

## **PhotoStudio Help Index**

This page lists PhotoStudio on-line help topics.  
For information on using Windows Help systems in general, press F1.

[Keyboard](#)

[Menu Commands](#)

[Procedures](#)

[Tools and Palettes](#)

## Keyboard

**Menu Command Keys:** You can use the keyboard to access some of the most used PhotoStudio menu commands.

Key(s)	Command
Ctrl+O	Open
Ctrl+F4	Close
Ctrl+S	Save
Ctrl+P	Print
Ctrl+Q	Exit
Ctrl+Z	Undo(Redo)
Ctrl+X	Cut
Ctrl+C	Copy
Ctrl+V	Paste
Del	Clear
Ctrl+F	Fill
Ctrl+A	All
Ctrl+I	Invert
Ctrl+N	None
F2	Resample
F3	Brightness and Contrast
F4	Hue and Saturation
F5	Tone Adjustment
Ctrl+R	Show/Hide Rulers
Ctrl+W	Full Screen
Ctrl+T	Show/Hide Tools
Ctrl+L	Show/Hide Color Palette
Ctrl+B	Show/Hide Brush Palette
F1	Index

### Escape Key:

Key	Function
Esc	Cancels time consuming operations; Interrupts Slide Show; and restores Full Screen mode to previous window.

### Help Key:

Key	Function
F1	Displays the help screen of a menu item if the mouse is focused on the item; displays the help screen of a dialog box if the box is open; otherwise,

displays the PhotoStudio help index.

**Scrolling Keys:** You can use these keys to scroll an image window when its scroll bar appears.

<b>Key(s)</b>	<b>Function</b>
Up Arrow	Scrolls image up
Down Arrow	Scrolls image down
Left Arrow	Scrolls image left
Right Arrow	Scrolls image right
Page Up	Scrolls image up one page
Page Down	Scrolls image down one page
Ctrl+Page Up	Scrolls image left one page
Ctrl+Page Down	Scrolls image right one page

### Other Shortcuts:

**Keyboard and Mouse Action:** Shift + Left Button Down

<b>Situation</b>	<b>Function</b>
Selecting tool in use	Combines the existing mask with the current selection when dragging the mouse
Slide Show active	Reduces the current slide view
Full Screen active	Reduces the current image view
Zoom tool selected	Reduces the current image view
Clone tool selected	Selects the Clone source
Text tool selected	Selects the <u>active color</u>
Stamp tool selected	Selects the active color
Gradient Fill tool selected	Selects the active color
Bucket Fill tool selected	Selects the active color
Airbrush tool selected	Selects the active color
Paintbrush tool selected	Selects the active color
Pen tool selected	Selects the active color

**Keyboard and Mouse Action:** Ctrl + Left Button Down

<b>Situation</b>	<b>Function</b>
Pointer in the selected area	Ready to move the selected area as using the Area Move Tool

**Keys:** Ctrl + Arrow

<b>Situation</b>	<b>Function</b>
Pointer on active image	Moves the selected area one pixel up, down, left, or right when pressing the arrow key once.

**Keys:** Ctrl + "+" key in the number pad

<b>Situation</b>	<b>Function</b>
Pointer on active image	Zooms in the <u>active image</u> one step

**Keys:** Ctrl + "-" key in the number pad

<b>Situation</b>	<b>Function</b>
Pointer on active image	Zooms out the active image one step

## Menu Commands

This page lists PhotoStudio main frame menu. Click on a menu for information about the command.

[File Menu](#)

[Edit Menu](#)

[Mask Menu](#)

[Transform Menu](#)

[Enhance Menu](#)

[Effects Menu](#)

[Convert Menu](#)

[View Menu](#)

[Windows Menu](#)

## **Procedures**

Importing Images

Converting Image Data Types

Displaying and Viewing Images

Selecting and Masking Images

Editing Selections

Applying Transformations

Making Color Corrections

Applying Special Effects

Composing Images

Working With Colors

Adding Text

Using the Painting Tools

Printing Images

## **Tools and Palettes**

You can open three floating palettes by using the commands in the View menu - the Tools Palette, the Color Palette, and the Brush Palette. You can drag a palette in its title bar to the desired location, and you can also hide it by double clicking on its title bar.

The Tools Palette contains twenty four tools and two color swatches for image editing. The Color Palette contains a variety of predefined colors for quick color selecting. And the Brush Palette is used to define the size and shape of the editing tools.

Select one from the list below for more information about the palette.

[The Tools Palette](#)

[The Color Palette](#)

[The Brush Palette](#)

## The Tools Palette

The Tools Palette contains tools for selecting, viewing, drawing, painting, retouching, and editing images. It also provides choices of the active color and alternative color.

To find out what a tool does, place the mouse cursor on the icon, and a brief description of the tool will appear in the main window's status line. To select a tool, click on its icon. To access tool options, double-click on the icon.

Click below on the name of a tool to get more information about it.

### Selecting and Moving Tools:



[Rectangle Select Tool](#)



[Ellipse Select Tool](#)



[Freehand Select Tool](#)



[Magic Wand Select Tool](#)



[Mask Move Tool](#)



[Area Move Tool](#)

### Drawing, Painting and Retouching Tools:



[Text Tool](#)



[Stamp Tool](#)



[Gradient Fill Tool](#)



[Bucket Fill Tool](#)



[Airbrush Tool](#)



[Paintbrush Tool](#)



[Smudge Tool](#)



[Pen Tool](#)



[Brighten/Darken Tool](#)



[Smooth/Sharpen Tool](#)



[Clone Tool](#)



[Revert Tool](#)

### Other Tools:



[Zoom Tool](#)



[Grabber Tool](#)



[Transform Tool](#)



[Crop Tool](#)

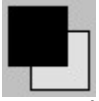


[Eyedropper Tool](#)



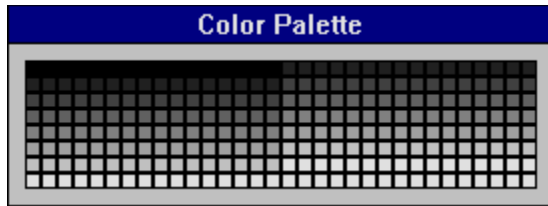


Trash Can Tool



Color Swatches

## The Color Palette



The Color Palette shows a good sample of the colors you can choose in PhotoStudio. To call it up, choose Show Color Palette from the View menu.

As you move the mouse cursor to the palette, the mouse pointer changes to the Eyedropper Tool's pointer, and the status bar will display the RGB (or HSV) color values of the color that's under the pointer. When you find a color you like, simply click on it to make it the active color.

The colors in the palette change by the type of image you are working on. If it is a 24-bit RGB True Color image, the palette will show a sampling of the millions of colors you can use. If it is grayscale, it will show all 256 gray levels; if it is 16- or 256-color indexed, it will show all colors in the image's color lookup table; and if it is 1-bit black & white, the palette will display both black and white.

