Microspot PhotoFix[™] User Guide



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CHAPTER 1 - GETTING STARTED

Introduction

Thank you for choosing PhotoFix, the affordable, easy to use alternative to today's complex photo retouching applications for the Macintosh®. Designed for novices as well as professionals, PhotoFix provides all the tools you need to enhance scanned or Photo CD images and produce professional quality artwork.

PhotoFix includes a wide range of painting, drawing and retouching tools, as well as numerous editing functions like cloning, feathering and masking.

Requirements

Microspot PhotoFix minimally requires:

- Macintosh System Mac OS X (10.0.4 or later recommended)
- Any Macintosh computer (including iMacs and iBooks) with G3-233 MHz processor or faster
- 128 Mb RAM
- 12.5 Mb free hard disk space
- Color monitor, 800 x 600 (1024 x 768 recommended)
- QuickTime 5.0

Installation

To install Microspot PhotoFix double-click the PhotoFix installer icon and follow the instructions in the dialogs that appear. PhotoFix and its associated files will be installed in the specified location on your hard disk.

Microspot PhotoFix

The Microspot PhotoFix folder will contain the following items:



Figure 1.1

Also, an alias to the application will be placed on the desktop.

Working Efficiently

File size is an important parameter that affects the overall time it takes to edit your image. Make sure you choose a resolution that is suitable for your printer since the higher the resolution, the larger the size of the file and thus the longer the calculation time is.

Documentation

The PhotoFix online manual in PDF format is installed with the application. The PhotoFix Manual file is placed in the same folder as the PhotoFix application in order to be accessed from within the application.

Choose **PhotoFix Manual** from the **Help** menu and a default system application for reading pdf files will open the online manual. You can then navigate through and read the manual on screen, or print sections for your reference.

Technical Support

You register your product in order to receive technical support, as well as upgrade and new product information. In North America, South America and Australasia, please contact:

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Tutorial

Even if you do not read the Reference section of this manual, we strongly recommend you run through the PhotoFix tutorial in order to gain a working knowledge of the product's powerful features.

CHAPTER 2 - TUTORIAL

Setting PhotoFix Preferences

EXERCISE: Customize PhotoFix General Preferences.

- **1.** To launch the application open the PhotoFix folder and double-click the application icon.
- 2. Choose **Preferences** from the **PhotoFix** application menu.
- 3. Choose General to show the General Preferences dialog.

| Unit: | Inches | • | | |
|-------------------------------------|-----------|--------------|--|--|
| Image Icon: | Miniature | ÷ | | |
| Default Palette: | RGB color | ÷ | | |
| Tool Spacing: | 20 % of t | ool diameter | | |
| Show tool area 🛛 🔲 Black background | | | | |
| | Cance | | | |

Figure 2.1

- 4. Unit. Choose Inches from the pop-up menu. (You can also show units of measure in pixels or centimeters.)
- **5. Image Icon**. Choose the **Miniature** option to show file icons as miniature representations of the images they contain. If you choose the **Standard** option, files are shown with the PhotoFix icon and will show the format type (PICT, TIFF, JPEG, BMP, etc.)
- 6. Default Palette. This allows you to set a default palette for use with new documents. The options are Bitmap, Grayscale, System or RGB color. Choose RGB color.
- 7. Click OK.

EXERCISE: Customize PhotoFix Memory and Plug-ins Preferences

- 1. Choose **Preferences** from the **PhotoFix** application menu.
- 2. Choose Memory and Plug-ins to show the Memory and Plug-ins Preferences dialog.

| Scratch Disk/Folder: Mac OS X: private: tmp: 5 Save Open Images: When "Quit Special" | |
|---|----|
| Save Open Images: 📃 When "Quit Special" | ŧ |
| | |
| 📃 When Power Failure | |
| Plug-ins Folder: Mac OS X: Users: qa: Appl | ¢ |
| Multiple Undos: 32 | |
| Cancel Cancel | DK |



3. Scratch Disk/Folder. To choose a different scratch disk (the place where PhotoFix will save any temporary items) or folder, click the pop-up menu and choose Other. Choose the PhotoFix folder using the dialog that appears.

IMPORTANT: You must choose a scratch disk or folder other than the default Temporary Items folder if you turn on the **When Power Failure** option (discussed in Step 4). This is very important since the Temporary Items folder is automatically put in the Trash upon startup.

Save Open Images

An important benefit of PhotoFix's unique virtual memory management is the ability to recover unsaved data. If you turn on the **When "Quit Special**" option, PhotoFix will allow you to quit without saving changes to your work, then later open the same file with your changes intact.

- 4. Click the When "Quit Special" option to turn it on. To ensure recovery of unsaved data after a power failure or computer crash, also click the When Power Failure option.
- 5. Plug-ins Folder. Use the pop-up menu to choose the plug-ins folder.

Multiple Undos

PhotoFix allows you to specify up to 32 levels of Undo. While defining multiple levels of **Undo** is practical for design and creation, specifying fewer levels of **Undo** minimizes disk transfers, saving time and energy.

Keep in mind that **Multiple Undo** files take up disk space. If you need to increase your free disk space, you can delete temporary Undo files using the **Memory Space** option from the **Edit** menu.

- 6. Set Multiple Undos at 6.
- 7. Click OK.

PhotoFix Palettes

EXERCISE: Explore the PhotoFix palettes.

1. In order to show the PhotoFix palettes, you must first open a document. Choose **Open** from the **File** menu, then open the Tutorial Images folder in the Microspot PhotoFix folder. Double-click any image.

See Chapter 4 - Palettes on page 4 - 1 for more details about the PhotoFix palettes.

Tool Palette



Figure 2.3

2. When you double-click a tool, a Tool Settings dialog appears, use this to configure the chosen tool for your particular needs.

NOTE: For more information about any tool, click the desired tool, then choose **Tool Info** from the **Help** menu.

Color Palette





- **3.** If the bottom portion of the **Color Palette** is not visible, click the disclosure triangle next to the **Color Controls** to extend the palette.
- 4. Click the **Foreground Color** Indicator and drag the **Brightness Adjuster** slider to the center.
- 5. Drag the small circle in the Color Picker to see how the foreground color changes. Slide the **Brightness Adjuster** from left to right to view the changes in shades. (This can be done for the **Background Color Indicator**, as well.) Notice how the **Gradient Preview** shows the gradient between the foreground and background colors.
- 6. Use the Four Color Gradient Sampler to mix colors. Click a color in the Color Picker, then move the pointer to one of the four squares in the Four Color Gradient Sampler and click again. (Note that the pointer will change from a Color Sampler to a Paint Bucket). Repeat this procedure until each square contains a different color.

You can now use the Color Sampler tool to sample any color from the **Four Color Gradient Sampler**, then apply it to your document using one of the painting or drawing tools.

Info Palette

| ○ ○ Info ▼ Size (width x height): Inches: 10.66 x 7.11 Piyele: 768 x 512 | ——— Image Size |
|--|--|
| ▼ Position: x: 6.68 in 481 pxls y: 3.11 in 224 pxls | Position of Pointer Relative to Top Left Corner of the Image |
| ✓ General Info: Format: PICT Compress: Photo - JPEG ✓ Image Mode: Palette: RGB Color ✓ Selection: Inches: 1.80 x 3.13 Pixels: 130 x 226 | File Format Type of compression Image Mode Palette pop-up menu Selection Area Size |

Figure 2.5

Image Controls

Two other useful controls can be found at the bottom of PhotoFix image windows.





PhotoFix provides a convenient pop-up menu so you can easily zoom in for close-up views, or zoom out to fit an entire image on your screen. You can use the View/Change Resolution pop-up menu to increase or decrease an image's resolution, and therefore its physical dimensions, while maintaining its file size.

7. Close the document. Do not save it.

Creating a New Image

EXERCISE: Design a postcard.

1. Choose New... from the File menu.

| New Image | | |
|-------------|------------------|---------------------------|
| Dimensions: | | |
| Resolution: | 72.00 dpi | Width: 5.90 in |
| Unit: | Inches 🗧 | Height: 4.09 in |
| | Keep proportions | |
| Format: | Custom | Contents: 💽 Empty (white) |
| | Clipboard | O Screen shot |
| | Passport photo | Clipboard |
| | Postcard | |
| | O US Letter | |
| Palette: | RGB color 🕴 | |
| | | Cancel OK |

Figure 2.7

- **2.** Give the new file a resolution of 72.00 dpi.
- **3.** Choose **Postcard** from the **Format** options, then choose **Empty** (white) from the **Contents** options. Click **OK**.
- 4. To add colors to the **Color Palette**, start by dragging the **Brightness Adjuster** slider to the center, then click a color in the **Color Picker**. Move the pointer to the **Color Storage Area**, position it over one of the squares and hold down the Option key. When the pointer changes to a Paint Bucket, click the square to save the chosen color.

Repeat these steps until you have several colors to choose from.



Figure 2.8

5. Apply a color to the entire image by choosing the Paint Bucket tool and moving it to the **Color Storage Area**. (The pointer will change to a Color Sampler tool.) Click a color, move the Paint Bucket to the canvas and click again.



Figure 2.9

- 6. Double-click the Line tool and set vertical and horizontal line thickness at 1.
- 7. To make the foreground color black, go to the **Color Palette** and click the **Change Foreground to Black and Background to White** option. Then

hold down the Shift key and draw two parallel horizontal lines in the top left corner of the image.

- 8. Click the Rectangular Drawing tool and draw a square in the top right corner of the image.
- **9.** Choose the Text tool and click the image. When the **Text Settings** dialog appears, enter an address in the textbox. Choose a font and any other attributes, click the **Floating Selection** radio button, then click **OK**.

| Text S | ettings | | |
|--|--|--|--|
| Microspot Ltd. Concorde House, 10-12 London Road, Maidstone, Kent. ME16 80A. ENGLAND | | | |
| BIUOSABA | ➡ ➡ ➡ <u>1</u> <u>15</u> <u>2</u> ♦ Size: 12 | | |
| Anti-aliasing | Mask Floating Selection | | |
| | Cancel OK | | |

Figure 2.10

10. The pointer will become a Hand tool when you move it over the text. Drag the text to the center of the card. Choose **Select None** from the **Selection** menu to deselect the text.



Figure 2.11

NOTE: If the *Text Settings* dialog reappears as you attempt to move the text, click *Cancel*. Or, if you accidentally place the text in the wrong spot, choose *Undo* from the *Edit* menu until the text starts floating again. You can then reposition it.

