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To learn how to use Help, press F1.

# **Manually Changing Color Options**

To change the color options of your printer:

- 1. Select Manual Color.
- 2. Select the **Options button**.
- 3. Select the group you want to change (Text, Graphics, or Photos).
- NOTE: The changes you make for one group are *not* carried over to others. Before you modify color options, make sure you select the button of the group you want to modify.
  - 4. Set the **<u>Color Control</u>** for that group.
  - 5. If necessary, modify the **<u>Halftone</u>** options.
  - 6. If you want to alter lightness, saturation, or color balance, modify the Advanced Settings.

# Installing HP Fonts and Scalable Typefaces

You can use any HP PCL-<u>**compatible**</u> font or scalable typeface with your printer, including fonts and scalable typefaces from cartridges, SIMMs, or floppy disks.

#### Cartridge-based Fonts and Scalable Typefaces:

Check to see if your font cartridge or scalable typeface cartridge is listed in the <u>Cartridges/SIMMs</u> box in the <u>Advanced Options</u> dialog box.

If your cartridge name is not listed, install support for your cartridge with the HP Font Installer.

#### **Disk-based Fonts and Scalable Typefaces:**

If you are using disk-based fonts (also called soft fonts) or disk-based scalable typefaces, install support for them using the HP Font Installer.

#### To use the HP Font Installer:

- 1. Select the Advanced button in the Setup dialog box. The Advanced Options dialog box appears.
- 2. Click the Install button in the Advanced Options dialog box. The Font Installer dialog box appears.
- 3. Select the Help button in the Font Installer dialog box. The Help window appears.
- 4. Select Installing Fonts in the Help window, and follow the instructions for installing your fonts or type faces.

### Cartridges/SIMMs

The Cartridges/SIMMs box lists the available HP font and scalable typeface cartridges. If you are using a cartridge with your HP LaserJet printer, use the Cartridge/SIMMs box to select the cartridge.

### Follow these instructions to use font and scalable typeface cartridges or SIMMs:

- 1. Install the cartridge or SIMM into your printer. See your printer's reference manual or user's guide for information.
- 2. Scroll through the list of cartridge names in the Cartridges/SIMMs box until you find the name of the cartridge you are using. Select the name of the cartridge or SIMM.
- 3. Select OK.
- NOTE: If the name of your cartridge does not appear in the list, see **Installing HP Fonts and Scalable Typefaces**.

# Installing TrueType Fonts

All TrueType fonts must be installed using the Windows Fonts utility.

### To install TrueType fonts:

- 1. Double-click the Main icon in the Program Manager window.
- 2. Double-click the Control Panel icon.
- 3. Double-click the Fonts icon. The Fonts dialog box appears.
- 4. Select the Help button in the Windows Fonts utility and follow the instructions that appear.

# **About Button**

Select this button to display program version information.

# **Advanced Button**

This displays the <u>Advanced Options</u> dialog box, which lets you control memory settings, REt levels, and font cartridges.

# Color

Color options let you control the way your printer prints color images.

### Choose a color printing option from the following:

| ColorSmart          | Color is optimized based on the type of data being sent to the printer. ColorSmart automatically selects the appropriate color settings for the document you are printing. This provides you with vivid color output without any changes to the driver. |
|---------------------|---|
| Manual Color        | Lets you change the printer's color settings for text, graphics, and photos. Select the <b>Options button</b> to change the color settings.   |
| Print Color as Gray | Prints all text, graphics, and photos in shades of gray. Uses the HP ColorSmart settings (such as Halftone) to process the document.  |

# Copies

If you want to print **<u>uncollated</u>** copies, enter the number of copies in the Copies box. The printer generates the uncollated copies and therefore prints them much faster than an application would.

If you want to print <u>collated</u> copies, use your application's print menu. When you print collated copies, the application sends the print job to the printer once for each copy. This may take longer to print, but your pages will be in the correct order.

NOTE: Do not use an application's copies setting and this setting simultaneously.

## Collated

When printing collated copies, the printer produces complete copies of the document, with each copys pages in consecutive order. The printer outputs page 1, then page 2, then page 3, and so on to the last page, then outputs another copy of page 1, then page 2, then page 3, and so on.

## Uncollated

When printing uncollated copies, the document's pages are not sorted. For example, several copies of page 1 are printed, followed by several copies of page 2, then several copies of page 3, and so on.

# **Defaults Button**

Select the Defaults button to return all printer settings to their factory defaults.

