

Software Reference

FlexColor 4.0 for Flextight Scanners

by Hasselblad Imacon



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Software Reference - FlexColor 4.0 for Flextight Scanners, Part No 70030047 revision 1.0.

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Introduction

What's in this Manual

This manual provides a menu-by-menu, screen-by-screen listing of controls and settings available with FlexColor.

Topics include:

- Summaries of all menu commands
- Description of the 3f file format
- Information about rotating and mirroring images
- Image management from the **Thumbnails** window
- Full details of all tab sheets in the **Setup** window
- Full details of the **Preferences** window
- Instructions for editing ColorSync™ profiles
- Brightness and contrast control with the **Gradients** window
- Advanced highlight and shadow settings with the Histogram window, including color neutralization and control
- Advanced color control with the **Color Correction** window
- Sharpening images and removal of dust & scratches with the **Texture** window
- Batch scanning to create individual image files from each of several crop and settings combinations

Software compatibility

The FlexColor software works with the entire range of Flextight scanners (except for the Flextight 4800) and all Hasselblad/Imacon cameras and camera backs.

FlexColor under Mac OS and Windows

The CD that came with your scanner includes versions of FlexColor for both Macintosh and Windows-based systems. The interface is nearly identical on both platforms, with mostly superficial differences to conform with the interface guidelines of the two systems.

Nearly all of the screen captures shown in this manual were taken from Mac OS X. Windows users will notice the following differences:

- In the Setup window, the color management tab is called ICM instead of ColorSync™.
- The menus are located at the top of the main **FlexColor** window instead of at the top of the screen.

System Requirements

IBM PC-Compatibles

- Minimum recommended Pentium III processor or better.
- 2000 or XP.
- System RAM 512 MB or more recommended.
- Screen resolution of 800 x 600 pixels with true colors (24 bits).
- Mouse or other pointing device.
- FireWire interface or SCSI Interface.
- Minimum available hard disk space of 10 GB

Macintosh

- Recommended G4 or better
 - Mac OS X version 10.2.1 or later.
 - System RAM 512 MB or more recommended.
 - Screen resolution of 800 x 600 pixels with true colors (24 bits).
 - FireWire interface or SCSI interface.
 - Minimum available hard disk space of 10 GB.
-

OS X Requirements

OS X V 10.2.1 or later is required. We recommend updating to the latest release available.

Devices can be connected by either SCSI or FireWire. Please note that if you are connecting a SCSI device through a SCSI to FireWire device it will be represented as a FireWire device – that is the bus number in the device window will be 9.

To be recognized by OS X, devices connected to a standard SCSI adapter must be present when booting the Mac. A SCSI device connected via a SCSI to FireWire adapter will be recognized when the adapter is plugged in. The SCSI device itself must be turned on before connecting the adapter to FireWire or rebooting. In OS X the required memory for the application is automatically allocated.

Support for non-admin users

User defined settings, batch presets and various calibration files are located in <user home>/Library/Application Support/FlexColor where write support is guaranteed. The standard settings are now located inside the application bundle - therefore you are free to move the FlexColor application to any location without losing access to these standard settings.

Preferences file

FlexColor uses the OS X standard format for preference files.

The file name is dk.Hasselblad.FlexColor.plist.

The 3f File Format

When using the Scan 3f function (for scanners) or capturing an image with a digital camera back, FlexColor stores the image in Hasselblad's unique 3f (flexible file format).

The 3f file is an extended TIFF-file containing

- Raw 16-bit image data
- A complete history of applied settings
- High quality preview image
- Meta-data (including IPTC tags) to support an image database.

In short this means that when you have scanned or captured your image, you can crop, resize and color correct an unlimited number of times afterwards. You can easily integrate to databases, have fast previews in a number of applications and always be able to re-create the quality you need - all this from the same 3f file.

Image Archiving & Availability

Because a 3f file preserves all of the details captured by your scanner or camera, it is perfect for archiving. Then, for each new job, you will work with the 3f image in FlexColor and export it to create a new TIFF file in which your settings are applied - the only change made to the 3f file will be the addition of a new history record of the settings you used.

By making the 3f files available over your network, you will enable operators at any workstation to open an image in FlexColor and apply cropping, correction and conversion just as though they were working directly on the scanner or camera.

Editing 3f Files

FlexColor holds all tools required for making standard image correction of the 3f files.

If you need to apply pixel-editing to your image, FlexColor has a special plug-in for Photoshop. When installing FlexColor, this plug-in will be installed in the appropriate plug-in folder if Photoshop is already installed. Please note that you will permanently alter your original

scanning or capture data when you save using the plug-in. To use your 3f files in other image-editing and DTP applications, you must apply the required settings and then save them as TIFF files. TIFF is a standard format that is supported by the vast majority of imaging and DTP programs.

IPTC Tags

The International Press Telecommunications Council (IPTC) defines a standard used in the press industry for exchanging meta-information in news content, including images. The standard associates an object with its description within the same file. You can embed all kinds of information in your images, such as a caption, the place you took it, the date and even keywords and categories etc. In FlexColor you are able to apply a number of IPTC-tags to your 3f files. See “The Info Window” on page 79 for details.

Many aspects of managing your images are made easier using the IPTC standard. Many software programs already exist for doing this, including Adobe Photoshop. It’s the standard used by professional news agencies worldwide, and it’s just as useful for others.

FlexColor Menus

FlexColor commands are available via a standard menu bar. Each of them is described briefly below. Note that most menu entries also list a keyboard shortcut to the right of the entry. Try to remember and use these shortcuts to speed up your work.

The FlexColor Menu

Except for the **Preferences** entry the **FlexColor** menu functions are standard for all applications.



- Preferences: Opens the Preferences window, which enables you to select an application for viewing final scans, make power-saving settings, and typing some default information for the 3f files.

See “The Preferences Window” on page 53 for more information.

The File Menu



The **File** menu includes entries that initiate scans and make settings for FlexColor.

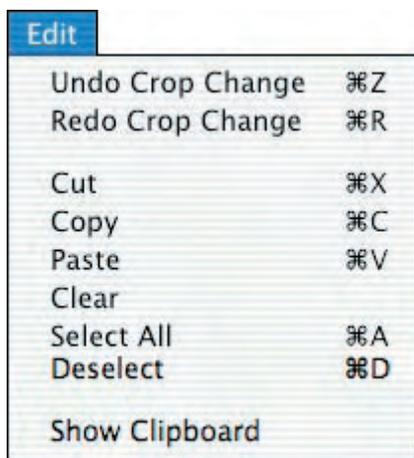
- **Scan Preview:** Takes a low-resolution preview scan. The preview image will be displayed in the main **FlexColor** window so that you can preview settings and crop the image for the final scan. All settings are previewed using the full 14-bit color depth to display results.
- **Scan 3f:** Scans the image and saves it as a 3f file. The various settings for the file such as cropping, resolution and IPTC info are set in the window that pops up when selecting the function. See page 118 for details.
- **Final Scan/Save:** The Final Scan entry takes a final-resolution scan from the preview scan and saves it as a TIFF-file on your hard disk. When having scanned the image as a 3f file (see page 10 for details) the entry changes to Save, which saves the image currently shown in the **FlexColor** window as a standard TIFF file. In both cases all current crop, mode, color and image-enhancement settings will be applied to the saved image.
- **Close:** Closes the currently selected window if possible.
- **Setup:** Opens the **Setup** window, in which most of the basic settings for a scan can be made, saved and loaded. See “The **Setup** Window” on

page 35 for more information.

- **Devices:** Opens the **Devices** window. The window lists all connected devices allowing you to select which camera or scanner device you want to work with. Click on the one you prefer and click the **Select** button. If you have only a single scanner or camera connected this device is automatically chosen. The numbers just to the right of the scanner or camera icon in the list (ex. 0-5) refers to the Bus no. (0) and the SCSI address (5).
- **Get Info:** Opens an **Info** window, which contains various information about the currently selected image. See “The Info Window” on page 79 for a detailed description.
- **Page Setup.../Print...** : Enables you to print the contents of the **Thumbnails** window. Make sure you have selected the view by clicking on a thumbnail in the window, then select **Print**.
- **Move to trash:** Moves the currently displayed image to trash can. If you are in the **Thumbnail** window the selected images will be moved to trash

The Edit Menu

The **Edit** menu contains entries that enable you to undo multiple actions that you have made while making settings in FlexColor. It also enables you to cut, copy and paste text in various windows.



- **Undo:** Reverses your most-recent actions - for example, a crop area modification or a change in the **Setup** window. You are able to step back through a long series of actions.
- **Redo:** Reapplies the last action that you cancelled using the **Undo** command.
- **Cut:** If you have selected some text in a text field, then this command removes the text and saves it on a system-wide virtual clipboard.
- **Copy:** Saves the selected text on the clipboard without removing it.
- **Paste:** Places a copy of the text on the clipboard at the insertion point.
- **Clear:** Removes all text from the clipboard.
- **Select All:** Selects all of the text contained in the field in which the insertion point is standing. In the **Thumbnails** window, this selects all of the icons in the window (see “The Thumbnails Window” on page 65).
- **Deselect:** Removes the cropping of the currently shown image.
- **Show Clipboard:** displays the current contents of the clipboard.

The Image Menu



The **Image** menu gives you quick short cuts to functions that are also available from within the modify dialog in the **Thumbnails** window (see page 65 for details). You have the possibility to select a number of files and choose **Modify** from the **Image** menu. This will add a corresponding number of processing tasks to the list in the **Task** window and processing of those files will take place in the background. Processing tasks will not be interrupted by new scanning processes.

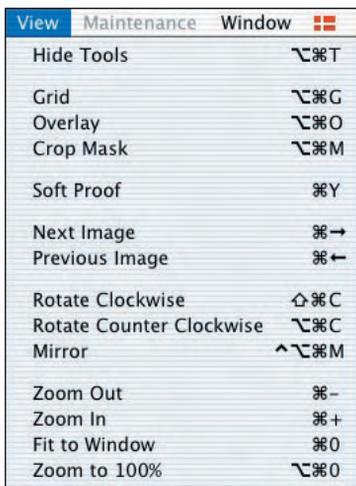
Modify

When using the **Modify...** function to add settings from current settings the cropping will be maintained in the added settings. If the images in question have different sizes the cropping will be scaled accordingly.

Approve

Select a number of images and chose **Approve**. These images will appear in the top at the **Thumbnail** window if you have selected **sort by approval**.

The View Menu



The **View** menu exposes some of the “secret” short cuts that relate to the control of grid, overlay and crop mask and to zooming and selection of images.

The **Soft Proof** feature combines the ICC color profile of your monitor with the profiles of your camera back and output device to provide a simulation of the output colors on your screen. Enable this only when you are sure about the specific output device you are using. If you are making a general-purpose RGB capture, then keep this feature unselected.

A small **s** to the right of the **Color Info** area in the main **FlexColor** window indicates that **Soft Proof** is enabled.

The **Hide Tools** item lets you hide all tool windows.

The Maintenance Menu

The **Maintenance** menu includes entries that are used for calibrating and upgrading the scanner. The functions of these entries will depend on the model of Flextight scanner you are using.

- **Focus Calibration:** Opens the Calibration window, which calibrates the focus and sizing of the scanner. See your scanners hardware documentation for details of when and how to perform this calibration.



This function does not apply to the Flextight Photo and 343 scanners.

- **White Calibration:** Initiates a white calibration scan for reflective originals.

See your scanners hardware documentation for details of when and how to perform this calibration.



Only scanners that support reflective scanning require this function.

- **Feeder:** Opens the **Feeder** window, which allowe Mounting and Unmounting of Feeders, as well as adjusting and trouble shooting . See the Feeder documentation for further details.

The Window Menu

Window 	
✓ Histogram	⌘1
✓ Gradations	⌘2
✓ Color Correction	⌘3
✓ Texture	⌘4
Detail	⌘5
Batch Scan	⌘6
Exposure	⌘7
Thumbnails	⌘8
Color Info	⌘9
Live Video	⌘L
Import	⇧⌘I
✓ Picture 006	
Tasks	⌘T

The Window menu opens and closes each of the image settings window available with FlexColor. Each window that is currently open shows a check mark to the left of its name. For more information about each of these windows, see the appropriate section later in this manual:

Gradations window see page 93.

Histogram window see page 85.

Color Correction window see page 99.

Texture window see page 101.

Detail window see page 107.

Batch Scan window see page 109.

Thumbnails window see page 65.

Color Info window see page 83.

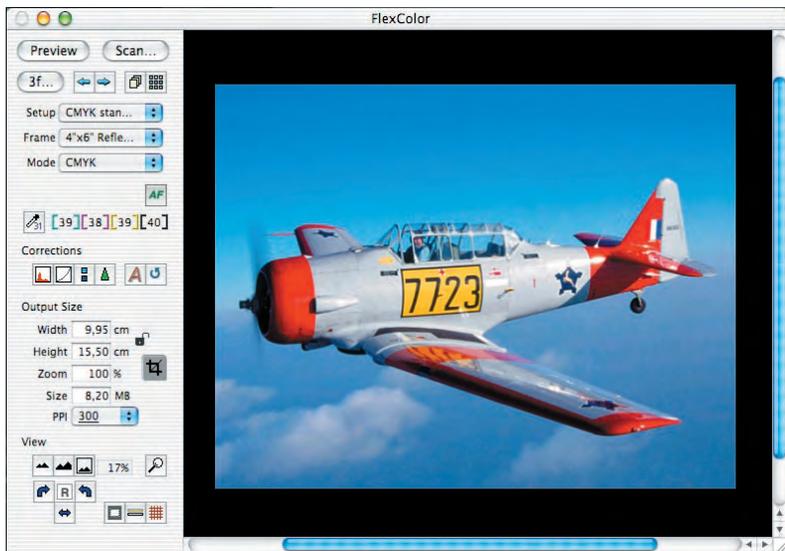


The Exposure, Live Video and import entries are not available when you use FlexColor with a Flextight scanner.

The Main FlexColor Window

Introduction

The main **FlexColor** window displays your preview images and provides access to most of the scanning and editing functions available with FlexColor.



Scan Controls

Preview Makes a preview scan. A preview image will appear in the large area on the right. All image correction settings (such as tonal range, gradation and color corrections) will also be previewed on this image.

Scan... (This button changes to a Save button when working with a 3f file in the preview window). Makes a final scan (saved as a standard TIFF file) from the preview image using the current crop, mode, color and image-enhancement settings.

Save... (This button changes to a Scan... button when working with a preview scan in the preview window). Saves an image (as a standard TIFF file) from the 3f file currently displayed in the **FlexColor** window. All current crop, mode, color and image-enhancement settings will be applied to the saved image. A history record of the settings used when saving the file, will be added to the History list in the 3f file's Info window. See "The Info Window" on page 79 for details.

3f... Scans the entire area of the selected frame or the current cropping of the preview image and saves it as a 3f file in the currently selected folder. The image will be displayed in the **FlexColor** preview window. Please note that the 3f file will be scanned using the cropping, resolution and IPTC settings as specified in the window that pops up when selecting the function and on the 3f tab in the **Preferences** window (see page 55). See "The 3f File Format" on page 10 earlier in this manual for details.



Previous/Next Image Buttons: Use these buttons to select previous or next image from the thumbnails folder.



Batch Scan Button: Opens the Batch Scan window, from where you can perform a batch scan, which can be either several scans from the same preview using different crops and settings or when scanning from the Feeder units (Flextight 848 and 949 only). See "Batch Scanning" on page 109 for more information.



Thumbnails Button: Opens the **Thumbnails** window, which holds thumbnail images of all of the 3f files saved in the current folder. See "The **Thumbnails** Window" on page 65 for more information.

Setup Use this pop-up menu to choose between any of the currently available setups. A small + will appear to the right of the menu to indicate when you have made custom changes that affect the setup but have not been saved.

Frame Use this pop-up menu to set the film format (size) of the original you are scanning. This setting mirrors the **Frame** setting on the **General** tab of the **Setup** window. See “General Tab” on page 38 for more information.

Selecting the **Customize...** entry from the list enables the creation of your own custom frames. See “Custom Frames” on page 31 for details.



Auto Frame Button: Toggles the Automatic Frame. When the function is enabled the scanner will automatically read the current original holder’s identification code (a combination of small rectangular holes at the holder’s leading edge) and adjust the Frame settings accordingly.

The button reflects the setting of the **Automatic Frame Recognition** check box on the **Scanner** tab of the **Preferences** window. See “**Preferences**” on page 53 for details.



The button is only available for scanners supporting the Automatic Frame Recognition function!

Mode Use this pop-up menu to set the scan mode (RGB, RGB 16 bit, Grayscale, Grayscale 16 bit, Lineart, or CMYK). This setting mirrors the **Mode** setting on the **General** tab of the **Setup** window. See “General Tab” on page 38 for more information.

Keyboard Shortcuts

See “Appendix” on page 124 for related keyboard shortcuts.

Auto Focus Controls

Only available if your scanner supports the Auto Focus function!



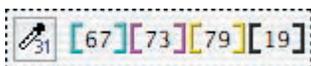
Auto focus: This check box toggles the Auto Focus function on/off. Before the final scan the scanner performs a quick focusing in a horizontal line in the center of the current cropping area.



Auto Focus Indicator: Shows the current focusing level (indicated by a red or green horizontal line) compared to the standard focus calibration, which is represented by the horizontal line in the center of the indicator.

Please note that a red line indicates a coarse deviation, and in this case it is recommended to perform a focus calibration. See your scanner's "User's Guide" for references.

Color Display



To use the **Color Display**, place the mouse cursor over the preview image. The number fields in this area indicate the pixel value at the selected position in the image.

Note the following:

- The values indicate values after gradation and tonal range settings.
- When showing CMYK, the values indicate ink percentage values (0 - 100) with white = 0, 0, 0, 0.
- When showing RGB, the values indicate pixel brightness values (0 - 255) with white = 255, 255, 255.