You can move the palette by clicking on its blue title bar and dragging it to the place you want. To dismiss the palette, either double-click on its title bar or choose Hide Color Palette from the View menu. If the palette is displayed when you quit PhotoStudio, it will reappear at the same location when you start the program again.

### **Related topics:**

[Color Swatches](#)

[Eyedropper Tool](#)

## The Brush Palette

The Brush Palette controls the shape, size and the speed of the brush, which is used in PhotoStudio's painting and retouching tools. To activate it, choose Show Brush Palette from the View menu.

The Size setting changes the brush size, which is measured in pixels. The Speed setting alters the rate of drawing when you move the mouse. When the brush speed is high, and you drag the mouse quickly with the Paintbrush Tool, you can generate a solid line. When the speed is low, and you drag the mouse quickly with the Paintbrush tool, you will generate a line with gaps in it.

You can type in a value for Size and Speed, or use the up and down buttons. The top six buttons allow you to pick various brush shapes that have variable sizes. The large button at the bottom is the user editable brush. If you double click on this button, the User Defined Brush dialog box appears for editing brush shape.

The User-Defined Brush dialog box shows you a grid which corresponds to the shape of the brush you are defining. Black squares on the grid are active, and will affect the image when the brush is used. White squares are not active. Click on a square to change its status; click and drag in the grid to change many squares.

You can change the size of your brush by changing the grid size. The largest size is 32 pixels by 32 pixels. ( Although the size of the grid in the dialog box does not actually change, the density of the square changes. Since each square is equivalent to a pixel, more square means that the brush will affect a larger area.)

You can also save brush shapes and load them back later when you want to use them. Brush shapes are saved with a ".bsh" filename extension.

PhotoStudio remembers the brush shape and size settings when you quit and restores them, or when you run the program again.

You can move the palette by clicking on its blue title bar and dragging to where you want. To dismiss the palette, either double-click on its title bar or choose Hide Brush Palette from the View menu. If the palette is displayed when you quit PhotoStudio, it will reappear at that same location when you start the program again.

### **Related topics:**

[The Tools Palette](#)





## File Menu

The File menu contains commands for manipulating and managing image files. Select from the list below for more information about the command.

New...

Open...

Restore

Close

Save

Save As...

Open Album...

Add To Album...

Slide Show...

Import

Export

Capture...

Acquire

Print

Send...

Exit

Filename List

## Edit Menu

The Edit menu contains commands for editing images or selected areas. Select from the list below for more information about the command.

Undo/Redo

Cut

Copy

Paste

Clear

Clipboard...

Fill Color...

Fill Pattern...

Blend...

Add Shadow...

Add Frame...

Discard Floating

Swap Area

Crop

Duplicate

Stitch...

## Mask Menu

The Mask menu contains commands for selecting areas and manipulating existing masks. Select from the list below for more information about the command.

All

Invert

None

Border...

Expand...

Smooth...

Import...

Export

Operation...

Hide Mask



## Transform Menu

The Transform menu contains commands for changing size, resolution, orientation, and shape of images or areas. Select from the list below for more information about the command.

Resample...

Flip Horizontally

Flip Vertically

Mirror...

Repeat

Shift...

Rotate...

Resize...

Arbitrary Distort...

## Enhance Menu

The Enhance menu contains advanced image processing including color correction and quality enhancement. Select from a topic in the list below for more information about the commands in the Enhance menu.

[Brightness and Contrast...](#)

[Hue and Saturation...](#)

[Tone Adjustment...](#)

[Color/Gray Mapping...](#)

[Color Table Adjustment...](#)

[Color Reduction...](#)

[Equalization](#)

[Negative](#)

[Threshold...](#)

[Smooth Filters](#)

[Sharpen Filters](#)

[Special Filters](#)

[User's Filters...](#)

## Effects Menu

The Effects Menu contains commands for transforming images in interesting, novel, and unusual ways. The best way to understand these commands is to experiment with them. Select from the list below for more information about the command.

[Composite...](#)

[Area Merge...](#)

[Fine Art](#)

[Liquid Effects](#)

[Tiling](#)

[Emboss...](#)

[Motion Blur...](#)

[Fisheye...](#)

[Cone...](#)

[Sphere](#)

[Whirlpool...](#)

[Spiral...](#)

[Cylinder](#)

[Ribbon...](#)

[Magic Mirror...](#)

[Plug-In Filters](#)

## Convert Menu

The Convert menu contains commands to change the data type of an image between black-and-white, grayscale, index 16 or 256 color, and RGB colors. It also allow you to split the various channels that make up an image into separate Grayscale image documents, and combine different channels to form a single RGB True color image. Select from the list below for more information about the command.

To 1-bit Black-White

To 8-bit GrayScale

To 4-bit Index 16 Color

To 8-bit Index 256 Color

To 24 bit RGB True Color

Separate To

Combined By

Separation Setup

## View Menu

The View menu contains commands managing the PhotoStudio work space and image display, and show information about the active image. Select from the list below for more information about the command.

Actual View

Zoom In

Zoom Out

Fit In Window

Full Screen

Rulers

Image Information...

Show/Hide Tools

Show/Hide Color Palette

Show/Hide Brush Palette

Monitor Gamma...

## Windows Menu

The Windows menu contains commands for managing the image windows in the PhotoStudio. Select from the list below for more information about the command.

[New Window](#)

[Tile](#)

[Cascade](#)

[Arrange Icons](#)

[Close All](#)

[Image Window List](#)









## **File: New...**

This command creates an untitled image file.

### **Options in the New dialog box:**

Data Format You can choose the data type for your new image: either RGB 24 Bit True Color or 8 Bit Grayscale.

Unit Choose Pixel, Inch, or Cm ( Centimeter ) as the unit of measurement.

Width Input the width of the new image.

Height Input the height of the new image.

Resolution Input the resolution of the new image.

### **To Create a new image:**

1. Choose New from the File menu. The New dialog box appears.
2. Set the image data type and unit, and then input width, height, and resolution values.
3. Click OK to make an image file in the active color appear.

### **Related topics:**

[Opening Images](#)

[Scanning Images](#)

## File: Open...

This command opens an existing image file.

You can open multiple image files or have many views of an image file displayed on the screen at the same time.

### Options in the Open dialog box:

Drives	Lists all drives available for selecting images.
Directories	Lists all directories available for selecting images. The current directory is displayed initially.
List Files of Type	Lists all extensions of file formats that PhotoStudio can open: <u>BMP</u> , <u>JPEG</u> , <u>PCD</u> , <u>PCX</u> , <u>TGA</u> , and <u>TIFF</u> .
Files	Lists all files with specified extension. Highlight one to choose the file you want to open.
File Name	Displays the filename of the file you selected. You can also type in a filename.

### To open a file:

1. Choose Open from the File menu. The Open dialog box appears.
2. Set the image file format, choose the drive, directory, and choose the image filename.
2. Click OK to open the file. If the file you selected is in PCD format, a dialog box appears for PCD options. Choose one from the Data Type and Resolution list boxes, and click OK to open the PCD image.