# **Options Button**

The Options button displays the **<u>Options dialog box</u>**. If you select Manual Color, you can select the Options button to customize the printer's color options.

Using the Options dialog box, you can modify color settings for Text, Graphics, and Photos.

# Orientation

HP LaserJet printers can print in portrait or landscape orientation.

Select portrait orientation if you are printing a page that is taller than it is wide.



Select landscape orientation if you are printing a page that is wider than it is tall.

Landscape:



M::= L

# **Output Bin**

Use these options to select which bin the printed output goes in:

Upper prints to the upper output bin. Pages lie face down.

Lower prints to the lower output bin. Pages lie face up. You have to pull out the top of the input tray to catch the output from the lower output bin.

The lower output bin is often used for transparencies. Transparencies require a slower and highertemperature fusing process and are more likely to curl. Selecting the lower output bin minimizes curling. Color transparencies are automatically sent to the lower output bin.

# Paper Size

The Paper Size box sets your printer's default paper size. Pages larger than A4 will not print in color.

### Paper Sizes:

| Letter 8.5 x 11 inches                          | (full color)                 |
|---|------------------------------|
| Legal 8.5 x 14 inches                           | (monochrome)                 |
| A4 210 x 297 mm                                 | (full color)                 |
| A3 297 x 420 mm                                 | (monochrome)                 |
| Executive 7.25 x 10.5 inches                    | (full color)                 |
| Tabloid 11 x 17 inches                          | (monochrome)                 |
| A3 297 x 420 mm<br>Executive 7.25 x 10.5 inches | (monochrome)<br>(full color) |

NOTE: Your Windows application may override this setting. Before printing, check the paper size you have selected in your application.

## **Paper Source**

The Paper Source box sets the default paper input tray or option.

#### The following sources and options will appear:

Auto Select Front Tray Rear Tray Manual Feed

The Front Tray accepts all paper sizes.

The Rear Tray can only be used when the Rear Feed Unit is installed, and accepts only Letter, A4, and Executive paper.

Manual Feed can only be used when the Rear Feed Unit is installed, and accepts all paper sizes.

NOTE: If you select Manual Feed, the printer driver will use that selection until you exit Windows or make another selection. The next time you start Windows, the Paper Source selection will revert to your printer's default paper tray.

### **Auto Select**

You can use the Auto Select setting if your printer has more than one paper tray. Auto Select automatically selects the correct paper tray. For example, if one tray is empty, the printer will automatically select the full tray.

You can also use the Auto Select setting if you print on more than one size of paper. For example, if you use a letter-size paper tray for one tray and legal-size paper tray for the other, the printer can automatically select the letter paper tray when you choose letter paper from your application. To do this, however, you must use the printer control panel buttons to change the TRAY variable to TRAY=BOTH.

# Туре

Use these options to select the type of media you are printing on.

Select Transparency to print transparencies. Color transparencies are automatically sent face up to the lower output bin. Monochrome transparencies are sent to the upper output bin (unless otherwise specified). If you are printing color transparencies, slide out the top of the front input tray to catch the transparencies from the lower output bin.

Select Paper to print on paper. The output is sent to the upper output bin unless requested otherwise.

# **Compatible Fonts and Typefaces**

NOTE: Not all printers support cartridge-based fonts or cartridge-based typefaces. Check your printers reference manual or user's guide to see if you can use cartridges with your printer model.

#### The following fonts and typefaces are compatible with PCL5 printers:

#### Cartridges:

If your printer supports cartridge-based fonts or cartridge-based typefaces, you can install any Hewlett-Packard font cartridge or scalable typeface cartridge. You can also install other font and typeface cartridge products that are made specifically for HP LaserJet printers.

You may need to contact the manufacturer of the cartridge product to obtain AutoFont Support files or PCM files so that you can install the cartridge with the HP Font Installer.

#### Flexible disks:

You can install any Hewlett-Packard disk-based font (soft font) or scalable typeface product. You can also install disk-based fonts (soft fonts) or scalable typeface products that are made specifically for HP LaserJet printers by companies other than HP.

Disk-based fonts must be in HP PCL format.

Scalable typefaces must be in AGFA Compugraphic's FAIS format.

If you are using a scalable typeface product, you may need to contact the manufacturer of the product to obtain AutoFont Support files so that you can install the typeface with the HP Font Installer.

# **Advanced Options Dialog Box**

Use the Advanced Options dialog box to install font cartridges, change memory settings, set the REt level, and open the HP Font Installer.

