

Printer Driver

Setup Guide

This guide describes how to set up the Printer Driver for Windows 7, Windows Vista, Windows XP, and Windows 2000.

Before Using this Software

Before using the printer driver, be sure to read the "Readme" file.

UP-D25MD

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The screens used to describe setup in this guide assume that the UP-D25MD printer is used in a Windows Vista environment. For further details on settings, refer to the operating instructions for the printer in combination with this manual.

Configuring the Printer

You can open the UP-D25MD settings screen and configure various settings before you begin printing from applications.

You can open the settings screen using one of the following methods.

- On the [Start] menu, select [Control Panel] and then [Printer] ([Start] menu, then [Devices and Printers] for Windows 7; [Start] menu, then [Printers and Faxes] for Windows XP; [Start] menu, [Settings], then [Printers] for Windows 2000). Select the printer icon for the Sony UP-D25MD, and then select [Select printing preferences] from the command bar ([Printing preferences] by right-clicking the printer icon for Windows 7; [Printing Preferences] from the [File] menu for Windows XP and Windows 2000). The settings that you make here are used as default settings for the UP-D25MD printer, and the settings are applied when printing from various applications.
- On the [File] menu of your application, click the command used to make printer settings. The settings made this way only remain valid until you close the application.

This guide describes the tabs that appear in the UP-D25MD settings screen.

[Paper] tab

Used for configuring basic print related settings such as paper size, orientation, and number of print copies.

[Layout] tab

Used for configuring split screen settings, position settings, interpolation methods, margin equalization, and other layout settings for print images.

[Graphics] tab

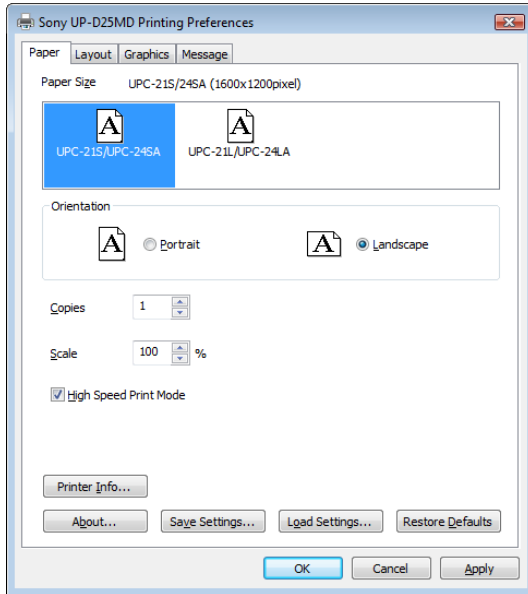
Used for setting gray, lightness, and other settings related to image quality.

[Message] tab

Used for configuring display position settings and other settings for message dialog boxes.

[Paper] tab settings

Configure basic print-related settings.



Paper Size

Select the size of the paper loaded in the paper feed tray. The types of print pack and printing sizes you can set for the printer are as follows.

Print Pack	Max. Print Size
UPC-21S/24SA	1,600 × 1,200 dots
UPC-21L/24LA	2,100 × 1,600 dots

Orientation

Select either [Portrait] or [Landscape] as the print direction.

Copies

You can set this between 1 and 10.

Scale

Specifies the scale of prints. You can set the scale between 25 and 400%.

High Speed Print Mode

Select this check box to enable printing in the high-speed mode.

Printer Info

Displays the following information related to the connected printer.

- Paper Type: Type of ink ribbon inserted
- Remaining prints: The (estimated) amount remaining of the ink ribbon inserted.
- Status: Printer status (Ready, Printing, Error, etc.)
- Firmware version: Printer firmware version

About

Displays the version information of this printer driver.

Save Settings

Saves all print setting configurations to a file.