11. Choose Save As from the File menu and name your file "Postcard Back."

File Format

PhotoFix allows you to save files in the following formats: JPEG/JFIF, Windows BMP, PICT, PICT with Alpha Channel, PICT with Quick-Time compression, TIFF, TIFF with Alpha Channel, EPS, EPS with mask, and PhotoFix internal format. If you are planning to place images in a layout application, saving them as TIFF files will allow you to modify their brightness and contrast within the layout application.

Compression Format

You can also compress images to save disk space. In some cases, a compressed file may take up to 10 times less space than the same uncompressed file. JPEG compression offers the greatest reduction in file size, however it also proportionately

reduces the quality of the image. You may want to try each of the compression modes, then choose the one that best suits your needs.

12. Save the file and choose a type of compression (if desired) by clicking the Format **Options** button.

| | 🖲 🖯 🔵 untitle | ed 🖉 |
|---------|---|------------------------|
| Save | As: untitled.tiff | |
| Whe | ere: Documents | • |
| Format: | PICT ✓ TIFF EPS JPEG/JFIF Windows BMP PhotoFix | Options Cancel Save |

Figure 2.12

13. Close the file.

Making a Constrained Selection

EXERCISE: Add a graphic to the front of your postcard.

- 1. Choose **Open** from the **File** menu and open the Tutorial Images folder. Double-click image 021 to open it. If necessary, zoom out so you can see the entire image.
- 2. Click the Rectangular Selection tool and configure it as shown below. (Note that the dimensions shown are relative, not actual.)



Figure 2.13

3. The pointer will become a cross with a small "c" next to it to remind you that a constraint is applied. Drag the Rectangular Selection tool to define a large section of the image, then choose **Copy** from the **Edit** menu to copy the image in postcard proportions.



Figure 2.14

- 4. Choose New from the File menu. When the New Image dialog appears, choose Postcard for the Format, then click OK.
- 5. When the new (empty) file appears, choose **Select All** from the **Selection** menu. Then choose **Paste** from the **Edit** menu to place the image in postcard proportions.
- 6. Choose Select None from the Selection menu, then go to the File menu and save the image as "Postcard Front."
- 7. Close the file.

Image Correction

EXERCISE: Automatically correct an image's brightness and contrast.

- 1. Open image 013. If necessary, zoom out so you can see the entire image.
- 2. Using the Crop tool, select the entire image except for the black frame. (Adjust the corners by dragging them into position.) Move the pointer inside

the selected area. When it becomes a pair of scissors, click to remove the black frame.





3. Choose **Settings - Brightness/Contrast & RGB** from the **Image** menu. Click **Auto** to automatically correct the image.

| Brightness/Contrast & RGB | | | |
|---------------------------|-----------------|------------------|--|
| Before | After | Red: 50 % | |
| | | Green: 50 % | |
| Contraction in | Contraction - | Blue: 50 % | |
| | Station Company | Brightness: 50 % | |
| | | Contrast: 50 % | |
| | Reset Auto | Cancel OK | |

Figure 2.16

4. Close the file. Do not save it.

EXERCISE: Manually correct an image's brightness and contrast.

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- **1.** Open image 100 from the Tutorial Images folder.
- 2. Crop the image to delete its border.
- 3. Choose Settings Levels from the Image menu (Command-L).
- 4. Choose the **RGB** option from the **Channel** pop-up menu.



Figure 2.17

- **5. Black Point**. Choose the Black Point color sampler (on the left) and click a place on the image that should be black. (The shadow between the wing and the body.) The color of the pixel you selected becomes the target black.
- 6. White Point. Choose the White Point color sampler (on the right) and click a place on the image that should be white (the small spots on the wall to the left.) This color becomes the target white.
- 7. Neutral (Gray) Point. Choose the Gray Point color sampler (in the middle) and click a place in the image that should be gray (the wall behind the eagle.) This color becomes the target gray.
- 8. Click **OK** to apply your changes to the image.

Threshold Mode

If you have difficulty with identifying an image's white or black points, there is an easy way to make them more apparent. While in the **Levels** dialog, hold down the Option key and move the white handle on the **Input** slider to the left. The preview will become black. As you continue to move the slider to the left, color points will appear. The first pixels you see are the brightest in the image, which you can now easily sample.

| Levels | | | |
|---------------------------------------|---|--|--|
| Input: 0 1.00 126 | Profile: Save Load Zoom Auto Options | | |
| Scale: 1 / 1 Fit + - • Channel: RGB 🗘 | 111 | | |
| Reset Cancel OK | | | |

Figure 2.18

Repeat the process, this time dragging the black handle on the **Input** slider to determine the image's black point.

Gamma

Adjusting gamma allows you to change the brightness of the midtones without significantly affecting the image's hightones and shadows. To modify Gamma, drag the gray handle on the **Input** slider. The new Gamma value appears in its text box.

Output

Output sliders are used to reduce image contrast, and therefore have the opposite effect from the **Input** sliders.

Reset

Clicking the **Reset** button restores the original image.

Simple Image Retouching

EXERCISE: Remove a hair (or scratch) from an image.

- 1. Open image 034.
- 2. Choose the Zoom tool and click the center of the image. You will see a black hair that needs to be removed.





3. Click the Clone tool. Set the Diameter at 8 pixels, and the **Opacity** at 100.

| 00 | 0 5 | etting | s | |
|-------------|---------|------------|------------|------------|
| • | • | \bigcirc | \bigcirc | \bigcirc |
| 8 | 16 | 32 | 64 | 128 |
| Clone | Tool Si | ze: | | 8 |
| | I | 1 | 1 | -0 |
| Opacity | y: | | | 100 % |
| 1 | I | 1 | I | 70 |
| Clone align | | | | |

Figure 2.20

- 4. Move the Clone tool to a part of the sky which has colors similar to the area around the hair. Hold down the Option key (the arrow at the bottom of the Clone tool will become white) and click once. Release the Option key and move the pointer close to the hair.
- 5. Hold down the mouse button and drag the Clone tool across the hair.
- 6. The hair will gradually disappear as it is covered with the pixels copied from the portion of the image you chose to clone from.



Figure 2.21

- 7. Repeat Step 4 by starting from new reference points until you cannot see the effect of cloning.
- 8. Close the file. Do not save it.

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In addition to removing unwanted items, the Clone tool is very useful for duplicating items. Try repeating this exercise, but instead of removing the hair, duplicate it elsewhere in the sky.

Rotating and Straightening Images

EXERCISE: Rotate the same image using two different methods.

- **1.** Open image 015. If necessary, zoom out so you can see the entire image.
- 2. Rotate the image by choosing Rotate +90° from the Image menu. Choose Undo from the Edit menu.
- **3. To manually rotate the same image**: Go to the Tool Palette and click the Straighten/Rotate tool. Two perpendicular crossbars will appear on the image.



Figure 2.22

- **4.** Position the pointer on one of the crossbars. (The pointer will become a curved line with arrows at both ends.)
- 5. Drag the crossbar 90° clockwise.
- **6.** Release the mouse button, then click the image.





- 7. The image will be rotated 90° clockwise.
- 8. Close the file. Do not save it.

EXERCISE: Straighten an image.

- 1. Open image 023.
- 2. You will see that the line created by the city lights is not perfectly horizontal. To correct this, click the Straighten/Rotate tool and position the pointer over the small circle where the crossbars intersect.
- **3.** Drag the circle as close as possible to the city lights line, then position the pointer on one of the crossbars. Drag and rotate one of the crossbars counterclockwise until the horizontal crossbar is aligned with the city lights line.





4. Release the mouse button, hold down the Option key and click the image. The city lights are now perfectly horizontal. You can straighten the entire image on your screen by using the Crop tool to delete the outside edges of the image.





5. Close the file. Do not save it.

EXERCISE: Define a selection, create a mask and feather its edges, then blend it back into the image.

- 1. Open image 089. If necessary, zoom out so you can see the entire image.
- 2. Double-click the Rectangular Selection tool and choose No Constraint in the Settings palette that appears. Use the Rectangular Selection tool to select the duck and its reflection. (This is an example of a binary selection, in which only a portion of an image is selected.)





If this binary selection is copied and pasted onto another image, the result will be the same as sticking a small picture on top of a big one. The borders of the small picture will be seen, resulting in a poorly finished montage.

To make professional-quality montages, you must progressively feather a selection's borders and/or apply transparency effects.

3. Choose **Feather/Transparency** from the **Selection** menu. Enter a radius of 15 pixels, then click **OK**.

| 000 | 089 | |
|------|---|---------|
| | Border Feathering: Radius: 15 pixels | 11 |
| | Image Transparency: Opacity: 100 % | Ш |
| | Cancel OK | Ш |
| | | |
| ÷2 🔻 | 72dpi 🔻 1.1 | 2 M /// |

Figure 2.27

A progressive transparency is created around the selection border. These pixels will form an area where the borders of the pasted image and those of the background will blend together.

4. To understand this visually, choose **Separate Mask** from the **Selection** menu. Before feathering (see left image), the mask is binary and has solid black edges. After feathering (see right image), the edges of the mask's border are softened into a graduated grayscale.



Figure 2.28

5. Close the mask window (do not save the mask) and return to the image. With the duck and its reflection still selected, move the pointer inside the selected area until it becomes a Hand tool. Hold down the Option key and press the mouse button. A plus sign will appear, which means that the selection has been duplicated so you can move it without leaving a blank area.

6. Drag the selection to the upper left corner of the image. Release the mouse button and choose Flip Horizontal from the Image menu.





- 7. Click outside of the selection to deselect it. Next, use the Lasso tool to select the duck's head (but not its beak). Then hold down the Command key and use the Lasso to select (or actually subtract) the duck's eye. (Holding down the Command key while using a selection tool allows you to subtract pixels from a selection, whereas holding down the Shift key lets you add pixels to a selection.)
- 8. Choose Settings Bright/Cont & RGB from the Image menu. Modify the color of the duck's head by decreasing the Green color value and increasing the Blue color value. Click OK to view the results, which demonstrate that only the selected area is affected by the correction.



Figure 2.30

9. Close the file. Do not save it.

EXERCISE: Copy, resize and paste one image into another.

- 1. Open images 089 and 014.
- Select the duck and its reflection with the Lasso. Go to the Selection menu and choose Feather/Transparency. Enter a radius of 8 (pixels) and click OK.



