

Controls the difference between bright and dark areas.

Controls the intensity of light.

Controls the saturation of color in the graphic.

Controls hue and is used to correct flesh tones.

Used to adjust images that are too dark. Adjusting for overexposure can restore details lost due to a lack of contrast.

Specifies whether or not the colors are inverted. Inverting colors produces a negative image of the graphic.

Changing the illuminant enables you to adjust for conditions under which an image is viewed.

For example, **Bond Paper Print** is whiter than **Normal Print**, to compensate for the difference between typical paper and bond paper.

Higher values produce a darker image. Lower values produce a lighter image.

Specifies whether or not to set brightness equal to the input values



Select this to correct unbalanced brightness of the input image by adjusting red-input gamma. You can adjust colors individually or together, as follows:

- To adjust red, green, and blue together, select the **Red**, **Green**, and **Blue** check boxes, and then scroll colors to the right to decrease brightness or to the left to increase brightness.
- To adjust red individually, click to clear the **Red** check box, and then scroll to the right to decrease brightness or to the left to increase brightness.

Select this to correct unbalanced brightness of the input image by adjusting green input gamma. You can adjust colors individually or together, as follows:

- To adjust red, green, and blue together, select the **Red**, **Green**, and **Blue** check boxes, and scroll colors to the right to decrease brightness or to the left to increase brightness.
- To adjust green individually, click to clear the **Green** check box, and then scroll to the right to decrease brightness or to the left to increase brightness.

Select this to correct unbalanced brightness of the input image by adjusting blue input gamma. You can adjust colors individually or together, as follows

- To adjust red, green, and blue together, select the **Red**, **Green**, and **Blue** check boxes, and then scroll colors to the right to decrease brightness or to the left to increase brightness.
- To adjust blue individually, click to clear the **Blue** check box, and then scroll to the right to decrease brightness or to the left to increase brightness.

Use to correct unbalanced brightness of the input image for the red color channel. Correcting the input gamma can restore the full range of brightness in an unbalanced image.

Use to correct unbalanced brightness of the input image for the green color channel. Correcting the input gamma can restore the full range of brightness in an unbalanced image.

Use to correct unbalanced brightness of the input image for the blue color channel. Correcting the input gamma can restore the full range of brightness in an unbalanced image.

Sets the range between the darkest and lightest points in the image. Increasing the value of the black reference point and decreasing the value of the white reference point increases contrast but narrows the range of midtones.

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Specifies the name of the open file or predefined test picture that is being used to display a graphic file as a test picture.

Specifies the original size (in pixels), the number of colors, the type of color, and the current display size for the graphic that is being used to display a graphic file as a test picture.

Click this to display reference colors or to display a graphic file as a test picture that will show you the results as you adjust color.

Specifies whether or not graphic is displayed using the full screen. You can hide the **Halftone Color Adjustment** dialog box by clicking the right-mouse button. To display the dialog box, click the right-mouse button again.

Specifies whether or not to display a color palette based on the colors in the graphic.

Specifies whether or not to adjust the graphic height and width to match the proportions of the original graphic. When the **Scale** check box is cleared, the graphic fills its window.

Select this option to reverse the image along its horizontal axis.

Select this option to reverse the image along its vertical axis.



Saves your halftone settings and closes the dialog box.

Closes the dialog box without saving your halftone changes.

Returns all settings in the dialog box to their defaults

Returns all settings in the dialog box to the values in use when you opened it

Click this to select and open a graphic file so that you can see how your changes affect color.

Saves the graphic file you have open. Saving the file saves the changes you have made to size, orientation, and color for the graphic.

Displays the name of the printer for which you are setting properties.

Specifies the cell size for the pattern.

**Halftone Pattern** is defined by the size of the cells used in the pattern. Cells are measured in pixels.

For example, a 4x4 cell contains 16 pixels. Larger cells print a more coarsely grained picture; however, larger cells also allow a greater range of grays or colors to be printed. Enhanced cell patterns are optimized to produce greater resolution. If your graphic prints with an unwanted pattern of lines or an unwanted moiré pattern, try printing it again, using the same cell size but without enhancement.



Use this to adjust the color-intensity balance of the printing device.

Adjusts the print density by setting the **Pixel Diameter**. Pixel diameters can be measured either in inches or as relative percentages. You can also specify that the halftone driver should use a pixel size based on the print resolution. The mode value or name appears to the left of the scroll bar and changes as you scroll.

In inch mode, you adjust the pixel diameter based on the real pixel size. The displayed size is shown in fractions of an inch. For example, 1/100 equals 0.01 inch.

In relative-percentage mode, you adjust the pixel diameter based on final printing resolution. The relative pixel size is shown as a percentage. For example, 200.00% specifies that pixel diameter is 200% larger than the printing resolution.

**Device** mode specifies that the halftone driver should use the a pixel size based on the print resolution.

Use this to adjust the color of graphics based on the color system established by the International Commission on Illumination (CIE). The CIE color system defines color in terms of measurements of the luminance, hue, and saturation of the color.

Use the controls under **Primary Color's CIE (x,y) Chromaticity Coordinate** to adjust the coordinates of primary colors based on their CIE x- and y-values.

Use this to correct printing-dye color (cyan, magenta, yellow) by correcting the percentage of other color present in the process colors.

For example, if the sky blue in your graphics is too purple, you may want to correct the color by increasing the amount of magenta in the cyan.

Use this to adjust the device gamma for red.

Use this to adjust the device gamma for green.

Use this to adjust the device gamma for blue.

Saves your halftone settings and closes the dialog box.





Closes the dialog box without saving your halftone changes.

Returns all settings in the dialog box to their defaults.

Returns all settings in the dialog box to the values in use when you opened it.

Use this to adjust the device white-points by using the color system established by the International Commission on Illumination (CIE). The range (25.00 to 400.00) scales the entire device-output color darker or brighter by stretching device colors over a smaller or larger range.

**To view the information in this Help file**

- 1 Click here  to open the Printers folder.
- 2 Click the printer you are using.
- 3 On **File** menu, click **Properties**.
- 4 Click the **Device Settings** tab.
- 5 Click **Halftone Setup**, and then click **Halftone Setup** under **Change “Halftone Setup” Setting**.
- 6 For Help on an item, click  at the top of the dialog box, and then click the item.