Load Settings

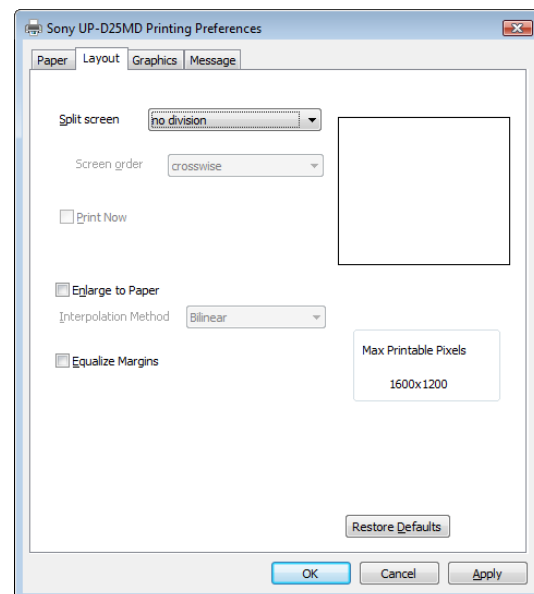
Loads stored setting configurations from a file.

Restore Defaults

Restores all settings in the [Paper] tab to their default condition.

[Layout] tab settings

Set the layout of the print image.



Split screen

Use this to specify the number of images to print on one sheet of paper.

The available settings are [no division], [2 division], [2 division with white frame], [4 division], and [4 division with white frame].

Split screen settings and the current print image layout can be verified on the display. For each split screen image, areas for individual images that have already been positioned appear in light green, while a ▼ mark indicates the position for the next image. An arrow also indicates the order in which split images will be positioned.

During split screen printing, images are printed according to the selected [Interpolation Method] setting.

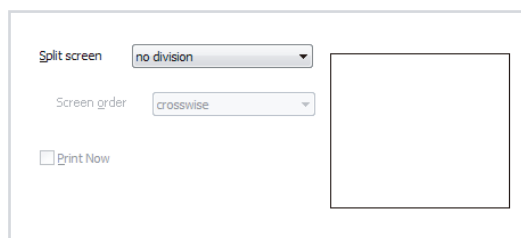
Screen order

Use this to specify the order in which images are positioned during 4-division split screen printing. When [Split screen] is set to [4 division] or [4 division with white frame], you can select [crosswise] or [lengthwise] for this setting.

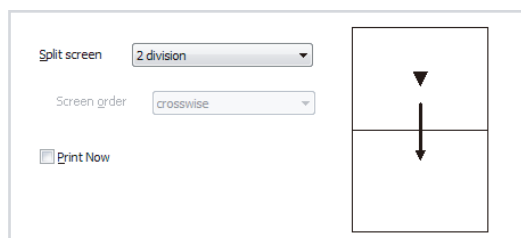
The following examples show how the image to the right of the settings appears when changes are made to the [Orientation] and [Split screen] settings on the [Paper] tab, and to the number of images positioned on the split screen image.

Depending on the application used, print results may vary even if the UP-D25MD printer settings are the same. Print the image to verify the actual results.

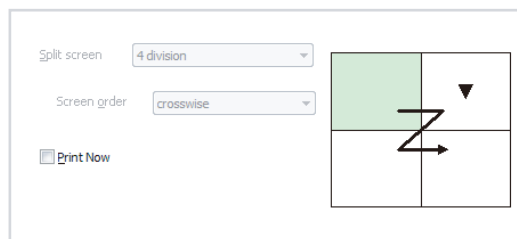
Ex. 1: Orientation: Landscape, Split screen: no division



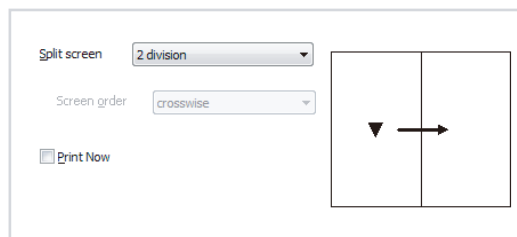
Ex. 2: Orientation: Landscape, Split screen: 2 division, positioned images: 0



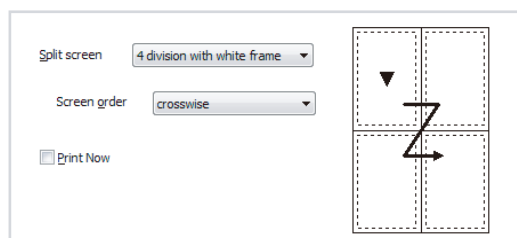
Ex. 3: Orientation: Landscape, Split screen: 4 division, positioned images: 1