Figure 2.31

- **3.** Copy the selection, then use the **Window** menu to open image 014. Click the Rectangular Selection tool and choose Clipboard from the pop-up menu.
- **4.** Draw a selection area on the water, then choose **Paste** from the **Edit** menu. Click outside the selection to deselect it. The duck has been proportionately resized and smoothly integrated into its new environment.



Figure 2.32

5. Close both files. Do not save them.

Applying Gradients

EXERCISE: Apply a gradient to an image.

- 1. Open image 016. If necessary, zoom out so you can see the entire image.
- 2. Click the Magic Wand, then configure it as shown below.
| 3 % |
|-----|
| |
| • 🖯 |
| |
| |
| |
| |
| |

Figure 2.33

3. Click the sky to select it. If the sky is not properly selected, use the Lasso and Shift/Command keys to add or subtract pixels.



Figure 2.34

4. Choose the Color Sampler tool and click the sky to select a color for the foreground. To define a second color, make sure that the Brightness Adjuster is not set to the minimum or maximum position and click the Background Color Indicator in the Color Palette and choose a color from the Color Picker (adjust brightness, if necessary) or the Color Storage

Area. You will see a preview of your gradient effect on the top right side of the **Color Palette**.



Figure 2.35

5. Choose the Gradient tool. With the sky still selected, click in the top left corner and drag the Gradient tool to the bottom right corner to apply the gradient.





6. Choose **Invert** from the **Selection** menu to select the remainder of the image.

7. Choose Settings - Brightness/Contrast & RGB from the Image menu. Click Auto to correct the image, then click OK.

| Brightness/Contrast & RGB | | |
|---------------------------|---|------------------|
| Before | After | Red: 50 % |
| | | Green: 50 % |
| | Ant | Blue: 50 % |
| | A DECEMBER OF THE DECEMBER OF | Brightness: 50 % |
| | | Contrast: 50 % |
| | Reset Auto | Cancel OK |

Figure 2.37

- 8. Test PhotoFix's ability to perform Multiple Undos by choosing Undo from the Edit menu to undo the Auto Brightness/Contrast & RGB corrections. Choose Undo again to deselect the inverted portion of the image, then again to remove the gradient.
- Choose Redo from the Edit menu three times to replace the gradient, reselect the inverted portion of the image and redo the Auto Brightness/ Contrast & RGB corrections.
- **10.** Do not close the file as you will need it for the next exercise.

EXERCISE: Apply a gradient to floating text.

1. Using the **Color Palette**, choose white as the foreground color (simply slide the **Brightness Adjuster** all the way to the right). Then choose the Text tool and click the upper left side of the sky.

2. Type "How would you like to spend your vacation here?". Choose the font and attributes shown below, then click **OK**.

| Text Settings | | |
|-------------------------|--------------------------|--|
| How would you like to s | pend your vacation here? | |
| | | |
| B I U O S AB AB | 물물물 부산스 | |
| Font: Helvetica | ♦ Size: 30 ♦ | |
| Anti-aliasing | 🔘 Mask | |
| | Floating Selection | |
| | Cancel OK | |
| | | |

Figure 2.38

3. The text will appear as a floating selection. Move the pointer over the text. When it changes to a Hand tool, drag the text to center it near the top of the image. (Note that you can also use the keyboard's directional arrow keys to move the text.)

NOTE: If the *Text Settings* dialog reappears as you attempt to move the text, click *Cancel*. Or, if you accidentally place the text in the wrong spot, choose *Undo* from the *Edit* menu until the text starts floating again. You can then reposition it.

4. Without deselecting the floating text, select a foreground and a background color for the text gradient. Choose colors that are very different from the color of the sky.

5. Using the Gradient tool, click the left edge of the text and drag the pointer across to the right edge. Preview the gradient effect by choosing **Hide Edges** from the **Selection** menu.



Figure 2.39

- 6. Choose Select None from the Selection menu to place the text.
- 7. Close the file. Do not save it.

Photo Montages & Masks

EXERCISE: Replace the sky in one image with the sky from another image

- 1. Open images 016 and 026. If necessary, zoom out so you can see each image completely.
- 2. Set the Magic Wand's tolerance at 8, then click the sky in image 016 to select it.



Figure 2.40

- 3. Choose Separate Mask from the Selection menu.
- 4. Choose 026 from the **Window** menu, then go to the **Selection** menu and choose **Load Mask**. Click the **From Image** radio button and choose the untitled mask from the pop-up menu.
- 5. Click OK. The borders of the selected mask will appear on image 026.



Figure 2.41

6. Choose Copy from the Edit menu. Return to image 016 and choose Paste.



Figure 2.42

- 7. Choose None from the Selection menu. A sunset now replaces the sky found in the original image.
- 8. Close the files and the mask. Do not save them.

EXERCISE: Create, edit and use a grayscale mask to modify the colors of an image.

- **1.** Open image 013. If necessary, zoom out so you can see the entire image.
- 2. Crop out the black borders, then choose Select All from the Selection menu.
- **3.** Choose **New** from the **File** menu. Choose **Custom** for the format, then choose **Grayscale** from the **Palette** pop-up menu. Click **OK**.
- 4. When the new document appears, zoom out, then go to the color palette and click **Change Foreground to Black and Background to White**.
- **5.** Click the Gradient tool and apply a gradient from the bottom left to the top right corner.



Figure 2.43

- 6. Return to image 013. Use the Selection menu to load the untitled mask.
- 7. Click the Paint Bucket and set its tolerance at 100%.
- 8. Use the color palette to select a shade of gray for the foreground, then click the sky.



Figure 2.44

Notice how the fog is thicker towards the top right corner of the image. This is because the darker portions of the mask protect the image from the gray paint, whereas the lighter portions allow the paint to show through. As in this

example, you can apply different special effects by creating, editing and applying masks to your images.

9. Close the file. Do not save it.

Retouching RGB Layers

EXERCISE: Remove a dominant color from an image.

- **1.** Open image 001 and crop out the black frame.
- 2. Choose Settings Bright/Cont & RGB from the Image menu, then click Auto to automatically correct the image. Click OK.
- This image has a dominant yellow color (which is quite common with scanned and PhotoCD images.) To correct this, choose Separate RGB Layers Red Green Blue from the Image menu.
- **4.** To decrease the yellow, you will need to modify the red and green layers. Since the blue layer is not useful in this case, close the 001.B window. Do not save it.
- 5. Click the 001.G layer, then choose Settings Bright/Cont & RGB from the Image menu. Decrease the Brightness value by 9%.
- 6. Click the 001.R layer and choose Settings Bright/Cont & RGB from the Image menu. Decrease the Brightness value by 5%.
- 7. Return to image 001 and choose Load RGB Layers from the Image menu.
- 8. Make sure the 001.R layer is chosen in the **Red** pop-up menu, and the 001.G layer is chosen in the **Green** pop-up menu. Click **OK** to replace the original layers with the new ones. You will see that the yellow dominance has been diluted.
- **9.** Try undoing and redoing the **Load RGB Layers** operation to see how it affects the image.
- **10.** Close the file and layers. Do not save them.

Converting Color Modes

EXERCISE: Convert an image from RGB to 256 Indexed colors.

Why: If your printer cannot print 16 million colors, you may want to reduce the pixel depth of your image to save disk space. For example, a 24 Bit RGB image may use 1 Mb of disk space, whereas the same image in 8 Bit Indexed mode may take up just 333K of disk space.

Modes

- **Bitmap**. Images are coded with 1 bit, meaning that pixels can only be either black or white. A binary mask (with no progressive borders), for example, is in bitmap mode.
- **Grayscale**. Images are coded with 8 bits and contain 256 shades of gray. Thus, progressive masks are created in grayscale mode.
- **Indexed**. Images are offered three depth options: 8 Bit (256 colors); 4 Bit (16 colors); and 2 Bit (4 colors). The Indexed mode allows you to choose the **System** color palette, which converts an image's colors using the Macintosh system color palette.

Note: Adaptive palette is not currently available in the Mac OS X version of the software.

- **RGB**. Images contain up to 16 million colors, and so offer full color.
 - 1. Open image 012 and crop the black border.
 - 2. Choose Mode Indexed from the Image menu. Choose 4 Bit and click the System palette.

3. Undo and Redo the mode change to compare the look of the two images. Keep an eye on the file size indicator in the bottom right corner of the window so you can also compare the changes in file size.



Figure 2.45

- **4.** Experiment with different image modes by continuing to **Undo** and **Redo** the mode change.
- 5. Close the file. Do not save it.

Creating a Customized Palette

EXERCISE: Customize an Indexed palette and apply color effects to a grayscale image.

- 1. Open image 012.
- 2. Convert the image to grayscale by choosing Mode Grayscale from the Image menu.
- 3. Use the Color Sampler to select a dark shade of gray from the color palette.
- 4. Hold down the Option key (note that the pointer changes to NEW when positioned on the foreground or background color, and MIX when placed on the color palette) and double-click the foreground color to show the **Color Picker**.

5. Drag the **Brightness Adjuster** slider to the middle. Click a shade of green, then click **OK**. Green will replace all pixels in the image that have the same value as the shade of gray you choose in the color palette.



Figure 2.46

6. Hold down the Option key and click the darkest tone in the color palette. The pointer changes to MIX. All of the intermediary tones, ranging from the first gray you selected to black, have been mixed with the green color.



Figure 2.47

Repeat these steps with other colors to customize an **Indexed palette** and create original, surrealistic images. Avoid using too many colors; simplicity is recommended. The best results are obtained using soft, progressive tones.

Microspot PhotoFix

7. Close the file. Do not save it.

Quit Special

EXERCISE: Use PhotoFix's "Quit Special" option to quickly open an image.

- 1. Open any file. Keep track of how long it takes the file to open.
- 2. Choose Quit from the PhotoFix application menu to quit PhotoFix. When the dialog appears, click the Quit Special option. (Note that if you did not turn on this option as explained in the *Setting PhotoFix Preferences on page 2 1* you must first do so.)



Figure 2.48

3. Double-click the PhotoFix application. When the dialog appears, click **Open Fast**. The file will open very quickly, no matter how large it is.



Figure 2.49

The **Quit Special** feature can be very useful if you often need to quit PhotoFix in order to work in other applications, then return to a PhotoFix document.