### Related topics:

[Creating New Images](#)

[Saving Images](#)

[Scanning Images](#)

## **File: Restore**

This command cancels all unsaved changes to the active image .

### **To Restore a file:**

Choose Restore from the File menu. Click on Yes. The last saved image will then replace the active image.

### **Note:**

The Restore command is not available if your file is newly created or has not been modified.

### **Related topics:**

[Revert Tool](#)

## **File: Close**

This command closes the active image. If there are any unsaved changes to the image or the image is new, PhotoStudio prompts you to save.

### **To close the active image:**

Choose Close from the File menu. (You can also double-click the control menu button, located in the upper left corner of the active image window.)

### **Related topics:**

[Close All Images](#)

[Exit PhotoStudio](#)

## **File: Save**

This command saves the active image to disk in its current file format. If the image is new , PhotoStudio displays the Save As dialog box so that you can specify the drive, directory, file type, and filename for saving.

### **To use Save command:**

Choose Save from the File menu.

### **Related topics:**

[Save As Command](#)

## **File: Save As...**

This command saves the active image with a new filename, file format, and path.

### **Options in the Save As dialog box:**

Drives	Lists all drives available for saving images.
Directories	Lists all directories available for saving images. The current directory is displayed initially.
Save File as Type	Lists available extensions of all file formats supported by PhotoStudio for saving: <u>BMP</u> , <u>JPEG</u> , <u>PCX</u> , <u>TGA</u> , and <u>TIFF</u> , etc.
Files	Lists all existing files with specified extension.
File Name	Allows you to type in a filename.

### **To use the Save As command:**

1. Choose Save As from the File menu. The Save As dialog box appears.
2. Choose a file format from the Save File as Type drop-down list. If you choose JPG, a scroll bar appears for specifying compression quality. Higher quality allows less compression.
3. Choose a path for the file and type a filename up to 8 characters; then click OK to save.

### **Related topics:**

[Save Command](#)

## **File: Open Album...**

This command organizes related image files in groups called "albums." Albums also store description, image information, and display thumbnails.

You can create different albums for each set of image files you work with. For example, if you are working on architectural images for one project and marine images for another, you can create an album for each set of images. By viewing the album's thumbnails, you can quickly select and open the images that are most appropriate for your current task.

### **To Use the Open Album command:**

Choose Open Album from the File menu. The Open Album window appears. The window displays thumbnails of the first images in the current album, along with the image filenames. If there are more images, you can scroll down to see them.

### **To open one of the images:**

Double-click on the thumbnail.

### **To select a thumbnail:**

Click on the thumbnail. The filename changes from white to blue. When a thumbnail is selected, the following data is displayed in the information area at the bottom of the Open Album window:

The date when the image file was last changed.

The image's file size.

The image's width and height, in pixels.

To enter or edit a description, just type in the Description text box.

### **To add an image to the album:**

Click the Add button at the top of the Open Album window. The Add to Album dialog box appears. Select the image or images you want to add.

### **To remove an image from the album:**

Select the image and press the Delete (Del) key or button. PhotoStudio asks you to confirm the deletion. Removing an image from an album does not delete the image file.

### **To change the order of the thumbnails in your album:**

Drag the thumbnail you want to move to the desired location. When you release the mouse button, the thumbnails are rearranged. You can also click the Sort button to change the order of your images.

### **To save an album:**

Click the Save button. If the album is new, a dialog box appears for the album's file name.

### **To close the Open Album:**

Click the Exit button. Exiting closes the Album window but does not close any images you may have opened.

### **To switch albums or create a new album:**

Click the down-arrow button at the top of the window to display a list of other albums you



have on your computer. Choose another album from the list. If you choose New Album, a blank album appears for adding images.

**Note:**

Album information is stored in individual files (with the .ABM extension) in the sub-directory of the PhotoStudio program directory.

**Related topics:**

[Add To Album Command](#)

## **File: Add To Album...**

This command adds the active image to an album without going through the Open Album command. When you choose Add To Album, a dialog box appears. Enter the name of the album and click OK. The active image is included in the specified album. If the active image is untitled, the Save As dialog box appears first, allowing you to name and save the file before adding it to an album.

### **Related topics:**

[Open Album Command](#)

## **File: Slide Show...**

This command displays a series of images in the center of screen.

### **Options in the Slide Show dialog box:**

Album	Lists all albums available for selecting images.
Transition Effect	Check the box to turn on random transition effects between images.
Auto Loops	Check the box to repeat the slide show indefinitely.
Slide Show Seconds	Sets the time delay between images.

### **To use the Slide Show command:**

1. Choose Slide Show from the File menu or click the Slide Show button. The Slide Show dialog box appears.
2. Choose an album from the drop-down menu.
3. Check or uncheck the box of Transition Effect and Auto Loops.
4. Set the time delay between images.
5. Click OK to start the slide show.
6. Press Esc to exit the slide show.

### **Note:**

You can press Enter to interrupt the current image display and go to next image immediately.

### **Related topics:**

[Full Screen Command](#)

## **File: Import**

This submenu lists all PhotoShop Plug-In "filters" for acquiring images (with file extension of \*.8ba) from a device or a file to PhotoStudio. PhotoStudio will look for all the \*.8ba files in its PLUGINS subdirectory, or the directories shown in the entry of the PluginDir1, PluginDir2, and 3 etc. in the PSTUDIO.INI file that is located in the Windows directory.

### **Related topics:**

[Export Command](#)

[Plug-In Filters Submenu](#)

## **File: Export**

This submenu lists all PhotoShop Plug-In "filters" for exporting images (with file extension of \*.8be) from PhotoStudio to a specific device or file format. PhotoStudio will look for all the \*.8be files in its PLUGINS subdirectory, or the directories shown in the entry of the PluginDir1, PluginDir2, and 3 etc. in the PSTUDIO.INI file that is located in the Windows directory.

### **Related topics:**

[Import Command](#)

[Plug-In Filters Submenu](#)

## **File: Capture...**

This command allows you to capture graphics, images or text displayed in other Windows' applications. You can capture the entire PhotoStudio desktop or windows images alone.

### **Options in the Capture dialog box:**

Target Specifies the object you want to capture. Select either Window, Client, or Desktop.

Hide PhotoStudio Window... Specifies whether to capture the contents contained in PhotoStudio or in other applications. If you want to capture a window not included in PhotoStudio, check the box.

### **To capture a window outside of PhotoStudio:**

1. Launch the application window that you want to capture.
2. Close or minimize other application windows overlapped with the target window.
3. Choose Capture from the File menu; the Capture dialog box appears.
4. Make sure the check-box for Hide PhotoStudio Window on Capture is checked.
5. Choose "Window" button in the Target group.
6. Click OK to activate Capture; the Capture cursor appears.
7. Move the cursor to the window you want to capture, and click.
8. The window along with its contents is captured and displayed in the PhotoStudio screen as an image file.

### **Note:**

1. The quality of the captured image is device dependent. Use a proper Windows display driver for the best capture result.
2. If "Desktop" button in the Target group is selected, the whole desktop will be automatically captured without further action after clicking on OK.

