events associated with the media path, such as removing a paper jam or loading a paper tray.</td>
</tr>
<tr>
<td>Advisory</td>
<td>Select advisory events such as “Page too complex” or “Insufficient Memory”.</td>
</tr>
</tbody>
</table>
Configuring Alert Notification

Configuring Alert Notification Without a Permanent Storage Device

**Note**
These steps apply to printers without a permanent storage device (such as a hard disk).

To configure alert notification, follow the steps below:

1. Under **Notification Recipients**, enter e-mail addresses for two recipients.

2. Click the checkbox next to **Supplies, Service, Media Path**, and **Advisory** for each recipient you would like to receive notification. (For more information, see the table on page 22 or “Refining Event Notification” on page 27.)

3. Click **Apply** to save the information.

**Note**
For alerts to function, Outgoing Mail must be configured. To configure Outgoing Mail, see “Email” on page 30.

After you have set up your lists, you can further refine event notification by selecting specific details and options within each event. See “Refining Event Notification” on page 27.
Configuring Alert Notification With a Permanent Storage Device

Note
These steps apply to printers with a permanent storage device (such as a hard disk).

To configure alert notification, follow the steps below:

1. Under **Notification Recipients**, click **Edit List1**.

![Configure Printer Interface](image)
2. Under **Change List Name**, enter a name, such as Service or Supplies. (See the screen below.)

3. Under **Add Recipient Address**, enter e-mail addresses for anyone you would like to receive notification. In large environments, system administrators can route e-mail addresses to list servers or URLs for expanded notification.

4. Click **Apply** to save the information. Repeat steps 3 and 4 for each recipient address. When you have finished adding recipients, click **Back** to return to the Alerts page.
5. From the Alerts page, click the checkbox next to **Supplies, Service, Media Path, and Advisory** for each list you would like to receive notification. (For more information, see the table on page 22 or “Refining Event Notification” on page 27.)

6. Click **Apply** to save the information.

7. Repeat steps 1-6 for each additional list.

**Note**

For alerts to function, Outgoing Mail must be configured. To configure Outgoing Mail, see “Email” on page 30.

After you have set up your lists, you can further refine event notification by selecting specific details and options within each event. See “Refining Event Notification” on page 27.
Refining Event Notification

After you have set up your lists, you can further refine event notification by selecting specific details and options within each event. (See the table on page 22 for a description of each event category.)

1. Under **Select Events**, click an event category (**Supplies**, **Service**, **Media Path**, **Advisory**) to view the events that are available.
2. For each event, select the lists (List 1 - 4) that you would like to be notified. (The screen below shows the Supplies events.)

Note
Those events that are hyperlinked (underlined with blue) have additional detail available.
3. After you have refined your events, click **Email Contents** to enter the information you want to include with your e-mail alert. This information may include Device Information, Contact Information, Supplies Status, Usage Page, Help Resources, Configuration Page, and an Event Log. Click the checkbox next to the information you would like to include.

4. Click **Apply** to save the information.

5. Click **Back** to return to the Alerts page.
Email

The Email page lets you configure e-mail settings for outgoing and incoming mail. This enables you to use the printer's “send and receive” capabilities.

**Note**
For step-by-step instructions on setting up the printer to send an outgoing e-mail message, see page 46. For instructions on setting up the printer to receive an incoming e-mail message and respond with an outgoing e-mail message, see page 52.

- **Outgoing Mail** must be configured for Alerts and Email Command and Response to function.

- **Incoming Mail** must be configured for Email Command and Response to function. (You don't need to configure Incoming Mail for Alerts to function.) With Email Command and Response, you can request information from the printer, such as a configuration page or a supplies status page. For more information, see page 33.

**Note**
Settings on the Email page and the Security page work together. For outgoing and incoming mail to work properly, you need to select the appropriate check box on the Security page. (For more information, see “Security” on page 35.)
Configuring Outgoing Mail

**Note**
It is only necessary to configure Outgoing Mail if you intend to use Alerts and/or Email Command and Response. If you intend to use Email Command and Response, you must also configure Incoming Mail (see page 32).

