

# Chapter 3:

## Preferences and Image Inspector

### Preferences Panel

The *Preferences panel* allows you to set up various imaging, viewing and application options. All of the imaging related options are also available in the Image Inspector panel described later in this chapter.

The imaging options are applied as follows:

When<sup>1/4</sup>

Opening images from the Open panel browser, the imaging related preferences are automatically applied.

When<sup>1/4</sup>

Opening images from the Convert window, the imaging related preferences may be conditionally applied via a toggle switch.

When<sup>1/4</sup>

Converting images from the Convert window, the image related preferences are automatically applied.

**Note:** All preferences are automatically saved when the application is terminated.

## Attributes

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*Depth* is used to specify the colorspace and bit depth for an image.

Supported combinations are:

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Since some file formats allow an image to be paletted, you can also specify whether the image will be paletted. The bit depth specifies the maximum number of colors or gray levels.

### **For example:**

The 1 bit setting would have a maximum of 2 colors/grays.

The 2 bit setting would have a maximum of 4 colors/grays.

The 4 bit setting would have a maximum of 16 colors/grays.  
The 8 bit setting would have a maximum of 256 colors/grays.

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*Diffusion* specifies the dither method for an image. Dithering is used to reduce color banding in an image. This is useful when reducing the number of colors/grays in an image. Although still useful for higher bit depths, diffusion becomes especially noticeable when reducing an image to 4 bits (16 colors) or less.

Floyd-Steinberg is the fastest of all the diffusions and looks best on low resolution devices like computer displays. The other diffusions often produce better results on higher resolution devices such as laser printers.

**Note:** Diffusion is not available for 8 bit gray and 24 bit color. When these depths are chosen, the diffusion pop-up list will show None and will be dimmed.

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If you have chosen a palette, this pop-up list will present three choices. These choices specify how the palette is generated.

Each of these methods produces different results depending on the image content. The differences are more noticeable at lower bit depths—usually 4 bits or less.

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*Corner Emphasis* is an additional option that can be applied when using paletted modes. Corner emphasis can be used to emphasize certain picture elements. Corner emphasis attempts to improve color fidelity at the expense of image smoothness.

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*Match Source* is used for keeping the image as close to the original as possible when opening and converting.

**Example:** If we are reading an 8 bit paletted GIF file and the preferences were set to 24 Bit Color, the image would be promoted in memory to 24 bits. Since we may not know the depth of an image file ahead of time, we can use Match Source to image the file as close to the original as possible.

**Note:** Match Source overrides and disables all other settings in the Attributes preferences.

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Sets the Attributes Preferences to their default settings. The default settings are:

- *Depth*                    24 Bit Color (dimmed/disabled)
- *Diffusion*                None (dimmed/disabled)
- *Palette Selection*      Average Pixels (dimmed/disabled)
- *Corner Emphasis*        NO (dimmed/disabled)
- *Match Source*        YES

## Scale

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*Units* can be used to specify the size of the image in different measurement units.

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*Dimensions* is used to specify the width and height of the image. The resolution of the image, in dots per inch, can also be specified here.

**Note:** Most of the file formats supported do not handle a DPI field. In this case the image will be resampled according to the resolution values specified. If the image is subsequently saved it may not contain all the original image data. In the case of a format that does support DPI, such as TIFF or PICT, all image data will be retained and a field in the image header will specify the DPI values.

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If the *Proportional switch* is checked, the image will be automatically adjusted so it is proportional to the original image and no larger than the selected width and height.

**Note:** If you have selected Percentage from the Units list and you have checked the Proportional switch, any input in the Width field will automatically echo in the Height field. Conversely, input in the Height field will be echoed in the Width field. This rule also applies to the DPI input fields.

## paste\_4\_1.tiff ↵

Sets the Scale Preferences to their default settings. The default settings are:

- *Units*            Percentages
- *Width*            100
- *Height*           100
- *DPI±X*            0
- *DPI±Y*            0
- *Proportional* YES

## Rotate

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A rotation angle can be specified by direct input or by moving the slider next to the icon well. There are also two switches, *Flip X* and *Flip Y*, which allow you to flip the image horizontally and vertically, respectively.