Quit Special also works when there is a power failure, or when your computer crashes, as long as you have not chosen the Temporary Items folder as the scratch disk or folder in the **Memory and Plug-ins Preferences** dialog. *See Setting PhotoFix Preferences on page 2 - 1 for further details.*

Printing Your Image

Follow the steps below to print an image:

- 1. Open image 080 and crop its black border.
- 2. Choose Page Setup from the File menu and configure as follows: Paper: US Letter or A4
 Scale: 100%
 Orientation: Landscape
- 3. Click OK to close the Page Setup dialog.
- 4. Choose **Page Format** from the **File** menu. Set **Scale** at 50%, then drag the image to position it wherever you want on the page. Click **OK**.
- 5. Choose **Print** from the **File** menu to print a copy of your image.

CHAPTER 3 - MENUS

PHOTOFIX APPICATION MENU



Figure 3.1

About PhotoFix

Choose **About PhotoFix** to show a dialog containing information about the application.

Enter Serial Number

While running the PhotoFix demo version you may enter a valid serial number to get the full version of the application. Choose **Enter Serial Number** from the **PhotoFix** application menu, and enter a name and valid serial number (the organization name is optional).

Preferences

General Preferences

| Genera | l Preferences |
|------------------|----------------------|
| Unit: | Inches 🗧 |
| Image Icon: | Miniature 🗧 🕈 |
| Default Palette: | RGB color 🕴 |
| Tool Spacing: 2 | 0 % of tool diameter |
| 🗹 Show tool area | 🔲 Black background |
| | Cancel OK |
| | |

Figure 3.2

Unit

Allows you to show units of measure in pixels, inches or centimeters.

Image Icon

Choose the **Miniature** option to show file icons as miniature representations of the images they contain. Choose the **Standard** option to show files with the PhotoFix icon and format type.

Default Palette

Allows you to set the palette that will be used when opening new documents. The options are **Bitmap**, **Grayscale**, **System** or **RGB color**.

Tool Spacing

Allows you to set the distance between two tool marks. For example, if you choose the Paint Brush and set Tool Spacing at 110%, there will be a gap between each mark left by the brush. Smaller spacing percentages produce continuous patterns. Spacing should be based on the desired effect and on the shape of the choosen tool.

Show Tool Area

Allows you to see the tool's size and shape on the image before you apply it.

Black Background

Makes the border space around the image black. (The default is gray.)

Memory and Plug-ins Preferences

| Scratch Disk/Folder: | Mac OS X: private: tmp: 5 🗘 |
|----------------------|-----------------------------|
| Save Open Images: | 📃 When "Quit Special" |
| | 📃 When Power Failure |
| Plug-ins Folder: | Mac OS X: Users: qa: Appl 🛊 |
| Multiple Undos: | 32 |
| | |

Figure 3.3

Scratch Disk/Folder

Allows you to choose the disk and folder where backup files will be stored temporarily. The default setting is a Temporary Items folder, however we do not recommend using the default if you plan to use the **When "Quit Special"** or **When Power Failure** options (*See Save Open Images on page 3 - 3 for more details.*) since the contents of the Temporary Items folder are automatically put into the trash during startup.

Save Open Images

When "Quit Special"

Turning this option on allows you to quit the program at any time without saving changes to your image. When you reload PhotoFix, you can quickly reopen the same image with your changes intact. Note that Multiple Undos are lost when this option is turned on.

When Power Failure

This option saves your work in case a power failure or system crash occurs. When you restart your machine and reopen the file you were working in, any changes you made before the power failure or system crash occurred will be intact.

Plug-ins Folder

Allows you to choose the Plug-ins folder you wish to use (Acquisition plug-ins, Export plug-ins or plug-in Filters.)

Multiple Undos

Lets you choose from 1 to 32 levels of Undo. The default setting is 32.

Quit PhotoFix

Quits the program. If any open files have not been saved, an alert will appear asking if you wish to save the changes made.

FILE MENU



Figure 3.4

New

Allows you to create a new image.

Open

Allows you to open an image. The **PhotoFix Open** dialog shows a preview of the selected image.

| Show: All For | rmats 🗧 |
|----------------------------------|------------------------|
| From: Diate | torial Images 🕴 |
| 016 | |
| 021 | |
| 023 | |
| 026 | |
| E 034 | |
| 680 | |
| 089 | Kind: Document |
| 100 | SIZE: 08 KB |
| •(| |
| 8/2/96 - 11:53 AM, PIC Go to: | T, CSPr, 44502 + 24353 |
| | |

Figure 3.5

The date and hour of creation, graphic format, creator (software) code, image size, and resource size (in bytes) are displayed at the bottom of the dialog.

Graphic Formats

PhotoFix recognizes the following graphic formats: PICT, PICT with alpha channel, PICT with QuickTime compression, TIFF, TIFF with Alpha Channel, EPS with mask, JPEG/JFIF, GIF, Windows BMP, the super fast PhotoFix file format and any other format supported by the QuickTime Graphic Importer.

Image Browser

Launches your prefered Image browser application. The first time you choose this option choose your prefered Image Browser, for example Apple iPhoto or Microspot PhotoXtra.

Open Album

Choose **Open Album** to open a Image Browser album from within PhotoFix. Select an album from the **Open** dialog that appears, PhotoFix will open the image Browser application and the relevant album.

Close

Closes the active window. Choose the **Close** option while holding down the Option key to close all application windows.

Save

Saves image modifications.

Save As

Saves image modifications as a new file. PhotoFix can save the following file formats: PICT, PICT with Alpha Channel, PICT with QuickTime compression, TIFF, TIFF

with Alpha Channel, EPS, EPS with mask, JPEG/JFIF, Windows BMP and PhotoFix internal format.



Figure 3.6

EPS Format

PhotoFix's EPS format supports paths (EPS masks) which are very useful with page layout software like QuarkXPress and Adobe PageMaker. When an EPS mask is saved with an RGB or CMYK image, only the contents of the mask are displayed on your screen and printed with an EPS printer or imagesetter. *See Pen Tool on page 4- 2 for more details*.

Acquisition Profile

PhotoFix can create a profile to correct your scanner's response in the black and white points, as well as its response curve in the red, green and blue color bands. These corrections will allow you to remove any color casts, to obtain pure whites and deep blacks, and to correct your scanner's nonlinear color response. Once you create and select a profile, it will be applied to your scanned images automatically. In most cases, the result will be closer to the original image. If you do not like the corrections that are made to your scan, you can undo them by choosing **Undo Filtering** from the **Edit** menu.

NOTE: If you have a 10 or 12 bit scanner (refer to your scanner specifications sheet) we strongly recommend that you correct its response using the scanner's driver options.

Microspot PhotoFix

Profile Creation

Even if a list of lab-tested scanners is available with your software, it is better to create a profile which corresponds to your own source.

Using the Supplied Target

- 1. Choose Acquisition Profile from the File menu. Make sure that no profile is choosen in the Acquisition Profile dialog. Also, make sure that the Color Palette is open and extended so you can see the RGB Profiles at the bottom.
- 2. Choose Acquire from the File menu, then choose your scanner. Scan the target supplied with PhotoFix in color at 72 dpi.





3. Go to the **Settings** option from the **Image** menu and choose **Levels**.

| Levels | |
|---------------------------------------|----------|
| Input: 0 1.00 255 | Profile: |
| | Save |
| PhotoFix Scanning Target | Load |
| | Zoom |
| Output: 0 [255] | Auto |
| | Options |
| Scale: 1 / 5 Fit + - • Channel: RGB + | 111 |
| Reset | ancel OK |

Figure 3.8

4. Double-click the first eyedropper (which represents black) to show the **Color Picker** dialog.



Figure 3.9

Choose the Apple **RGB** profile on the left side of the dialog, then use the slider controls to set each of the RGB values at 4 and click **OK**. When you are returned to the **Levels** dialog, double-click the middle eyedropper (which represents gray) and set the **RGB** values at 50. Do the same for the white eyedropper, setting the values at 97, or whatever your personal preference is for displaying white print. *See Filter Menu on page 3 - 34 for more details*.

- **5.** Use the black point eyedropper in the **Levels** dialog to click the black square in the scanning target. Then use the white point eyedropper to click the white square.
- 6. Put the middle eyedropper on the gray square in the scanning target (do not click) and look at the **RGB Profile** section of the **Color Palette**. The color value for each of the RGB channels should be approximately 125 130.



Figure 3.10

- 7. If the value of any channel does not fall into this range, choose the corresponding Red, Green or Blue channel from the Channels pop-up menu in the Levels dialog. Modify the channel's Gamma value by moving the middle gray control on the Input slider. Measure the channel's new value by placing the pointer on the gray square in the scanning target while holding down the Option key.
- 8. If necessary, repeat this procedure for each of the channels until you obtain a value of 125 -130.
- 9. Click Save and enter a name for your new profile
- **10.** Click **OK** to apply the corrections to the image.
- 11. Choose the Acquisition Profile from the File menu, then choose New Profile .
- **12.** From now on, this profile will be applied to each scanned image. Don't forget that you can **Undo** it if you do not like its effect on the image.

Acquire

Allows you to acquire images using plug-ins from sources such as external acquisition devices, scanners and special decompression software.

Export

Allows you to export images in special formats using external plug-ins such as CMYK Separation and compression software.

Page Setup

Allows you to configure parameters such as paper size, layout and orientation.

Page Format



Figure 3.11

The **Page Format** dialog lets you preview, resize and position images on a page. Note that page size and orientation are dependent upon the choices you make in the **Page Setup** dialog.

Click the **Frame** checkbox to add a frame to your print. To add the name of the file to your print, click the **Name** checkbox. Use the **Scale** pop-up menu to reduce the size of your image. To increase the image size, return to the **Page Setup** dialog.

Images are placed in the center of the page, however you can drag and reposition them wherever you like. Click the **Center** button to return an image to the center of the page. Image position and size are located in the information block in the **Page Format** dialog.

Print

Opens the **Print** dialog so that you can print your image.

EDIT MENU

| ЖZ |
|-----|
| ЖR |
| ЖХ |
| ЖC |
| ЖV |
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| - • |
| |
| |
| |

Figure 3.12

Undo

Cancels the previous operation. PhotoFix supports multiple undo operations, so files are saved each time an editing action is carried out. The **Undo** command can be used to work backwards through the processes performed, undoing one action after another. The number of times the **Undo** command can be used will be determined by the value set for multiple undos in the **Preferences** dialog. *See Preferences on page 3 - 2 for more details*.

Redo

Restores an operation cancelled by using the **Undo** command. As PhotoFix supports multiple undo operations, files are saved each time an editing action is carried out. The **Undo** command is used to work backwards through the processes performed, undoing one action after another.