To configure Outgoing Mail you will need the following:

- The IP address of the SMTP mail server on your network.
- The e-mail domain name suffix used for addressing e-mail messages within your organization.

**Note**
Your organization’s network or e-mail administrator typically provides the information required to configure Outgoing Mail.

1. Enter the SMTP Server IP address. The SMTP Server IP address is used by the printer to relay e-mail messages to other computers.

2. Enter the Domain Name. The domain name is combined with the POP3 username (or “printer” by default) in the From: field in e-mail messages sent from the printer. Typically, the printer’s domain name will be the same as the portion of your own e-mail address after the “@” symbol. For example, if your e-mail address is “jon_doe@hp.com”, then the printer’s domain name would be “hp.com”.

3. Click Apply to save changes on the Email page.

**Note**
For outgoing mail to work properly, you must also enable Outgoing Mail on the Security page. See page 35 for more information.
Configuring Incoming Mail

**Note**
It is only necessary to configure Incoming Mail if you intend to use Email Command and Response. You must also configure Outgoing Mail for the Email Command and Response feature to work properly (see page 31).

1. Establish a Post Office Protocol 3 (POP3) mailbox account for the printer on a mail server within your organization’s network. Each POP3 account requires a username and a password. The username combined with the printer’s domain name (specified in the Outgoing Mail configuration) will become the e-mail address for the printer. For example, if the POP3 mailbox account username is “printer” and the domain name is “hp.com”, the printer’s e-mail address will be “printer@hp.com”.

**Note**
Each printer that is configured for incoming mail must have its own POP3 mailbox account on your network’s e-mail server.
POP3 mailbox accounts are typically configured by your organization’s network or e-mail administrator.

2. Enter the IP address of the POP3 mail server and the Username and Password of the printer’s mailbox account.

3. Click **Apply** to save changes on the Email page.

**Note**
For incoming mail to work properly, you must also enable Incoming Mail on the Security page. See page 35 for more information.
Using Email Command and Response

When outgoing and incoming mail are configured, you can send an e-mail message to the printer requesting a configuration page or a supplies status page, and the printer will respond with an e-mail message. You can use this capability to solve a problem or check the status of printer consumables.

Note
For step-by-step instructions on setting up the printer to receive an incoming e-mail message and respond with an outgoing e-mail message, see page 52.

Composing a Message to the Printer

When composing a message to the printer, you must properly format the To:, From:, and Subject: fields in your e-mail application.

1. In the To: field, enter the printer’s e-mail address. (To find the printer’s e-mail address, from the top of the screen, click Device, then on the left navigational bar, click Email. Under Outgoing Mail, you should see the Printer Email Address.)

2. The From: field should be filled in automatically by your e-mail application as your return e-mail address.

3. In the Subject: field, using the table below, enter the type of information you would like returned (configuration page or supplies status page) and the format of the message (HTML, XML, or Text).

The table below lists the Subject: field entries supported:

<table>
<thead>
<tr>
<th>Format</th>
<th>Configuration Page</th>
<th>Supplies Status Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML</td>
<td>this.configpage?configpage=email&amp;format=html</td>
<td>this.configpage?suppliespage=email&amp;format=html</td>
</tr>
<tr>
<td>XML</td>
<td>this.configpage?configpage=email&amp;format=xml</td>
<td>this.configpage?suppliespage=email&amp;format=xml</td>
</tr>
<tr>
<td>TEXT</td>
<td>this.configpage?configpage=email&amp;format=text</td>
<td>this.configpage?suppliespage=email&amp;format=text</td>
</tr>
</tbody>
</table>

4. Click Send. (See the screen on the next page.)
The screen below shows an e-mail message to the printer requesting that a configuration page be returned in HTML format:

![Email message](image)

The printer will check for new e-mail messages once every three minutes. When the printer receives the e-mail message, it will generate a reply and send the requested information back to the sender's e-mail address (as specified in the From: field of the original e-mail message).

**Note**

Depending on delays in the network and your organization’s mail server, a response may take from one minute to several hours to arrive back in your e-mail application’s Inbox.