Color Info button: Opens/closes the **Color Info** window. This window is also available from the **Window** menu. See detailed description in "The Color Info Window" on page 85.

Corrections Controls



Histogram Button: Opens/closes the **Histogram** window. See "The **Histogram** Window" on page 85 for more information.



Gradation Button: Opens/closes the **Gradations** window. See "The **Gradations** Window" on page 93 for more information.



Color Correction Button: Opens/closes the **Color Correction** window. See "Selective **Color Correction**" on page 99 for more

information.



Texture Button: Opens/closes the **Texture** window. See “The **Texture** Window” on page 101 for more information.



Click this button to apply automatic settings for highlight and shadow points based on the histogram of your image inside the cropped area.



Click on this button to return all correction windows (**Gradations**, **Histogram**, **Color Correction**, and **Unsharp Mask**) to their neutral settings.

Output Size Controls

- Width** The measured width of the output image. The units used are set in the **Preferences** window. See “The **Preferences** Window” on page 53 for more information.
- Height** The measured height of the output image. The units used are set in the **Preferences** window. See “The **Preferences** Window” on page 53 for more information.
- Zoom** The level of magnification applied when the image is saved, either by making a final scan or when saving from a 3f file. The **Width** and **Height** settings will update to reflect the setting you make here. Note that if you choose a setting other than 100%, then FlexColor will interpolate the image to fit the size you specify.
- PPI** The output resolution of the final image. The **Width** and **Height** settings will update to reflect the setting you make here. When making a final scan, please note that those settings that, combined with the current **Zoom** setting, will result in a non-interpolated (true optical resolution) scan, are shown underlined in the **PPI** pop-up menu.
- Size** The file size of the final image file. This is affected by the **Width**, **Height**, **Zoom** and **PPI** settings. It is possible to type a desired output file size. This will adjust the zoom percentage correspondingly (max. 200%).



Lock button: The lock button enables you to lock the output width and height settings. When the lock is closed, then the output width and height will not change when you modify the

crop area by dragging one of its corners, and the proportion of height to width will be maintained. Click on the lock to toggle its setting.



Crop Button: Usually this button is gray, which indicates that the crop tool is active. When the crop tool is active, you are able to click and drag on the preview image to create and manipulate the crop area. However, some tools, such as the color pickers, change the cursor so that it selects colors instead of defining a crop area. When one of these tools is active, the crop button is white. To return to the crop tool, click on the crop button.

Note the following points about working with the crop and size tools:

- When you work with a scanner, you will typically know the target output dimensions and resolution. If so, first enter the dimensions in the **Height** and **Width** fields and choose the output resolution from the **PPI** pop-up menu. Then click on the lock icon so that it is closed (this will lock your height and width settings). You are now able to click and drag the crop area to define the composition of your image - the **Zoom** value automatically tracks your changes without changing the height, width, or PPI of your output image.
- To set the crop area, place the mouse cursor over the preview image. Click and hold over one corner of the area you wish to scan and drag the cursor away to outline the area. Release the mouse button to select the area.
- To move the crop area, place the mouse cursor inside the outline, then click and drag the area. Release the button to drop the area again.
- To resize the crop area, place the mouse cursor over one of the sides or corners. The cursor will change into a double sided arrow. Click and drag the side or corner to stretch or shrink the area.

Zoom Controls



Zoom out: Click this button to make the preview image smaller.



Zoom in: Click this button to make the preview image larger.



Fit to Window: Click this button to resize the preview to fit the actual window size.



Detail: Click this button to open the Detail window. Use this window to show details of the image and/or a strongly magnified view of the preview image for reading color values of a specific pixel in your image. See “The Detail Window” on page 107 for more information.



Current zoom level

Keyboard shortcuts for zooming

- To fit the entire preview image in the window, type cmd-0.
- To zoom in, type cmd +.
- To zoom out, type cmd -.
- To zoom to 100%, type alt-cmd-0.
- To open the **Detail** window, type cmd-5.

Orientation Controls



Mirror Button: Mirrors both the preview and final image.



Rotate Buttons: Rotates both the preview and final image 90° steps in either direction. See “Rotating Images on page 28 for more information.



Orientation Icon: Shows the current rotation/mirroring in relation to your scanned original.

Rotating Images



In some cases, your originals may be rotated so that they appear sideways in relation to the **FlexColor** preview window. You can use the rotate buttons to rotate the image 90° either clockwise or counter clockwise. Both the preview and the final image will be rotated.



Mirror

Note that scanning rotated images will require more memory and will slow down your scans slightly - especially for large scans.

Other Controls



Grid/Overlay button: Adds a grid or an overlay over the preview, which can be useful for lining up your original before the final scan.

Holding down the option key while clicking the button opens the **Grid options** window:



Here you are able to define the number and color of the lines in the grid. The number of lines is per the smallest image dimension (width or height). If the **Use overlay** checkbox is checked, the specified overlay will be displayed instead of the grid. To return to normal grid mode simply uncheck the checkbox. See page 29 for details about adding an overlay to the image.



Overlay: This function is primarily for digital camera back users. It is possible to add an overlay to the preview. All the standard image file types such as TIFF, JPEG, GIF, and PNG can be used. To place the overlay simply drag the image file into the preview window. Once in place you can click and drag the overlay image around to align it correctly. Since the overlay replaces the grid, it is turned on and off using the Grid/Overlay button (see page 28).



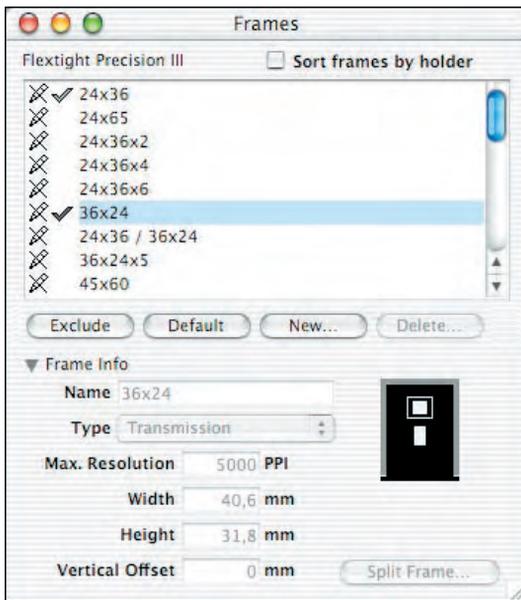
Crop mask: Darkens the disregarded part of the image to help evaluate the crop.

Custom Frames

Flextight ships with a selection of original holders that support several standard formats of originals. It is also possible to use custom, nonstandard formats with Flextight. A larger number of custom frame formats can be defined.

To define a **Custom frame** do the following:

- Select **Customize...** from the **Frame** pop-up menu in the main **FlexColor** window. The **Frames** window appears.



The window shows a list of frames relevant to your current scanner. A check mark indicates whether or not a frame should be available from the **Frame** pop-up menu. To add or remove a frame either double-click it or select it and click the **Exclude/Include** button. The pre-defined frames in the list (defined by Hasselblad) are not editable and thus marked with a non-edit symbol to the left.

When a frame is selected its current settings are displayed in the **Frame Info** section. Click the small triangle to the left to display the settings if not already displayed.

- Click the **New...** button. The **Create new Custom** frame window appears.



Create new Custom frame:

50x50

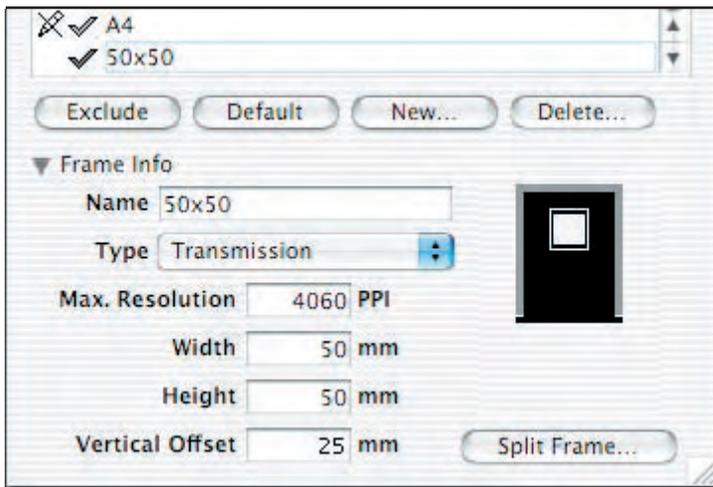
Scan holder

Cancel Create



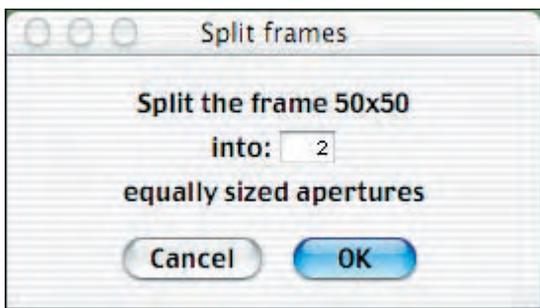
*If the **Scan holder** checkbox is checked when the window appears, your scanner supports scanning of original holder frames as described in “Scanning of Original Holder Frames” on page 34. Type a name that will help you remember the format and click on **Create**. The new frame is added to the frame list using the specifications of the frame currently selected in the **Frame** pop-up menu.*

- Select the appropriate holder type from the **Type** pop-up menu and edit the **Width**, **Height** and **Vertical** Offset values to match your frame.

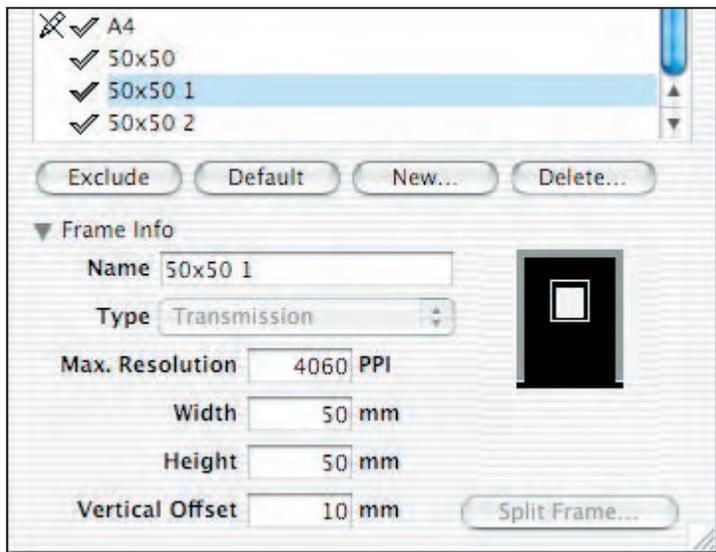


If your scanner has a moveable optical system, you are able to specify both **Width, Height and Vertical offset** for transmission frames, but reflective frames are still limited to the few fixed widths because of the white calibration used in reflective mode.

- If you want to specify a frame with 2 apertures you can do so by clicking the **Split Frame...** button.



- From the **Split frames** pop-up select how many equally sized apertures you want to split the frame into and click **Create**.



- Now a number of sub-frames, one for each aperture, are added to the list, and you can edit the **Width**, **Height** and **Vertical Offset** values of each aperture.
- To delete a custom frame from the list, select it and click the **Delete...** button.
- When finished close the **Custom Frames** window.

Note! Clicking the **Default** button will reset the **Frames** list to the original list containing the frames shipped with your scanner.

Scanning of Original Holder Frames

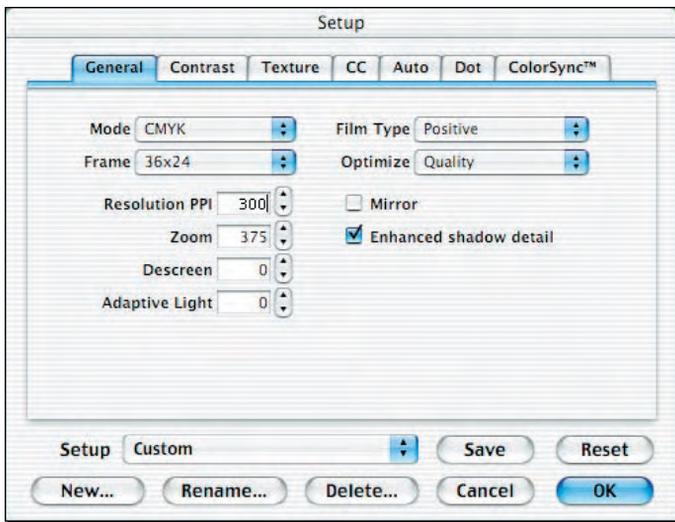
NOTE! If your scanner supports it, you are able to simply place the new holder in the scanner and in the **Create new Custom frame** window name the frame, check the **Scan holder** box and click **Create**. The scanner will scan the holder and the obtained values will be displayed in the **Frame Info** section. This will make the holder recognizable by the **Automatic Frame Recognition** function (see page 54) and enable full use of the 3f facilities.

The Setup Window

Introduction

The **Setup** window shows many settings that affect the image and the way in which the other tools in the FlexColor application work. All of the settings displayed in the window can be saved and loaded from your hard disk.

To open the **Setup** window, type **cmd-U** or select **Setup** from the **File** menu.



Many of the settings, such as sharpness, gradation, and color correction, are available individually through tool buttons in the main **FlexColor** window. All settings you make using the individual tools are also applied to the **Setup** window, and vice versa.

The **Setup** window is divided into several tab sheets to help you find the setting you want to make.

The FlexColor Setup Philosophy

In the traditional prepress environment, where photographs are shot to film and then scanned, the professional scanner operator requires extensive education and experience to make all of the settings required to obtain good results. The operator examines each original and, applying his or her experience, enters a “best guess” of what all the settings should be for that particular type of original. Then the operator checks the preview and makes fine tuning adjustments.

FlexColor simplifies this process by enabling you to save a library of setups that you use most frequently. Nearly all FlexColor settings, including all settings in the **Setup**, **Gradations**, **Histogram**, and **Unsharp Mask** windows, are saved in each setup file.

Each time you scan a new original, select the closest setup from the **Setup** menu, define the crop, click on the **Auto** button, and you are 98 to 100% of the way to a perfect scan.

FlexColor is delivered with several generic setups to get you started quickly. Use the **Setup** pop-up menu to choose a setup that is appropriate for your current job. The name of each setup indicates its intended use.

Start by using the generic setups. If you want to develop your own setup library, begin with the closest of the available generic setups, modify it, and save it with a new name.

Managing Setups

To create a new setup, click on the **New** button. A window will appear in which you can name the new setup. All of the settings currently applied in the **Setup**, **Gradations**, **Histogram**, and **Texture** windows will be saved in the new file.

To rename the currently loaded setup, click on the **Rename** button. A window will appear in which you can rename the setup.



After you have made changes to the current setup, save them by clicking on the **Save** button in the **Setup** window.

To delete the current setup, thereby removing it from the **Setup** pop-up menus, click on **Delete**.



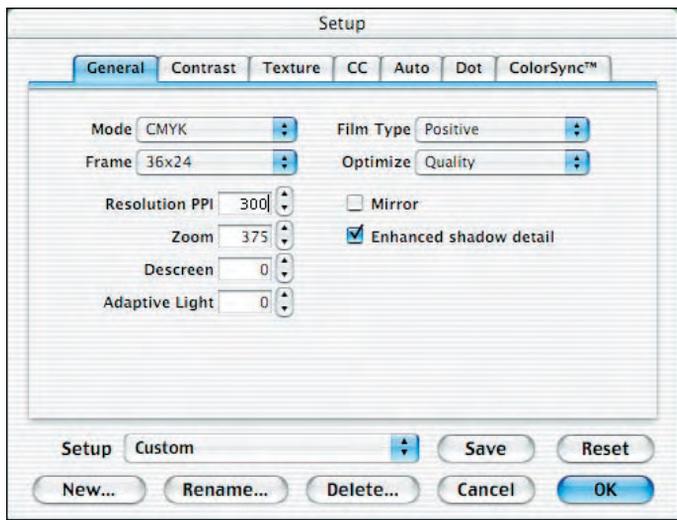
*The generic setups that ship with FlexColor are locked so that you can not accidentally modify, rename or delete them. If you want to modify a generic setup, then select the setup from the **Setup** pop-up menu, make modifications, then click on **New** to save your new setup with a new name.*

Advanced Setup Management

The **Setup** pop-up menu in the main **FlexColor** window is organized into sections. User-defined setups appear at the bottom of the list. All of the setups are saved as individual files in a folder called Settings, which is in the same folder as the FlexColor application. Each section shown in the **Setup** pop-up menu corresponds to a folder inside the Settings folder. If you would like to customize the organization of the menu, then you can add new folders and/or move setup files as required.

General Tab

The **General** tab of the **Setup** window affects the general behavior of the interface and identifies the setup file currently loaded.



Mode

Provides a pop-up menu for choosing the color space used when making your final scan. The following options are available:

- **RGB:** stores final images as standard 8-bit RGB TIFF files.
- **RGB 16-bit:** stores final images as 16-bit TIFF files. This preserves the full color resolution captured by the scanner, but creates larger files that many applications cannot read.
- **Grayscale:** creates grayscale images, such as black and white photographs. Grayscale files are smaller than color files, so use this mode if your originals or final publications are in black and white. To obtain a grayscale result, FlexColor combines information from all three RGB color channels.

- **Grayscale 16-bit:** stores final images as 16-bit grayscale TIFF files. This preserves the full tonal range captured by the scanner, but creates files that many applications cannot read. To obtain a grayscale result, FlexColor combines information from all three RGB color channels.
- **Lineart:** creates 1-bit images in which each pixel is either 100% black or 100% white. These files are even smaller than grayscale images. Use this mode if your originals are, for example, pen and ink drawings. To adjust the threshold at which the input will jump to either black or white, use the **Gradations** window. See “Setting the Threshold for Lineart Scans” on page 97 for more information. ICC profiles have no effect when you use this mode.
- **CMYK:** creates print-ready color images. You must set up an ICC profile to create CMYK images directly from FlexColor. See “ColorSync or ICM Tab” on page 47 for more information about ICC profiles.