The Redo command is used to restore these actions again, in turn.

Cut

Cuts the selected part of an image and places it into the Clipboard.

Copy

Copies the selected part of an image and places it into the Clipboard.

Paste

Pastes the contents of the Clipboard into an image. If a portion of the image has been selected, the Clipboard contents will be pasted inside the selection.

Clear

Erases the selected part of an image and replaces it with the current background color.

Fill With



Figure 3.13

Foreground color

Fills a selection with the Color palette's foreground color.

Background color

Fills a selection with the Color palette's background color.

Pattern

Fills a selection with a pattern copied using the **Copy Pattern** option from the **Edit** menu.

Copy Pattern



Figure 3.13

This option allows you to copy a selection as a pattern and apply that pattern to another image or selection. Use a selection tool to define a pattern, then use a selection tool again to define where you want to apply the pattern. Choose the **Fill With** option from the **Edit** menu, then choose **Pattern** to fill the selection with the pattern.

Memory Space



Figure 3.14

Application Memory

Indicates used memory size.

Scratch Disk Space

Indicates the amount of free disk space, as well as the amount being used by image and undo files.

Erase Multiple Undo Files

Erases saved **Multiple Undos** to free disk space. Once the **Multiple Undo** files have been erased, you will not be able to use the **Undo** command to cancel the actions performed before these files were erased.

IMAGE MENU

Among other options, the **Image** menu offers you several different ways to correct images. These methods range from selecting automatic correction options to manually defining color, contrast and brightness values.

| Image | | |
|--------|----------------|---|
| Settin | gs | • |
| Mode | | • |
| Separ | ate RGB Layers | • |
| Load I | RGB Layers | |
| ↔ Flip | o Horizontal | |
| ‡ Flip | o Vertical | |
| C Ro | tate +90° | |
| S Ro | tate -90° | |
| Ġ Fre | e Rotation | |
| Crop | | |
| Resize | 2 | |
| Distor | tion | • |

Figure 3.15

Settings



Figure 3.16

Negative

Inverts image colors.

Bright/Cont and RGB

Allows you to adjust image colors, brightness and contrast. You can either click the **Auto** button to automatically make corrections, or use the sliders to make manual corrections.

| Brightness/Contrast & RGB | | |
|---------------------------|---------------|------------------|
| Before | After | Red: 50 % |
| | | Green: 50 % |
| | Contractions: | Blue: 50 % |
| | | Brightness: 47 % |
| | | Contrast: 47 % |
| | Reset Auto | Cancel OK |
| | | |

Figure 3.17

Blur/Blur a lot/Sharpen/Sharpen a lot

Internal filters available in the RGB and grayscale modes.

AutoFix

The **AutoFix** option allows you to correct contrast, color, brightness and sharpness with a single keystroke. It defines the lightest and darkest pixels in each channel as white and black, then dynamically redistributes the intermediary pixel values. **AutoFix** also adjusts the contrast of edge detail, and therefore enhances sharpness.



Figure 3.18

Holding down the Option key when choosing **AutoFix** allows you to customize its settings to produce specific effects or apply corrections to a set of images.

| Aut | oFix Setting | Js |
|--------------|--------------|----------|
| Clipping | | |
| Black | clip: 0,50 | % |
| White | clip: 0,50 | % |
| Targets | | |
| Blac | k) (Wh | iite |
| Unsharp Mask | | |
| Strer | ngth: 100 | % |
| Ra | dius: 2 | pixels |
| Threst | nold: 8 | levels |
| | C | ancel OK |
| | | |

Figure 3.19

Clipping

Clipping defines the number of extreme pixels (as a percentage of the total image) which will have a value that exceeds the target value. This feature is useful for producing sparkles or shadows.

Strength

Enter a **Strength** value from 1 to 500. The higher the percentage, the stronger the effect of the filter.

Radius

Enter a **Radius** value from 1 to 250 to determine the number of pixels used for calculating the sharpness of each point. **Radius** value should be adapted to image resolution. A radius of 1 on a 72 dpi image has an equivalent effect of a radius of 4 on a 288 dpi image.

Threshold

Threshold specifies the difference in brightness levels between adjacent pixels (from 0 to 255) before sharpening is applied to an edge. Lower values produce a more pronounced effect.

Histogram

A histogram is a graphic representation of the pixel value distribution in an image from the lowest (0 at the left) to the highest (255 at the right).



Figure 3.20

When you show a histogram of an RGB image, for example, you can view the distribution of all pixels within the image, or use the **Channel** pop-up menu to view the **Red**, **Green**, **Blue**, **RGB**, **Hue**, **Saturation** and **Grayscale** pixel distributions individually.

Hue/Saturation



Figure 3.21

Before/After

The **Before** and **After** images show your document as it is currently and as it will be if you apply the specifed **Hue** and **Saturation** changes.

Scale

The **Scale** controls determine how the **Before** and **After** images are shown. Click the **Fit** button to scale the images so that they fit the area provided. Use the "+" and "-" buttons to increase and decrease the scale of the images as desired.

Hue

The Hue adjustment area shows how colors will be mapped. In the initial position the two color lines are identical, with each color in the top color line being mapped to the same color in the bottom color line. Move the **Hue** slider bar to the left or right to move the bottom color line and so change the colors in the image.
Saturation

Move the Saturation slider bar to the right or left to increase or decrease the vibrancy of the colors in the image.

Levels

The **Levels** option is probably the most efficient for correcting common image weaknesses in black, white, neutral (gray), brightness, contrast and color gamma (linearity):

| | Levels | |
|---------------------|-------------------|----------|
| | Input: 0 1.00 255 | Profile: |
| | | Save |
| | Output: 0 255 | Auto |
| Scale: to fit Fit + | Channel: RGB | 111 |
| | Reset Car | |

Figure 3.22

Auto Option

Click the **Auto** button to automatically enhance image contrast and brightness. You can view the corrections in the preview window on the left side of the dialog.

Auto Levels Settings

To set **Clipping** values, as well as to use the **Color Picker** to define color targets for correcting weaknesses in the darkest, lightest and neutral points within an

image, open the **Levels** dialog, then click the **Options** button to show the **Auto Levels Settings** dialog.

| Auto Levels Settings |
|----------------------|
| Clipping: |
| Black Clip: 0.50 % |
| White Clip: 0.50 % |
| Color Targets: |
| Black Grey White |
| Cancel OK |
| |

Figure 3.23

Clipping

This option defines the number of extreme pixels (as a percentage of the entire image) which will have a value exceeding the target value. This feature is very useful for producing sparkles or shadows.

Color Targets

Click the **Black**, **Grey** or **White** button in the **Auto Levels Settings** dialog to choose a color picker for setting your targets. When the dialog appears, choose either the Apple **RGB** color picker and set target values for **Red**, **Green** and **Blue**, or the Apple **HSV** color picker and set target values for **Hue**, **Saturation** and **Value**.



Figure 3.24

We recommend that you set the values based upon how you plan to use your image. If you plan only to show your image on the screen, set the brightness of the target points as follows:

Black: Red = Green = Blue = 0 or Hue = Saturation = Value = 0%

White: R = G = B = 100 or H = 0; S = 0; Value = 100%

Gray: R = G = B = 50% or H = 0; S = 0; Value = 50%

If you intend to print your image, set the brightness of the target points as follows:

Black: R = G = B = 3 or Hue = Saturation = Value = 3%

White: R = G = B = 97 or H = 0; S = 0; Value = 97%

Gray: R = G = B = 50% or H = 0; S = 0; Value = 50%

When you have finished, click **OK** in both the **Color Picker** and **Auto Levels Settings** dialogs.

Mode

This option allows you to choose whether the image mode is RGB, indexed, grayscale or bitmap. Note that this item is also found in the Info palette. *See Image Modes on page 4 - 17 for more details*.



Figure 3.25

Bitmap Mode

Black and white images.

Grayscale Mode

8 bit images that contain up to 256 shades of gray.

Indexed Mode

8 bit images that contain up to 256 colors.

RGB Mode (Red, Green, Blue)

24 bit images that contain up to 16.7 million colors.

Converting Image Modes

Grayscale to Bitmap Mode

If you would like to convert a grayscale image to black and white, choose the **Bitmap** option from the **Mode** submenu to show the **Bitmap Mode** dialog.

| 000 | 100 | |
|------|--|-----|
| | Dithering Resolution: Input: 72 pixels/inches Output: 72 pixels/inches Threshold: 50 % Cancel OK | |
| ÷2 🔻 | 72dpi 👻 384 K | //. |

Figure 3.26

You can convert a grayscale image to black and white either by **Dithering** black and white points, or by adjusting the **Threshold** so bright grays become white and dark grays become black. A higher **Threshold** value will convert brighter pixels to black.

RGB to Indexed Mode

If you don't have a printer that prints millions of colors, you may want to convert **RGB** images to the **Indexed** mode in order to save disk space. To do so, choose the **Indexed** option from the **Mode** submenu.



Figure 3.27

Color Combinations

• 8 Bits (256 colors) offers the highest quality conversion from RGB to Indexed color.

• 4 Bits (16 colors) further reduces the size of the image, as well as its quality.

• 2 Bits (4 colors) offers the greatest reduction in both size and quality.

Note: Adaptive palette option is not currently available in the Mac OS X version of the software.

Other

Choose the **Other** option to use a saved custom color palette. *See Creating Custom Color Palettes on page 4- 19 for more details.*

Dithering

Click in the **Dithering** checkbox to dither colors.

Separate RGB Layers

Separates the image into three different layers (**Red**, **Green** and **Blue**.) You can correct, edit, save and load each layer back into the image, thus replacing the original layers.



Figure 3.28

Load RGB Layers

Applies modified layers to the image.

Flip Horizontal/Flip Vertical/Rotate +90°/Rotate -90°

Allows you to flip or rotate an image or a selected portion of an image.

Free Rotation

When a rotation angle is entered in the **Free Rotation** dialog, an image or the selected portion of an image will be rotated with 1/100 degree precision. Note that you can also rotate images using the **Rotate** tool.

Deletes all but the selected part of an image. To crop an image, use the Rectangular selection tool to define the portion you wish to keep, then choose the **Crop** option. You can also crop images using the Crop tool.