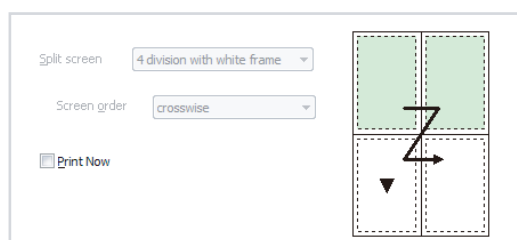
Ex. 4: Orientation: Portrait, Split screen: 2 division, positioned images: 0



Ex. 5: Orientation: Portrait, Split screen: 4 division with white frame, positioned images: 0



Ex. 6: Orientation: Portrait, Split screen: 4 division with white frame, positioned images: 2



Notes

- The [Split screen] setting may be disabled in some cases. In such cases, see “Troubleshooting” on page 11.
- If images are already positioned (queued) while using the split screen function, the [Split screen], [Screen order], [Interpolation Method], and [Equalize Margins] settings are disabled.

Print Now

When you select this check box while using the split screen function to print multiple images on a single sheet, printing will occur immediately after you execute a print command.

If this check box is not selected, printing will not occur until you execute a print command for each split screen position specified with the [Split screen] setting. When [Split screen] is set to [no division], this check box is disabled and its setting cannot be changed.

Enlarge to Paper

Select this check box to automatically enlarge a print to fit the paper size. You can specify the interpolation method used to enlarge the print to fit the paper size with the [Interpolation Method] setting.

Interpolation Method

Specify the interpolation method used when resizing images.

The interpolation method specified with this setting is applied when resizing images for split screen printing or enlarging images to fit the paper size.

The available settings are [Bilinear], [Nearest-neighbor], and [Bicubic].

This setting can be configured when [Split screen] is set to a configuration other than [no division], or when the [Enlarge to Paper] check box is selected.

Equalize Margins

When you select this check box, equal margins on a page are used in printing. However, the margins may not be equal depending on application settings.

Restore Defaults

Restores all settings in the [Layout] tab to their default condition.

Note

In some cases, [Layout] tab settings may not be restored to their default values when this button is clicked. In such cases, see “Troubleshooting” on page 11.

[Graphics] tab settings

Display the printed image

Select this check box to display a printed image on the screen. In order for this option to function, the image you want to display must first be printed once while this check box is selected.

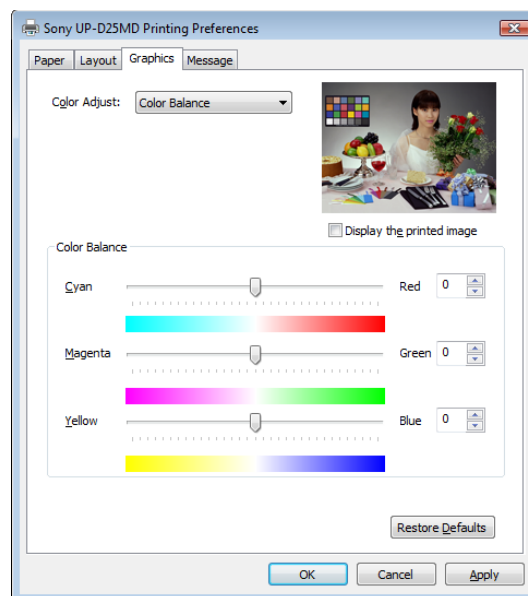
Color Adjust

Select [Color Balance], [Lightness], [Color Correction], [Gray Balance], or [Adjustment by color], and make precise adjustments to these settings by inputting values and making other configurations.

Color Balance

Adjusts the color balance. Adjust settings by moving the sliders left and right, or by inputting values in the boxes on the right.

The effects of adjustments are reflected in the preview image at the top right of the settings screen.



Cyan - Red Moving the slider to the right makes the image redder, and moving it to the left makes the image more light blue.

Magenta - Green Moving the slider to the right makes the image greener, and moving it to the left makes the image more magenta.