Frame

Use this pop-up menu to choose the original holder you will be using for your scan.

Resolution PPI

Defines the resolution of the output image. Set this value according to the requirements for your printed output. Most high-quality color work uses 300 ppi. Newspapers typically use less (150 to 200 ppi). On-screen display, such as for the web, requires only 72 ppi. See “Size Controls” on page 25 for more information about PPI and image sizing.

Zoom

The level of magnification applied when the image is saved. See “Size Controls” on page 25 for more information about zooming and image sizing.

Descreen

If you are scanning an offset-printed original, then this setting will compensate for rosettes in the original. It attempts to prevent moiré patterns from appearing in your print, at the expense of defocusing the image. The higher the setting, the more extreme the effect will be.

Adaptive Light

If your originals are very dark you can use this setting to increase the exposure time (older scanner models will increase light intensity).

Film Type

Use this pop-up menu to identify the type of original you are scanning. The following options are available:

- **Positive:** for positive color or black and white images.
- **Color Negative:** for negative color images.
- **B/W Negative:** for negative black and white images.

Mirror

If your original is a mirror image, or if you want to create a mirrored image from the original, then place a check in this box. To keep the image as scanned, make sure this box is not checked.

Optimize

In the **Optimize** pop-up you have the following options:

- **Quality:** Use this setting to obtain the highest quality.
- **Speed:** Enables faster scan times by taking greater advantage of resizing.
- **True Resolution:** Use this mode to avoid any kind of software resizing.

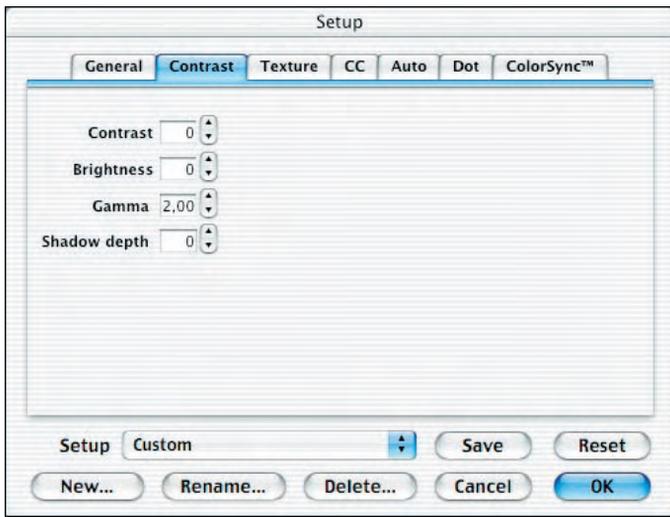
Enhanced shadow detail

Activates an algorithm that delivers more details in the shadow areas. This function is not suitable for images with a very narrow dynamic range or for images with an unusually high amount of color information in dark areas.

Contrast Tab

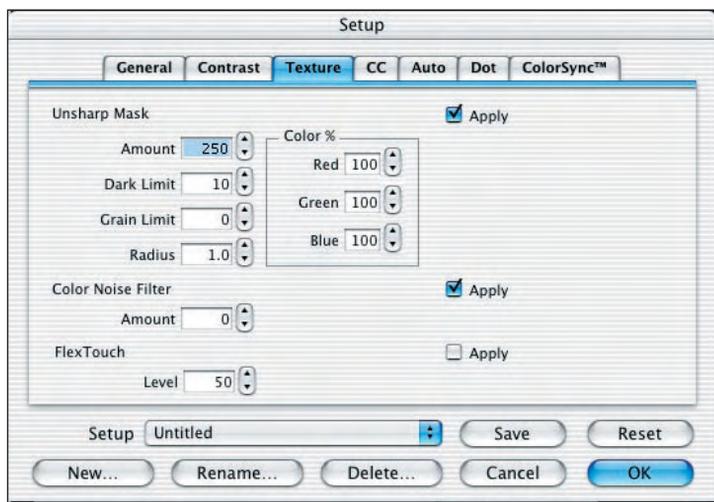
The settings on the **Contrast** tab sheet are exactly the same as in the **Gradations** window (available from the **Window** menu). Changes made here in the **Setup** window will also change the settings in that window, and vice versa.

See “The **Gradations** Window” on page 93 for more information about these settings.



Texture Tab

The settings on the **Texture** tab (except for the Color % setting) reflect those made in the **Texture** window (available from the **Window** menu). For more details about using the **Unsharp Mask**, **Color Noise** and **FlexTouch** functions, see “The **Texture** Window” on page 101.

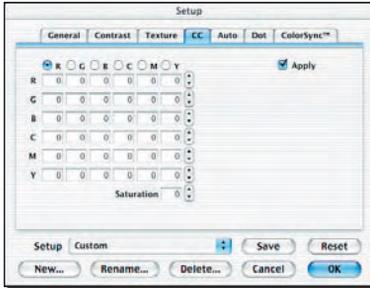


Color %

These three fields (**Red**, **Green**, and **Blue**) control the amount of sharpening effect applied in each color channel. Normally, you should leave them set to 100 each, which applies sharpening equally to all channels. In some cases, you may be able to reduce the effect of noise by applying less sharpening to one channel (typically the blue channel). You can also use these settings to create special effects.

CC (Color Correction) Tab

The **CC** tab contains a color correction chart, which enables you to alter the way input colors are mapped onto the output colors. It can be used to remove or add color cast, or to create stronger colors in your images.



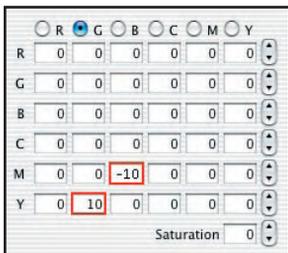
The matrix contains the same settings as the **Color Correction** window (available from the **Window** menu), and displays all of the settings you have made using that window. In many cases, it will be easier for you to make adjustments using the **Color Correction** window instead. See “Selective Color Correction” on page 99 for more information. However, the matrix shown here gives a better overview of all of the color correction settings for the current setup.

To activate the color correction, mark the **Apply** check box. To disable the color correction settings, remove the mark from this box. Click on the box to toggle the mark.

To modify the amount of any one color component in the image, click on the button next to the target color along the top of the matrix. Then use the up and down buttons for each component color along the left side of the matrix to add or remove that component from the target color.

Alternatively, you can click on any of the fields in the matrix and edit the value with your keyboard. To modify the saturation in the entire image, use the **Saturation** up and down buttons or input field.

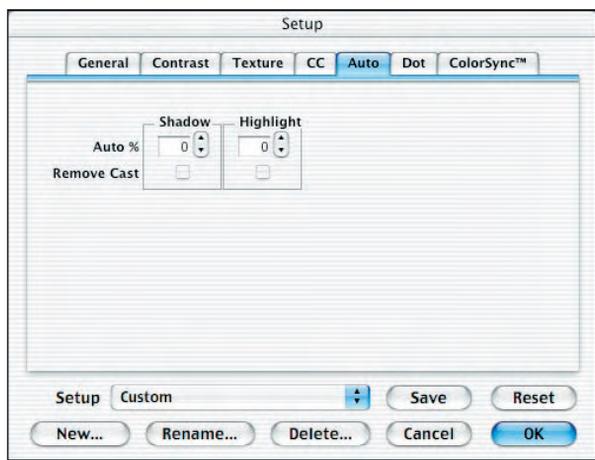
To reduce the amount of magenta in blue and add yellow in green, do as follows:



A full explanation on all of the applications of this tool would be complex and beyond the scope of this manual. If you would like to know more about color mapping, please speak with your printer or consult the electronic prepress section of your local library or book store.

Auto Tab

The **Auto** tab sheet has percentage settings for both **Shadow** and **Highlight**. When you use the **Auto** button, the FlexColor application computes what it thinks the highlight and/or shadow values should be based on the histogram of your image. It then modifies the values by the percentages that you set here to find the final setting. The percentage is applied to the difference between the highlight and shadow settings.



For example, if the **Auto %** for **Highlight** is set to 2 and you use the auto function on an image in which the highlight might normally be 200, then FlexColor will assign a highlight value of 196 (provided the shadow value was zero). If you find that you frequently need to adjust the highlight or shadow values to be tighter than the auto function normally chooses, then use a positive setting here. Positive settings will result in a relative increase in the contrast.

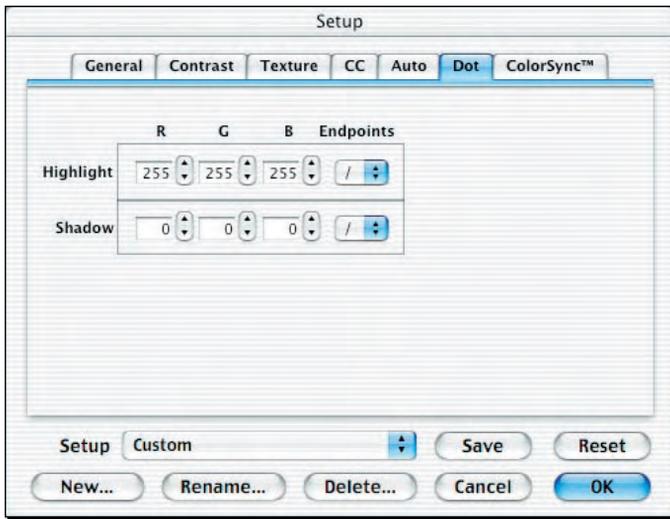
You are able to set negative values for the **Auto %** settings. This will make the automatic controls use less extreme settings for highlight and

shadow than normal. For example, if the **Auto %** for **Highlight** were set to -2, and you use the auto function on an image in which the highlight might normally be 200, then FlexColor will assign a highlight value of 204 (provided the shadow value were zero). This setting will enable you to preserve more details at the extremes of the tonal range than you otherwise would if the highlight point were set lower.

For more information about working with highlight and shadow points, see “The **Histogram Window**” on page 85.

Dot Tab

The settings on the **Dot** tab affect the output of the image brightnesses. Normally, the output will be a maximum (255) at the brightest (highlight) point and minimum (0) at the darkest (shadow) point for each color. However, this can sometimes cause trouble for the printing presses, especially when too much ink is applied for the paper to dry quickly enough.



Printers often request that images be prepared to lie within certain limits. The settings on this tab sheet limit output at the extremes at each color. Speak to your printer for advice about how to set these values.

The values in the three (RGB) columns control the maximum (for highlight) or minimum (for shadow). For RGB color, 8-bit values (0 to 255) are shown for each color.

The **Endpoints** pop-up menu determines how the values for the color columns will be assigned when the input values exceed the defined limits.

They work as follows:



Cut-off: All values beyond the limit will remain at the limit.

Round-off: All values beyond the limit will be spread out evenly between the limit and the maximum (0 or 255).

Force max: All values beyond the limit will be forced to the maximum (0 or 255).

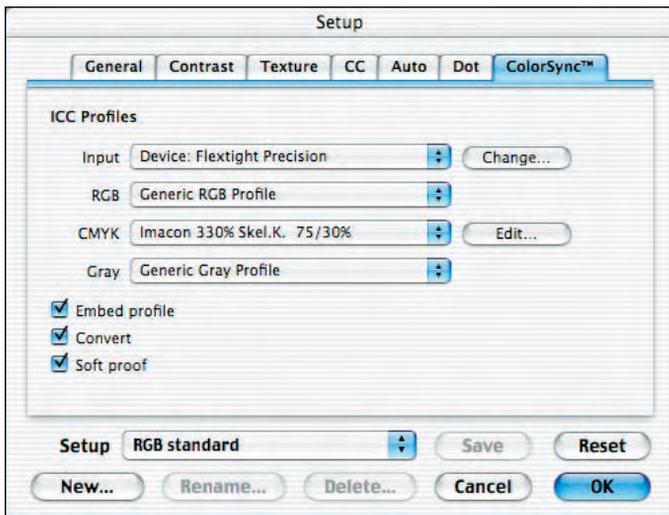
ColorSync or ICM Tab

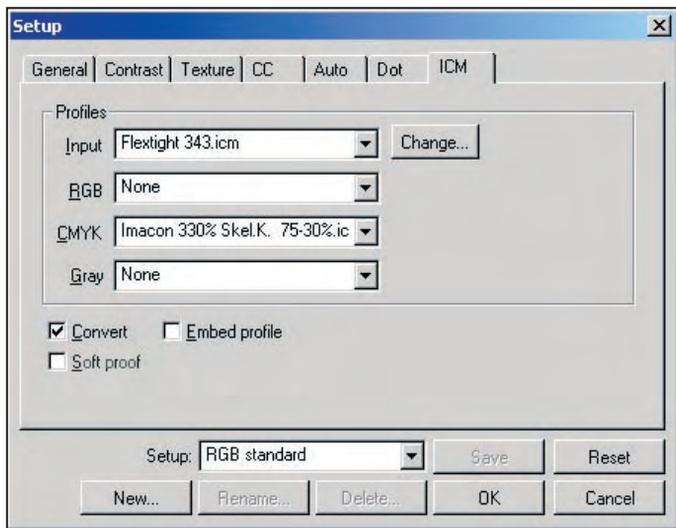
ICC color profiles define the color response of each device in your system. FlexColor uses these profiles to make calibrated, accurate, and high-quality color separations from your images.

Under Mac OS, ICC profiles are controlled by Apples **ColorSync** technology and the setup tab for selecting ICC profiles in FlexColor is called **ColorSync™**.

Under Windows 2000 and XP, ICC technology is referred to as “ICM” (which stands for “Image Color Management”) and the tab for selecting ICC profiles in FlexColor is called **ICM**.

Flextight scanners and most monitors and output devices include ICC profiles, which will help make sure the colors in your original are maintained and that colors you see on your screen will be accurately reproduced on paper.





For more information about using ICC profiles, see the online help for your operating system. For information about Apples ColorSync™ technology, check Apple's web site at:

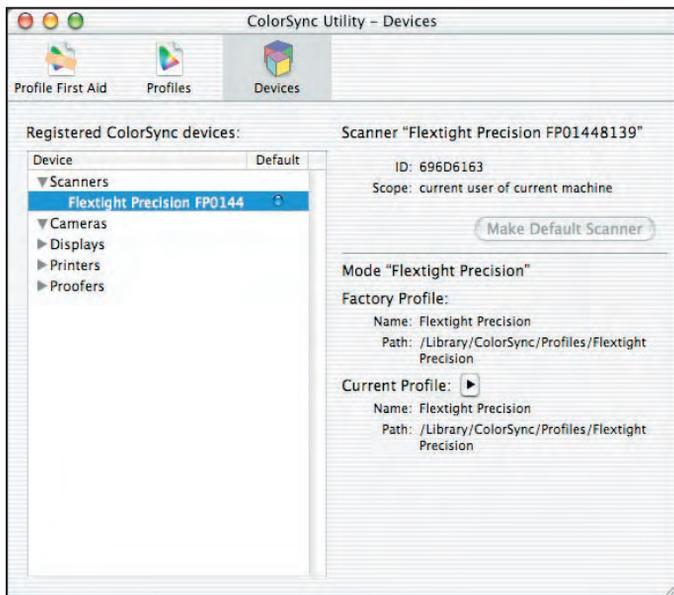
<http://www.colorsync.apple.com> and/or <http://www.apple.com>.

Input (Mac)

This pop-up menu shows a list of input ICC profiles installed on your system.

When selecting an input profile it is possible to choose a “**Device Default Profile**”, enabling you to define a setting that will always use the currently selected device profile for the current device. To do this select the second item in the input profile menu - it will be titled **Device: <profilename>**, where <profilename> is the name of the default profile for the current device.

To change the default profile simply click the **Change** button located to the right of the input profile menu. This will lead you to the **ColorSync Utility** application.



Here you simply select the **Devices** view which gives you a list of registered devices. After selecting your camera or scanner in the list you can either assign a new default profile or switch back to factory default. The new standard settings installed with this release all use the device default profile (except for settings for scanning negatives, since they do not use device dependent profiles). The primary benefit of this new feature is that you can now switch to your own custom input profile without having to edit any of your existing settings.

Input (PC)

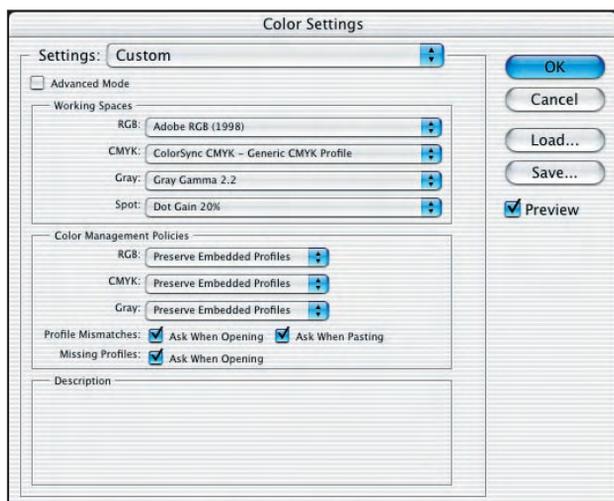
Functionality is basically the same as for Mac except that clicking the **Change** button will open the **Scanners and Cameras** control panel which shows the list of connected devices.

Here you can select properties for your device(s) which will bring up a dialog box from where (e.g. Color Management tab) you can change the color management e.g. the list of attached profile(s).

Please note that FlexColor will always choose the first profile found in the list if more than one are present.

RGB

This pop-up menu lists all of the RGB profiles currently installed on your system. Choose a profile that represents the color space in which you work. (If you are using Adobe Photoshop, you can choose the space used by Photoshop). To see which space is used by Photoshop, start Photoshop and choose **Edit -> Color Settings**. The Color Settings window appears (see the Getting Started... manual for more information about using this window). In this example the RGB working space is the ICC profile Adobe RGB (1998).



If you choose an RGB color space (ex. Adobe RGB 1998) you should check both the **Convert** and **Embed Profile** fields on the **ColorSync** or **ICM Tab**.