### **Tips:**

Use Alt+Tab to switch between all applications.

## **File: Acquire**

The Acquire submenu contains 3 commands: Acquire, Select Source, and Scanner Calibration. These commands are used to work with scanners or other electronic input devices.

Scanners are hardware devices which convert photos, slides, transparencies, illustrations, texts and other type of images into digital data that can be read by computers.

PhotoStudio supports the TWAIN industry standard. Before using a scanner, you should use the Select Source command to select the scanner driver. If the scanner driver is not found, install your scanner following the manufacturer's instructions. A previously installed TWAIN type scanner is usually located in the Windows sub-directory "TWAIN".

The Scanner Calibration is used to correct the nonlinear response of the brightness value caused during the scanning procedure. By pre-adjusting the highlights, midtones, and shadows of the scanned images, you can save a lot of time of repeated work.

To use the Acquire, Select Source, and Scanner Calibration commands, refer to the following topics.

[Acquire command](#)

[Select Source command](#)

[Scanner Calibration command](#)

## **Acquire: Acquire...**

This command allows you to scan images. When you choose Acquire, a TWAIN interface dialog box appears with options that apply to your scanner. If you have more than one scanner or TWAIN device, use the Select Source command to select the one you want to use. If this command is grayed, use the Select Source command.

### **To Scan an image:**

1. Choose Acquire from the File menu.
2. Choose the Acquire command in the Acquire submenu. A dialog box for scanning appears. The control options in this dialog box depend on the scanner to be used. Generally, you need to select an area and adjust the resolution. Refer to your scanner documentation for more information.

### **Related topics:**

[Select Source command](#)

[Scanner Calibration command](#)

[Creating New Images](#)

[Opening Images](#)

[Capturing Images](#)

[Stitch Images](#)



## **Acquire: Select Source...**

This command chooses a TWAIN scanning driver for your current scanner. You need to use this command when you install a new scanner or you want to change to another driver.

### **To use this command:**

1. Choose Acquire in the File menu. A submenu appears.
2. Choose Select Source command in the submenu; The Select Source dialog box appears.
3. Choose the scanner driver you want, and click the Select button. If the driver is not available, You may need to install the scanner driver and repeat the above procedures.

As soon as you have selected the target scanner, you are ready to scan.

### **Related topics:**

[Acquire command](#)

[Scanner Calibration command](#)

## Acquire: Scanner Calibration...

This command allows you to create the scanner calibration curves for later scanning. In stead of adjusting a general mapping curve, PhotoStudio provides a simpler and more efficient way to adjust the curve.

Choose Scanner Calibration command from the Acquire submenu, a dialog box appears.

### Options in the Scanner Calibration dialog box:

Enable Scanner Calibration	If you check this box, the images scanned later will be calibrated according to the current calibration curves. Otherwise, there will be no calibration. This option is very helpful when you do not want to use the scanner calibration but want to keep the current calibration setting unchanged.
Channel	Adjusts the channels for calibration. Gray channel is for gray mode scanning. Other channels are for color mode scanning. If you wish to adjust an individual channel, select R, G, or B. The RGB channel will affect all three color components.
Highlight	Adjusts the size of the <u>highlight</u> areas of the image. This bar has a range from -100% to 100%. Moving the bar to the left will make the image darker. Moving it to the right will expand the highlight areas, as well as increasing the contrast in the midtone area.
Midtone	Adjusts the gamma value of the image's <u>midtone</u> areas. This bar has a range from -100%(very dark) to 100%(very light). Moving this scroll bar darkens or lightens the image without affecting the highlights or shadows.
Shadow	Adjusts the size of the <u>shadow</u> areas of the image. This bar has a range from -100% to 100%. Moving the bar to the left will darken the image, as well as increasing the contrast in the midtone area. Moving it to the right will have the opposite effect.
Reset	Sets the current calibration curve to the "No Change" curve for the selected channel.

### To use scanner calibration:

1. Choose Acquire in the File menu. A submenu appears.
2. Choose Scanner Calibration command in the submenu; the Scanner Calibration dialog box appears.
3. Uncheck the Enable Scanner Calibration box and click OK.
4. Use the Acquire command to scan a sample image which has wide range of colors or gray shades, and repeat steps 1 and 2.
5. Choose the Gray button for Grayscale image calibration; select RGB, R, G, or B for color image calibration.
6. Adjust the Highlight, Midtone, and Shadow scroll bars.
7. Check the box of Enable Scanner Calibration, if you want to use the current calibration curve for the following scanning.
8. Click OK to save your selections; or click Cancel to exit the dialog box without changing the options.

### Related topics:

[Acquire command](#)

[Printer Calibration command](#)

## **File: Print**

The Print submenu in the File menu contains the Print, Printer Setup, and Printer Calibration commands. The Print and Printer Setup commands are like the ones you may have used in other Windows applications. Printer Setup allows you to change printer, general printer settings and use any special functions your printer may have, like duplexing and high-resolution modes. Print is what you choose to actually start printing; it also gives you the option to alter settings specific to the current print session, like the image position, scale and number of copies.

If you want to print in the standard manner-- using your printer's default settings-- you can bypass the Printer Setup step. However, for best results, you should check the printer settings to make sure you're getting what you want.

The Printer Calibration command calibrates the output of images. Without printer calibration, print-out images are usually different from the ones you see on the screen.

To use the Print, Printer Setup, and Printer Calibration commands, refer to the following topics.

[Print command](#)

[Printer Setup command](#)

[Printer Calibration command](#)

## **File: Print**

This command prints the currently active image.

### **To print an image:**

1. Make sure the image you want to print is active.
2. Choose Print from the File menu. The Print dialog box appears. If you have not set the printer options, such as Orientation and Paper Size etc., click the Printer Setup button to do so.
3. In the Print dialog box, you will see a compact size image box inside a white rectangle box. This shows you the relative size and position of your image on the page.
4. If you want your image to be larger or smaller on the printout, change the resolution settings on the Output option. Lowering the resolution increases the size of the printed image.
5. Drag the image box if you want to reposition your image. Check the Center Photo box if you want the image printed in the center of the paper. Also check the Add Frame box if you want the printed image is bounded by a black frame.
6. Make sure the Add Title box is checked if you want to add text on the printed page. Double-click the Title box on the page to edit text or change fonts. The color of the text is the Active color.
7. Make sure the Center Title box is checked if you want to center the text on the printed page horizontally.
8. Specify the number of copies to be printed. This option is not available if your printer driver doesn't support multiple printing.
9. Click Print to start printing.

### **Related topics:**

[Printer Setup command](#)

[Printer Calibration command](#)

## **Print: Printer Setup...**

This command selects printer and printer options, such as paper size and orientation, and printing resolution, etc. You need to use this command when you install a new printer or you want to change to another printer setting.