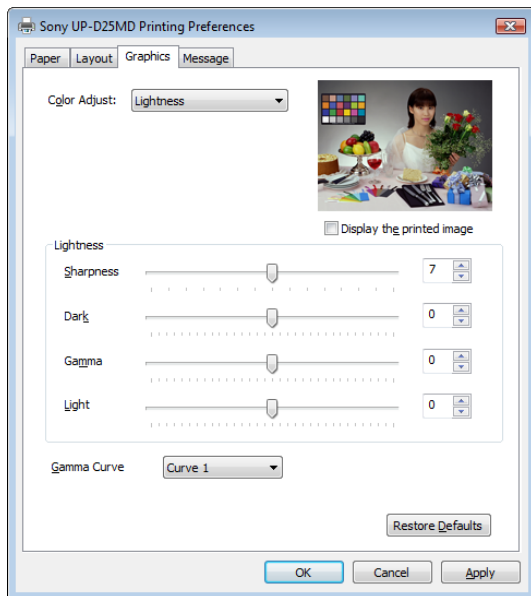
Yellow - Blue Moving the slider to the right makes the image bluer, and moving it to the left makes the image yellower.

Each color can be adjusted in ± 32 gradations. 0 is the standard value. The adjustment range is -32 to 32 .

Lightness

Adjusts lightness. Adjust settings by moving the sliders left and right, or by inputting values in the boxes on the right.

The effects of adjustments are reflected in the preview image at the top right of the settings screen. However, the effects of sharpness adjustments are not reflected.



Sharpness

Adjusts the sharpness of image outlines. The outlines of images become sharper as the setting is increased. Can be adjusted in 15 gradations. 7 is the standard value. The adjustment range is 0 to 14.

Dark

Adjusts the scale of the dark tones. Can be adjusted in ± 32 gradations. 0 is the standard value. The adjustment range is -32 to 32.

Gamma

Adjusts the scale of medium tones. Can be adjusted in ± 32 gradations. 0 is the standard value. The adjustment range is -32 to 32.

Light

Adjusts the scale of light tones. Can be adjusted in ± 32 gradations. 0 is the standard value. The adjustment range is -32 to 32.

Gamma Curve

Select a halftone gradient pattern from [Curve 1], [Curve 2], or [Curve 3].

Curve 1: Standard

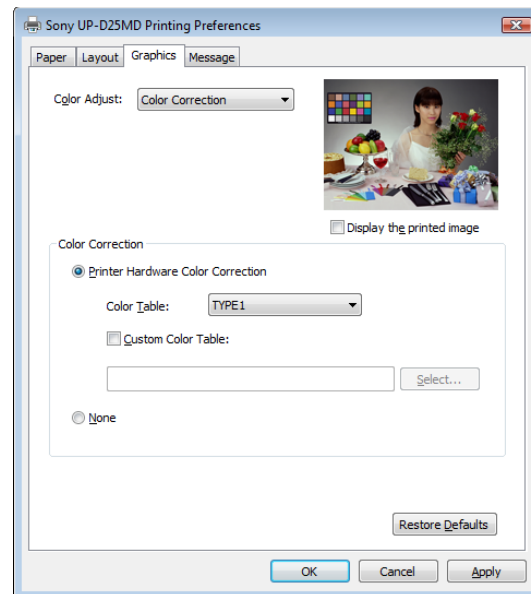
Curve 2: High contrast

Curve 3: Low contrast

Color Correction

Select the color correction method.

The effects of these settings are not reflected in the preview image at the top right of the settings screen.



Printer Hardware Color Correction

The printer corrects color.

None

No printer hardware color correction is performed.

Color Table

Selects the printer's internal color table.

TYPE 1: The standard color table for this printer.

TYPE 2: A color table with modified blue tones for use with ultrasonic images.