Resize

Allows you to modify the size and resolution of the image or the canvas (page).

| Resize | |
|--------------------------------|-----------|
| Resize | |
| ⊙ Image ○ Canvas Image Posi | tion: |
| Keep: 🗹 Proportions | File Size |
| Size | |
| New | Current |
| Memory size: 37 K | 37 K |
| Resolution: 72.00 dpi | 72 dpi |
| Width: 1.37 in | 1.37 in |
| Height: 1.77 in | 1.77 in |
| Unit: Inches | • |
| | Cancel OK |

Figure 3.29

Image

Click Image to resize your image.

Canvas

Click **Canvas** to increase the size of the document without changing the size of your image. This allows you to add borders or additional images to a document without affecting the size of the original image.

When you choose **Canvas**, you can also reposition your image on the canvas by clicking the desired square in the canvas representation shown in the **Image Position** field.

Keep: Proportions

When turned on, any changes made to one dimension of an image will proportionately modify the other dimension. This prevents an image from becoming distorted.

Keep: File Size

When turned on, any changes made to the dimensions of an image will also modify its resolution, and vice-versa. This prevents an image from taking up additional memory.

NOTE: If you choose **Resize** and keep neither **Proportions** nor **File** Size, you can distort an image and change its file size by changing its dimensions and resolution.

Distortion



Figure 3.30

The **Distortion** options allow you to change the shape of a selection. Follow the steps below to distort the shapes of selections within images:

- **1.** Use the Rectangular Selection tool to define a selection.
- 2. Choose **Distortion** from the **Image** menu, then choose a distortion option.

3. Handles will show at the four corners of your selection. Drag the handles to create a distorted shape, then click inside the selection to apply the distortion. Click outside the selection to cancel the distortion effect.

Scale

The Scale option lets you modify the length or width of a selection.



Figure 3.31

If you hold down the Option key, you can scale your selection without changing its original proportions.



Figure 3.32

Skew

The **Skew** option lets you slant a selection vertically or horizontally. If you release the mouse button and drag another handle, it will move independently.



Figure 3.33

Perspective 3D

The Perspective 3D option distorts an image by giving it a three-dimensional effect. You will achieve different effects depending upon whether you choose to distort a floating selection (see the graphic on the left) or non-floating selection (see the graphic on the right).



Figure 3.34

Perspective 2D

The **Perspective 2D** option lets you create a perspective effect in two dimensions. When you drag on one handle, the other end of the line moves in the opposite direction.



Figure 3.35

Distort 3D

The **Distort 3D** option lets you distort a selection three-dimensionally by creating a vanishing effect at the close handles angle.



Figure 3.36

Distort 2D

The **Distort 2D** option lets you distort a selection in two dimensions by moving any handle in any direction.



Figure 3.37

NOTE: When distorting selections, make sure that none of the corners inside the surrounding polygon exceed 180 degrees as this will produce unpredictable results.

FILTER MENU





The Filter menu allows you to apply a wide range of special effects to your images.



Noise

This option applies random pixels to an image. You can enter a value between 1 and 999 in the **Add Noise** dialog.



Figure 3.40

Monochrome

Click the **Monochrome** option to apply filtering to the tonal elements in the image without changing the colors.

Unsharp Mask

The **Unsharp Mask** filter sharpens areas in the image where significant color changes occur, by adjusting the contrast of edge detail to increase an image's sharpness. This filter can be useful for sharpening an image that has become blurry from interpolation or scanning.

| Unsh | arp Masl | ¢ |
|------------|----------|--------|
| Strength: | 100 | % |
| Radius: | 2 | pixels |
| Threshold: | 8 | levels |
| Cance | DC | ОК |
| Cance | | OK |

Figure 3.41

Strength

Enter a **Strength** value from 1 to 500. The higher the percentage, the stronger the effect of the filter is.

Radius

Enter a **Radius** value from 1 to 250 to determine the number of pixels used for calculating the sharpness of each point. The **Radius** value should be adapted to image resolution. A radius of 1 on a 72 dpi image has an equivalent effect of a radius of 4 on a 288 dpi image.

Threshold

Threshold specifies the difference in brightness levels between adjacent pixels (from 0 to 255) before sharpening is applied to an edge. Lower values produce a more pronounced effect.



Figure 3.42

Custom Blur

The **Custom Blur** filter allows you to choose an exact blur strength. By entering a value for the **Radius**, you can determine the number of pixels that will be used for calculations. The larger the radius, the stronger the effect.

| Radius: | 5 |
|---------|----|
| Cancel | ОК |

Figure 3.43

Motion Blur

The **Motion Blur** filter produces a blurred effect similar to taking a picture of a moving object.

| Angle: 0 |]. |
|------------|--------|
| Length: 15 | pixels |
| Cancel | OK |

Figure 3.44

Angle

In degrees, the **Angle** determines the direction in which the object appears to be moving.

Length

Specified from 1 to 64, the Length determines the intensity of the blur.

Posterize



Figure 3.45

The **Posterize** filter lets you modify the number of grays or colors in an image. It's useful for creating special effects, such as in large, flat areas in a photograph, to make them look more like a painting.



Figure 3.46

Before applying the **Posterize** filter to an image, we recommend you to first convert the image to a limited number of grayscales (such as six.) Retouch the image, if necessary, then fill each gray level with a solid color (using the paint bucket, for example.)



Figure 3.47

Distortion 2D/Distortion 3D

These filters produce the same effects as the distortion tools described in the **Image** menu section. *See Distortion on page 3 - 30 for more details*. However, if you choose the **Distortion** options from the **Filters** menu, you can use the dialog below to enter precise horizontal (to the right for positive numbers) and vertical (down for positive numbers) displacements for each corner of a selection.

Figure 3.48

Shrink

The **Shrink** filter bends an image inwards or outwards with respect to one or more axes. You can enter positive (Shrink effect) or negative (Stretch effect) values in the **Shrink** dialog.

| Shrink |
|-----------------------|
| Vertical Effect: 50 |
| Horizontal Effect: 50 |
| Number of Waves: 1 |
| Cancel OK |
| |

Figure 3.49

Vertical Effect

Specifies the strength of the effect of shrink or stretch vertically.

Horizontal Effect

Specifies the strength of the effect of shrink or stretch horizontally.

Number of Waves

Corresponds to the number of axes used to shrink or stretch the image. For example, choosing one wave will shrink or stretch an image with respect to one axis situated at the middle of the image.

Spherize

The **Spherize** filter wraps an image around a spherical shape. It is useful for giving objects and text a three-dimensional effect.



Figure 3.50

Vertical Effect

Allows you to specify the vertical effect strength.

Horizontal Effect

Allows you to specify the horizontal effect strength.

Note that negative values undo the effects applied by previous use of the **Spherize** filter.

Figure 3.51

Dust and Scratches

This filter allows you to easily remove dust or scratches from an image. We recommend selecting the area where you want the filter to be applied rather than applying the filter to the entire image.



Figure 3.52

Scratch Thickness

Determines (from 1 to 16) the width of the scratches and dust that will be eliminated.

Threshold

Determines how different the value of pixels need to be (from 0 to 255) in order for the filtering to apply. Note that low values may alter uniform color areas in the image.

Noise

The **Noise** filter detects areas where significant color changes occur and blurs them without altering the edges. This has the effect of removing noise while preserving detail.



Figure 3.53

Radius

The radius (in pixels) determines the noise calculation area. Higher values produce stronger effects.

Using Third Party Filters

If you want to use filters in addition to those supplied with PhotoFix, you can choose a Plug-ins folder without quitting the application. Choose **Preferences** from the **PhotoFix** menu, then choose **Memory and Plug-ins Preferences** and use the **Plug-ins Folder** pop-up menu to choose a Plug-ins folder.

SELECTION MENU



Figure 3.54

Invert

Selects the complementary portion of an image.

Border

Lets you define a border for the active selection, which is useful for creating frames and painting outlines.

Grow

When the Magic Wand has been used to make a selection, this option increases its tolerance and therefore "grows" the size of the selection.

Similar

When the Magic Wand has been used to make a selection, this option selects all pixels in an image that have the same color or light characteristics as the selection. This is useful for modifying color or brightness.

Float

The **Float** option allows you to duplicate a selected portion of an image so you can retouch and move it without altering the original image. The **Defloat** option integrates the floating selection into the image.

Feather/Transparency

| 000 | 089 |
|------|--|
| | Border Feathering: Radius: 115 pixels |
| | Image Transparency: |
| | Opacity: 100 % |
| | Cancel OK |
| | |
| ÷2 🗸 | 72dpi ✔ 1.12 M // |

Figure 3.55

Border Feathering

Allows you to set the number of transition pixels that will be feathered around the edges of a selected image.

Image Transparency

Allows you to increase or decrease the opacity of a selected image.

Separate Mask

Creates either a bitmap or grayscale image of the active mask. If you haven't feathered the mask, or created it in grayscale mode, it will be bitmapped. If you have feathered the mask, it will be created in grayscale.

Load Mask

After separating (and possibly editing) a mask, this option allows you to load it and use it to edit an image.

Hide Edges

Hiding a selection's edges allows for precise retouching of its borders, and makes it easier to see modifications.

Select None

Deactivates all active selections.

Select All

Selects the entire image.

VIEW MENU

| View | |
|-------------|----------|
| Zoom In | ж+ |
| Zoom Out | ₩- |
| Show Color: | s %E |
| Hide Info | жı |
| Hide Tools | ЖТ |
| Show Tool S | Settings |

Figure 3.56

Zoom In

Enlarges the image to a factor of x16.

Zoom Out

Reduces the image to a factor of $\div 32$.

Show/Hide Colors

Shows or hides the Color palette.

Show/Hide Info

Shows or hides the Info palette.

Show/Hide Tools

Shows or hides the Tool palette.

Show/Hide Tool Settings

Shows or hides the Tool Settings palette. The settings used for the painting and editing tools appear in the Tool Settings palette. To show the Tool Settings palette, either choose the **Show Tool Settings** option from the **View** menu or double-click any tool.

WINDOW MENU



Figure 3.57

Adjust Window

Adjusts the window to fit the displayed image.

Next Window

Allows you to choose and view another image if you have more than one image file open.

HELP MENU

| Help | |
|--------------------------|--|
| Tool Info | |
| PhotoFix Manual | |
| Registration Information | |
| Upgrade Information | |
| | |

Figure 3.58

Tool Info

Shows any help available for the selected tool.

PhotoFix Manual

Choose **PhotoFix Manual** from the **Help** menu and a default system application for the PDF files will open the online manual. You can then navigate through and read the manual on screen, or print sections for your reference.