### **To use the Printer Setup command:**

1. Choose Print from the File menu. Choose Printer Setup from the Print submenu. The Printer Setup dialog box appears.
2. Change printer selection, paper size, or paper orientation if you want. You can also click on the Options button to set advanced parameters provided by specific printers.
3. Click OK to accept the current setup.

As soon as you complete the Printer Setup, you are ready to print an image.

### **Related topics:**

[Print command](#)

[Printer Calibration command](#)

## Print: Printer Calibration...

This command creates the printer calibration curves, and enable or disable the printer calibration.

Calibrating a color printer could be a very complex procedure. Here we provide you a general mapping curve for printer calibration.

Choose Printer Calibration from the Print submenu. The Printer Calibration dialog box appears.

### Options in the Printer Calibration dialog box:

Enable Printer Calibration	If this box is checked, the output image will be remapped according to the current calibration curves. Otherwise, there will be no calibration. This option keeps the current calibration setting unchanged.
Mapping Curve	This curve determines how the color/gray values are mapped for the printing. By clicking and dragging inside of the display box, you can draw your own curve.
Channel	The Channel box allows you to adjust the channels for calibration. Gray channel is for Grayscale images. Other channels are for color images. If you want to adjust an individual channel, select R, G, or B. The RGB channel will affect all three color components.
In and Out Reset	Show the current position of the cursor in the mapping curve display box. This button sets the current calibration curve to the "No Change" curve for the selected channel.
Smooth	Clicking on this button will even out the rough edges of the current mapping curve.
Gamma	Clicking on this button. The Gamma dialog box appears for adjusting gamma value of the curve.
Load	This button allows you to load previously saved mapping curve files with the ".cal" extension. When you click on it, the Load Calibration Curve dialog box appears.
Save	This button allows you to save mapping curves as files with the ".cal" extension for later use. When you click on it, the Save Calibration Curve dialog box appears.

### To use printer calibration:

1. Choose Print in the File menu. A submenu appears.
2. Choose Printer Calibration command in the submenu; the Printer Calibration dialog box appears.
3. Choose the Gray button for the Grayscale image calibration, or select from RGB, R, G, and B buttons for color image calibration.
4. Adjust the mapping curve by clicking the Gamma button, Load button, or drawing your own curve.
5. Make sure the Enable Printer Calibration box is checked if you want to use the calibration curves.
6. Click OK to save your selections; or click Cancel to exit the dialog box without changing the options.
7. Print out your image. Repeat above procedures until you are satisfied with the result.

### Related topics:

[Print command](#)

[Scanner Calibration command](#)



**File: send**

This command sends an e-mail message with the active image as an attach file.



## **File: Exit**

This command closes PhotoStudio.

If there are any new images or images edited since they were last saved, PhotoStudio prompts you with a message box. Click Yes to save the image.

### **To Exit PhotoStudio:**

Choose Exit from the File menu.

### **Related topics:**

[Close The Active Image](#)

[Close All Images](#)

## **File: File List**

The File List displays the filenames of the most recently opened images.

Click on a filename to open the file directly.

### **Related topics:**

[Opening Images](#)





## **Edit: Undo/Redo**

You can use this command to correct a mistake. After you choose Undo, you can use Redo to reverse the effects of Undo. You can undo most operations in PhotoStudio.

### **To use the Undo command to cancel the last action made:**

Choose Undo from the Edit menu.

### **Note:**

The Undo command is not available if an operation cannot be undone.

### **Related topics:**

[Restore Images](#)

## **Edit: Cut**

This command cuts out the selected area (or the entire image if there is no selection ) and places it on the Clipboard . Cutting leaves the selected area filled with the active color .

### **To use the Cut command:**

Choose Cut from the Edit menu.

### **Related topics:**

[Copying Selections](#)

[Pasting Selections](#)

[Clearing Selections](#)

[Using Clipboard](#)

## **Edit: Copy**

This command copies the selected area ( or the entire image if there is no selection ) and places it on the Clipboard . The original image is not changed.

### **To use the Copy command:**

Choose Copy from the Edit menu.

### **Related topics:**

[Cutting Selections](#)

[Pasting Selections](#)

[Clearing Selections](#)

[Using Clipboard](#)

## **Edit: Paste**

This command pastes images from the Clipboard onto the active image.

If you have selected an area in the active image, the Clipboard image is pasted inside the selection. Otherwise, the Clipboard image is pasted on the upper-left corner of the active image. You can move the pasted area by using the Area Move Tool.

### **To use the Paste command:**

Choose Paste from the Edit menu.

### **Note:**

The Paste command is not available when: 1) there is no image in the Clipboard, 2) the active image is neither RGB True color nor Grayscale.

### **Related topics:**

[Cutting Selections](#)

[Copying Selections](#)

[Using Clipboard](#)

[Using Fill Pattern](#)

[Image Move Tool](#)

[Clone Tool](#)



## **Edit: Clear**

This command clears the selected area ( or the entire image if there is no selection ) without adding it into the Clipboard . After the image is cleared, the selection is filled with the active color .

### **To use Clear command:**

Choose the Clear command from the Edit menu.

### **Related topics:**

[Cutting Selections](#)

[Filling Color](#)

## **Edit: Clipboard...**

The Clipboard is a temporary image storage area in PhotoStudio which can be used to transfer data between different images. By using Cut, Copy, and Paste commands in the Edit menu, you can bring an image onto the Clipboard and then paste the Clipboard image onto another image.

### **Options in Clipboard dialog box:**

Image Window	Displays image contained in the Clipboard. Use scroll bar to see the rest of the image when the image is oversized.
Import	Click this button to import data from the Windows public Clipboard to the PhotoStudio Clipboard. Any image previously loaded in the Clipboard will be replaced.
Export	Click this button to export the Clipboard image to the Windows public Clipboard, and then the image can be used by the other Windows applications.
Save	This option helps you to save the Clipboard image as an image file. Click this button to call up the Save As dialog box.
Load	This option helps you to load an image file directly onto the Clipboard by summoning the Open dialog box.
Clear	Click this button to remove image from the Clipboard.
OK	Click this button to exit the Clipboard dialog box.

### **To use the Clipboard command:**

1. Choose Clipboard from the File menu.
2. Use the options in the dialog box.
3. Click OK to exit the dialog box.

### **Note:**

The image contained in the Clipboard will be removed if you click Clear, Load or Import.

### **Related topics:**

[Cutting Selections](#)

[Copying Selections](#)

[Pasting Selections](#)

## **Edit: Fill Color...**

This command fills the entire active image or the selected area with the active color, and allows you to control the opacity of that color.

### **Options in Fill Color dialog box:**

Transparency Adjusts the opacity of the color. Ranges from 0% to 99%. Zero percent of Transparency fills in color with full opacity and is the same result as using the Clear command.

### **To use the Fill Color command:**

1. Choose Fill Color from Edit menu.
2. Adjust the Transparency value in the dialog box.
3. Click OK to fill color and exit the dialog box.

### **Related topics:**

[Clearing Selections](#)

[Bucket Fill Tool](#)

[Gradient Fill Tool](#)

## **Edit: Fill Pattern...**

This command puts the Clipboard image onto the entire active image or the selected area. You can adjust the symmetry and opacity of the fill in the corresponding dialog box.