Custom Color Table

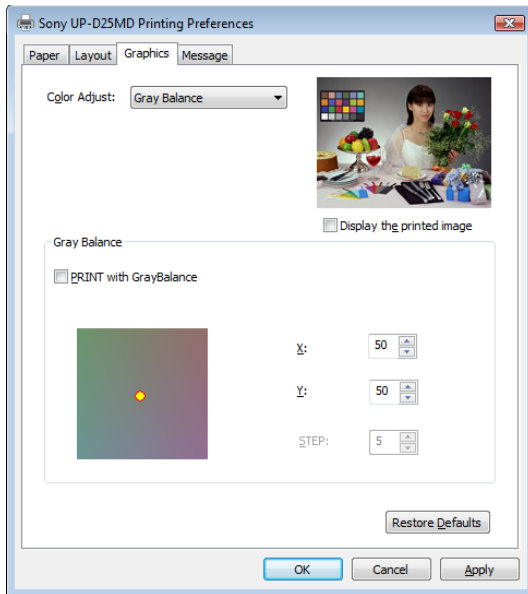
Select when using a color table other than the printer's internal color table. For details, consult your Sony dealer.

Gray Balance

Adjust the gray balance for print images.

Also, when you install a new ink ribbon and load paper, you can adjust the gray balance to correct any unevenness between print packs.

The effects of adjustments are reflected in the preview image at the top right of the settings screen.



PRINT with GrayBalance

Select this check box to print 9 variations of the image on a single sheet, with each image varying in gray balance according to the [STEP] setting (amount of change between X and Y coordinates).

Note

The [PRINT with GrayBalance] setting may be disabled in some cases. In such cases, see “Troubleshooting” on page 11.

X, Y

Adjust the gray balance by setting the X and Y coordinates for the gray balance chart at the bottom left of the settings screen. 50 is the standard value for both the [X] and [Y] settings. The adjustment range is 1 to 99. The effects of adjustments are reflected in the preview image at the top right of the settings screen.

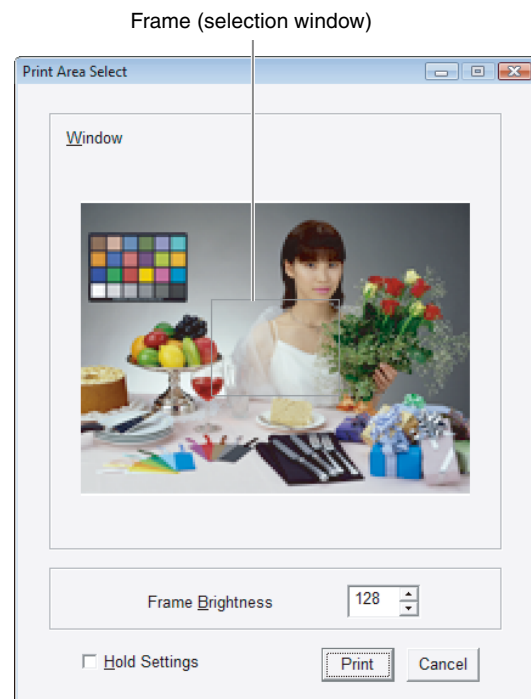
STEP

Specify the incremental amount of change to the X and Y coordinates when using the [PRINT with GrayBalance] function. 5 is the standard value. The adjustment range is 1 to 20.

Set a lower value when making precise gray balance adjustments, and set a larger value when making broader adjustments.

To print the gray balance as a reference for adjustment, select the [PRINT with GrayBalance] check box and print. When you do so, the following dialog box will appear. Specify the area that will be used to confirm the hue by dragging the frame (selection window) in the preview image. You can also move the preview frame with the arrow keys.

You can change the brightness of the frame by adjusting the [Frame Brightness] setting. Decreasing the value makes the frame blacker, and increasing the value makes it whiter. 128 is the standard value. The adjustment range is 0 to 255. By selecting the [Hold Settings] check box, you can use the same window position for subsequent gray balance printing.



When you click the [Print] button, the portion of the image specified by the frame (selection window) in the Print Area Select screen is printed in a 3 × 3 (9 image) cell layout. The relationship between the images printed in the layout and the [X], [Y], and [STEP] settings are as follows.