The Advanced Options dialog box has the following choices:

Memory <u>Install button</u> <u>REt</u> <u>Cartridges/SIMMs</u>

### Memory (MB)

The setting in the Memory (MB) box tells Windows how much memory you have installed in your HP LaserJet printer. This setting should exactly match the total amount of memory in your printer. Otherwise, the printer may not print at its optimum speed.

If you are not sure how much memory your printer has, print a printer <u>self test</u>. The resulting printout shows your printer's RAM size in megabytes: enter this number in the Memory box.

## Self test

The printer tests its internal controller, and prints a page of test patterns and a list of current settings.

To print a self test, do the following using the buttons on the printer control panel:

- 1. Take the printer off line by pressing the On Line button.
- 2. Repeatedly press the Menu button until PCL TEST MENU appears in the control panel display.
- 3. Press the Enter button.

## Install Button

Use the Install button for Installing HP Fonts and Scalable Typefaces.

### REt

Resolution Enhancement technology works on black only and is designed for text enhancement. It refines the print quality of characters and graphics by "smoothing" the fine gradations along the edge of the printed image. If you are primarily printing photos or graphics, turn REt off for best image print quality.

The REt drop-down list has five choices: Printer Default, Light, Medium, Dark, and Off. Experiment with different selections to see which option produces the best results. Printer Default uses the setting currently on the printer control panel.

# **Options Dialog Box**

Use the Options dialog box to customize color settings for text, graphics, and photos. Each group (Text, Graphics, or Photos) has its own settings.

NOTE: The changes you make for one group are not carried over to others. Before you make any color modifications, make sure you select the button of the group you want to modify.

The Options dialog box has the following choices:

Advanced Settings Calibrate Button Color Control Halftone PANTONE Colors

# **Advanced Settings**

Use the Advanced Settings dialog box to fine-tune color adjustments for text, graphics, and photos. Each group (Text, Graphics, and Photos) has its own settings, which do not affect settings in other groups.

### Color Adjustment settings:

| Lightness  | Lightens or darkens the colors for a group. Lightness settings range from -50 to +50, and apply to all colors. The default setting is 0, which leaves the output unaffected. Values greater than zero make colors lighter, values less than zero make colors darker. Enter a value or use the slider or slider arrows to change the Lightness setting.             |
|------------|--|
| Saturation | Increases or decreases the color intensities for a group. Saturation settings range from -50 to +50. The default setting is 0, which leaves the output unaffected. Values greater than zero make colors more intense, while values less than zero make colors less intense. Enter a value or use the slider bar or slider arrows to change the Saturation setting. |

### Color Balance (Gamma) settings:

| Red   | Use the scroll arrows or enter a <b>gamma correction</b> value for red. This changes your amount of red contrast. |
|-------|---|
| Green | Use the scroll arrows or enter a gamma correction value for green. This changes your amount of green contrast.    |
| Blue  | Use the scroll arrows or enter a gamma correction value for blue. This changes your amount of blue contrast.      |

### Color balance options for all 3 colors (Preset):

Color balance options are pre-defined color look-up tables (CLUT) that change the **<u>midtones</u>** and shadows. They do not change the gamma settings.

| Default<br>Lighten Midtones | Selects the default color balance, which leaves the image unchanged.<br>Lightens the midtones for all colors enhancing details lost in the shadows to<br>midtones. |
|-----------------------------|--|
| Darken Midtones             | Darkens the midtones for all colors enhancing the details lost in the midtones to highlights.  |
| Enhance Shadows             | Sets the shadows to a rich black without changing the highlights. This allows you to see more of the details lost in the shadows.                                  |

### **Gamma Correction**

Gamma correction lightens or darkens the **midtones** for a particular color. Increase gamma to lighten the midtones, or decrease it to darken the midtones.

Without color correction, the amount of color input equals the amount output. (The color sent from an application is the color that is printed on the page.) A graph of this color input versus output relationship would show a straight line at a 45° angle.



Gamma correction bends the line, changing the output color of the tones that fall between the end points of the line.



## Midtones

The range of tones between the shadows and the highlights of an image.

## **Calibrate Button**

The Calibrate button starts the monitor calibration program, which lets you match the colors that will be printed to the colors on your screen. Follow the instructions that appear on your screen.