### **Options in the Fill Pattern dialog box:**

Opacity	Adjusts the opacity of the filled pattern. Lower Opacity value gives you more transparent images.
Arrange	Aligns the image pattern. Three options are available.
Fill Texture Only	If this box is checked, only the texture of the clipboard image will fill in the active image or the selected area.

### **To use the Fill Pattern command:**

1. Choose Fill Pattern from the Edit menu. The Fill Pattern dialog box appears.
2. Adjust the Opacity. Values range from 1 to 100.
3. Choose one of the options in the Arrange group.
4. If you just want to fill your active image with the texture on the clipboard image, check the Fill Texture Only box.
5. Click OK to activate the Fill Pattern command and exit.

### **Note:**

This command is not available when: 1) there is nothing contained in the Clipboard, or 2) the active image is neither RGB True color nor Grayscale.

### **Related topics:**

[Fill Color](#)

[Stamp Tool](#)

[Clone Tool](#)

## **Edit: Blend...**

This command determines the degree of blending between the selection and the background image.

### **Options in the Blend dialog box:**

Transparency	Adjusts the opacity of the floating image. To make the background image more opaque, set the value of Transparency in the Blend dialog box in high. Zero percent Transparency makes the floating image completely opaque.
Range of Soft Edge	This option controls the boundary softness of blended images. Zero value gives a sharp boundary, while higher values gives a more blurry boundary.

### **To use the Blend command:**

1. Choose Blend from the Edit menu. The Blend dialog box appears.
2. Adjust the Transparency scroll bar between 0% to 99%.
3. Adjust the Range of Soft Edge scroll bar between 0 and 32.
4. Click OK to Blend and exit the dialog box.

### **Note:**

This command is not available when: 1) there is no selection in the image, or 2) the active image is neither RGB True color nor Grayscale.

### **Related topics:**

[Fill Color](#)

[Stamp Tool](#)

[Clone Tool](#)

## **Edit: Add Shadow...**

This command adds shadow or highlight around the floating selection to give the image 3D effect.

### **Options in the Add Shadow dialog box:**

Darkness      Determines the brightness of the shaded area. Adjust values from 1 to 100 to add shadow; adjust values from -100 to -1 to add highlights.  
Horizontal    Specifies the horizontal direction and width of the shadow.  
Vertical       Specifies the vertical direction and width of the shadow.

### **To use the Add Shadow command:**

1. Choose Add Shadow from the Edit menu. The Add Shadow dialog box appears.
2. Adjust the scroll bar to specify the value.
3. Choose either Left or Right in the Horizontal group, and type in a number for the horizontal width.
4. Choose either Up or Down in the Vertical group, and type in a number for the vertical width.
5. Click OK to add shadow and exit the dialog box.

### **Note:**

1. This command is not available when: 1) there is no selection in the image, or 2) the active image is neither RGB True color nor Grayscale.
2. Use Cancel to exit the dialog box if the value of Darkness is zero, or both the horizontal and vertical widths are zero.

## **Edit: Add Frame...**

This command generates a border in the active color around the entire active image.

### **Options in the Add Shadow dialog box:**

Frame Width This group allows you to specify the width of the border added at left, right, top, and bottom of the image respectively. The unit of measurement is pixels.

### **To use the Add Frame command:**

1. Choose Add Frame from the Edit menu. The Add Frame dialog box appears.
2. Input values for Left, Right, Top, and Bottom in the Frame Width group. The value ranges from 0 to 999 pixels.
3. Click OK to add frame and exit the dialog box.

### **Related topics:**

[Adding Shadow](#)

## **Edit: Discard Floating**

This command removes the selection, and restores the underlying image. Using this command is the same as clicking on the Trash Can tool.

### **To use the Discard Floating command:**

Choose Discard Floating from the Edit menu.

### **Note:**

The Discard Floating command is not available if there is no selection in the active image.

### **Related topics:**

[Trash Can Tool](#)



## **Edit: Swap Area**

This command exchanges the image in a floating selection with the underlying image.

### **To use the Swap Area command:**

Choose Swap Area from the Edit menu.

### **Note:**

The Swap Area command is not available if there is no selection in the active image.

## **Edit: Crop**

This command duplicates a new image for the selected part of the active image. The original image is unchanged. Using this command is the same as clicking on the Crop Tool button in the Tools palette.

### **To Crop Part of An Image:**

1. Use Selecting Tools to select an area of active image.
2. Choose Crop from the Edit menu. A new image window containing the selected image with the title "Untitled Crop" is created.

### **Note:**

The Crop command is not available if there is no selection in the image.

### **Related topics:**

[Crop Tool](#)

[Image Move Tool](#)

[Selecting Tools](#)

## **Edit: Duplicate**

This command creates an identical copy of the active image. Two images can be edited independently later.

### **To duplicate the current image:**

Choose Duplicate from the Edit menu. A new image window containing the active image with the title "Untitled Duplicated Image" is created.

## Edit: Stitch

This command merges two or more image files into one. Stitching is especially helpful when you are using a hand-held scanner to scan a page that is too wide or too long.

The images that will be stitched must have the same data type: either RGB True Color or 8-bit Grayscale.

### Options in the Stitch dialog box:

Principal	The <u>active image</u> .
Secondary	The image that will be stitched onto the principal. It can be any image that is open and has the same data type as the principal image. To change the Secondary image, select one from this box.
Location	Indicates the location of the Secondary image. Four options: Left, Right, Top, and Bottom. For example, to stitch Secondary image on the right hand side of the Principal, select Right.
Image Windows	Display the Principal and Secondary images, as well as the stitch marks, which determine the overlapping area of the two images. To move a stitch mark, click and drag the mark to the position you want in the image. For better results, locate both stitch marks in areas with the same characteristics.
Blend	Determines the amount of blending on the overlapped area. You can adjust the value from 0 to 100.
Adjust	Adjusts the location of the stitch marks on the two images for a perfect match. Before using this function, you should have the stitch marks fairly close to their destination.
Zoom+	Magnifies the images one step from the current view.
Zoom-	Reduces the images one step from the current view.

### To stitch two images:

1. Choose Stitch from the Edit menu. Make sure the images you want to stitch are open, and one of them is active.
2. Choose the Secondary image that will be stitched to the Principal image.
3. Choose the location of the Secondary image.
4. Click on the image windows to locate the stitch marks. For more precise adjustment, click the Zoom+ button to magnify the images.
5. Click the Adjust button to align the stitch marks perfectly.
6. Adjust the Blend scroll bar.
7. Click OK to stitch the images together.

### Related topics:

[Scan Images](#)

[Copy Command](#)

[Paste Command](#)





## **Mask: All**

This command selects the entire active image.

### **To use the All command:**

Choose All from the Mask menu.