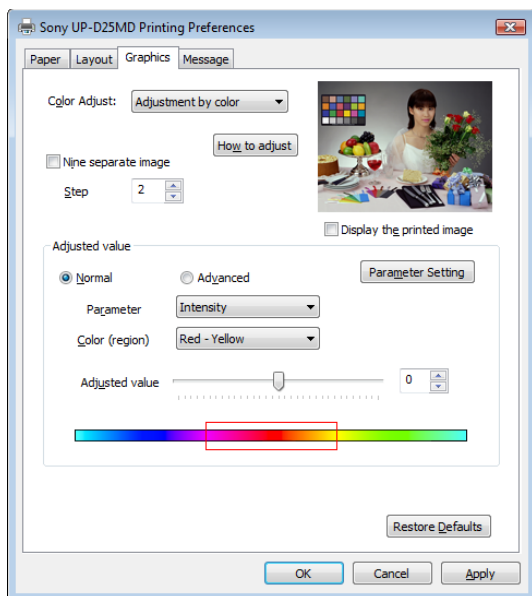
(x-a, y+a) Yellowish green	(x, y+a) Yellowish	(x+a, y+a) Orangey
(x-a, y) Greenish	(x, y) Setting value (base color)	(x+a, y) Reddish
(x-a, y-a) Bluish green	(x, y-a) Bluish	(x+a, y-a) Reddish purple

(x: Value of [X], y: Value of [Y], a: Value of [STEP])

Of the 9 images printed, use the coordinates printed below the image with the best gray balance to configure the [X] and [Y] settings. For example, if [X], [Y], and [STEP] are set to their standard values (50, 50, 5) and you want to adjust the coloring to match the top left cell of the grid, set [X] to 45 and [Y] to 55.

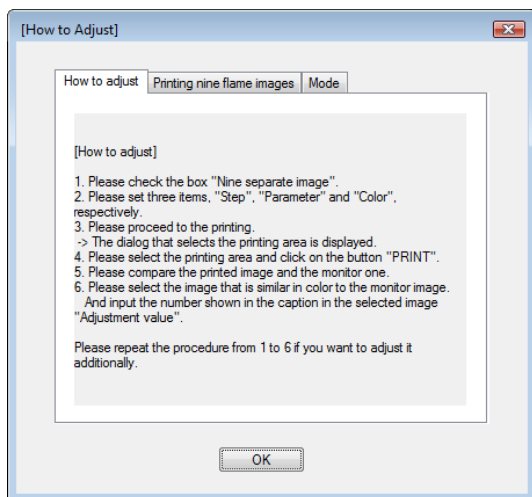
Adjustment by color

Adjust the coloring of print images precisely. All 6 colors (R/G/B/C/M/Y) or 6 color spans (R–Y/Y–G/G–C/C–B/B–M/M–R) can be adjusted individually without changing the gray scale. The effects of adjustments are reflected in the preview image at the top right of the settings screen.



How to adjust

Displays the following dialog box which explains the procedure for making adjustments to individual colors.



Nine separate image

Select this check box to print 9 variations of the image on a single sheet, with each image varying in color according to the [Step] setting.

Note

The [Nine separate image] setting may be disabled in some cases. In such cases, see “Troubleshooting” on page 11.

Step

Specify the amount of color adjustment change between each of the nine separate images printed. 2 is the standard value.

Set a lower value when making precise coloring adjustments, and set a larger value when making broader adjustments.

Adjusted value

Specify parameters for color adjustment and to set adjustment values.

Make settings in the following order:

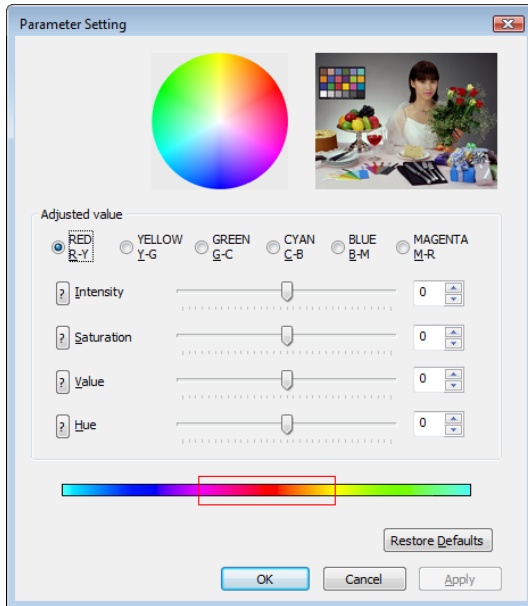
- 1 Select [Normal] or [Advanced].
When you select [Normal], you can select [Intensity] or [Saturation] for the [Parameter] setting. When you select [Advanced], the [Value] and [Hue] options are also available for selection.
- 2 Select a parameter type with [Parameter].
Intensity
Alternates the rate of changing between two adjacent colors.
Saturation
Changes the saturation of 1 of the 6 colors.
Value
Changes the brightness of 1 of the 6 colors.
Hue
Changes the hue of 1 of the 6 colors.