If the To:, From:, and Subject: fields are not properly formatted in your e-mail message, the printer will not send a message in response.
Security

From the Security page, you can set a password to control who can cancel jobs remotely or access the Device pages. The username is already set as “laserjet”. Once the password has been set, users will be prompted to enter a password when they access either the Device pages or the Order Supplies link.

Select this checkbox for Alerts and Email Command and Response to work properly.

Select these checkboxes to display the Go and Cancel Job buttons on the Printer Status and Configure Printer pages.

Opens the Email page in a new window so you can verify that the e-mail settings are correct. (Alerts and Email Command and Response will not work if the SMTP server is not set up correctly.) Exit the Email page to return to the Security page.

Configure Printer
Alerts
Email
Security
Other Links
Device Information
Language

Security

Printer Security
- Cancel Job Button
- Go Button
- Cancel

Email Security
- Outgoing Mail
- Incoming Mail
- Apply

Other Links
My Printer
Order Supplies
Solve A Problem

Verify Email settings are valid

Select this checkbox for Email Command and Response to work properly.
Other Links

The Other Links page lets you add or customize links to the web sites of your choice. These links are displayed on the left navigational bar throughout the embedded web server pages.

There are three permanent links:

- **My Printer** connects to a set of web resources that will help you to solve specific problems and determine what additional services are available for your printer. (Detailed information including serial number, error conditions, and status will be forwarded to Hewlett-Packard’s Customer Care. Hewlett-Packard will treat this information as confidential.)

- **Order Supplies** lets you order printer supplies over the Internet. To find out how to set a password for this page, see “Security” on page 35.

- **Solve a Problem** gives you access to specific printer help from HP’s web site.

Note

Some of the embedded web server features require a permanent storage device (such as a hard disk) in order to set up and retain specific information on a permanent basis.

With a hard disk, you can add up to five additional links; without the extra storage, you can add one additional link. (You may want to add a link to your company’s web site.)
Adding a Link

1. Under **Add Link**, enter the URL and the Name as you would like it to appear in the embedded web server pages.

2. Click **Add**.

The screen below shows the Other Links page with one user-defined URL.

![Adding a Link](image)

Removing a Link

1. Under **User defined Links**, select the link you would like to remove.

2. Click **Remove Selected Link**.
**Device Information**

The Device Information page lets you name the printer and assign an asset number to it. You can add the name of the primary contact for information about the printer. This page also shows the printer’s IP address, printer model, printer number, and serial number.

**Note**

If you make any changes on the Device Information page, click **Apply** to save those changes.

The information entered here appears on the Device Information page that can be accessed from the Home tab. It also appears in e-mail messages that are sent from the printer. This may be useful if you need to locate the printer to replace supplies or fix a problem.
Language

The Language page lets you select which language is used to display the embedded web server pages.

**Note**
The default language is the language currently in use by the web browser. If your browser and printer control panel both use a language that is not available for the embedded web server, English will be selected as the default.

The following languages are available:

- English
- Italian
- Spanish
- Danish
- Swedish
- French
- German
- Dutch
- Finnish
- Norwegian
- Portuguese

If you make any changes on the Language page, click **Apply** to save your changes.

**Caution**
Choosing a setting other than “View Pages in Browser Language” (the default) will change the language for everyone browsing the embedded web server.
Managing the Network with the Networking Pages

Overview

The Networking pages allow you to view network status and configure the printer's network card from your PC. The Networking pages are not part of the embedded web server in your printer; they reside on an embedded web server that is included with your HP JetDirect EIO network card.

The appearance and features of the Networking pages will differ, depending on the version of your HP JetDirect card. The following screen is similar to what you might see when you click Networking. From the left navigational bar, click the Networking page that you want to view. (The Network Settings page is shown below.)
Below are some of the tasks you may be able to perform from the Networking pages:

- Change network configuration settings for various types of network connections.
- Enable or disable printing protocols.
- Set up a support contact and support URLs.
- Set up a password to control who can remotely access the Networking pages.
- View general network status information, including network statistics stored on the print server.
- View protocol information for all supported network connections.
- Display the HP JetDirect Configuration Page.
- Set the frequency at which the embedded web server will check the network status.