### **Related topics:**

[Rectangle Select Tool](#)

[Ellipse Select Tool](#)

[Freehand Select Tool](#)

[Magic Wand Tool](#)

[Reverse Select](#)

[Remove Select](#)

## **Mask: Invert**

When you want to select an irregular area of an image, it might be easier to select the parts you don't want to modify first, and then automatically selecting the remaining portion of the image. You can do this by using the Invert command.

### **To use the Invert command to select the object in a plain background:**

1. Use the Magic Wand selecting tool to select the background area.
2. Choose Invert from the Mask menu. The object is selected and the background is rejected.

### **Note:**

This command is not available if there is no selected area in the active image.

### **Related topics:**

Selecting Tools

All Select

Remove Select



## **Mask: None**

This command removes all current selections in the active image. With Rectangle or Ellipse selecting tool, you can also remove all current selections by clicking anywhere in the active image.

### **To use the None command:**

Choose None from the Mask menu.

### **Note:**

This command is not available if there is no selected area in the active image.

### **Related topics:**

[Selecting Tools](#)

[All Select](#)

[Reverse Select](#)

## **Mask: Border...**

This command selects the areas along the border of current selection.

### **To use the Border command:**

1. Choose Border from the Mask menu. The Border dialog box appears.
2. Select a proper value for the border width by adjusting the Size scroll bar. This parameter will specify how wide the border will be.

### **Notice:**

This command will be dimmed if there is no selected area in the active image.

### **Related topics:**

[Expand Select](#)

[Smooth Select](#)

## **Mask: Expand...**

This command enlarges the current mask by a specified amount.

### **To use the Expand command:**

1. Choose Expand from the Mask menu. The Expand dialog box appears.
2. Select a value for the amount of enlargement by adjusting the Size scroll bar.

### ***Notice:***

This command will be dimmed if there is no selected area in the active image.

### **Related topics:**

[Border Select](#)

[Smooth Select](#)

## **Mask: Smooth...**

This command evens out the rough edges on the border of the mask, making a sharp corner to a soft one.

### **To use the Smooth command:**

1. Choose Smooth from the Mask menu. The Smooth dialog box appears.
2. Select a value for the amount of blurring by adjusting the Size scroll bar. The larger the number, the smoother the border.

### **Notice:**

This command will be dimmed if there is no selected area in the active image.

### **Related topics:**

[Border Select](#)

[Expand Select](#)

## **Mask: Import...**

This command loads a selection mask into the active image from an opened 8-bit Grayscale or 1-bit Black-and-White image document. Once the mask is loaded, it will appear in the active image as a selected area and is available to be moved to anywhere by using the Mask Move tool.

### **Options in the Import dialog box:**

**File:** A list box lists all 8-bit Grayscale and 1-bit Black-and-White image documents on the desktop. In PhotoStudio, any 8-bit Grayscale or 1-bit Black-and-White image document is available to be used as a mask for importing.

### **To Import a mask to the active image:**

1. Make sure the image document you want to use as a mask is on the desktop.
2. Choose Import from the Mask menu. The Import dialog box appears.
3. Select the image document you want from the File list box and click OK.

### ***Notice:***

When you choose the Import command, a message box with the message "Please open a Grayscale or 1-bit BW image for importing source" will appear if there are neither 8-bit Grayscale nor 1-bit Black-and-White image opened on the screen.

### **Related topics:**

[Export Mask](#)

[Mask Move Tool](#)

## **Mask: Export**

This command exports the selection mask in the active image document into an independent 8-bit Grayscale image. When you choose Export, a new image document window appears, with the selected part of the mask in white and the unselected part in black. You can save this mask document as an image file for future use. Or you can use PhotoStudio tools to edit this mask document, and then import it to an image.

### **To Export a mask in the active image**

Choose Export from the Mask menu.

### ***Notice:***

This command will be dimmed if there is no selected area in the active image.

### **Related topics:**

[Import Mask](#)

## Mask: Operation...

This command sets a mode for advanced area selecting and mask editing.

Ordinarily, when you use a selecting tool to select an area, any pre-existing masks on the image disappear. However, if you hold the Shift key down while selecting, PhotoStudio will add to or subtract from the existing mask using the current option setting from the Mask Operation dialog box. For example, if you have chosen the "Combine with Last" option, holding down the Shift key while making a new selection would add that selection to any pre-existing one. Using this feature, you can edit a selection to tailor it so it fits an area exactly. You can also use it to combine a rectangular selection with, say, a magic wand selection.

### Options in the Mask Operation dialog box:

Combine with Last	This option will make the mask the union of your current and previous selections.
Intersect with Last	This option will make the mask the intersection of your current and previous selections.
Combine, Excluding Intersection	This option will make the mask the part where the current and previous selections do not intersect.
Last, Excluding Intersection	This option will make the mask from your previous selection, but exclude its intersection with the current selection.
New, Excluding Intersection	This option will make the mask all of your current selection except for its intersection with the previous selection.

### To set a new mask operation mode:

1. Choose Operation from the Mask menu.
2. Select the option you want from the dialog box and click OK.

### Related topics:

[Rectangle Select Tool](#)

[Ellipse Select Tool](#)

[Freehand Select Tool](#)

[Magic Wand Tool](#)

## **Mask: Show/Hide Mask**

This command shows or hides the selection marquee of an image. Choosing it once will make Hide Mask become Show Mask, or vice versa.

### **To use the Show/Hide Mask command:**

Choose Show/Hide Mask from the Mask menu.

### ***Notice:***

This command only determines if the selection marquee is visible or not.

### **Related topics:**

[Show/Hide Tools](#)

[Show/Hide Color Palette](#)

[Show/Hide Brush Palette](#)







## Transform: Resample...

This command adjusts the width, height, and resolution of the entire image.

### Options in Resample dialog box:

Original Image Information	Shows the width, height, and resolution of the <u>active image</u> .
Keep Aspect Ratio	Retains the height-to-width ratio of the resized image while the image dimensions are changed. Entering a new value for the height or width will automatically adjust the other value to maintain proportions.
New Image Width	Sets a new width for the image (measured in pixels).
New Image WScale	Sets a new width for the image as a percentage of the original width.
New Image Height	Sets a new height for the image (measured in pixels).
New Image HScale	Sets a new height for the image as a percentage of the original height.
Resolution	Changes resolution of the image.

### To use the Resample command:

1. Choose Resample from the Transform menu. The Resample dialog box appears.
2. Check or uncheck the Aspect Ratio box.
3. Enter the values for width ( or WScale ), height ( or HScale ) and resolution.
4. Click OK to apply the change, or click Cancel to exit the dialog box without any changes.

### Note:

Changing the Resolution does not affect the appearance of the image on the screen; it is for image information only.

### Related topics:

[Resize Command](#)

## **Transform: Flip Horizontally**

This command flips a selection or the entire image horizontally.

### **To use the Flip Horizontally command:**

Choose Flip Horizontally from the Transform.

### **Related topics:**

[Flip Vertically Command](#)

## **Transform: Flip Vertically**

This command flips a selection or the entire image Vertically.