Each color can be adjusted in ± 32 gradations. 0 is the standard value.
The adjustment range is -32 to 32 .
- 3 Select a [Color (region)]. Available colors differ depending on the [Parameter] selection.
- 4 Use [Adjusted value] to set the adjustment value for the color selected in step 3.
Adjust the setting by moving the slider left and right, or by inputting a value in the box on the right. The effects of adjustments are reflected in the preview image at the top right of the settings screen and the color bar at the bottom of the screen.

Parameter Setting

Displays the following dialog box.

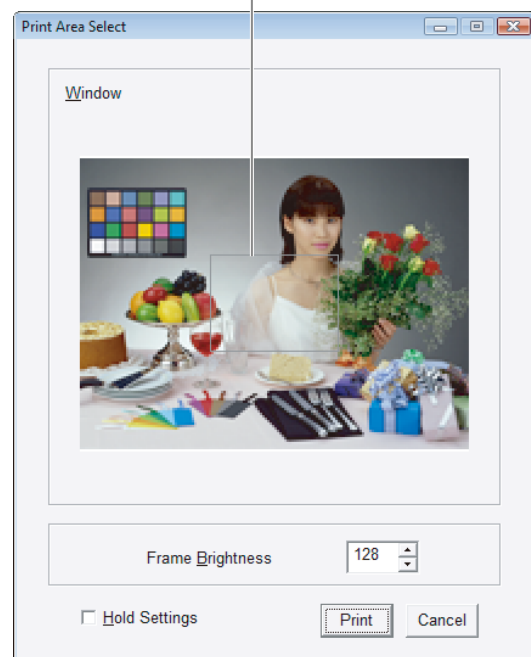
This dialog box allows you to select the color you want to adjust and adjust the various values for each parameter, all in the same screen.



To make adjustments by actually printing nine separate images by color adjustment, select the [Nine separate image] check box and print. When the following dialog box appears, drag the frame (selection window) in the preview image to check the color and specify the region to use.

You can change the brightness of the frame by setting the [Frame Brightness] value. Decreasing the value makes the frame blacker, and increasing the value makes it whiter. 128 is the standard value. The adjustment range is 0 to 255. By selecting the [Hold Settings] check box, you can use the same window position for subsequent nine separate image printing.

Frame (selection window)



When you click the [Print] button, the portion of the image specified by the frame (selection window) in the Print Area Select screen is printed in a 3 × 3 (9 image) cell layout. The relationship between the images printed in the layout and the [Adjusted value] and [Step] settings are as follows.

$x - 4a$	$x - 3a$	$x - 2a$
$x - a$	x	$x + a$
$x + 2a$	$x + 3a$	$x + 4a$

(x: Adjusted value, a: Value of [Step])

Of the 9 images printed, use the value printed below the image with the best coloring to configure the [Adjusted value] setting. For example, if [Adjusted value] is set to -2 and [Step] is set to 2, and you want to adjust the coloring to match the top left cell of the grid, set [Adjusted value] to -10.

Restore Defaults

Restores all settings in the [Graphics] tab to their default condition.