Click on the **Save** button and save your selected RGB working space as an ICC profile. Give the profile a new name and save it in the ICC profile folder used by your operating system. For most recent versions of the Mac OS, use the **OSX: System/Library/ColorSync/Profiles**. For Windows, use **WINDOWS\SYSTEM32\SPOOL\Drivers\Color**. The **RGB** drop down list now shows the name of the file that you just saved.

CMYK

This pop-up menu lists all of the output profiles currently installed on your system. Choose the profile specific for your output device, or select the closest of the generic profiles supplied with FlexColor. See “Generic ICC Output Profiles” on page 59 for more information about the generic profiles.

Edit

The **Edit** button appears only if you are using the Mac OS version of FlexColor. Click on this button to edit the output profile. Use this feature only if you are an advanced user, or on the advice of your printer. For more information about editing **ColorSync** profiles, see “Editing **ColorSync** Color Profiles” on page 60.

Gray

FlexColor offers full support even when saving images in grayscale. To do so simply check the required **Embed** and **Convert** options, and if you have checked **Convert** you also need to select a grayscale output profile. Please note that you do not need to select a different input profile when in grayscale mode, as a suitable grayscale input profile is automatically generated based on the currently selected RGB input profile.

Convert

If this checkbox is marked data will be converted according to the current settings of input and output profile. Otherwise the output files will contain data without any ICC corrections applied.

Softproof

Mark this checkbox to see an on-screen representation of the colors expected from your output device. It combines the output profile with the monitor profile selected for your system to create a simulation of the output colors. See the *Getting Started...* manual for instructions on how to set up a monitor profile for you system and for advice about using the **Softproof** feature.

Embed Profile

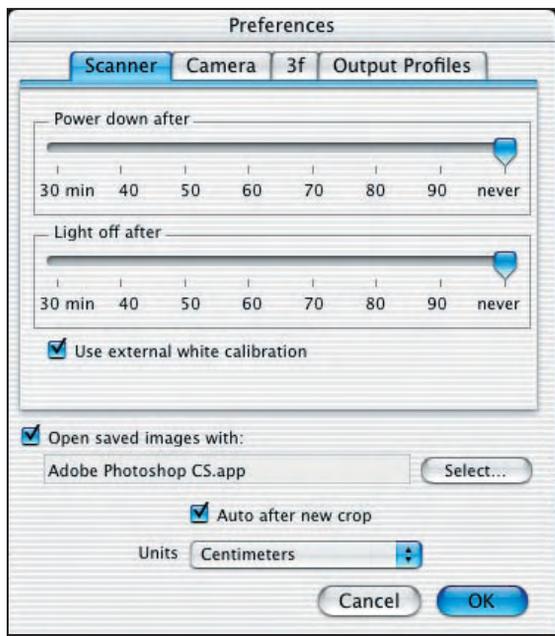
Mark this checkbox to embed a profile with your saved image. The embedded profile will always match the content of the file. If conversion is active the embedded profile will be the output profile corresponding to the current scan mode setting - either the RGB or the CMYK profile. If the **convert** checkbox is not checked the embedded profile will be the current input profile.

The Preferences Window

Introduction

The **Preferences** window contains several miscellaneous settings that control the general functions of the scanner and the software. The **Preferences** window settings are universal for the FlexColor application, they are not saved with the other settings in the setup files. To open the window, select **Preferences** from the **FlexColor** menu.

Scanner Tab



The **Scanner** tab holds the following settings for your current device:

Power-Saving Features

To save power, you are able to make settings that will cause the scanner to shut down after a specified period of inactivity. There are two levels of

power saving available:

- **Power down after:** the scanner is turned off, just as if you had pressed the on/off button on the scanners front panel.
- **Light off after:** the scanner remains turned on, but the light is shut off.

Use the sliders to make settings for how long the period of inactivity should be before activating the relevant power-saving function.

Use External White Calibration

Some older Flextight Precision scanners make use of this option when checking the white calibration. However, we now recommend that all Flextight users use external calibration, so this box should always be checked. On other Flextight models, this box does nothing.

If you are using a Flextight Precision scanner, then see the calibration information in your original scanner hardware manual for details.

Automatic Frame Recognition

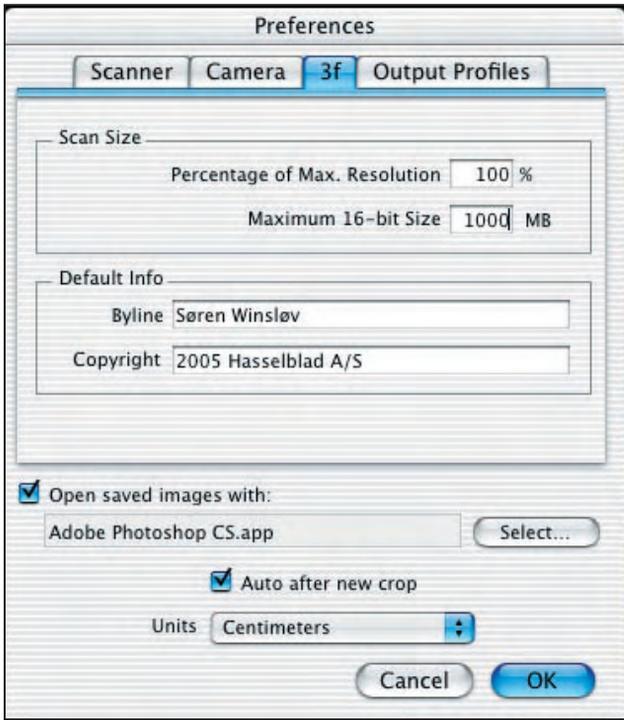
Only available for scanners supporting the function! The check box toggles the Automatic Frame Recognition function on/off. When the function is enabled the scanner will automatically read the current original holder's identification code (a combination of small rectangular holes at the holder's leading edge) and adjust the Frame settings accordingly. The check box setting reflects the setting of the Auto Frame Button in the main **FlexColor** Window (see page 23).

Camera Tab

For digital camera backs only!

3f Tab

When you make a scan using the Scan 3f function, the image is saved as a 3f file in the currently selected folder. The 3f file can contain various information about the file, as described in "The 3f File Format" on page 10 earlier in this manual.



Scan Size

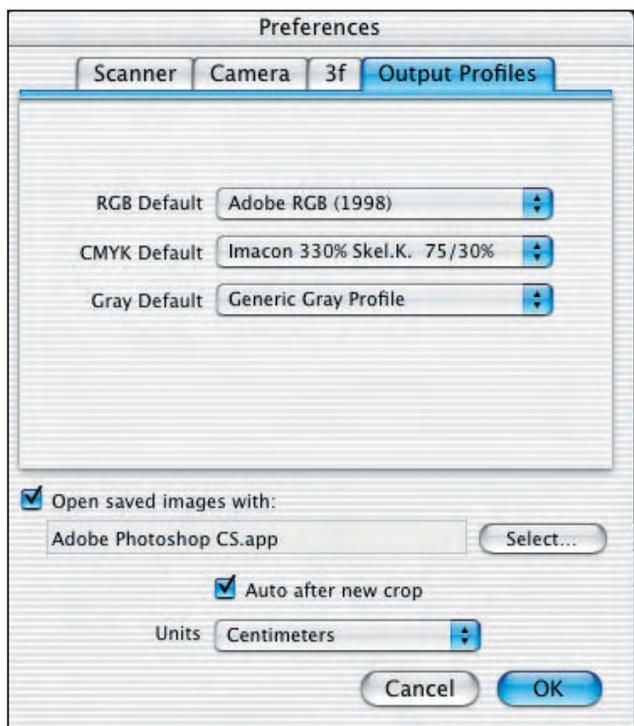
Use these settings to set general limitations for your 3f files. If you set the value in the **Percentage of max. resolution** field to ex. **50%**, all 3f files will be scanned in half of the max. resolution available for the currently selected original holder. If the size of the 3f file exceeds the size as set in the Maximum 16-bit Size field, the scanning resolution will automatically be reduced to keep the file size within the set value.

Default Info

Prior to taking a number of scans where you want to add the same name and copyright information to all of the 3f files, you can type this information in the **Byline** and **Copyright** fields. Later when opening the **Info** window for one or more of the files, this information will show up in the corresponding fields here. See “The Info Window” on page 79 for references.

Output Profiles

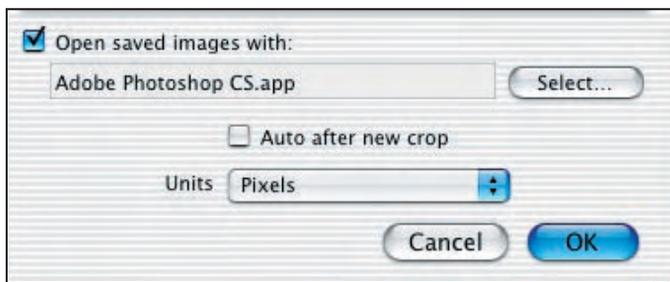
The **Output Profiles** tab enables you to establish the default ColorSync/ICC profiles used by FlexColor. Though output profile settings are saved with each setup, one of the options for each of them is to use the default setup established here. This way, you can make setups in which the output profile is assigned dynamically according to the program preferences.



The following settings are provided on the **Output Profiles** tab:

- **RGB Default:** select a default output profile for saving to RGB.
- **CMYK Default:** select a default output profile for saving to CMYK
- **Gray Default:** select a default output profile for saving grayscale (black & white) images.

General FlexColor Settings



The bottom of the **Preferences** window holds the following general **FlexColor** settings:

Opening Saved Images

After saving an image as a TIFF file, FlexColor is able to launch the application of your choice and open the saved image in that application. If you would like to use this feature, place a check in the **Open saved images with** checkbox, then click the **Select...** button. Use the appearing standard file finder window to locate and select the application you would like to use for viewing your saved images.

Auto after New Crop

FlexColor includes an auto tonal range function, which analyzes the cropped image and sets highlight and shadow values accordingly. You can use it at any time by clicking on the **Auto** button in the main **FlexColor** window.

The **Auto after new crop** checkbox provides an optional shortcut for using the auto function. When this checkbox is marked, each time you make a new crop, FlexColor will immediately analyze the image contained in the crop area and set highlight and shadow values, just as if you had clicked on the **Auto** button.

You can also control this function by holding down the **option** key as you define a new crop:

- If the **Auto after new crop** checkbox is enabled, then hold down the **option** key to make a new crop without invoking the auto function.

- If the **Auto after new crop** checkbox is disabled, then hold down the **option** key to *apply* the auto function to your new crop.



This function will not update the highlight and shadow settings when you move or resize an existing crop area; it only responds when you create a new crop area. If you would like to use the auto function again after moving or resizing a crop area, click on the Auto button in the main FlexColor window.

For more information about tonal range and the Auto function, see “The **Histogram** Window” on page 85 and “Auto Tab” on page 44. For more information about cropping, see “The Main **FlexColor** Window” on page 26.

FlexColor ICC Profiles

Generic ICC Output Profiles

FlexColor includes six generic ICC output profiles for generating various types of color separations. The name of each profile provides a description of the results it creates. See Table 1 for details.

Profile	Max Ink	Black Generation	Max Black	Black Starts	Use
Hasselblad 250GCR 40K90	250%	GCR 40%	90%	n/a	Newspapers, low ink
Hasselblad 280GCR 30K90	280%	GCR 30%	90%	n/a	Newspapers, standard
Hasselblad 330GCR 20K95	330%	GCR 20%	95%	n/a	Glossy paper (magazines)
Hasselblad 350GCR 20K95	350%	GCR 20%	95%	n/a	General use, glossy paper
Hasselblad 330SKEL 30K75	330%	Skeleton Black	75%	30%	High-end, high ink
Hasselblad 350SKEL 30K91	350%	Skeleton Black	91%	30%	Extreme high-end (e.g. art repro)

Table 1: Generic ICC output profiles included with FlexColor.

GCR stands for ‘Gray Component Replacement’. It is a scheme for adding black to dark colors, thereby reducing the total amount of ink applied. A high percentage of GCR results in more black ink in the image (and, consequently, less ink of other colors).

The skeleton black scheme does not add nearly as much black - especially in the colors, thus resulting in brighter colors, but also requiring higher quality paper. These profiles also specify the minimum ink percentage in each channel that a color must have before any black is added at all.

If you are not sure which profile to use, ask your printer if there is a limit on the maximum ink percentage and be sure to choose a profile that limits the percentage appropriately. In the majority of cases, the Hasselblad 330SKEL 30K75 profile will provide the best results.

In some cases, a ICC profile for your (or your service bureaus) specific output device may be available. If so, then use it instead.

If your results are not satisfactory, then speak with your printer for advice about how you should modify the profile. See “**Editing ColorSync Color Profiles**”

Editing ColorSync Color Profiles



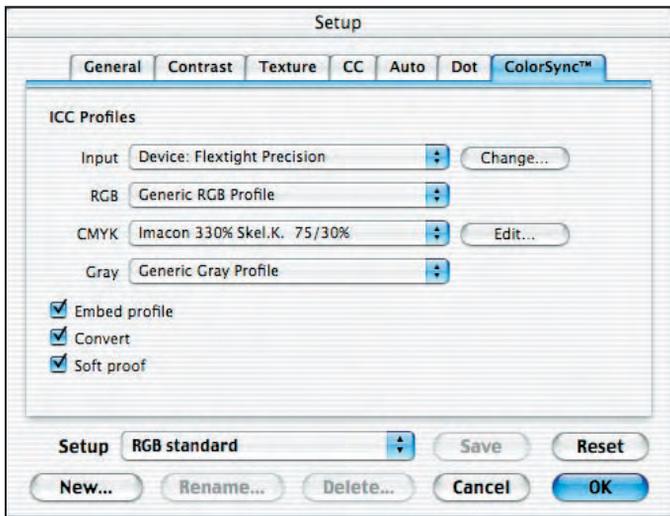
The profile editor is only available with the Mac OS version of FlexColor.

FlexColor includes both a **ColorSync** input profile designed for the Flextight scanner and a set of generic output profiles, each of which is designed to create good results under a different set of conditions.

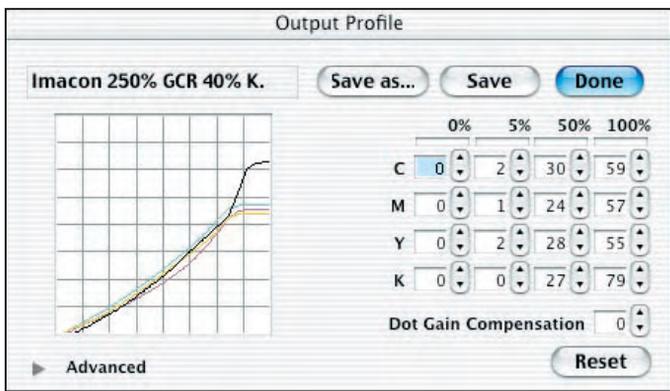
These generic profiles will deliver adequate to excellent results. If, after testing an output profile and speaking with your service bureau, you find that you would like to fine tune an output profile, then follow the procedure below.

The settings available for editing the output profiles are both highly detailed and very powerful. In general, they are intended for users who are very experienced in making color separations. Most likely, you should speak with your service bureau about how to make these settings.

1. Run the **FlexColor** application.
 2. Choose **Setup** from the **File** menu. Then click on the **ColorSync™** tab.
-



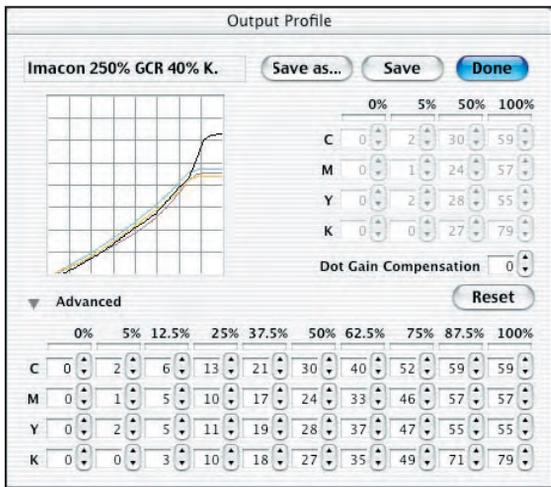
3. Use the **CMYK** pop-up menu to select the profile you would like to edit. Note that the profile you select must be as close as possible to the profile you want to make - you are not able to create a completely different profile using the editor. The menu lists all of the profiles currently installed in your System library Folder.
4. Click on the **Edit** button. The **Output Profile** window appears.



5. We recommend that you save your edited profile using a new name, so click on the **Save as...** button. The **Create new Profile** window appears. Type a name for your edited profile and click on the **Create** button.



6. Return to the **Output Profile** window. It shows the output values applied in the final separated file for each color at each of four brightness (neutral-gray) levels (0%, 5%, 50%, and 100%). By adjusting these levels, you are able to control how colors will appear in your output. For example, if your prints look too yellow in the highlights, then you could turn down the Y value for 0% and/or 5% values. In many cases, this is all the level of detail you will need.
 7. The **Dot Gain Compensation** setting compensates for the default dot-gain setting of the existing profile. The setting is relative, and can be positive or negative. Generally, this value varies from printer to printer. Finding the correct setting will require some trial and error.
 8. If you need to make even more detailed adjustments, then click on the triangle next to the **Advanced** heading.
-



9. The **Advanced** section includes value settings for even more gray levels. These settings include the same four levels that you were able to adjust using the standard part of the **Output Profile** window.
10. When you are done making settings in the window, click on the **Save** button to apply the settings to your new profile.