For more information about the Networking pages, refer to the following:

- Help—On each Networking page, under Other Links there is a Help link that provides a description of the networking features and helpful tips for using them. Also, from the Help page you can access additional help from HP’s web site.
- HP JetDirect Print Server Administrator's Guide—This guide may be available on the software CD that shipped with your printer. To download the most recent version of the guide, go to: http://www.hp.com/support/net_printing.
How does HP Web JetAdmin work together with the HP Embedded Web Server?

HP’s Web JetAdmin is a web-based system management tool that provides efficient installation and management of networked peripherals from a web browser. It allows network administrators to manage their network printers from virtually anywhere.

The HP Embedded Web Server and Web JetAdmin work together to meet all your printer management needs.

The HP Embedded Web Server provides a simple, easy-to-use solution for one-to-one printer management in environments with a limited number of printers. However, environments with several printers may want to use HP Web JetAdmin for group printer management. With HP Web JetAdmin you can discover, manage, and configure multiple devices simultaneously.

HP Web JetAdmin is available from HP Customer Care Online (http://www.hp.com/support/net_printing).
Sharing Printer Information

How can I share my printer information without setting up e-mail alerts?

Your web browser has a feature that is useful for sharing printer information.

1. Browse to the embedded web server page that you want to share.
2. Follow the instructions below for your browser:
   - For Microsoft Internet Explorer: From the File menu, click Send, then click Page by E-mail.
   - For Netscape Navigator: From the File menu, click Send Page.

An e-mail composition window will appear, with the selected embedded web server page attached. You can send the e-mail to anyone you wish.

For example, you might want to send the Configuration Page to HP Customer Care to help troubleshoot a printer problem.
Setting Up the Printer to Send E-mail Messages

How do I set up the embedded web server so that the printer can send an outgoing e-mail message?

The following example shows how to configure the HP Color LaserJet 4550 printer to send you an e-mail alert anytime a printer door or cover has been left open.

1. Launch your web browser.

2. In the **Address:** or **Go to:** field, type the IP address assigned to the printer (for example: http://192.168.1.1) or the host name (for example: http://myprinter).

   (If you do not know the IP address for the printer, see page 7.)

3. The embedded web server Home page should appear. From the top of the screen, click **Device**, then on the left navigational bar, click **Alerts**.
4. Add your e-mail address (follow the appropriate instructions below).

If the Printer has a Permanent Storage Device

Note
These steps apply to printers with a permanent storage device (such as a hard disk).


b. Under Add Recipient Address, enter your e-mail address. (For example: “name@company.com”.)

c. Click Apply.

d. Click Back to return to the Alerts page.
If the Printer DOES NOT have a Permanent Storage Device

**Note**
These steps apply to printers without a permanent storage device (such as a hard disk).

a. Under **Notification Recipients**, enter your e-mail address. (For example: “name@company.com”.)

b. Click **Apply**.

5. Under **Select Events**, click **Media Path**.

![Configuration Screen](image)
6. Select the **List1** checkbox next to CLOSE DRAWERS/DOORS/COVERS.

7. Click **Apply**. The following screen should appear. Click **OK**.

**Success**

Your selections have been accepted.

**Warning**

SMTP Server: Not a valid address  Verify Email settings are valid

**OK**
8. On the left navigational bar, click **Email**.

9. Under **Outgoing Mail**, enter the SMTP Server IP address.

10. Under **Outgoing Mail**, enter the Domain Name.

11. Click **Apply**.

12. Click **Security**.

13. Under **Security**, select the **Outgoing Mail** checkbox.

14. Click **Apply**.

**Note**
Your organization's network or e-mail administrator typically provides the information required to configure outgoing mail. See page 31 for more information.
15. To test the configuration, open the top cover of the printer, then go to your computer and verify that you have received an e-mail message from the printer. (See the example below.)