Notes

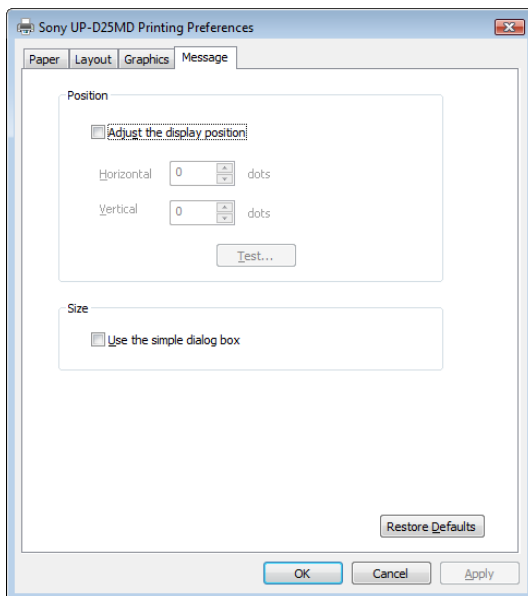
- The following settings may be disabled even after you click this button.
 - The [PRINT with GrayBalance] check box that appears when [Color Adjust] is set to [Gray Balance]
 - The [Nine separate image] check box that appears when [Color Adjust] is set to [Adjustment by color]
- If the setting is disabled, see “Troubleshooting” on page 11.

- There may be some differences in image quality and coloring between the preview image and the actual printed image. This is due to differences that may exist in color production methods and display environments. The preview images should only be used as a guide.

[Message] tab settings

Select the display position of message dialog boxes. Message dialog boxes appear when the printer is unable to print due to errors, for example.

There is a standard size dialog box and a small size dialog box. The standard message dialog box displays the error status of the printer and instructions for dealing with the error. The small message dialog box displays (one sentence of) simple instructions for dealing with the error.



Adjust the display position

Select this check box to adjust the display position of message dialog boxes. The message dialog box appears in the position defined by the values specified in the [Horizontal] and [Vertical] settings.

Default setting: A check is not placed in [Adjust the display position]. (The standard message dialog box appears in the center of the display, and the small message dialog box appears in the top left of the display.)

Horizontal, Vertical

These settings are enabled when the [Adjust the display position] check box is selected. Enter the coordinates for the display position (position of the upper-left corner of the message dialog box).

The message dialog box appears in the position defined by the values specified here.

Test

Verify the position in which message dialog boxes appear on the display or screen. A test dialog box will appear in the position defined with the [Horizontal] and [Vertical] settings.

Use the simple dialog box

Select this check box to display smaller size message dialog boxes.

Restore Defaults

Restores all settings in the [Message] tab to their default condition.

Troubleshooting

Restrictions to settings, their causes, and their solutions are described below.

Restricted setting	Cause and solution
The [Split screen] setting is disabled (grayed out).	<ul style="list-style-type: none"> • The [PRINT with GrayBalance] check box (located in the [Graphics] tab when [Color Adjust] is set to [Gray Balance]) is selected. →Clear the [PRINT with GrayBalance] check box. • The [Nine separate image] check box (located in the [Graphics] tab when [Color Adjust] is set to [Adjustment by color]) is selected. →Clear the [Nine separate image] check box. • Images for printing are already positioned (queued) through use of the split screen function in the [Layout] tab. →Clear the positioned images by, for example, selecting the [Print Now] check box and performing a print operation.
Clicking the [Restore Defaults] button in the [Layout] tab does not restore settings in the tab (excluding [Print Now] and [Equalize Margins]) to default values.	Images for printing are already positioned (queued) through use of the split screen function in the [Layout] tab. →Clear the positioned images by, for example, selecting the [Print Now] check box and performing a print operation.
The [PRINT with GrayBalance] setting is disabled (grayed out).	<ul style="list-style-type: none"> • [Split screen] is set to a configuration other than [no division] in the [Layout] tab. →Set [Split screen] to [no division]. • The [Nine separate image] check box (located in the [Graphics] tab when [Color Adjust] is set to [Adjustment by color]) is selected. →Clear the [Nine separate image] check box.

Restricted setting	Cause and solution
The [Nine separate image] setting is disabled (grayed out).	<ul style="list-style-type: none"> • [Split screen] is set to a configuration other than [no division] in the [Layout] tab. →Set [Split screen] to [no division]. • The [PRINT with GrayBalance] check box (located in the [Graphics] tab when [Color Adjust] is set to [Gray Balance]) is selected. →Clear the [PRINT with GrayBalance] check box.
Clicking the [Restore Defaults] button in the [Graphics] tab does not enable the [PRINT with GrayBalance] and [Nine separate image] settings. (The settings are still grayed out.)	<p>[Split screen] is set to a configuration other than [no division] in the [Layout] tab. →Set [Split screen] to [no division].</p>