The Thumbnails Window

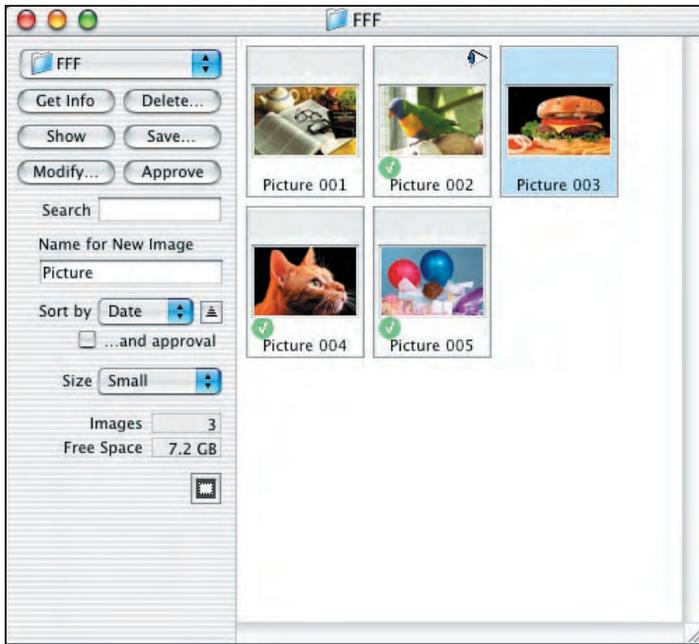
Introduction

The **Thumbnails** window works like a light table, showing you a small preview image of each of the scans made using the 3f button and stored in the currently selected folder. Click the **Folder** button to select the folder you want to use for your thumbnails. The name of the folder (ex. My Pictures) appears in the title bar of the **Thumbnails** window. Use the **Thumbnails** window to review your work, load images into the main **FlexColor** window and to save images as standard TIFF files.

Opening the Thumbnails Window



To open the **Thumbnails** window, type cmd-8 or click on the **Thumbnails** button in the main **FlexColor** window or select **Thumbnails** from the **Window** menu.



Files and Formats

When you scan using the Scan 3f button, the image is scanned and saved as a 3f file in the currently selected folder and displayed in the preview area of the main **FlexColor** window.

See “The 3f File Format” on page 10 earlier in this manual for a detailed description. The **Thumbnails** window shows all of the 3f files saved in the currently selected folder and allows you to load any of them in the preview area of the main **FlexColor** window.

Saving Crop and Imaging Settings

If you make new settings with the various tools of FlexColor while a 3f file is loaded into the main **FlexColor** window, your new settings will not be saved unless you click on **Save** in the main **FlexColor** window. When you do this, FlexColor will create a TIFF or JPEG file of the current image in which all of the current crop, mode, color and image-enhancement settings are applied. In addition, the settings will be saved as an entry in the **History** list of the **Info** window for the current 3f file.

See “The Info Window” on page 79 for details. When you load a file from the **Thumbnails** window into the main **FlexColor** window, all of the crop, mode, color and image-enhancement settings currently selected as default for the 3f file will also be loaded into FlexColor.

Using the Thumbnails Window

Viewing the Thumbnails Display

You have two types of options for controlling how the thumbnails will be displayed in the **Thumbnails** window:

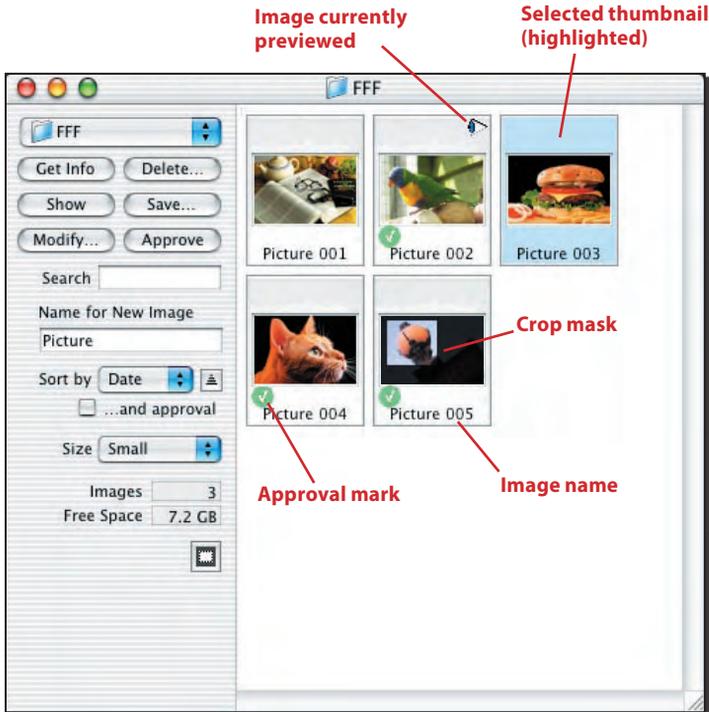
Sorting Use this pop-up menu to choose whether the thumbnails should be sorted by **Date** (the order in which they were created) or by **Name**. If you wish to reverse the sorting order click the Descending/Ascending button to the right of the pop-up. Also it is possible to sort the thumbnails by their approval status by checking the **approval** checkbox.

Size Use this pop-up menu to choose how large you would like the thumbnails to appear in the **Thumbnails** window.



Crop mask button: Masks off the area outside the current cropping (if any) for each image.

The **Thumbnails** window displays information about each 3f file:



Selecting Images

You are able to select one or more images in the **Thumbnails** window. Once you have selected an image, it will be shown highlighted. Then you are able to, for example, rename, delete, view or save it. Use the following techniques to select images:

- Click once on a thumbnail to select a single image.
- Cmd-click to select several images.
- Shift-click to select a consecutive row of images.
- Press cmd-a or choose **Select All** from the **Edit** menu to select all of the thumbnails in the **Thumbnails** window.

Working with Selected Images

The **Thumbnails** window includes the following controls, which operate on the images you have highlighted:

Get Info Opens the **Info** window, which holds various information about the image, such as size, resolution, frame size and various information about copyright etc. (you can also choose **Get Info** from the **File** menu or type cmd-i to open the **Info** window). Note that an **Info** window will be displayed for each of the selected files. See “The Info Window” on page 79 for a detailed description.

Delete Deletes the currently selected image(s). You will be asked to confirm the operation. The image(s) will be permanently deleted from your hard disk too. Pressing the command (cmd) key while clicking **Delete** will delete the selected image(s) without confirmation.

Note that you can delete the images using the del or cmd-del keys on your keyboard as well.

Show Displays the currently selected image in the main **FlexColor** window, where you can view and work with it (this can also be obtained by double-clicking on a thumbnail). The crop, mode, color and image-enhancement settings selected as default for the selected file will also be loaded into FlexColor. The button is only available when you have selected a single image.

Please note that when double-clicking a thumbnail or clicking the **Show** button, a low-resolution image will be displayed immediately in the preview window, while the high resolution preview is being processed in the background and when finished the preview is updated (typically after 20-30 secs).

Save This button saves all of the currently selected images. When you click the button, the **Batch Save** window appears, asking if you would like to save using the **Individual settings & cropping** saved with each file, or to apply the **Current settings & cropping** (as seen in the current preview of the main **FlexColor** window) to all files.



Choose either of the settings and then use the **Mode** pop-up menu to select one of the following save options:

Normal: to save the selected images as TIFF-files.

Preview: to save the selected images as a low-resolution TIFF-file for preview purposes.

Layers: to save the selected images as separate layers in a Photoshop file (.psd)

Having selected the appropriate save options, click the **Save...** button.

Modifying Selected Images

The **Thumbnails** window gives access to many different types of information about each image. It provides settings that enable you to modify the images by adding new setups to the history, selecting a default setup, entering meta data and more.



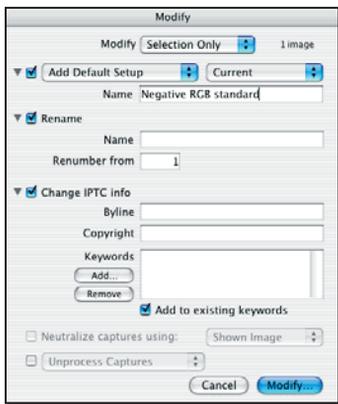
You can make these settings in two ways: using the **Info** window or by using the **Modify** window, each of which is available from the **Thumbnails** window. The two windows provide slightly different options; generally you will use the **Info** window to work with individual images and the **Modify** window to modify several images at once, though you might also sometimes use the **Modify** window for single images. The **Modify** window and its settings are described in this section; for details about the **Info** window, please see “The Info Window” on page 79.

Modifying the Setup and/or History

Each 3f file holds at least one setup, which is the setup used when the file was first scanned. Each time you export from a 3f file, the setup used for the export is added to the history. When more than one setup exists in the history, one of them is designated as the default setup, which is applied to the thumbnail and is loaded when the file is opened in the main **FlexColor** window.

You can use the **Modify** window to add a new setup, modify an existing setup and/or make your new setup the default. To do this:

1. establish the setup you wish to use by doing one of the following:
 - Load a target 3f image into the main FlexColor window and work with the image size, position and correction controls until you have the setup you need. This setup is known as the “current” setup.
 - Establish a current setup as described above and then save it as a new stored setup (see “Managing Setups” on page 36 for details).
 - Review your list of existing, saved setups and decide which of these you wish to apply to your image.
2. Go to the **Thumbnails** (light table) window and select the image or images you wish to modify. Note that the **Modify** window also enables you to choose to apply your modifications to all images or to all approved images, in which case it does not matter which images you select now (see below).
3. Click on the **Modify** button in the **Thumbnails** window to open the **Modify** window.



4. Set the **Modify** pop-up menu to match the scope in which you wish to apply the modification you are about to define. The following options are available:
 - **Selection Only:** applies your modification settings only to the images that were selected when you opened the **Modify** window.

- **All:** applies your modifications to all of the images currently open in the **Thumbnails** window (i.e., to all 3f images in the current folder).
 - **Approved:** applies your modification settings to all images marked as approved, regardless of which images were selected when you opened the **Modify** window.
5. Mark the top check box in the **Modify** window; this enables the setup-modification options.
 6. If all of the setup-modification settings are not visible, then click on the triangle next to the check box to expose them.
 7. Use the first pop-up menu to control how the new setup should be applied to each file in your scope. Choose one of the following:
 - **Add Setup:** will add your new setup to the history, but will keep the current default without changing it.
 - **Add Default Setup:** will add your new setup to the history and make this new history entry the default. The current default will still be in the history and will remain otherwise unchanged.
 - **Update Default Setup:** will completely replace the default setup with the new setup. The old default will no longer be available in the history.
 8. Use the second pop-up menu to choose the setup to apply to each file in your scope. Choose one of the following:
 - **Current:** uses all of the settings applied to the preview image currently displayed in the main **FlexColor** window.
 - **Standard:** all of the standard setups included with FlexColor are listed, grouped into negative and positive setups.
 - **User defined:** At the bottom of the menu is listed each custom setup that you have saved.
 9. If you also want to change the name and/or IPTC information for your images, you can also do that now by checking the appropriate boxes and making settings as described elsewhere in this section. Clear one or both of these boxes to prevent these changes from being made.
 10. Click on **Modify** to apply your settings.
-

Renaming Your Images

Each 3f file was given a name generated by the settings you made when you scanned it. Sometimes, especially after a batch scan, you may want to give a more descriptive name to each image.

You can use the **Modify** window to modify the name of one or more images as follows:

1. Go to the **Thumbnails** (light table) window and select the image or images you wish to modify. Note that the **Modify** window also enables you to choose to apply your modifications to all images or to all approved images, in which case it does not matter which images you select now (see below).
 2. Click on the **Modify** button in the **Thumbnails** window to open the **Modify** window.
 3. Set the **Modify** pop-up menu to match the scope in which you wish to apply the modification you are about to define. The following options are available:
 - **Selection Only:** applies your modification settings only to the images that were selected when you opened the **Modify** window.
 - **All:** applies your modifications to all of the images currently open in the **Thumbnails** window (i.e., to all 3f images in the current folder).
 - **Approved:** applies your modification settings to all images marked as approved, regardless of which images were selected when you opened the **Modify** window.
 4. Mark the **Rename** check box in the **Modify** window; this enables the renaming options.
 5. If the rename settings are not visible, then click on the triangle next to the check box to expose them.
 6. Make the following settings:
 - **Name:** Enter a new root name here.
 - **Renumber from:** If you have selected more than one image, then each image will receive the root name you entered above, plus a number which increments to ensure each image has a unique file name. Enter the number for the first image here.
 7. If you also want to change the setup and/or IPTC information for
-

your images, you can also do that now by checking the appropriate boxes and making settings as described elsewhere in this section. Clear one or both of these boxes to prevent these changes from being made.

8. Click on **Modify** to apply your settings.

Neutralize and Unprocess

These two settings in the **Modify** window are only relevant for digital camera images. They are inactive (grayed out) when you are working with scanned images.

Changing Image Meta Data

Each 3f file is able to hold several fields of meta data (known also as ITPC values), including a byline, copyright details and any number of keywords. These make it easy to create a searchable database of images. Some initial values are given when you first scan the images, but often you will want to update these to help uniquely identify each image.

You can use the **Modify** window the ITPC tags of one or more images as follows:

1. Go to the **Thumbnails** (light table) window and select the image or images you wish to modify. (Note that the **Modify** window will also enable you to choose to apply your modifications to all images or to all approved images, in which case it does not matter which images you select now.)
 2. Click on the **Modify** button in the **Thumbnails** window to open the **Modify** window.
 3. Set the **Modify** pop-up menu to match the scope in which you wish to apply the modification you are about to define. The following options are available:
 - **Selection Only:** applies your modification settings only to the images that were selected when you opened the **Modify** window.
 - **All:** applies your modifications to all of the images currently open in the **Thumbnails** window (i.e., to all 3f images in the current folder).
 - **Approved:** applies your modification settings to all images
-

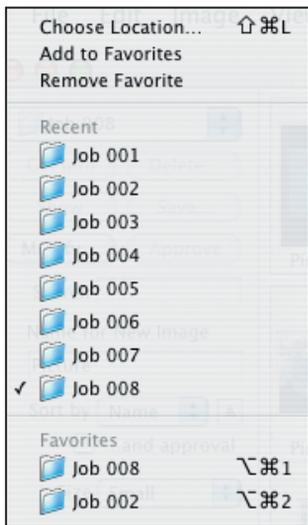
marked as approved, regardless of which images were selected when you opened the **Modify** window.

4. Mark the **Change IPTC info** check box in the **Modify** window; this enables the IPTC options.
 5. If the IPTC settings are not visible, then click on the triangle next to the check box to expose them.
 6. Make the following settings
 - **Byline:** This field often holds the name of the scanner operator who made the original 3f file, but you might use it for any other purpose. Enter a new value to update all files in your scope, or leave the field blank to leave current byline values in place.
 - **Copyright:** This field is intended to hold copyright details, typically the photographer or bureau name plus a year. Enter a new value to update all files in your scope, or leave the field blank to leave current values in place.
 7. If you are building an image database, then keywords are very important. When users search the database for images using a given key word, all images that include that word in their keywords list will be found. (The search may also return images that include the search word in their file name and/or other IPTC fields.) Do the following to establish the keywords list:
 - Click on **Add** to add a new keyword. A small dialog window will open in which you must type the word.
 - To remove a word, select it from the **Keywords** list and click on the **Remove** button.
 - To keep all of the keywords already added to the files in your scope, mark the **Add to existing keywords** check box. To remove existing keywords and replace them with the new list you have established, clear this check box.
 8. If you also want to change the setup and/or names for your images, you can also do that now by checking the appropriate boxes and making settings as described elsewhere in this section. Clear one or both of these boxes to prevent these changes from being made.
 9. Click on **Modify** to apply your settings.
-

Folder Selection and Favorites

The **Thumbnails** window displays a thumbnail image for each of the 3f files stored in a selected folder. You can use it to view any folder available to your computer, including network shares. You do not need to have scanned an image from your computer—or even have a scanner attached—to view and edit images using the **Thumbnails** window.

The pop-up menu at the top left corner of the **Thumbnails** window displays the name of the currently selected folder and provides entries that enable you to select a different folder using a file browser or convenient lists of recent and favorite folders.



The following items are featured in the pop-up menu:

- **Choose Location:** select this entry to open a file-browser window, which enables you to navigate to and select any folder visible from your computer.
- **Add to Favorites:** adds the currently selected folder to the favorites list at the bottom of the menu. This entry is not available if the current folder is already a favorite.

- **Remove Favorite:** removes the currently selected folder from the favorites list at the bottom of the menu. This entry is not available unless the current folder is already a favorite.
- **Recent:** this section of the menu lists the folders you have most recently viewed using the **Thumbnails** window.
- **Favorites:** this section of the menu lists each of the folders you have added as a favorite using the Add to Favorites entry described above.

Printing the Thumbnails

You can print the contents of the **Thumbnails** window:

- Make sure you have selected the view by clicking on a thumbnail in the window.
 - Select **File -> Print**.
-

The Info Window

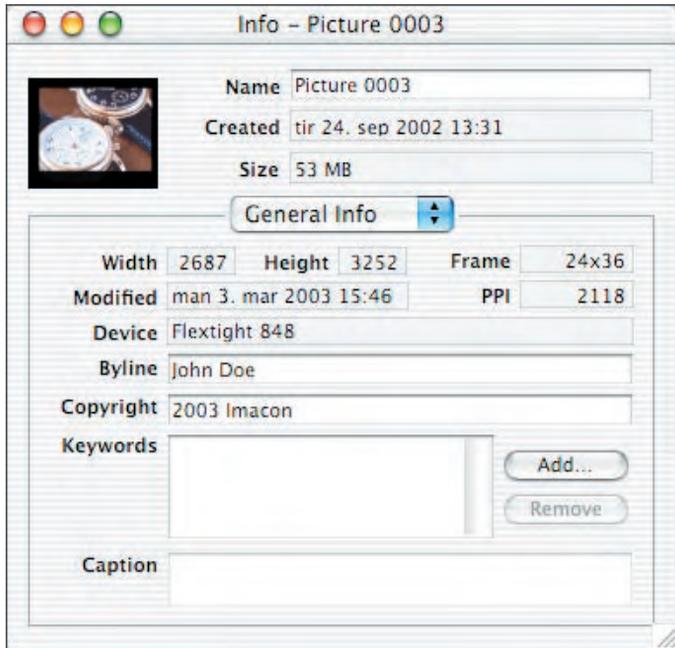
Introduction

The **Info** window holds various information about the currently selected file and its contents, a complete history of applied settings and the possibility to add unique file data (including IPTC-tags) such as copyright information and keywords to support an image database.