From: printer@hp.com [mailto:printer@hp.com]
Sent: Tuesday, December 12, 2000 8:43 AM
To: name@company.com
Subject: Event: CLOSE DRAWERS/DOORS/OVERS

HP Device Alert:
Event: CLOSE DRAWERS/DOORS/OVERS
Device Identification:
   Description: HP Color LaserJet 4550
   IP Address: 192.168.1.1
   Printer Model: HP Color LaserJet 4550
   Model Number: XXXXXA
   Printer Serial Number: XXXXXXXXXXXA
   Asset Number:

Help Resources:
The printer control panel displayed the following information:
   CLOSE TOP COVER

Detailed device information is available at: http://192.168.1.1
Additional resources are available at:
   Solve A Problem: http://www.hp.com/support/l4550_solve_a_problem

Contact Information:
   Company Name:
   Contact Person: Support Person

Device Alert Version 1.0
Setting Up the Printer to Receive and Respond to E-mail Messages

How do I set up the embedded web server so that the printer can receive an incoming e-mail message and respond with an outgoing e-mail message?

The following example shows how to configure the HP Color LaserJet 4550 printer so that you can send an e-mail message to the printer, requesting a configuration page, and the printer will respond with an e-mail message.

1. Launch your web browser.
2. In the **Address:** or **Go to:** field, type the IP address assigned to the printer (for example: http://192.168.1.1) or the host name (for example: http://myprinter).

(If you do not know the IP address for the printer, see page 7.)

3. The embedded web server Home page should appear. From the top of the screen, click **Device**, then on the left navigational bar, click **Email**.
Note
Your organization’s network or e-mail administrator typically provides the information required to configure outgoing and incoming mail. See pages 31-32 for more information.

4. Under **Outgoing Mail**, enter the SMTP Server IP address.

5. Under **Outgoing Mail**, enter the Domain Name.

6. Under **Incoming Mail**, enter the POP3 Server IP address.

7. Under **Incoming Mail**, enter the Username of the printer’s mailbox account (for example, “printer”).

8. Click **Apply**.

9. Click **Security**.
10. Under **Security**, select the **Outgoing Mail** and **Incoming Mail** checkboxes.

11. Click **Apply**.

12. From your e-mail application, compose a message to the printer, following the steps below:

   a. In the **To:** field, enter the printer’s e-mail address. (To find the printer’s e-mail address, from the top of the screen, click **Device**, then on the left navigational bar, click **Email**. Under **Outgoing Mail**, you should see the **Printer Email Address**.)

   b. The **From:** field should be filled in automatically by your e-mail application as your return e-mail address.

   c. In the **Subject:** field, enter:

      “this.configpage?configpage=email&format=html”

**Note**

For more information about composing a message to the printer, see page 33.

13. Click **Send**.
14. You should receive an e-mail from the printer in your e-mail application’s Inbox. (See the screen below.)

**Note**
Depending on delays in the network and your organization’s mail server, a response may take from one minute to several hours to arrive back in your e-mail application’s Inbox.

If the To:, From:, and Subject: fields are not properly formatted in your e-mail message, the printer will not send a message in response.

**Configuration Page**

**Printer Information**
- Firmware Datecode: 1.0
- Jam Recovery: OFF
- Print PS Errors: OFF
- Page Count: 852
- Color Page Count: 75
- Product Name: HP Color LaserJet 4550
- Printer Name: HP Color LaserJet 4550
- Printer Number: C0001A
- Resolution: 600
- Printer Serial Number: X0000000X
- HP JetSend Address: 192.168.1.1

**Installed Personalities and Options**
- PCL (00000000)
- PCLXL (00000000)
- PS (00000000)
- DIMM Slot 1: Side 1: 64 MB SDRAM
- DIMM Slot 1: Side 2: Empty
- DIMM Slot 3: Side 1: 16 MB ROM
- DIMM Slot 3: Side 2: 0 MB SDRAM
- EO1: HP JetDirect J4189A
- EO2: HP C2585B
- DISK Storage: 512 MB Capacity

**Security**
- Control Panel Lock: DISABLED
- Control Panel Password: DISABLED
- Device Type: DISK Write Protect: DISABLED

**Memory**
- Total Memory: 64 MB
- DISK: 24.95

**Paper Trays and Options**
- Mopier: ON
- Default Paper Size: LETTER
- Tray 1 (LETTER)
- Tray 2 (LETTER)
- Tray 3 (LETTER)
- Input Trays:
  1. TRAY 1, 150 Sheets
  2. TRAY 2, 250 Sheets
  3. TRAY 3, 500 Sheets
- Output Bins:
  1. STANDARD, 250 Sheets, Face Down