Registration Information

Choose **Registration Information** to register your product via the Microspot web page.

Upgrade Information

Choose **Upgrade Information** to obtain product upgrade information (if any) from the Microspot web page.

CHAPTER 4 - PALETTES

TOOL PALETTE



NOTE: For further information about any tool, choose **Tool Info** from the **Help** menu in the top right corner of your screen.



The Lasso tool allows you to create selections of any shape by dragging the pointer around the desired area. You can also make polygonal selections and selections with straight edges.

To draw a selection with straight edges:

- 1. Start drawing any shape using the Lasso tool.
- 2. Without releasing the mouse button, hold down the Option key.
- 3. Release the mouse button where you want to begin your straight selection.
- 4. When you move the pointer, you will notice that the additional selection is straight.
- 5. Click as many times as you need to create straight edges.

6. Release the Option key and the mouse button to finish the selection:



Figure 4.1

To select an entire image, double-click the Lasso icon. To add pixels to a selection, hold down the Shift key and continue to drag. To subtract pixels from a selection, hold down the Command key and drag around the area you want to eliminate.

To copy a selection, hold down the Option key and drag the selection to the desired area. To select only the overlapping area between two selections, drag the pointer to make a selection, hold down the Shift and Option keys, then drag the pointer again so it intersects your initial selection. To move the selection outline, hold down the Option and Command keys and drag the selection outline to the desired area.

Saving Selections

PhotoFix allows you to save defined selections within an image. To do so, you should save the image in PICT format using the alpha channel option.

Pen Tool

The Lasso can also behave like the Pen tool. To activate the Pen tool, double-click the Lasso tool and click the **Polygonal EPS mask** option when the **Settings** palette appears.

| 0 | 0 0 | Settings | |
|---|-------|----------------|--|
| ☑ | Polyg | gonal EPS mask | |

Figure 4.2

The pointer will become a Pen tool with which you can draw polygonal selections. To close a path, return to the starting point. When a small circle appears next to the Pen

icon, click. You can now use this path as an EPS mask. If you save the image in the EPS with mask format then import it into any EPS-compatible page layout program, only the contents of the mask will be shown, and printed on a PostScript printer.



When you choose the Magic Wand and click anywhere within an image, it automatically selects adjacent pixels of similar color, brightness or hue.



Figure 4.3

Use the Tolerance slide bar to adjust the Magic Wand's tolerance.

| Tolerance: | 10 % |
|-----------------------|------|
| · · · · | - 0 |
| Sensitivity to: 🔘 Lig | ght |
| 🖲 Ca | olor |
| 🔘 ни | Je |
| Smooth | |

Figure 4.4

When **Tolerance** is set at 0%, the Magic Wand will only select adjacent pixels with the exact same color or brightness. When **Tolerance** is set at 100%, it will select all adjacent pixels regardless of their color, brightness or hue.

The Magic Wand is very useful for editing and retouching images. By default, it will select adjacent pixels with the same color. If you want it to select adjacent pixels with the same brightness, click the **Light** radio button. To select adjacent pixels with the same hue, click the **Hue** radio button. To ensure a smooth selection outline, click the **Smooth** checkbox.

To add pixels to a selection, hold down the Shift key and click the desired area. To subtract pixels from a selection, hold down the Command key and click the area you want to eliminate. To copy a selection, hold down the Option key and drag the selection to the desired area. To select only the overlapping area between two selections, click the desired area, hold down the Shift and Option keys, then click an area that borders your initial selection. To move the selection outline, hold down the Option and Command keys and drag the selection outline to the desired area.

Rectangular Selection Tool

The Rectangular Selection tool allows you to make rectangular selections. Choose the tool, click the image, then drag over the desired area to make a rectangular selection.

To make selections with specific constraints, click the **Constraint** option and choose a size from the pop-up menu. (Note that the units shown are proportions, not specific units of measure.) You may also choose **Other** from the **Size** pop-up menu, then enter your dimensions in the **Settings** dialog that automatically appears.

| 000 | Settings |
|-----------|----------------|
| O No cons | traint |
| Constrai | nt |
| Size : | ✓ Clipboard |
| | Passport photo |
| Width: 1 | • Postcard |
| Height: 1 | 00 US Letter |
| | Other |

Figure 4.5

Using a constrained size allows you to configure the Rectangular Selection tool to select images or portions of images in predefined proportions. You can then paste your selections into new or existing documents while maintaining the same proportions.

To add pixels to a selection, hold down the Shift key and continue to drag. To subtract pixels from a selection, hold down the Command key and drag around the area you want to eliminate. To copy a selection, hold down the Option key and drag the selection to the desired area. To select only the overlapping area between two selections, drag the pointer to make a selection, hold down the Shift and Option keys, then drag the pointer again so it intersects your initial selection. To move the selection outline, hold down the Option and Command keys and drag the selection outline to the desired area.



The Crop tool lets you remove unwanted parts of an image. Choose the Crop tool, then drag an outline around the area you want to save. If you need to adjust your selection, simply move the corners of the selection area. When you have finished, click inside your selection to crop it (the tool will change to a pair of scissors).



The Oval Selection tool allows you to make oval-shaped selections. The tool works the same way as the Rectangular Selection tool, except that the selection will be oval or circular rather than rectangular or square.

To add pixels to a selection, hold down the Shift key and continue to drag. To subtract pixels from a selection, hold down the Command key and drag around the area you want to eliminate. To copy a selection, hold down the Option key and drag the selection to the desired area. To select only the overlapping area between two selections, drag the pointer to make a selection, hold down the Shift and Option keys, then drag the pointer again so it intersects your initial selection. To move the selection outline, hold down the Option and Command keys and drag the selection outline to the desired area.



Straighten/Rotate Tool

The Straighten/Rotate tool allows you to straighten or rotate an entire image, or selected portions of an image. When you click the Straighten/Rotate tool, two perpendicular crossbars, with a circle where the lines intersect, will appear in the center of your image.



Figure 4.6

To rotate an entire image, position the pointer on one of the crossbars and drag it to the desired angle. Release the mouse button and click the image. To rotate just a portion of an image, use a Selection tool to define an area, then follow the steps described above.

To straighten an entire image, click the Straighten/Rotate tool and position the pointer over the small circle where the crossbars intersect. Drag the circle to a reference point in the image, then position the pointer on one of the crossbars. Holding down the mouse, drag and rotate one of the crossbars until the horizontal line is at an angle that will be horizontal after the image is straightened.

Release the mouse button, hold down the Option key and click the image to straighten it. To straighten just a portion of an image, use a Selection tool to define an area, then follow the steps described above.



To set the line thickness of the Line, Oval and Rectangular Drawing tools, click the desired tool and enter your specifications in the **Settings** dialog that appears. For the Oval and Rectangular Drawing tools, you can also click the **Fill** checkbox to draw filled shapes.

| 0 (| 00 | Settir | ngs | |
|----------|-----|--------|-----|-----|
| Widt | h: | | | 1 |
| - | I | I | I | - 0 |
| Heig | ht: | | | 1 |
| — | I | 1 | I | - 0 |
| 🗐 F | ill | | | |
| - | | | | _ |

Figure 4.7



The Line tool allows you to draw straight lines simply by dragging the pointer. Holding down the Shift key allows you to draw a vertical or horizontal line, or line at 45°.



The Oval Drawing tool lets you draw empty or filled ovals by dragging the pointer. To draw a circle, hold down the Shift key while drawing.

Rectangular Drawing Tool

The Rectangular Drawing tool allows you to draw empty or filled rectangles by dragging the pointer. To draw a square, hold down the Shift key while drawing.



The Text tool lets you add text to your image. Click the Text tool to show the **Text Settings** dialog.



Figure 4.8

Choose a font, size, etc., then click the **Floating Selection** radio button if you would like to be able to move your text around before placing it permanently on the image. Click the **Mask** radio button to paint the text area, or to invert the selection and paint the background. Note that if you move the mask, it erases the area beneath it. Click the **Anti-aliasing** checkbox to soften the edges of very large text. When you have finished, click **OK** to return to the image and place your text.

Pencil

The Pencil tool is used for drawing dots, curves and lines. Use the **Tool Settings** dialog to adjust its diameter, then drag to apply the pencil. To draw straight horizontal or vertical lines, hold down the Shift key while drawing. If you have a graphic tablet, you can adjust the Pencil tool's opacity by varying the pressure on the pen.



The Paint Brush tool lets you paint with brushes of various shapes and widths. You can choose a shape and radius for the tool, as well as change the **Opacity** controls for bright and dark tones.

You can also modify the shape of the Paint Brush to create custom and special effect tools:

1. Use a selection tool to define a shape.

2. Choose the **Copy Pattern** option from the **Edit** menu to copy your selection. (Color patterns will be converted to grayscales. Black and white patterns will trace neatly since white is considered transparent.)

3. Choose the Paint Brush tool and click the **Change the Shape** option in the **Settings** palette.

| O O O Settings | | | | | |
|------------------------------|----------|----|----|------|--|
| | | ٠ | I | - | |
| 8 | 16 | 32 | 16 | 16 | |
| Brush 1 | Fool Siz | e: | | 8 | |
| \bigtriangledown | 1 | 1 | I | 70 | |
| Opacity: Dark Tones: 20 % | | | | | |
| | 2 | 1 | 1 | 70 | |
| Bright | Tones: | | | 50 % | |
| 1 | 1 | 7 | I | 70 | |
| Change the shape | | | | | |



4. The Brush Shape dialog will appear.





5. Click Load Pattern.
6. Click OK. The new brush shape will appear in the Settings palette.

| 00 | 0 S | etting | s | |
|------------------------------|----------|--------|----|------|
| Seftwares MatcKey | Х | 0 | Ŵ | Ś |
| 8 | 16 | 32 | 64 | 128 |
| Brush | Tool Siz | e: | | 8 |
| \bigtriangledown | 1 | I. | 1 | - 0 |
| Opacity: Dark Tones: 20 % | | | | |
| - (| 2 | I | 1 | - 0 |
| Bright | Tones: | | | 50 % |
| 1 | 1 | 7 | 1 | - 0 |
| Change the shape | | | | |

Figure 4.11

Use the **Reset Shape** option to return tools to their original settings. Note that the maximum diameter of any tool is 256 pixels.

Pressure Sensitivity

If you have a graphic tablet, you can adjust the Paint tool's opacity by varying the pressure on the pen. Increase the pressure to apply more opaque paint. Decrease the pressure to apply more transparent paint.