Using the Info Window

Opening the Info Window

From the main **FlexColor** window, when an image is loaded, choose **Get Info** from the **File** menu or type cmd-i to open the **Info** window:



From the **Thumbnails** window you can select one or more thumbnails and use the **Get Info** button to display an **Info** window for each of the selected files.

The basic file information at the top of the **Info** window shows the name of the 3f file, the date of creation and the file size. To change the file name simply type a new name in the **Name** field. The thumbnail image displayed is created using the settings set as default in the History list.

General Info/History

The **General Info** section holds the following information:

Modified: Date of the latest modification.

Frame: Frame size of the original holder used when scanning the file.

PPI: Resolution of the file.

Device: Hasselblad device used to scan the image.

Use the following fields to enter your own file information:

Byline: Usually the name of the photographer. The contents, if any, from the **Byline** field in the **Default Info** section of the 3f tab in the **Preferences** window (see page 53) will be added automatically each time you scan using the Scan 3f function.

Copyright: Copyright information.

The contents, if any, from the **Copyright** field in the **Default Info** section of the 3f tab in the **Preferences** window (see page 54) will be added automatically each time you scan using the Scan 3f function.

Keywords: Add unique keywords about the image.

The keywords can be used to find the image in an image data-base.

Caption: Usually description of the image content.

To display the **History** list, select **History** from the pop-up menu.



The history list includes an entry (with name, date, time and file size) for each time new settings have been applied to the image and for each TIFF file that has been created from it. The buttons below the list have the following functions:

- Show:** Select an entry and click the button (or double-click the entry) to load the image into the **FlexColor** preview window. The image will be loaded with the exact settings used when the corresponding entry was generated. The eye icon to the left of the entry indicates the file currently loaded.
- Delete... :** Deletes an entry.

Make Default: Use button to select the entry with the settings that the file should be opened, saved and exported with. The check mark to the left indicates which entry is currently selected as default. The settings of the entry selected as default are also applied to the thumbnails displayed in the **Info** window and in the **Thumbnails** window.

Add Current: Adds an entry to the list with the settings of the image currently displayed in the **FlexColor** preview.

The Color Info Window

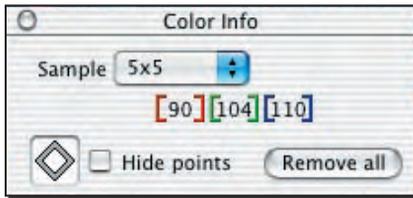
Introduction

The **Color Info** window enables you to read pixel values at any point in your image. You can also set up to five fixed **Sample points** and read the values at all of them simultaneously to monitor the effects of your other settings.



To open the **Color Info** window, type **cmd-9** or click on the **Color Info** button in the main **FlexColor** window or select **Color Info** from the **Windows** menu.

Reading Values in the Color Info Window



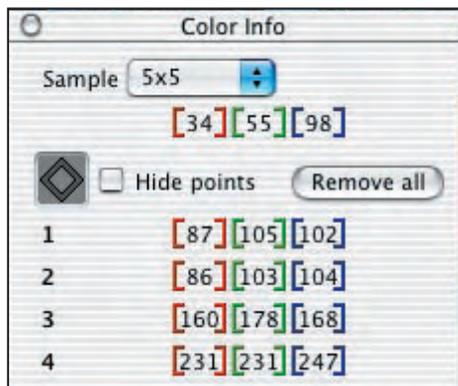
To use the **Color Info** window, place the mouse cursor over the preview image. The number fields in the window indicate the pixel brightness at the selected position in the image. Note the following:

- When showing RGB, the values indicate pixel brightness values (0 - 255) with white = 255, 255, 255.
- When showing CMYK, the output values indicate ink percentage values (0 - 100) with white = 0, 0, 0, 0. However, input values are still shown in RGB, as described above.

The **Sample** pop-up menu indicates the size of the area sampled by the color picker (mouse cursor). The numbers shown in the **Color Info** window indicate averages of the values found in the sample area. You can choose a setting of 1x1, 3x3 or 5x5 pixels.

Setting Fixed Sample Points

You are able to set up to five fixed **Sample points** so that you can monitor the effects that your settings are having in key areas around your image. Each sample point is indicated with a diamond and a number in the preview image. The current values for each sample point are shown next to the appropriate number in the **Color Info** window.



To set a sample point, click on the **Sample Point** button, which will turn grey when it is activated. Then click on a point in your image to place the point. A numbered diamond will then appear on the preview image at the point you select. You can work with the sample points as follows:

- To move an existing sample point, activate the sample point picker by clicking on the **Sample Point** button to make it grey, then click and drag on the target point.
- To delete an existing sample point, activate the sample point picker, click once on the target point and then press the backspace button on your keyboard.
- To keep the existing sample points, but hide them in the preview, mark the **Hide points** check box. To view and/or edit the points again, remove the mark from this check box.
- To remove all sample points from your preview click **Remove all**.

The Histogram Window

Introduction

The easiest way to set the highlight and shadow points is to use the **Auto** tonal range button in the main **FlexColor** window. However, in some cases, the auto function will not provide the desired results. The color pickers and sliders in the **Histogram** window provide the tools you need to fine tune your highlight and shadow points.

- The highlight point is the brightness above which all input pixels will be output at white (usually 255, unless you have set values in the **Dot** tab sheet of the **Setup** window - see “Dot Tab” on page 45 for details).
- The shadow point is the brightness below which all input pixels will be output at black (usually 0, unless you have set values in the **Dot** tab sheet of the **Setup** window - see “Dot Tab” on page 45 for details).

You must take care when using these settings, as they can have a powerful effect on your images. Take some time to experiment with them. Look at the preview to see how these settings will effect the image. Save some images after using these controls and inspect them closely. Take notes on the kind of settings you use and make a comparative proof print.

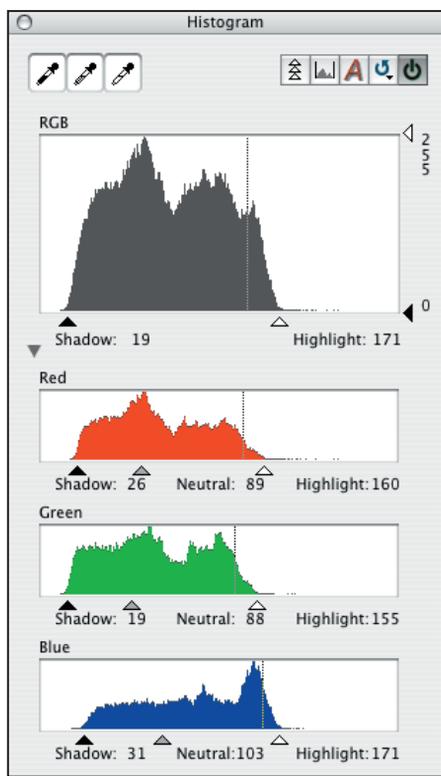
If you do not have any experience with digital images, then you should speak with an experienced professional, such as a scanner operator or digital photographer, about how these controls will affect your images. Ask him or her what to look for when you are evaluating your proof prints. You should also read some books about digital photography, digital imaging, scanning, and color reproduction.

The Histogram Display



To open the **Histogram** window, type cmd-2 or click on the **Histogram** button in the **Correction** area of the main **FlexColor** window, or select **Histogram** from the **Window** menu.

The **Histogram** window contains a graph that indicates the tonal range of your image. The graph displays the number of pixels (on the vertical axis) of each brightness (on the horizontal axis). Pixels with a value of 0 (black) are shown on the left; pixels with a value of 255 (white) are shown on the right.



Color Pickers

These enable you to click on pixels in your image to set highlight, shadow and neutral points. See “The **Histogram** Color Pickers” on page 89 for more information about using them.

Sliders

Click and drag the sliders to set the highlight and shadow points and to set the minimum- and maximum output values. The min. and max. output values reflect the settings on the **Dot** tab of the **Setup** window. See “Dot Tab” on page 45 for details about these settings.



You can also use the arrow keys on the keyboard to move a slider once it has been selected. Hold down the ctrl key to move in larger increments. Use ctrl-tab to step between sliders.



Keep original cast in highlight: By default, the highlight picker will set your selected point to pure white, thereby modifying the color cast in the highlights of your image. Click here to reset your highlight point to be the same in each color channel, thereby keeping the original highlight cast.



Show output histograms: By default the Histogram window shows the histogram captured by the scanner, with arrows indicating where the highlight and shadow points cut in. In the output, the brightness levels between these two points will be spread to cover the full dynamic range (0 to 255). When this is pressed (gray), the output histograms will be shown; when not pressed (white), the input histogram and highlight/shadow indicators are used.



Auto correction: Click here to apply the auto-correction algorithm to your image. FlexColor will then analyze your image and set recommended highlight, shadow and neutralization points.



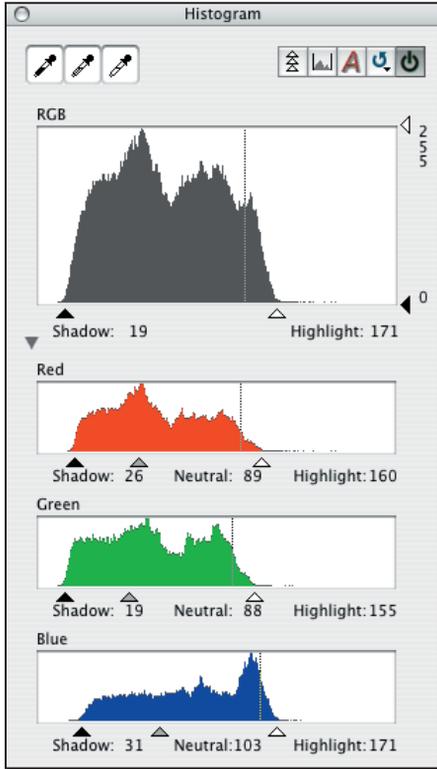
Apply settings: When this is pressed (grey), then your correction settings will be applied to the preview and final image. When not pressed (white), then the tool will hold your settings, but they will not be applied to the image.



Reset/Preset: Click once here to reset the control to the settings from your loaded setup or preset. Click and hold to open a menu for selecting, saving and deleting presets. See “Working with Presets” on page 97 for complete details about how to work with this menu.

Hide/Show Color Channels

Click on this triangle to display separate histograms for each color channel. You are able to adjust highlight and shadow values separately for each.



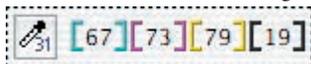
The Histogram Color Pickers

The histogram color pickers enable you to point at any pixel in your preview image and assign the highlight, neutralize, or shadow point based on the value of that pixel. Both the highlight and shadow color pickers will affect the brightness and contrast in your image by choosing the tonal range.

To use the color pickers:

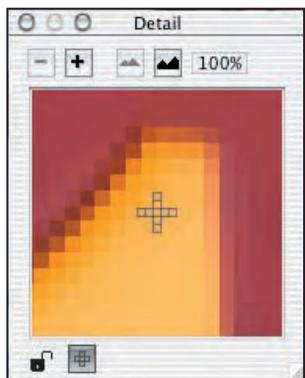
1. Click on the appropriate eyedropper button for the type of tonal range setting you would like to make. Your mouse pointer turns into the selected eyedropper.

2. Move the mouse pointer over the preview image; note pixel value readings that appear in the **Color** area of the main **FlexColor** window. Note that the numbers displayed in the **Color** area are the current values (after histogram or gradation settings).



3. The **Detail** window can help you see individual pixels. To open the **Detail** window, type cmd-5 or select **Detail** from the **Window** menu (or click on the **Detail** button in the **Zoom** area of the main **FlexColor** window).

To use the magnifier function of the **Detail** window push the **Magnifier** button. Note that the pixel selector is outlined at the center of the window.



4. Place the tip of the eyedropper over an appropriate pixel in the preview image.
 - When selecting a highlight point, select an object in the image that you would like to have print white. Check the pixel values at several potential white points to help you pick the best one (usually the brightest one that is not already at the maximum of 255 in any of the colors). All pixels brighter than the one you selected will burn out.
 - When selecting a shadow point, select an object in the image that you would like to have print black. Check the pixel values at several potential black points to help you pick the best one (usually the darkest one that is not already at the minimum of 0 in any of the colors). All pixels darker than the one you selected will be black.

-
- When selecting a neutralize point, select an object in the image that should be a neutral (gray) color. This will not affect the image brightness, only the color cast. For best results, select a point close to the middle of the exposure range, for example with RGB pixel values around 150.
5. Click on the target point. The highlight, shadow or gray value will be reassigned to the values shown for that pixel in the info area. Your screen will be instantly updated.
 6. Inspect the preview using the **Detail** window and **Color** area. Look for areas that are burned-out (showing values of 255) and also check the shadow areas to be sure you have not hidden any details in these areas. You can undo your settings by selecting **Edit -> Undo** or pressing **cmd-z** on your keyboard.
-

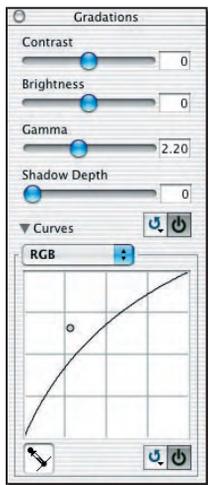
The Gradations Window

Introduction

The functions described in this section will not always be needed during normal operation. They enable you to make fine adjustments to your output images that will affect brightness and contrast and will compensate for printing conditions. As with the advanced highlight and shadow controls, take care when using the **Gradations** settings. Take some time to experiment with its settings. Look at the preview to see how the curve will effect images. Save some images after using the settings and inspect them closely. Take notes on the kind of settings you use and make a comparative proof print.



To open the **Gradations** window, type cmd-2 or click on the **Gradation** button in the **Correction** area of the main **FlexColor** window, or select **Gradations** from the **Windows** menu.



The **Gradations** window includes sliders for **Contrast**, **Brightness**, **Gamma** and **Shadow depth**. It also includes a gradation curve, which is a plot of input brightness (on the horizontal-axis) versus output brightness (on the vertical-axis). You can hide or show the curve by clicking on the

small triangle beneath the **Shadow depth** slider. All of the settings you make using the curves and sliders in the **Gradations** window are saved with the current setup. The contrast, brightness, gamma and shadow depth settings can also be adjusted using the **Contrast** tab of the **Setup** window.

Using the Sliders

The sliders provide a quick and easy way to adjust the contrast, brightness, gamma, and/or shadow depth of your images. These adjustments affect the image, but are not reflected on the gradation graph that appears at the bottom of the window if you click on the triangle.

The sliders behave as follows:

- **Contrast:** This control affects the contrast in the image. Positive values increase contrast in the overall image by compressing the contrast in the highlight and shadow areas. Negative values reduce contrast in the midtones, but improve visibility at the extremes of the tonal range. This control is easy to use, but is less precise than using the curve.
- **Brightness:** This control affects the brightness of all points in the image. Positive values brighten the image, negative values darken it. This control is easy to use, but is less precise than using the curve.
- **Gamma:** The gamma setting applies a predefined gradation curve. However, unlike the standard gradation curve, the gamma setting is strictly controlled, so it enables you to use a color management program that is calibrated to the scanner at a given gamma setting. The default is 2.0. If you raise the gamma setting, then the image will become lighter and more details will be visible in the dark areas. The opposite occurs if you decrease the setting.
- **Shadow depth:** This setting controls a complex algorithm that affects the level of detail visible in the shadow areas of your image. The higher you move this slider, the more detail you will be able to see in the shadows. However, this will also reduce contrasts in the rest of the image. A setting of zero effectively disables this feature.

For Apply setting or Reset/Preset see at page 88.



The sliders affect all colors equally. They are not affected by the setting in the color channel pop-up menu located above the gradation curve.

Using the Gradations Color Picker



The **Gradations Color Picker** in the lower left corner of the **Gradations** window enables you to place a gravity point on the curve at the brightness of a point that you select in the preview. Click on the eyedropper icon to activate the gradations color picker, then click on a point in the preview to place the gravity point. See the next section for more information about using the curve.

Using the Curve

The gradation curve is a plot of input brightness (on the horizontal-axis) versus output brightness (on the vertical-axis). It provides extremely detailed control over brightness and contrast in your final image, and even provides individual control over each color channel. You can hide or show the curve by clicking on the small triangle beneath the **Shadow depth** slider.

To adjust the curve, click and drag on the graph. Each time you click on a new point, you will create a gravity point, which will pull the curve toward itself. This system makes sure that the curve is always smooth. The preview image will update to reflect your changes.

Here are some guidelines to help you make adjustments to the gradation curve:



- To add a gravity point to the curve, click anywhere on the graph or use the Gradations Color Picker, as described in the previous section.

- To remove a gravity point from the curve, click on the point and then press the backspace button on your keyboard.
- A neutral (default) gradation curve is a straight, diagonal line from the lower left to the upper right of the graph.
- To add brightness to the image (without affecting the highlight value), drag the curve up above neutral. To darken an image, drag it below neutral.
- To reduce the contrast in the shadow, midtone, or highlight make the curve more flat on the bottom-left, center, or top-right areas respectively.
- To increase the contrast in the shadow, midtone, or highlight make the curve more steep on the bottom-left, center, or top-right areas respectively.
- To adjust the gradation in a single color channel, use the pop-up menu located above the gradation curve. Options are: **RGB, Red, Green, Blue, Cyan, Magenta, or Yellow**. This gives you a very powerful method of adjusting color in your images.
- To adjust the gradation without changing the color balance, set the pop-up menu above the gradation curve to RGB.
- All of the settings made to the gradation curve are saved with the setup, just as all of the settings shown in the **Setup** window. See “Managing Setups” on page 36 for instructions about how to select, load and save setups.
- To neutralize all settings in all color channels of the gradation curve and sliders, click on the **Reset** button. None of your other FlexColor settings will be affected.