**Note:** The miniature Magician will move to reflect the current angle and Flip X and Flip Y orientations.

**Important:** If your pictures appear distorted after rotation, make sure the proportional switch is OFF in the Scale panel. When the proportional switch is ON, the image is first rotated, then scaled to fit.

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Sets the Rotate Preferences to their default settings. The default settings are:

- *Angle* 0.0000
- *Flip X* NO
- *Flip Y* NO

## Composite

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## **paste\_11\_1.tiff ↵**

When dealing with images that have an alpha channel (coverage component) you may experiment with different *composite operators* in conjunction with the background color described below.

**Note:** If you have PS or EPS files that do not image properly, try setting the Composite Operator to Sover. Also, if an image comes out all one color, try setting the Composite Operator to Copy or Sover.

## **paste\_13.tiff ↵**

This preference sets the *background color* that is used to fill the window before the image is composited. The background color will show through when an image is rotated or when an image is partially or completely transparent and is composited with an appropriate composite operator.

**Note:** If using the Copy Composite Operator, the background color will not be seen unless the image is rotated.

## **paste\_4\_1\_1\_1.tiff ↵**

Sets the Composite Preferences to their default settings. The default settings are:

- *Composite Operator* Sover
- *Background Color* White



## Aliases

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paste\_15.tiff ↪

This browser is used to set the default output extension for each supported output image type. The extension name that appears in the *Default*

*Extensions browser* is the name that will be automatically appended when saving/converting if<sup>1</sup>/<sub>4</sub>

1. The supplied filename has *no* extension.
2. The supplied filename extension *does not match* any aliases.

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This browser allows you to enter different aliases for each of the supported image types. These aliases are used to filter filenames in the Open panel and Convert window browsers. The *Set Ext. button* sets the default output extension for the currently selected image type in the Default Extension browser.

### Example:

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The picture above shows that for the TIFF image type, we have a total of two aliases—**tiff** and **tif**. All filenames with those extensions will appear in the Open panel browser and the Convert window browser. In the above example, if we manually specified a filename of **test.tif** when saving a file, the default extension **.tiff** would *not* be substituted because the supplied extension matched one of the aliases.

## Miscellaneous

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These radio buttons determine how we miniaturize an image window—by *file type* icon or a *thumbnail* representation of the current image.

## Image Inspector Panel

Once an image has been opened you may use the Image Inspector to view or change any of the image options described in detail above. This allows

you to visually experiment with an image by changing the various settings.

The Image Inspector also shows the file type icon and the pathname for the current image file.

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The Image Inspector contains two buttons at the bottom of the panel—the *Apply button* and the *Revert button*.

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When you have set the Inspector to the desired values, click the *Apply button* to apply the new settings to the current image window.

**Note:** You may also drag/drop the file type icon, located in the upper left-hand corner of the Inspector panel, directly into the current image window. The current image window has a dark gray title bar (the “Main Window” in NeXT terminology). If there are several image windows on the screen and you drag/drop the Inspector icon into any other window, the icon will “fly” back to the Inspector panel.

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The *Revert button* simply changes the Inspector settings back to the settings for the last Apply. The revert only changes back the values in the current visible Inspector panel, not all Inspector panels.

**Note:** There is one additional switch in the Attributes Inspector panel that

is not in the Preferences panel *Has Alpha Data*. This is a read-only switch that shows the presence of an alpha channel (coverage component) in the current image excluding the effects of the compositing operators and the background.

Since the image size is known when using the Image Inspector, the Scale option can calculate proportional width/height values for the various units. This is not the case when using the Scale option in the Preferences panel since the image size is not yet known.

Furthermore, switching between different units will cause the image size fields to change to reflect the size of the image in the new units. Some round-off error may result. Also, the DPI requested may be adjusted when an image is saved if necessary to produce an image with the requested size and number of data points.

It is possible to set the Preferences or the Image Inspector to settings which the ultimate destination image type may not be able to match. In this case, Pixel Magician will match the settings as closely as possible when saving or converting. See Chapter 6, <sup>a</sup>Supported File Formats/ Output Options.<sup>o</sup>