



EFI Fiery Central™



# EFI Flow Image Enhance Module User Addendum

Version 1.5

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45074594

24 September 2008

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## EFI FLOW IMAGE ENHANCE MODULE

The EFI Flow Image Enhance module provides automated image correction of images in PDF documents. The images can be RGB, CMYK or grayscale. The Image Enhance module also offers hands-on interaction to correct individual images.

The Image Enhance module appears in the Flow module tool bar as follows:



### Using the Image Enhance module in a workflow

After a workflow is created with input and output modules in place, you can begin building the workflow by adding the Image Enhance module and other modules to suit your specific needs.



For more information about Flow module, see Fiery Central Command WorkStation Help.

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#### TO USE THE IMAGE ENHANCE MODULE IN A WORKFLOW

- 1 Start the Flow application or choose Flow Module from the Server menu in Fiery Central Command WorkStation.**
- 2 Enter your Windows Administrator or Operator logon information.**

The Flow Create window appears.
- 3 Click New Workflow from the main toolbar.**
- 4 Enter a name for the workflow in the Workflow name field, and then click OK to close the New Workflow dialog box.**
- 5 Add the Image Enhance module and any other modules to the workflow using the drag-and-drop operation:**

If you drag the module onto a link line, the module is inserted between the existing linked modules and linked to them.
- 6 Double-click the Image Enhance module to specify module properties.**

Under the Image Enhance tab, you can use one of the factory presets or select Manage Preset to create a custom preset.
- 7 Click Save Workflow from the main toolbar.**
- 8 In the Workflows window of Flow, select the workflow and click Publish.**

The published workflow will be available in Fiery Central Command WorkStation.

## Image Enhance module properties

When you drag the Image Enhance icon into the Flow workflow, you can select one of the factory default presets or create and save a new preset.

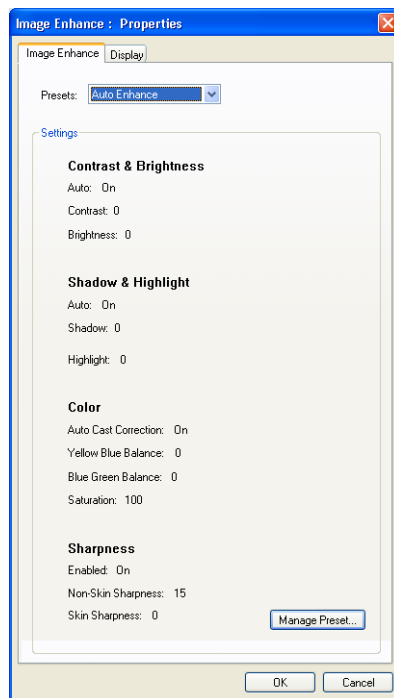
You can change the appearance of the module in the workspace and set module default properties so that they are consistently displayed each time they are used.

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### TO SET PROPERTIES FOR THE IMAGE ENHANCE MODULE

- 1 Double-click or right-click the Image Enhance module and choose Show Properties.

The Image Enhance Properties dialog box appears.



- 2 Select a factory default preset or create and save a preset with the specified settings for the current workflow.
- 3 Click OK to save your settings and exit the Image Enhance Properties dialog box.

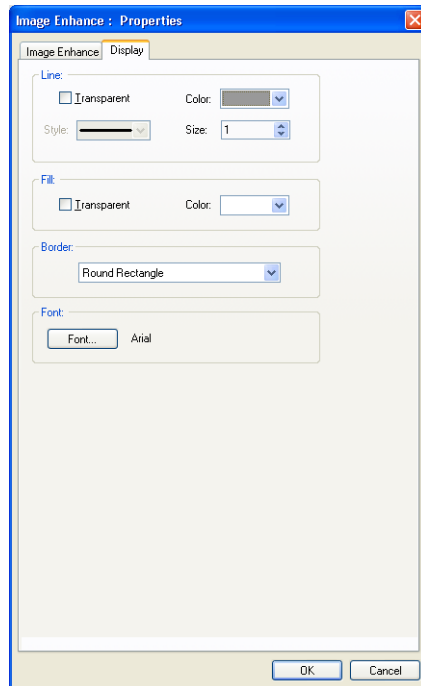
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**To CHANGE MODULE DISPLAY PROPERTIES**

- 1 **Right-click the module in your workflow and click Show Properties.**

The Properties dialog box for the respective workflow module appears.