Keyboard Shortcuts

While working with the gradation curve you have the following possibilities:

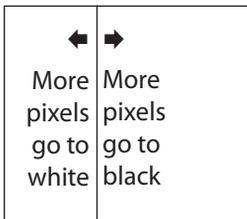
- Pressing **ctrl-tab** to step between gravity points (when more than one point is defined)
 - To move a gravity point, either drag it with your mouse or activate it and then use the arrow buttons on your keyboard. Hold down the **ctrl** key to move the point in larger increments.
 - While dragging a gravity point using the mouse, hold down the **shift**
-

key to restrict its movement to the horizontal direction.

- Clicking in the curve area while holding down the **alt** key changes the numbers of grid lines.

Setting the Threshold for Lineart Scans

When you are scanning in **Lineart** mode, FlexColor applies a threshold to create an image in which every pixel is either completely black or completely white. In this case, the gradation curve is simply a vertical line. You can move this line left or right to adjust the input level at which the threshold is applied.



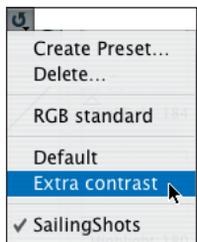
Click and drag on the line to adjust the threshold level to the right (which will cause more pixels to go to black) or the left (which will cause more pixels to go to white).

Working with Presets

The **Gradation** Window, and many of the other image-correction windows, includes a preset/reset button, which enables you to save your favorite settings, load them and/or to reset the tool to the selected preset or setup.



In all image correction windows, the preset/reset button looks the same. Click on the button just once to return to your saved preset or setup. Click and hold to open a pop-up menu for selecting preset option (see below). Initially, the loaded preset will be the one from the setup you chose for the scan. However, if you have chosen another preset, then a click on the preset/reset button will return to the saved preset settings.



The pop-up menu is divided into up to four sections, giving you the following options:

- **Create Preset:** Saves your current tool settings. A window will open in which you can name the new preset.
- **Delete:** if you have currently loaded one of your own custom presets, then this entry is available. Select it to delete the current preset (shown with a check mark in the menu).
- **Current setup setting:** the second section down from the top shows the name of the current setup. Select this entry to revert to the setup.
- **Factory presets:** the third section down from the top shows the name of the factory presets available for the current control (if any). Usually, this includes an entry called “Default”, which resets the control to have a neutral effect. Select one of these entries to use a factory preset. Factory presets cannot be deleted
- **Custom presets:** the last section in the menu lists the presets you have saved for the current tool (if any). Select one of these entries to load your custom preset.

The currently loaded preset shows a check mark in this menu. If you click once on the preset/reset button, this selection will be reloaded from disk.

Selective Color Correction

Introduction

Sometimes you need more control over the image colors than simply removing a color cast. FlexColor features a powerful selective color correction feature, which enables you to adjust the appearance of specific colors throughout your image.

Opening the Color Correction Window

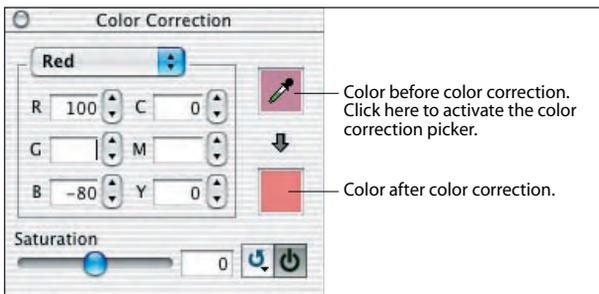


To open the **Color Correction** window, type cmd-3 or click on the **Color Correction** button in the **Correction** area of the main **FlexColor** window, or select **Color Correction** from the **Window** menu.

Using the Color Correction Window

To use the Selective **Color Correction**:

1. Open the **Color Correction** window by selecting **Color Correction** from the **Window** menu, or clicking on the **Color Correction** button in the main **FlexColor** window.



2. Click on the upper square area to the right in the **Color Correction** window to activate the color correction color picker.
3. Click on the color in the preview image that you would like to change. The color will immediately appear in the top (before) color box.

Offsets to its pixel values are listed in the **R**, **G**, **B**, **C**, **M**, and **Y** fields (by default, these values are all set to zero).

4. The pop-up menu near the top of the window displays the nearest primary color to the one you picked in the preview. Adjusting this color will have the most dramatic effect on the color you chose. However, if you wish to edit a different primary color, then select a different color from the pop-up menu.
5. Add or subtract any of the other colors using the arrow buttons and numerical entry fields provided for each color channel. Positive values will add the respective color, negative values will remove it. All pixels containing the color selected in pop-up menu will be adjusted proportionately.
6. If you would like to change the saturation throughout the image, then use the **Saturation** slider. The hues will remain the same, but all of the colors will become either more or less strong, depending on whether you choose a positive or negative setting, respectively.
7. The lower square updates to show the effects your changes will have on the color you selected in the preview. Continue to adjust the settings until you are satisfied with the color shown in this box.

Note also the **Apply** checkbox. When this box is checked, the color correction will be applied to your preview and saved image. Remove the check to disable color correction without erasing your settings. Click on the box to toggle the check.

The **Reset** button returns all color correction setting to neutral. It does not affect any of your other **FlexColor** settings.

You can also view and edit settings made in the **Color Correction** window by looking at the **CC** tab in the **Setup** window. The color correction settings are saved and loaded together with all of the other settings in the **Setup** window, so you can keep a library of your favorite settings by saving a new **Setup** file for each one. See “Managing Setups” on page 36 for more information.



If you are using the Gradations window to lighten the image, then you may notice that the saturation decreases. To compensate, you may then increase the saturation in the Color Correction window, which will make the image look a bit darker again. Avoid entering a cycle in which you repeat each of these settings until both windows are set to extremes. Extreme settings will typically degrade your image.

The Texture Window

Introduction

The **Texture** window holds both the **Unsharp Mask** filter and the **FlexTouch** filter.

Unsharp Mask Filter

The **Unsharp Mask** filter applies an algorithm that increases contrast along sharply defined edges. Unsharp masking has the potential to both improve and degrade your image - it makes the features more sharp, but can also bring out noise or graininess. Most typically, noise will appear first in the dark areas of the image.

Color Noise Filter Settings

The color noise filter operates on the color information in your image to remove electronic and/or film-grain “noise” from the colors. In some images, you might notice this noise manifest itself as graininess in the darkest and most saturated colors.

FlexTouch Filter

This filter can be used for eliminating dust & scratches from the image. Please note that the primary working area of the filter is the fine dust & scratches, which are only recognizable in 100% view. Very obvious scratches and large pieces of dust or hair will not be removed - a manual retouch will still be necessary in these cases.

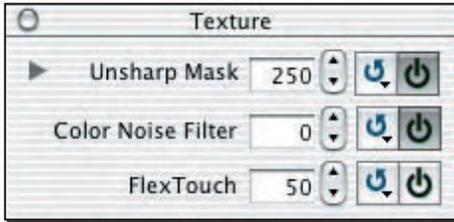
Preview

Preview your settings using the **Detail** window. When using the **Unsharp Mask** filter it is recommended to use at least two detail previews so that you can compare the sharpening effect in two different areas of your image - use one to check for enough sharpness in the bright or midtone areas and another to check for noise resulting from too much sharpness in the shadow areas. See “The Detail Window” on page 107 for information about how to use the **Detail** window.

Using the Texture Window

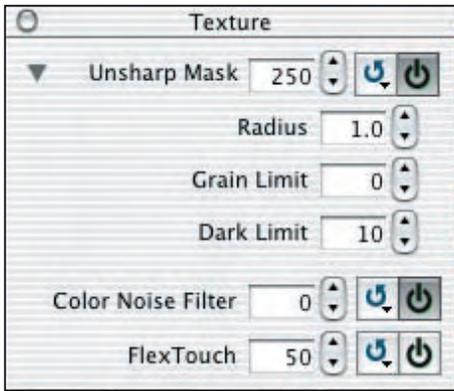


To open the **Texture** window, type **cmd-4** or click on the **Texture** button in the **Correction** area of the main **FlexColor** window, or select **Texture** from the **Window** menu.



To access either of the filter's setting parameters, click the appropriate triangle to the left.

Unsharp Mask Filter



To change the filter's settings, click in the appropriate field and edit the value with your keyboard or use the up- and down arrow buttons. The controls have the following effects:

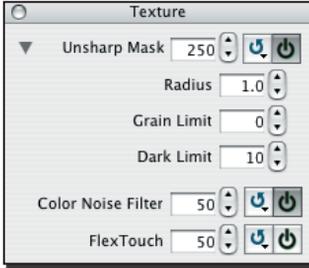
- **Apply checkbox:** Turns the unsharp masking filter on or off. When the box is checked, the filter will be applied to your final image and to the preview image (and detail images in the **Detail** window). To disable the filter, remove the check. Click on the box to toggle the check.

- **Amount:** Controls the strength of the sharpening effect. The higher the value, the stronger the sharp lines will become. Depending on your image, a value between 80 and 200 is recommended.
- **Dark limit:** Sets the brightness level below which the filter has no effect. This will keep the filter from enhancing noise or unwanted textures in your image. The higher this number, the less extensive the sharpening effect will appear. Depending on your image, a setting between 0 and 20 is recommended.
- **Grain limit:** Prevents the filter from sharpening low-contrast features in the image, such as noise, or textures. It works by comparing brightness of each pixel to the brightnesses of its surrounding pixels. If brightnesses differ by less than the **Grain limit**, then no sharpening is applied to the target pixel. If your image looks grainy after sharpening, try to increase the **Grain limit** setting.
- **Radius:** Sets the radius in which the unsharp masking algorithm looks for sharp edges. The larger the radius, the more extensive the sharpening effect will be. The setting you choose will depend on the contents of your image and the resolution you are using. Generally, use a large radius with high-resolution images. Use a smaller radius for lower resolutions images.

It is also possible to apply different amounts of sharpening to each color channel. This is controlled on the **USM** tab of the **Setup** window. See “USM (Unsharp Masking) Tab” on page 42 for instructions.

Color Noise Filter Settings

The filter works by first converting the image into the LAB color space (in which brightness information is separated from color information) and then removing graininess from the color channels. After processing, the filter transforms the image back into standard RGB data. This process essentially blurs information in the color channels, but because most of the sharpness information is stored in the brightness channel, the overall sharpness of your image will be affected much less than the color noise.



To apply the filter, open the **Texture** window and set the **Color Noise Filter** field to a value between 0 and 50. A setting of 0 effectively disables the filter; a setting of 50 gives the maximum effect. The best setting to use varies by image, so you must experiment to find the optimal setting.

FlexTouch Filter



- **Level:** Controls the strength of the filtering effect. The best way to adjust the level is to make detail views of a section in the image with dust and a section with fine details. Then turn up the level until you see an effect in the actual image details - then turn it down a few steps.

As with other image-correction setting, you have the following additional controls for managing your color noise filter settings:



Apply filter: When this is pressed (grey), then the filter will be applied to the preview and final image. When not pressed (white), then the tool will hold your filter setting, but it will not be applied to the image.

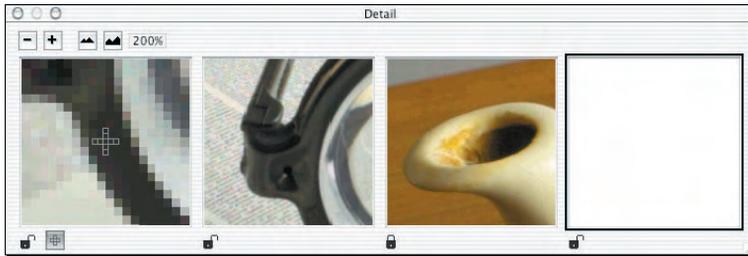


Reset/Preset: Click once here to reset the control to the settings from your loaded setup or preset. Click and hold to open a menu for selecting, saving and deleting presets. See “Working with Presets” on page 97 for complete details about how to work with this menu.

The Detail Window

Introduction

The **Detail** window can show up to 4 detail views of the preview image (in 100 to 400%).



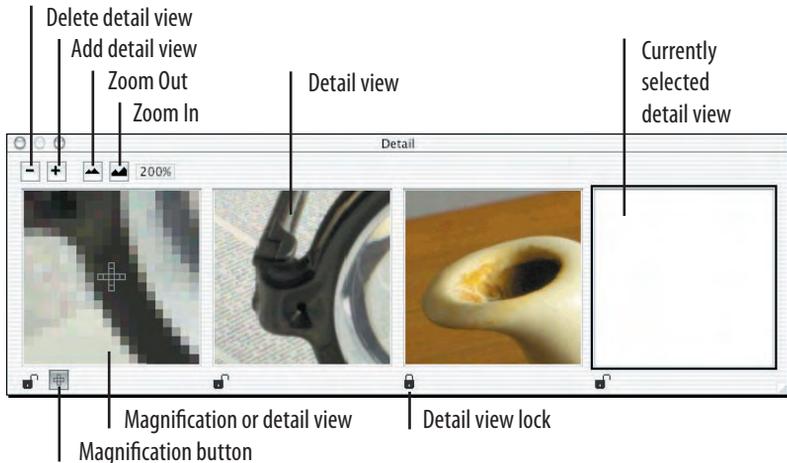
The detail views are especially useful when you want to see the effect of the corrections performed using the various correction tools in different areas of your preview image.

The view to the left can be used either as a detail view or as a magnification view enabling you to read color values for a specific pixel in your image.

Using the Detail Window



To open the **Detail** window, type **cmd-5** or click on the **Detail** button in the **Zoom** area of the main **FlexColor** window or select **Detail** from the **Window** menu.



Use the “-” and “+” buttons to add or delete a detail view (views are deleted from right to left) and select zoom level using the **Zoom In** and **Zoom Out** buttons.

To create a detail view, click inside the view frame to activate it, then move the cursor over the preview image - note that while you move the cursor over the preview image, the detail view will show a low-resolution view of the area around the cursor. Once you have located the spot in the preview image from where you want the detail, click it once and the detail image will be created in your currently selected detail view. To make comparison between different settings, you can lock individual views by clicking the **Detail View Lock** icon which will prevent the view from being updated when settings are changed.

To use the left view as a magnification view click the **Magnification** button below the view. The magnified image shown is the area surrounding the mouse pointer. The selected pixel is the one directly under the cross-cursor in the center of the magnification view.

Batch Scanning

Introduction

The **Batch Scan** function enables FlexColor to:

- Create several different scans of one or more originals contained in a single original holder. Each scan in the batch can have completely different settings for all FlexColor windows, including resolution, crop, color space, sharpening, tonal range, color correction, gradation, and all setup tabs.
- Make 3f files in one working session from up to 10 different originals, each contained in different original holders in the optional Feeder unit.



The **Batch Scan** function is especially useful when scanning several images from a Feeder.

If you want to create several different images from one or more originals contained in one original holder, it is recommended to use the **3f Scan** function from the main FlexColor window to make 3f files from which you can save an unlimited number of files with individual crops and settings.

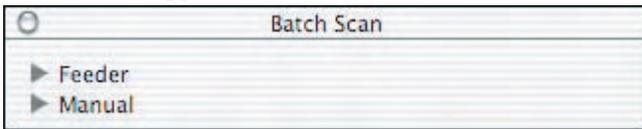


To open the **Batch Scan** window, type cmd-6 or click on the **Batch Scan** button near the top of the main **FlexColor** window, or select **Batch Scan** from the **Window** menu.

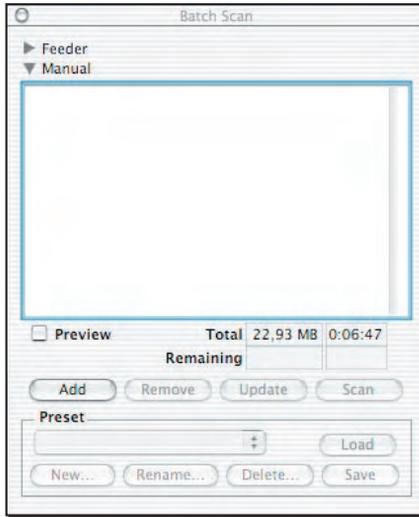
Setting up a Batch Scan

Several Scans from the same Frame

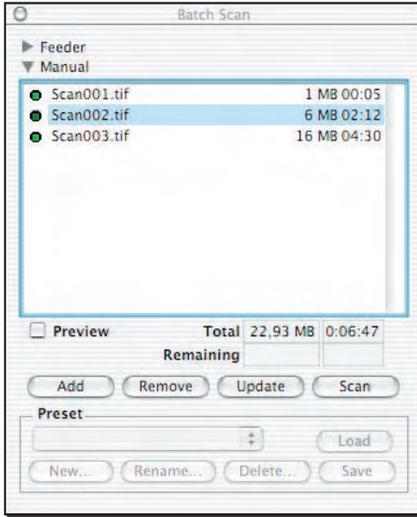
1. Make a preview scan of your original.
2. Click on the **Batch Scan** button at the top of the main **FlexColor** window or select **Batch Scan** from the **Windows** menu. The **Batch Scan** window appears.



To access the **Manual** parameters, click the triangle to the left.



3. Define a crop area and make scan settings in the **Size** area of the main **FlexColor** window and in all **Setup** and **Correction** windows.
4. Click on the **Add** button in the Batch Scan window. A standard file save window will appear. Use the window to choose a folder and file name with which to save the scan. The scan will not be taken yet, but its name will be added to the list in the **Batch Scan** window.
5. Repeat steps 3 and 4 until you have defined all of the scans you want to make.