When you choose the Paint Bucket tool and click an image or a selection within an image, the current foreground color will be spread over adjacent pixels with similar colors. You can set the Paint Bucket tool's **Tolerance** from 0% to 100%. At 0%, paint will be spread only on adjacent pixels with exactly the same color. At 100%, paint will be spread on all adjacent pixels, regardless of their color.



The Eraser tool allows you to remove undesired parts of an image and replace them with the background color. You can also double-click the Eraser tool icon to erase an entire image, or the contents of a selection.



The Airbrush tool is used to spray a fine-grained paint on your image. Use the **Diameter** controller to set the Airbrush width, then choose a paint flow setting:

- **Natural Flow**. Sprays paint as you press the mouse button. The faster the mouse is moved, the lighter the paint flow.
- **Regular Flow**. Sprays paint of an equal thickness on all areas, regardless of the speed of the mouse.



Figure 4.12

The **Flow** controller allows you to adjust the flow speed, which is measured on a scale from 1 to 10. You can use the **Pressure** controller for either the **Regular** or **Natural Flow** setting to control the strength of the paint flow. When you have finished configuring the tool, click the image to begin painting.



The Clone tool allows you to precisely duplicate portions of an image. Begin by choosing a reference point (the section you want to duplicate or clone from). Hold down the Option key (a small, white arrow will appear at the bottom of the tool) and click the Clone tool.

Move the Clone tool to the area where you want to begin cloning. Drag the tool to replicate the pixels around your reference point. The pixels you replicate depend on the direction you move the pointer. Keep an eye on the crosshairs near your reference point as they will be your guide.

Use the **Tool Size** controller to set the size of the area to be reproduced, and the **Opacity** controller to adjust the opacity of the area to be reproduced.



Figure 4.13

Clone Align

Click the **Clone Align** checkbox to allow for continuous cloning of an image, no matter how often you start and stop. Turning the **Clone Align** option off means that whenever you start cloning, it will always begin from your initial reference point.

Blur and Sharpen Tools

Use the Blur tool to blur an image, or the Sharpen tool to increase the detail of an image. The **Tool Size** controller allows you to adjust the radius of each tool, while the **Pressure** slide bar lets you adjust the tools' effects.



Figure 4.14

When you have finished configuring the selected tool, click **OK** to return to your image. Choose either the Blur or Sharpen tool and drag the tool over the portion of the image you want to modify.



Use the Dodge tool to lighten areas of your image, and the Burn tool to darken your image. Use the **Tool Size** controller to adjust the Dodge and Burn tools' diameters, and the **Exposure** controller to adjust their respective effects.



Figure 4.15

After configuring, drag the desired tool over the portions of the image you want to modify.



The Gradient tool allows you to apply graduated colors to selected areas and masks. Before using the Gradient tool, you should go to the color palette and choose the foreground and background colors you want to blend. (For a preview of the gradient produced by the colors you choose, look at the top right corner of the color palette.)

Using the Gradient tool, drag in the selected area to apply the gradient. The foreground color will begin where you initially click. The background color will be applied where you release the mouse button.



Color Sampler Tool

The Color Sampler lets you pick up colors from within your image and apply them to other areas. Click the Color Sampler, then click anywhere in your image. The color you have picked up will be shown as the foreground color in the color palette. You can then choose a painting or drawing tool to apply this color to your image.

The Color Sampler tool can also be used to sample colors from the **Color Storage Area**, the **Gradient Preview** and the **Four Color Gradient Sampler** found in the color palette.

NOTE: You can turn any painting or drawing tool into a *Color Sampler* by holding down the Option key.



The Zoom tool lets you enlarge (zoom in) or reduce (zoom out) your view of an image. Alternatively you can choose these options from the **View** menu, use the pop-up menu in the bottom left corner of the window, or use the key sequences Command + to zoom in, and Command - to zoom out.



The Hand tool allows you to move an image in any direction so you can view an area that is outside of the window.

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INFO PALETTE



Figure 4.16

Image Modes

PhotoFix offers four image modes:

- Bitmap. Black and white images.
- Grayscale. 8 Bit images that contain up to 256 shades of gray.
- Indexed. 8 Bit images that contain up to 256 colors.
- RGB. 24 Bit images that contain up to 16.7 million colors.

Converting Image Modes

If you don't have a printer that prints millions of colors, you may want to convert RGB images to the Indexed mode in order to save disk space. To do so, choose **Mode** from the **Image** menu. Then, choose the **Indexed** option to show the following dialog.

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Figure 4.17

Color Combinations

- 8 Bits (256 colors) offers the highest quality conversion from RGB to Indexed color.
- 4 Bits (16 colors) further reduces the size of the image, as well as its quality.
- 2 Bits (4 colors) offers the greatest reduction in both size and quality.

Other

Choose the **Other** option to open a saved custom color palette (described in the next section).

Creating Custom Color Palettes

When you have finished selecting your color combination, click **OK**. If the **Colors** palette is not already shown, choose it from the **View** menu.

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| [load] [Sour | |
| Load Save | |

Figure 4.18

When you click a color in the **Indexed Color Palette**, it will appear in the **Foreground Color Indicator**. To create a customized color, double-click the **Foreground Color Indicator** to show the **Color Picker**.



Figure 4.19

Click the **Color Wheel** to select a different color, and/or use the slider control to change the shade of your color. Click **OK** when you have finished. When you return to the **Indexed Color Palette**, you will see that the color you originally selected has been replaced by your customized color.

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Figure 4.20

Follow the same steps to add additional custom colors. When you have finished, click the **Save** button to show the following dialog.

| | Save Color Table |
|---|----------------------------|
| Save As: | Color table |
| Where: | New color palettes |
| New color pal PhotoFix PhotoFix Man Tutorial Image | ettes ual.pdf es |
| - Ne | ew Folder Add to Favorites |

Figure 4.21

Choose a name and location for your custom color palette. Whenever you want to use any of the custom color palettes you have saved, you can either choose the **Other** option from the Indexed **Colors** dialog (See Figure 4.17 on page 4 - 18.), or click the **Load** button in the **Indexed Color Palette** (See Figure 4.24 on page 4 - 23.)

COLOR PALETTES

PhotoFix offers a different color palette for each image mode.

Bitmap Palette



Grayscale Palette



Figure 4.23

Indexed Color Palette



Figure 4.24

RGB Color Palette





NOTE: If the bottom portion of the RGB color palette is not visible, click the small triangle next to the Color Controls to extend the Palette.

The RGB color palette allows you to choose colors, preview the effects of gradients and choose intermediate colors from the blending of up to four colors. To change the foreground color, make sure that the **Brightness Adjuster** slider is not set to minimum or maximum position and drag the small circle in the middle of the **Color Picker**. To change a color's shade, drag the **Brightness Adjuster** from left to right (this can be done for the **Background Color Indicator**, as well).

When you move the pointer to the **Color Storage Area**, it becomes a Color Sampler tool. Click any color in the **Color Storage Area** and it will become either the foreground or background color, depending upon which one is currently selected.

The **Gradient Preview** shows the gradient between the foreground and background colors, whereas the **Four Color Gradient Sampler** allows you to mix colors. To do so, click a color in the **Color Storage Area**, then move the pointer (which changes from a Color Sampler tool to a Paint Bucket) to one of the four squares in the

Microspot PhotoFix

Gradient Sampler and click again. Repeat this procedure until each square contains a different color.

Storing New Colors

You can also store new colors in the **Color Storage Area**. Choose the Color Sampler tool, then click the desired color. Move the tool over the desired square in the **Color Storage Area**, hold down the Option key and click to replace the existing color.



Figure 4.26

VIEW SCALE AND RESOLUTION

Click in the bottom left corner of the window to show a pop-up menu which lets you increase or decrease your view of an image.



Figure 4.27

Click in the bottom right corner of the window to modify an image's resolution. Note that you can also change resolution by choosing the **Resize** option from the **Image** menu.

CHAPTER 5 - DRAG AND DROP

PhotoFix implements Drag and Drop which allows graphics to be moved or copied with remarkable ease. Drag and Drop can be used within PhotoFix, between PhotoFix and PhotoXtra or iPhoto, or between PhotoFix and other applications that support Drag and Drop.

For example:

- A selection can be dragged from one area of the current PhotoFix document to another area of the same document, or to a second PhotoFix document.
- A selection can be dragged out of a PhotoFix document to a PhotoXtra album to be stored.
- An image can be dragged out of a PhotoXtra iPhoto album to a PhotoFix document. Album items in PhotoFix, PICT or any other graphics file format (if these can be converted into PICT via QuickTime®), can be dragged directly to PhotoFix.
- A drawing can be dragged out of MacDraft® (Microspot's 2D drawing and drafting application) and into a PhotoFix document to be enhanced.
- A selection can be dragged out of a PhotoFix document to the desktop to create a picture clipping.

Note: Although many of the above examples refer to Microspot[™] products, Drag and Drop can also be used between PhotoFix and many other applications that support Drag and Drop, such as the Finder, AppleWorks[™] etc.

To drag a selection from one PhotoFix document to another:

1. Make your selection in the document and, with the marquee tool still selected, click the selection.

2. Hold down the mouse button and drag the cursor over the destination document window. A transparent copy of the selected area appears.



3. Release the mouse button to place a copy of the selection in the new document.



4. The real size of the selection is preserved, regardless of the resolution of the destination document.

A selection can be dragged from one PhotoFix document to a selection in another:

1. Select an area in the destination document.

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2. Make your selection in the originating document and, with the marquee tool still selected, click the selection.

3. Hold down the mouse button and drag the cursor over the destination document window. A transparent copy of the selected area appears.



4. Release the mouse button when the cursor is over the selected area in the destination document to place a copy of the selection into the destination selection. The selection is scaled and/or distorted to fill the destination selection.



The selection in the destination document can be made up of several unconnected areas:

1. Select an area in the destination document and add further areas to the selection by holding down the Shift key and making additional selections.

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2. Make your selection in the originating document and, with the marquee tool still selected, click the selection.

3. Hold down the mouse button and drag the cursor over the destination document window. A transparent copy of the selected area appears.



4. Release the mouse button when the cursor is over one of the selected areas in the destination document to drop a copy of the selection into the destination selection.

5. The selection is scaled and/or distorted to fill a bounding rectangle that would encompass all the selected areas in the destination document, and the destination selection is used to clip the image.



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