**Density Settings**
- Black: 0
- Cyan: 0
- Magenta: 0
- Yellow: 0
accessories, status, 10, 11
Alerts, 21
    configure notification, 23, 24
    refine notification, 27
    setting up, 46
asset number, 15
browser, required, 7
Calibration Menu, 18
Cancel Job button, 10, 35
ChaiVM, 4
company name, 15
Configuration Menu, 18
Configuration Page, 11
configuration page,
    printing, 6, 7
Configure Printer, 18
consumables
    ordering, 36
    status, 10
contact person, 15, 38
control panel
    security, 11
    status, 10
density settings, 11
Device Information page,
    15, 38
Device pages, 8, 17–40
DIMMs
    ordering, 36
    status, 10, 11
drum kit
    ordering, 36
    status, 10, 12
duplex print jobs, 14
DWS, 11
EIO card
    ordering, 36
    status, 11, 41–42
e-mail
    alerts, 21
    embedded web server
        page, 45
        setting up incoming and
            outgoing, 52
        setting up outgoing, 46
Email page, 30
    Command and
        Response, 30
        incoming mail, 32
        outgoing mail, 31
        setting up mail server,
            30, 33
embedded virtual
    machine, 4
embedded web server, 3
    accessing, 7
    features, 5
    navigating, 8
error messages, 13
Event Log, 13
firewall, 7
firmware datecode, 11
fuser kit
    ordering, 36
    status, 10, 12
Go button, 10, 35
  group printer
    management, 43
hard disk, 6, 10
  capabilities with, 22
  ordering, 6, 36
help, 10, 36
  network, 42
Home pages, 8, 9–15
host name, 7, 46, 52
HP JetDirect card, 41–42
HP JetDirect Print Server
  Administrator’s Guide, 42
I/O Menu, 18
Information Menu, 18
IP address, 7, 11, 15, 46, 52
IP-based network, 7
IPX-based network, 7
jam recovery, 11
Java™ applications, 4
Job Cancel button, 10, 35
Language page, 39
languages, 39. See also
  printer languages
lights, 10
links, 36
maintenance kits
  ordering, 36
  status, 10, 12
media
  ordering, 36
  status, 10
memory
  ordering, 36
  status, 10, 11
menus, 18
messages
  control panel, 10
  error, 13
model number, 11
mopier configuration, 11
network
  address, 11, 15
  required, 7
  status, 41–42
Networking pages, 8, 41–42
one-sided print jobs, 14
online help, 10, 36
  network, 42
operating system, 7
ordering
  additional storage, 6
  supplies, 36
Other Links page, 36
output bin, 10, 11
page count, 11, 12, 14
page sizes printed, 14
Paper Handling Menu, 18
paper trays, 10, 11
parallel connection, 7
part number
  printer, 38
  supplies, 12
password, create, 35
PCL, 11
personalities, installed, 11
PJL storage, 10
print PS errors, 11
printer
  configuration, 10
  description, 15
  information, 11, 15
  languages, installed, 11
  menus, 18
  model, 15
  name, 11, 14
  number, 11, 15
  settings, 18
Printer Status, 10
Printing Menu, 18
Private/Stored Jobs Menu, 18
problem
alerts, 21
solving, 36
PS, 11

Quick Copy Jobs Menu, 18

RAM DISK storage, 10, 11
recycle toner cartridge, 12
refresh rate, 10
network, 42
Resets Menu, 18
resolution, 11

security, 11
Security page, 35
serial number, 11, 12, 14, 15
share printer information, 45
simplex print jobs, 14
sizes printed, 14
status, 10, 12
alerts, 21
network, 41–42

supplies
ordering, 36
status, 10, 12
Supplies Status page, 12
system requirements, 7
toner cartridge
alerts, 21
recycling, 12
status, 10, 12
toner coverage, 14
total pages printed, 14
transfer kit
ordering, 36
status, 10, 12
trays, 10, 11
two-sided print jobs, 14

Usage Page, 14

virtual machine, 4
web browser, required, 7
Web JetAdmin, 43
write protection, 11