In order to get the best printer to screen match, you should calibrate your monitor before selecting Screen Match from the <u>**Color Control**</u> drop-down list. The calibration data is sent to the printer if Screen Match is selected for a particular group. Three calibration choices are available: Standard (default), Precise, and Most Precise.

Calibration data will also be used when printing photos using ColorSmart (Vivid for photos only). In order to get identical output from many different systems, reset the calibration to standard. This will ensure that ColorSmart output is identical from system to system. However, the output may not match the screen as closely as possible.

Calibration data will not affect any other color mode selections other than screen match for all data types and vivid for photos only.

# **Color Control**

The printer has six color control modes. Select the mode you want from the color control drop-down list box.

| Vivid Color       | Produces bright, sharp colors using full 24-bit color. The vividness of the color output is optimized based on the data type. This option should provide the best output in most cases.  |
|-------------------|--|
| 8 Solid Colors    | Selects eight colors that appear solid (that is, not <u>dithered</u> ): red, green, blue, cyan, magenta, yellow, black, and white (assuming the paper is white).   |
| Black and White   | Produces a gray-scale mapping of colors much like those used by a black and white television displaying a color broadcast. Adjustments can be made to the halftone and advanced settings, and will affect the black and white printout.  |
| No Adjustment     | Prints the colors specified by your application using the current halftone settings; also uses full 24-bit color. This prevents the printer driver from adjusting the  |
| Screen Match      | colors you specify within your application.<br>Matches the printed colors to the screen colors independently of the device, and<br>prints the colors as displayed on the screen. You must calibrate your screen  |
| Process Blue      | (using the Calibrate button) before selecting this option in order to get the closest<br>printer to screen match. (The colors printed with this option are generally more<br>muted than those printed using the Vivid Color option.)<br>The primary blue (called Primary Process Blue) printed by most color printers<br>often appears purplish. This option produces the same results as the Vivid Color<br>option, except for changes to blues. If you prefer blue closer to the blue displayed<br>on your monitor, select the Vivid Color option. |
| See also          |  |
| Calibrate button  |  |
| Advanced cettings |  |

Advanced settings

## Halftone

The printer uses many small colored dots to represent the light and dark areas of an image. This is called halftoning. Halftoning allows us, through a combination of toner, to make a wide range of colors from 4 toner colors. The Halftone dialog boxes let you select the halftone patterns for Text, Graphics, and Photos.

- Scatter Uses an algorithm to produce the appearance of a random distribution of ink dots. Good for scanned images and photos.
  Pattern Uniformly distributes the dots. This sometimes produces noticeable geometric patterns. Use Pattern for free-hand images, clip art, complex graphics, desktop publishing images, and color text.
  Cluster Groups ink dots together. This sometimes gives a lower contrast than other dithering methods. Good for line-art, images with distinct edges, and documents to be photocopied.
  Scatter (High Quality) (Photo group only.) Scatters more color dots than Normal scatter. This gives the
- Scatter (High Quality) (Photo group only.) Scatters more color dots than Normal scatter. This gives the best results when printing photos.
- NOTE: Thin lines and small type sizes (less than 18 points) may not print well using mixed colors. If your output is unsatisfactory, choose primary colors for these objects, or set <u>Color Control</u> to 8 Solid Colors for the appropriate group (Text, Graphics, or Photos).

## Dithered

A halftoning process that uses clusters of dots rather than evenly spaced halftone cells to create light and dark areas of an image.

## **PANTONE®\*** Colors

This selection sets the halftone and color mode to settings that allow you to print the best rendering of Pantone colors.

The HP Color LaserJet is licensed to print Pantone colors. In order to print accurate Pantone colors you must select the Pantone box in the options: Advanced Settings dialog box. In addition, you must input the HP Color LaserJet specific values into the Pantone licensed application. These HP Color LaserJet specific values will be provided by an application specific palette or by a list of RGB or CMYK values necessary to render the specific Pantone color. These will be provided by HP.

Select OK to accept the PANTONE settings (this may reset some of your color settings). Select Cancel to exit the dialog box without changing your color settings.

Pantone colors will be closest when printed on standard copier paper using the driver defaults. Changes to halftone and color mode can be made, but it affect the appearance of the output colors.

- NOTE: PANTONE Colors are approved only when printing on PANTONE-certified plain paper and using the Cluster Color Halftone setting.
- NOTE: To use this option, your application must support PANTONE colors. See the Readme file for information on how to obtain Pantone color values for the HP Color LaserJet printer.
  - \* PANTONE, Inc.'s check-standard trademark for color.