- 2 **Click the Display tab.**



- 3 **Specify display changes for the module icon in the workflow.**

**Line:** Select to make the bounding box line transparent, or set the color, size and line style.

**Fill:** Select to make the bounding box transparent or to change its color.

**Border:** Select settings to specify the shape of the bounding box border.

**Font:** Click to specify the font attributes used for the module icon text.

- 4 **When you have finished making changes, click OK.**

- 5 **Right-click the module and click Save as Default Display Properties.**

The new settings are used as the default display parameters whenever the module is added to a workflow.

You can choose Revert to Default Display Properties to revert to default installation settings for the module at any time.

## Interactive workflow

The interactive workflow allows you to change the image's original appearance using the Image Enhance adjustment controls. The edit mode allows you to address problems at the individual job level. Rather than researching the problem, making corrections, and submitting the job again to pass through the workflow a second time, you can address problems as they occur and step the job gradually through the workflow.

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### TO USE THE IMAGE ENHANCE INTERACTIVE WORKFLOW

**1 Create a workflow that has the Image Enhance module, and then save and publish the workflow.**

**2 Import a job to a Hold queue in Fiery Central Command WorkStation.**

**Print a job from the printer driver to Fiery Central Command WorkStation.**

The spooled and held job appears in the Active Jobs window of Fiery Central Command WorkStation.

**3 Select the spooled and held job.**

**4 Choose Actions > Properties or right-click the job and choose Properties from the menu that appears.**

**5 Select the Workflow tab in the Properties dialog box.**

**6 Select the workflow that contains the Image Enhance module, and then click OK.**

The job in the Active Jobs window changes to a Flow waiting status.

**7 Select the Flow job and choose Actions > Flow Edit, or right-click the job and choose Flow Edit from the menu that appears.**

The Flow Edit window appears.

**8 Click Step to process the job through each module in the workflow.**

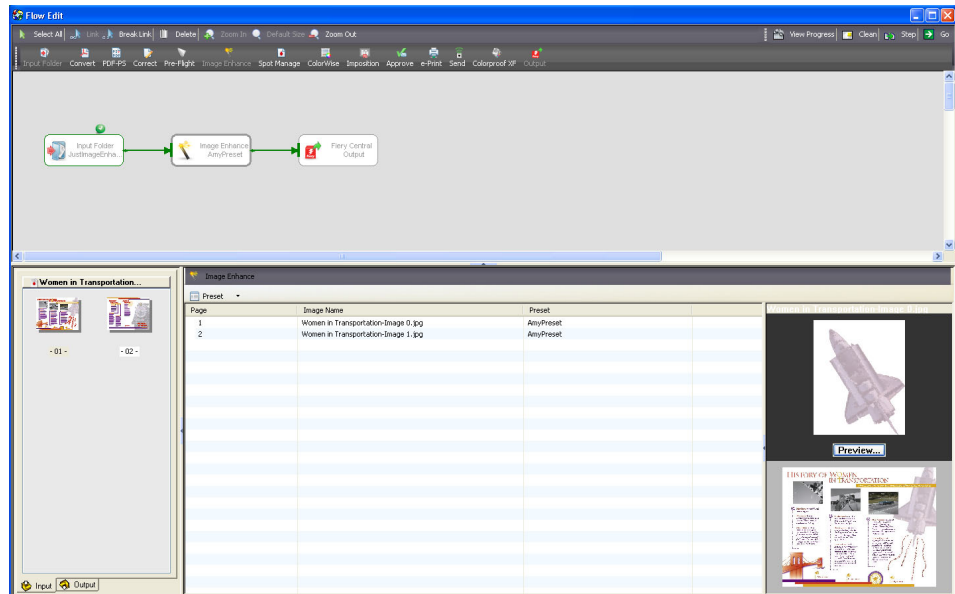
**9 When the job arrives at the Image Enhance module, the images are available for editing.**

Select individual images and edit them.

**10 After the job has finished processing through the workflow, it arrives in the Active Jobs window with a Flow Done status and is ready to be printed.**

## Image Enhance Flow Edit window

The Image Enhance Flow Edit window shows the entire workflow at the top, and shows three panes side-by-side at the bottom.