6. If you want to change any of your previously defined scans, click on the scan name in the **Batch Scan** window and make changes in the other **FlexColor** windows. Then return to the **Batch Scan** window and click on the **Update** button to save your changes.

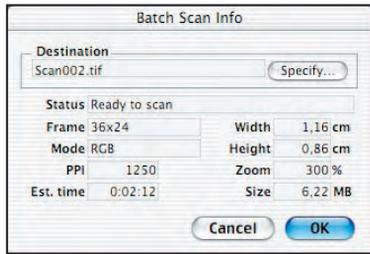
To remove a scan from the batch set, click on the scan name and then click on **Remove**.

When the **Preview** box is checked, the preview updates each time, which takes about a second - note that when this box is not checked, the preview image in the main **FlexColor** window will not update each time you click on a new scan in the **Batch Scan** window. This enables you to work faster.

7. When you are finished defining the scans, click on the Scan button. **FlexColor** scans and saves all of the scans you have defined.

Getting Information about Each Scan

You can get information about any scan listed in the **Batch Scan** window, by double-clicking on an entry in the **Batch Scan** list. This will open a **Batch Scan Info** window for the selected entry.



The window shows the following information:

- **Destination:** Shows the name assigned to the selected scan.
- **Specify button:** Click here to change the **Destination** name and folder.
- **Status:** Shows the status of the scan. If you are having problems with the batch scan, look here for help.
- **Frame:** Shows the original holder being used.
- **Mode:** Shows the color mode (e.g., CMYK or RGB) that the scan will be saved in.
- **PPI:** Shows the output resolution of the scan.
- **Est. time:** Shows and estimate of how long the selected scan will take.
- **Width, Height, and Zoom:** These fields display the output size of the final scan and the zoom level compared to the original.
- **Size:** Shows the file size of the final scan.

Working with Batch Presets



If you want to save a batch preset, then click on the **New** button in the **Batch Scan** window. The **Create New Batch Preset** window appears.



Type a name and then click on **Create**. The preset name then appears in the pop-up menu in the **Preset** area. If you have several batch presets saved, then you can use the pop-up menu to switch between them.

To rename a batch preset, select the preset in the pop-up menu, then click on the **Rename** button. The **Rename Batch Preset** window appears. Type a new name and then click on **Rename**.



To delete a batch preset, select the preset in the pop-up menu, then click on the **Delete** button.

Using FlexColor with a Feeder

Introduction

Some Flextight scanner models either include or can be fitted with a batch feeder, which enables you to set up a series of images and then scan them all at once without needing to stand at the scanner and monitor progress. As of this writing, the following batch-feeder options are available:

- **Flextight Batch Feeder:** holds several standard, flexible original holders of nearly any transparency format. This is an optional add-on for Flextight 848 and 949 scanners.
- **Mounted Slide Feeder:** holds up to 50 mounted slides. This is an optional add-on for Flextight 949 scanners.
- **Flextight RF:** a scanner dedicated to scanning roll films. Each exposure on the roll is saved as a separate file.

Each of these batch-feeder options is specifically supported in FlexColor.

Feeder Mounting and Maintenance

For batch feeders that can be mounted and removed from your scanner, use the **Maintenance > Feeder** menu command of FlexColor to mount and maintain your feeder. This command opens the **Feeder** window.



The following controls are available here:

- **Drum position:** use this pop-up menu to set the drum position. Depending on your feeder, you might use this to load/unload the original holder and to set the scanner for scanning.
- **Feeder position:** use this pop-up menu to adjust the position of the feeder magazine. You might use this to reset the feeder or to prepare it for moving or storage.
- **Tray displacement:** usually, you will not need this, but if your feeder has trouble moving an original in or out of the scanner (e.g., because the original was not mounted properly), then you can use this to step the feeder up or down a few notches. This is completely reset the next time the feeder moves to load a new original.
- **Mount:** all feeders require a special mounting procedure that is assisted by software. Click here to prepare the scanner to accept the feeder and then follow the instructions in your feeder manual and on your screen.
- **Unmount:** this command helps you to safely remove a feeder from your scanner. Click here to prepare the scanner to release the feeder and then follow the instructions in your feeder manual and on your screen. <-- Expected feature...

For complete details about how to assemble, install and maintain your specific feeder model, please see your feeder's documentation.

Scanning with a Feeder

When you are using a batch feeder, you will usually use either the batch-scan feature or the 3f workflow. When you use the Flextight RF scanner, you must always scan to 3f. For complete details about each of these methods, please see:

- “Working with 3f” on page 117 for details about the 3f workflow.
- “Batch Scanning” on page 109 for details about using the standard batch scan to TIFF workflow.

If you are using your batch feeder to build an image library, then we strongly recommend the 3f workflow because it allows for easy scanning and maximum flexibility. If you are scanning a relatively small batch for an immediate one-off job, then you might choose to use either 3f or the standard batch-to-TIFF function.

Working with 3f

Introduction to the 3f Format and Workflow

Though most DTP applications and print devices work with 8-bit images, Flextight scanners actually capture 16-bit images. When FlexColor saves final scans as 8-bit TIFF or JPEG files, it starts with the full 16-bit scans to give the various correction controls (especially histogram, gradation and color correction) room to work, thereby enabling it to save an optimized 8-bit image.

The standard scanning workflow is to load an original, take a preview, make size and optimization settings and then save as a standard 8-bit TIFF or JPEG file. This is the best way to work when you are scanning images for a specific, single purpose. However, this results a final image in which much of the original scan data has been discarded during image optimization and sizing. This is not a problem for a single-purpose image, but if you need to use the image again later for another purpose, you might need to re-scan it in order to get acceptable quality for the new application.

Hasselblad's unique 3f image-file format gives you the opportunity implementing a more flexible and efficient workflow in which you store full resolution, 16-bit images in your library and then export from these as needed for various types of jobs. Here, you do not need to worry about making settings during the scan—you simply save all of the available scan data with each file. Later, when you are ready to use the image for a specific job, FlexColor enables you to open your 3f file, apply sizing and processing settings and then export to a standard 8-bit TIFF or JPEG file. Your original 3f images are not affected by your export settings, so you can return to them at any time, make new export settings and generate final images of maximum quality, just as if you had scanned and optimized the original all over again.

In addition to the raw image data, the 3f format stores a record of each export you have made, so you can re-export using previous settings at

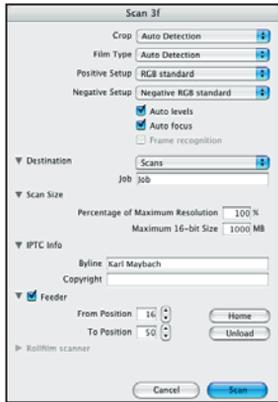
any time. It also holds many other types of meta data (such as name, key words, copyright details, etc.), which make 3f images perfect for indexing with a database to create a searchable image library. Because 3f is essentially an enhanced TIFF format, any image database application that can read TIFF files will also be able to index the meta data stored in 3f files.

The trade-off comes from the file size; 3f files use twice as much data per pixel and are furthermore usually full-resolution scans. These files can therefore be several times larger than files that were scanned, sized, optimized and saved for a specific print job. The 3f workflow is therefore most useful for bureaus and photography houses that are interested in provided libraries of images for use in a variety of settings. A large data-storage capacity is required.

Though all Flextight users can scan to 3f, customers using a Flextight scanner that features a batch feeder or roll-film loader will benefit most from the 3f workflow because it enables the entire batch to be scanned and saved without requiring operators to consider each image individually. By storing your 3f files on a network share, FlexColor users throughout your organization can load, optimize and export images whenever needed, without requiring access to a physical scanner.

Scanning to 3f

1. Press the 3f button in the main FlexColor window.



2. Set the **Crop** pop-up menu to one of the following:
 - **Auto Detection:** FlexColor will attempt to crop the image as tightly as possible to keep all unexposed pixels out of the scan.
 - **Current Crop:** FlexColor will use the crop area currently defined for the preview in the main FlexColor window. If you are batch scanning, then you should only choose this option if all of the originals you are scanning have the same format (e.g., 35 mm).
 - **Full Size:** FlexColor will capture the full size available with your current original holder or feeder. This setting will give you the fastest scan time because no extra processing is required during the scans.
3. Set the **Film Type** pop-up menu to one of the following:
 - **Auto Detection:** FlexColor will attempt to determine the film type by analyzing image colors during scanning. This is most useful when you are scanning a batch of mixed originals.
 - **Positive:** For positive color and black & white originals.
 - **Color Negative:** For color negative originals.
 - **B/W Negative:** For black & white negative originals.
4. Set the **Setup** menu(s) to match the setup(s) you wish to use for your scan. If you have set the **Film Type** to **Auto Detection**, then two setup menus are provided: one for positives and one for negatives. If you have set the **Film Type** to one of the specific settings, then only one setup pop-up menu is shown. The choices given in the **Setup** menu(s) include the default and custom setups for each appropriate film type.
5. Mark or clear the following checkboxes, according to your preferences:
 - **Auto levels:** FlexColor will set highlight and shadow points for each individual scan according to its internal algorithm. These will become part of the default setup for your 3f files, but your raw data will not be affected; you will be able to change them during export at any time.
 - **Auto focus:** FlexColor will refocus before each scan. Auto focus can add a few seconds to your scan times, but we recommend that you use it anyway. You must always use this when you are scanning mounted slides because slide mountings can vary in thickness. When scanning with Flextight original holders, you

can work with this box cleared; the scanner will then use its calibrated focus settings.

- **Frame recognition:** Most Flextight original holders include a bar code that identifies the original format used by the holder (6x6, 6x7, 24x36, etc.), though not all Flextight scanners are equipped to read the code. If your scanner supports frame recognition, then this check box is available—mark the box to have the scanner read the code before each scan and then readjust itself as needed for each new format. The setting is disabled when a scanner that does not support frame recognition is attached to your computer. When this box is cleared or disabled, the scanner will scan using the frame format established by your selected setup regardless of what the bar code says. If you are using a batch feeder to scan a set of originals with varying formats, then you must make sure that all of your original holders include a bar code and then scan with this option enabled. Scanning will be slightly faster when you do not use frame recognition because the scanner will not need to stop to read the bar code before each scan.
6. The **Destination** settings control the folder in which your 3f files will be saved.
- The **Destination** pop-up menu shows the name of the current destination folder. To change this, click on the menu and choose **select destination**; this opens a file-browser window that you can use to navigate to and select a new destination folder.
 - The **Job** setting only has an effect when you are using the Flextight RF Scanner or a scanner fitted with the Mounted Slide Feeder (but not the standard Batch Feeder). Each of these scanner systems is normally used for batch scanning many images at once. Therefore, each time you start a new 3f scan with one of these scanners, FlexColor will create a new sub-folder under your selected **Destination** folder. The new sub-folder is named with the text you enter here in the **Job** field, plus a unique integer (e.g., Job 001, Job 002, Job 003, etc.). All scans from the batch are then saved in the new sub-folder and the **Thumbnails** window is set to show the contents of this new sub-folder. On your next 3f scan, another new folder will be created and the **Thumbnails** window will be set to show this new folder. For other scanner configurations, no sub-folders will be created and the **Thumbnails** window will

not update to match any changes you make to the **Destination** setting above. If you change your scanner configuration (e.g., by removing the Mounted Slide Feeder or attaching a different scanner), then your new scans will be saved in the last-used **Job** sub-folder until you change the **Destination** setting.

7. Set IPTC Info settings to control the basic meta-data that will be saved with each scan. This can, for example, identify the scanner operator and copyright details for each image. If these settings are hidden, then click on the triangle next to the **IPTC Info** heading to expose them. Set the following:
 - **Byline:** this can be set to any value, but is often used to identify the scanner operator. By default, it shows the name of the currently logged in user.
 - **Copyright:** enter the copyright details. Usually, this includes the name of the image owner (e.g., the photographer) and the date the image was created.
 8. If you are using a standard or mounted-slide feeder, then the following options are also available (if they are hidden, then click on the triangle next to the **Feeder** heading to expose them):
 - **From Position:** enter the number of the first slide you wish to include in the batch.
 - **To Position:** enter the number of the last slide you wish to include in the batch.
 - **Home:** click here to move the feeder magazine to its home position, in which slide one is in the scan position; this is the position in which the feeder should be stored or moved.
 - **Unload:** click here to push the original holder out of the scanner so that you can remove it (usually as the first step when removing the entire feeder assembly).
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9. If you are using a Flextight RF Scanner (for scanning roll films), then the following controls are also available (if they are hidden, then click on the triangle next to the **Rollfilm scanner** heading to expose them):



Spool backwards: click here to spool the film backwards. It will continue to spool until you click on stop or click again.



Stop: stops the film rolling.



Spool forward: click here to spool the film forward. It will continue to spool until you click on stop or click again.

Usually, you will only use these controls to spool the film all the way out of the scanner, in which case it is always best to spool forward because the film moves more freely in that direction.

10. When you have finished making all of the 3f settings described above, as they apply to your scanner, then click on **Scan** to scan the specified images to 3f files.

Working with 3f Images

When you are ready to use 3f images from your library in an actual job, you must load the images into FlexColor, make size and optimization settings appropriate for the job at hand, and then export the images to 8-bit TIFF or JPEG files.

Use the FlexColor **Thumbnails** window to open a folder of 3f images and display them in its “virtual light table”. From here, you can: view information about each image, including its export history; load images into the main FlexColor window to make export settings and view their effects; mark images for approval; change the setup associated with one or more shots; and more. Each time you export from a given 3f file, your settings are added to the file’s history, but the original image data is left unchanged. You can also work by adding new setups to the history of each file without exporting and then batch process to create your TIFF or JPEG files all at once while you work elsewhere. For complete details about these settings, please see “The **Thumbnails** Window” on page 65.

When you are ready to use a 3f image in an actual job, do the following:

1. Use the Thumbnails window to view the folder where your 3f image is saved.
2. Double-click on the target image to open it in the main **FlexColor** window. When you do this, the window title shows a thumbnail and the name of the file you have open (when scanning, it just says FlexColor).
3. Make correction settings (histogram, texture, gradation, etc.) just as you would when working with a scan preview.
4. Make sure you have selected the correct output profile to match the way the image will be printed. This is done using the **ColorSync** or **ICM** tab of the **Setup** window (see “The ColorSync or ICM Tab” on page 47 for details).
5. Establish your crop and output size by doing the following:
 - Set the **PPI** pop-up menu to the output resolution required for the job (typically, 300 for print jobs, 72 for the web).
 - Define your crop area.
 - Set the **Width** and **Height** to match the dimensions at which you will use the image for the current job.

Note that when you have done this, the **Zoom** value will be adjusted to match your settings so far. When a 3f file is loaded, this indicates the resizing that will be made from the full resolution file (when scanning, on the other hand, this indicates the optical zoom within the scanner). You will not be permitted to make settings that result in a zoom level over 200%—such images would not be sharp enough for professional use.

6. Do one of the following:
 - Click on **Save** to export the image and add the new setup to the 3f file history.
 - Go back to the **Thumbnails** window to add your new settings to the 3f file history and make them the current default for the image (see also “Modifying the Setup and/or History” on page 70). This way, you can prepare several images and then batch process them all at once later.
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Appendix

Keyboard Shortcuts

Main FlexColor Window

F9:	Makes a preview scan.
Cmd or:	Opens previous or next image respectively.
Space:	Press and hold to drag preview around.
Cmd-0:	Zoom to fit the entire preview image in the window.
Cmd +:	Zoom in.
Cmd -:	Zoom out.
Alt-Cmd-0:	Zoom to 100%.

Thumbnails Window

Cmd-A:	Selects all of the icons in the window.
Cmd-click:	Selects several images.
Shift-click:	Selects a consecutive row of images.
Cmd-I:	Opens an Info window for the currently selected image(s).
a:	Toggles the approval status of the selected image(s) on/off. Approved pictures are marked by a checkmark in the lower left corner.
del:	Deletes the currently selected image(s) from your hard disk. You will be asked to confirm the operation.
Cmd-del:	Deletes the currently selected image(s) from your hard disk without confirmation.

Info Window

F10: Toggles between **General** and **History**.

File Menu

Cmd-N: Makes a preview scan.

Cmd-S: Makes a final scan.

Cmd-W: Closes the currently selected window if possible.

Cmd-U: Opens the **Setup** window.

Cmd-I: Opens an **Info** window, which contains various information about the currently selected image.

Cmd-P: Enables you to print the contents of the **Thumbnails** window. Make sure you have selected the view by clicking on a thumbnail in the window.

Edit Menu

Cmd-Z: Reverses your most-recent actions - for example, a crop area modification or a change in the **Setup** window. You are able to step back through a long series of actions.

Cmd-R: Reapplies the last action that you cancelled using the **Cmd-Z** command.

Cmd-X: If you have selected some text in a text field, then this command removes the text and saves it on a system-wide virtual clipboard.

Cmd-C: Saves the selected text on the clipboard without removing it.

Cmd-V: Places a copy of the text on the clipboard at the insertion point.

Cmd-A: Selects all of the text contained in the field in which the insertion point is standing.

Window Menu

- Cmd-1:** Opens/closes the **Histogram** window.
 - Cmd-2:** Opens/closes the **Gradients** window.
 - Cmd-3:** Opens/closes the **Color Correction** window.
 - Cmd-4:** Opens/closes the **Texture** window.
 - Cmd-5:** Opens/closes the **Detail** window.
 - Cmd-6:** Opens/closes the **Batch Scan** window.
 - Cmd-8:** Opens/closes the **Thumbnails** window.
 - Cmd-9:** Opens/closes the **Color Info** window.
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Preventive maintenance

All Flextight scanners should be serviced every 25,000 scans or every 12 months, whichever comes first. If a Feeder is mounted, the recommended number of scans is 15,000 provided that the feeder is mounted for all scans. Please note that previews are also counted as scans.

Newer Flextight scanners have a counter installed so as the number of scans can be monitored. Please refer to the manual to learn more about monitoring the number of scans.

Failures or faults originating from lack of service and/or daily maintenance are not covered by the factory warranty.