The left-most pane shows thumbnails of the pages in the document with the job title listed above the thumbnails. The thumbnails are displayed in a fixed size, and cannot be enlarged.

If there are more thumbnails to be displayed in the available space, a slider at the right of the pane allows you to move up and down in the document's thumbnails.

The middle pane, titled Image Enhance, contains the following:

- **Preset icon** allows you to select a preset or Manage Presets.  
For information about managing presets, see [“Manage Presets”](#) on page 15.
- **Page** shows the page number.
- **Image Name** shows the name of the image. If the name of the image is too long for the (resizable) column, the first parts of the image name are displayed with an ellipsis at the end of the name, scaled to fit in the space available.
- **Preset** shows the preset applied to the image. In this column, if the name of the preset is too long for the (resizable) column, the first parts of the image name are displayed with an ellipsis at the end of the name, scaled to fit space available.

If the preset is modified, a plus (+) sign displays next to it.

For information about managing presets, see [“Manage Presets”](#) on page 15.

The top-half of the right pane displays the currently selected image, with the name of the image displayed in the title bar at the top of this pane. Below the display of the currently selected image is a Preview button which, when clicked, takes you to the interactive Image Enhance window that displays the currently selected image.

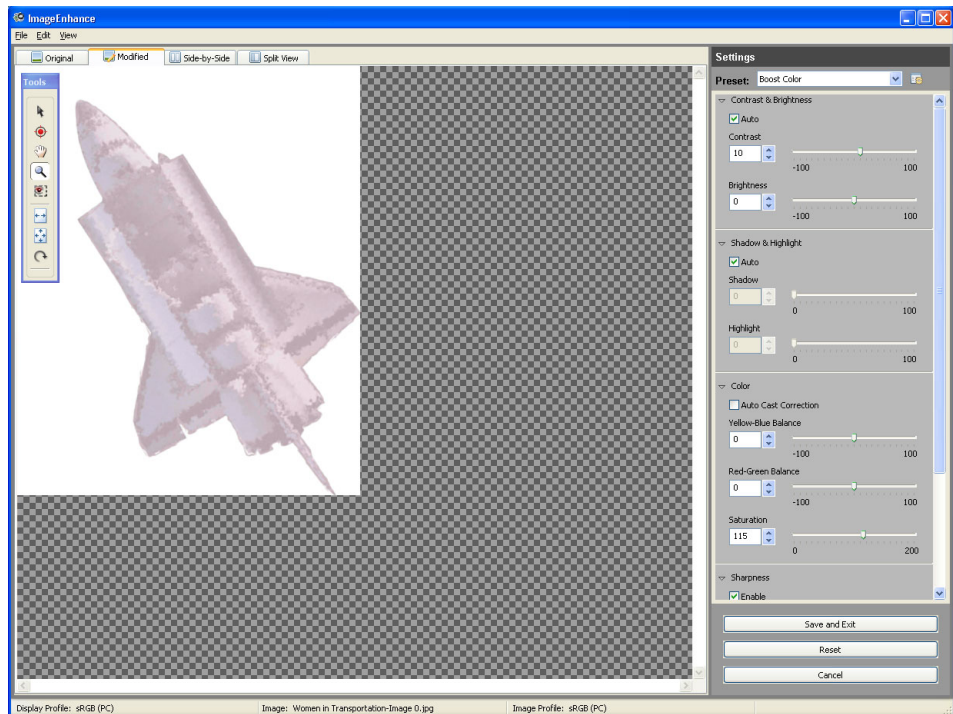
Below the image and the Preview button is a single thumbnail view of the page on which the selected image is displayed.

You can double-click the image at the top of this pane to open the image in the interactive Image Enhance window, or click on the Preview button below the image to open it. Additionally, you can double-click anywhere on the line listing the name of the image to open it in the Image Enhance interactive window.

Only one image at a time can be shown in this pane; if more than one image is selected, the right pane is blank, and the title at the top of the pane changes to “Image” from the name of the selected single image.

## Image Enhance interactive window

Use the Image Enhance interactive window to modify images on a one-by-one basis. After you select an image from the Image Enhance pane, you can either click Preview or double-click the image to start the interactive Image Enhance interface.



The Image Enhance interactive window layout from left to right is as follows:

- Tools palette
- Image display area; tabbed with four tabs, in single or split display
- Image modification controls

The interactive window has the following buttons:

- **Save and Exit** allows you to save your changes and exit the interactive window to return to the Image Enhance Flow Edit window.
- **Reset** allows you to reset all the options and settings to the last saved values for the selected preset. A plus (+) sign displays next to a modified preset in the Image Enhance pane of the Image Enhance Flow Edit window.
- **Cancel** allows you to cancel the interactive process.

## Tools

The Tools palette is shown as a single row of tools that are displayed vertically directly below the Original tab.

The Image Enhance tools are:

- **Roam** allows you to move quickly through a zoomed-in view of an image, simply by moving the mouse in the desired location.
- **Pointer** allows you to select or direct focus by selecting the tool, which becomes the pointer icon, and then clicking on a view, such as Original, Modified, Side-by-Side, or Split View.
- **Rotate** allows you to rotate a selected image for viewing. When you select the tool, the icon changes to the Rotate icon. Click on the image to rotate it 90 degrees in the direction shown in the icon (clockwise); holding down the Alt key causes the tool to change icons to show the reverse direction in the tool, and to rotate the image 90 degrees in the opposite direction. The tool allows you to rotate the image currently on display in the main window, regardless of which of the four tab views is selected.
- **Redeye** removes red cast in eyes caused by a camera's built-in flash.

When you select the tool, the cursor becomes a red arrow. Use the red arrow to draw a marquee around the red eye(s) that need to be fixed. After you draw the marquee and release the left mouse button, Image Enhance automatically removes the red eye by desaturating the red area. If you do not like the result, choose Undo Redeye Region from the Edit menu.

- **Hand** allows you to click and drag the image to view different areas.

If the image is fully contained in its current view, the hand does not move anything.

To use the Hand tool temporarily, hold down the spacebar and drag the image in the direction that you want.

- **Zoom** allows you to increase or decrease the magnification of the image by fixed increments.

When the Zoom tool is selected, the cursor becomes a magnifying glass with a plus sign in its center. Click the center of the area that you want to magnify, or hold down the Alt key with the Zoom tool and click the center of the area that you want to reduce. Whether you increase or decrease the magnification, it is done in fixed increments, which are 25%, 33%, 50%, 75%, 100%, 150%, 200%, 300%, 400%, 500%.

When you are not at one of the predefined zoom views, the image is zoomed to the closest preset percentage.

You can select a specific area of the image to magnify. Select the Zoom tool and drag a dotted rectangle, called a marquee, around the area you want to magnify. You can also hold down the Alt key with the Zoom tool; the cursor becomes a magnifying glass with a minus sign in its center, and when you click the image, the image zooms out using the fixed increments.

Holding the Ctrl key plus the spacebar temporarily enables the Zoom tool, as long as those two keys are depressed. Adding the Alt key changes the Zoom tool to a minus sign inside the magnifying glass. When you click the image with the tool selected, the view zooms out or in by the increments specified above.

**NOTE:** When you use the Zoom tool, each click magnifies or reduces the image to the next preset percentage and centers the display around the point you click. When the image has reached its maximum magnification level of 500% or minimum magnification level of 25%, the magnifying glass appears empty.

- **Fit Width** resizes the full width of the displayed image within the window, regardless of the height of the image.
- **Fit Window** resizes the image to fit within the full window on all sides.
- **Help** opens Contextual Help.

## View selector

You can choose the view to display for the currently selected image by selecting one of the following tabs: Original, Modified, Side-by-Side, or Split View. You can toggle between two views using keyboard shortcuts.

The views are as follows:

- **Original**

The Original tab shows the selected image before modification. It does not reflect adjustments made to the image in the interactive window.

- **Modified**

The Modified tab shows the image after adjustments are applied. Any changes are updated in real time.

- **Side-by-Side**

The Side-by-Side tab shows two instances of the same image with the original version on the left and the modified version on the right.

- **Split View**

The Split View tab shows one image, split where the moveable slider is placed. On the left is the original image, and on the right is the modified image.

## Image Enhance adjustment controls

The Image Enhance adjustment controls affect the image's original appearance. When an image is processed through Image Enhance and replaced into the document being processed, it becomes a new original. Modifications to the adjustment settings display with a plus (+) sign next to the name of the setting.

When you select the Auto check box, default values are applied to the image(s). Each adjustment setting has two sliders that allow you to change the effect of default values.

**NOTE:** For charts and graphs, the Auto check box is disabled for brightness, shadow and highlight, and color cast correction. The sliders for each adjustment setting can be used.

The Image Enhance adjustment controls are:

- Contrast & Brightness
- Shadow & Highlight
- Color
- Sharpness
- Redeye

### Contrast & Brightness

The Contrast & Brightness controls automatically analyze each image and attempt to set the correct contrast and brightness, using separate default values and sliders that offer a value range of -100 to 100.

When the Auto check box is selected for this control, the default value maps to a value of zero (0), and moving the sliders to the left or right changes the default correction applied to the image. The automatic adjustment attempts to fill the full dark to light range. In the Contrast or Brightness box, you can also type or select the value.

### Shadow & Highlight

The Shadow & Highlight controls provide correction for shadows that are too dark and highlights that are too light, with separate value displays and sliders for Shadows and Highlights.

The Auto check box performs an analysis of the image to automatically determine the amount of shadow and highlight compensation to apply. When the Auto check box is selected for this control, the default value maps to a recommended value for the image on the slider, but the sliders themselves are disabled. To override the automatically determined shadow and highlight compensation strengths, clear the Auto check box. The sliders are enabled and available to make adjustments. You can modify the strength of the adjustment applied to the image by moving the slider to the right, or by typing a positive value in either the Shadow or Highlight box.

## Color

The Color control provides correction for color casts and incorrect saturation in an image.

The Auto Cast Correction check box attempts to automatically correct for a color cast in the image. It is supplemented by two tint control sliders that provide for shifts in yellow-to-blue, and red-to-green. The tint control sliders work independently from the automatic correction.

Moving the slider, or typing a number in the values box next to the slider, allows you to adjust the effect of the default values for both color cast sliders. You can modify color correction applied to the image by moving the slider to the left or right, or by typing a value in either the Yellow-Blue Balance or Red-Green Balance box.

The Saturation slider control range is from 0 (grayscale) to 200. The normal value is 100. The Saturation control slider also works independently from the Automatic Cast Correction check box.

## Sharpness

The Sharpness control has the ability to sharpen skin tones separately from the rest of an image. When the Enable check box is selected, the Non-Skin Sharpness and Skin Sharpness sliders are active. When you adjust the Non-Skin Sharpness control, the overall sharpness of the image is changed. The sharpening range for each control is from -100% (softening) to 100% (sharpening). When you adjust the Skin Sharpness slider control, the sharpening of the skin-tones is adjusted independently of the other colors in the image. You can modify the sharpening by moving the sliders to the left or right, or by typing a value in either the Non-Skin Sharpness or Skin Sharpness box.

## Redeye Removal

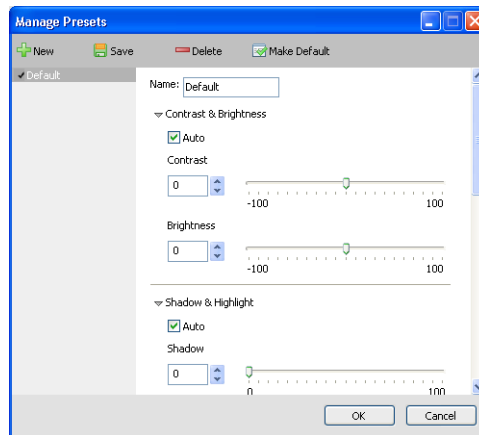
Redeye is the condition in which a light source, usually a flash built into a camera, reflects from the retina in the subject's eye, causing a red pupil in the photo.

When you use the Redeye tool, zoom in on the area that needs the redeye correction to avoid unwanted color correction in adjacent areas of the image.

After you have zoomed in on the image to select the red eye(s), use the Redeye tool to draw a marquee around each red pupil. Image Enhance removes the red eye(s) by desaturating the area of the eye's pupil to make it appear black.

## Manage Presets

Image Enhance allows you to create and manage presets that can be used in the workflow. In the Image Enhance Settings pane, click the Manage Preset icon located to the right of the Preset list.



You can do the following to manage presets:

- **New** creates a new preset with the specified name and adjustment settings.
- **Save** saves the current preset with the specified settings.  
You cannot modify the factory preset globally, only for the selected image.
- **Delete** deletes the current preset.  
You cannot delete a factory preset.
- **Make Default** makes the current preset the new default preset with the specified settings.