### **To use the Flip Vertically command:**

Choose Flip Vertically from the Transform menu.

### **Related topics:**

[Flip Horizontally Command](#)

## **Transform: Mirror...**

This command replaces the selected area with its mirrored image.

### **Options in the Mirror dialog box:**

Right	The new image is the original plus a mirror image to its right.
Left	The new image is the original plus a mirror image to its left.
Up	The new image is the original plus a mirror image above it.
Down	The new image is the original plus a mirror image below it.

### **To use the Mirror command:**

1. Choose Mirror from the Transform menu. The Mirror dialog box appears.
2. Select one from Right, Left, Up, and Down to determine the location of the mirror image.
3. Click OK to apply the effect or click Cancel to exit the dialog box without any changes.

### **Related topics:**

[Repeat Command](#)

## **Transform: Repeat**

The Repeat submenu in the Transform menu contains two commands: Horizontally and Vertically. These commands place a copy of the selected area above (Vertically) or at the right (Horizontally) of the original.

### **To use the Repeat Horizontally (Vertically) command:**

1. Choose the Repeat submenu from the Transform menu.
2. Choose either Horizontally or Vertically.

### **Related topics:**

[Mirror Command](#)

## **Transform: Shift...**

This command allows you to shift the image vertically or horizontally in the image file window. You can also shift images by individual color channel, which is extremely useful to correct space errors between different color channels in a scanned image.

### **Options in the Shift dialog box:**

Channel        If you choose the RGB channel, the entire image will be moved. If you choose one color channel, only one color channel of the image is shifted while the other two remain unshifted.

Horizontal    Specifies the direction and distance for horizontal shifting.

Vertical       Specifies the direction and distance for vertical shifting.

### **To use the Shift command:**

1. Choose Shift from the Transform menu.
2. Choose either RGB, R, G, or B in the Channel box.
3. Choose Left or Right in the Horizontal box, and enter a value for shifting distance.
4. Choose Up or Down in the Vertical box, and enter a value for shifting distance.
5. Click OK to shift the image or click Cancel to exit the dialog box without any changes.

### **Note:**

There will be an empty area after you shift the image. This empty area will be filled with the active color.



## **Transform: Rotate...**

This command rotates the selected area or entire image clockwise or counter clockwise by a specified degree.

### **Options in the Rotate dialog box:**

Degree        Adjusts the degree of rotation. Ranges from -9999 to 9999.  
Compass      Specifies the direction and degree for rotation.

### **To use the Rotate command:**

1. Choose Rotate from the Transform menu.
2. Input a value for Degree, or use the Compass.
3. Click OK to rotate the image or click Cancel to exit without any change.

### **Related topics:**

[Transform Tool](#)

## Transform: Resize...

This command adjusts the width, and height of the selected area.

### Options in the Resize dialog box:

Original Image Information	Shows the width and height of the selected area.
Keep Aspect Ratio	Retains the height-to-width ratio of the resized selected area while the image dimensions are changed. Entering a new value for the height or width will automatically adjust the other value to maintain the proportions.
New Image Width	Sets the new width for the selected area (measured in pixels).
New Image WScale	Sets the new width for the selected area as a percentage of the original width.
New Image Height	Sets the new height for the selected area (measured in pixels).
New Image HScale	Sets the new height for the selected area as a percentage of the original height.

### To use Resize command:

1. Choose Resize from the Transform menu. The Resize dialog box appears.
2. Check or uncheck the Aspect Ratio box.
3. Enter the values for width ( or WScale ), and height ( or HScale ).
4. Click OK to resize the selected area, or click Cancel to exit the dialog box without any change.

### Note:

This command is not available if there is no selected area in the image.

### Related topics:

[Resample Command](#)

[Transform Tool](#)

## Transform: Arbitrary Distort...

This distorts the shape of the selected area (or the entire image if there is no selection).

After you choose the Arbitrary Distort command, a dialog box appears.

### Options in the Arbitrary Distort dialog box:

Original Image	Shows the width and height of the selected area.
New Image	Shows the new width, height and required memory size of the selected area after distortion.
New Coordinates	Sets the new <u>coordinates</u> for node A, B and C. The origin node O is fixed. The values in the editing boxes are the initial coordinates for A, B, and C before distortion. When entering any new integer in one of the editing boxes, the shape of the selected area changes and is shown in the Distortion Emulator.
Distortion Emulator	Shows the shapes of the selected area before and after the distortion. The underlying gray rectangle represents the image before distortion, and the black quadrilateral represents the new image after distortion.

### To use the Arbitrary Distort command:

- 1: Choose Arbitrary Distort from the Transform menu. The Arbitrary Distort dialog box appears.
- 2: Enter the values for the new coordinates of node A, B, and C. We suggest you use scroll bar to vary the coordinates based on the existing number because it's easier for you to follow and control the changes.
- 3: Click OK to distort the image or click Cancel to exit the dialog box without any change.

### Notice:

You must keep the black quadrilateral in a convex shape. Otherwise, the Arbitrary Distort can not be applied and a warning box will appear.

### Related topics:

[Transform Tool](#)





## Enhance: Brightness and Contrast...

This command changes the brightness and contrast of the entire image or a selected area.

### Options in the Brightness and Contrast dialog box:

**Brightness** You can modify the brightness by moving the scroll bar left or right.  
**Contrast** You can modify the contrast by moving the scroll bar left or right.  
**Channel** The Channel box allows you to control the color channels of the entire image or selected area, by adjusting the brightness or contrast. Select the RGB button if you want to adjust all three color channels at the same time (this is the default setting), or adjust only one color channel.

### To use the Brightness and Contrast command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Brightness and Contrast from the Enhance menu, or press F3 key. The Brightness and Contrast dialog box appears.
3. Choose one of the four options in the Channel box to designate the color channels that will be affected.
4. Move the Brightness scroll bar to the right to lighten the image or to the left to darken the image.
5. Move the Contrast scroll bar to the right to sharpen the image or to the left to blur the image.
6. Repeat steps 3 through 5 until the result is satisfactory.
7. Click OK to apply adjustments or click Cancel.

### Note:

1. The Brightness and Contrast command is not available when: 1) the file is an Indexed Color image and has a selected area, or 2) the file is a 1-bit Black-and-White image.
2. It is possible to change the contrast or brightness for more than one particular color but by different amounts. Choose a channel, make the desired change, preview, and choose OK. Then, reenter the Brightness and Contrast dialog box and change the next color.
3. The Tone Adjustment command also allows you to control the brightness and contrast of your image. It gives you finer control over gradations of color/grayness that are affected, but it is also more complicated.

### Related topics:

[Tone Adjustment Command](#)

[Brighten/Darken Tool](#)

## Enhance: Hue and Saturation...

The term hue describes color based on a color wheel containing all the colors of the visible spectrum. Adjusting hue changes the color in the image or the selected area to new colors around the color wheel. All the colors in the image or selected area are shifted by the same degree around the wheel. The saturation control adjusts the intensity of the colors in the image. Adjusting hue and saturation for an image are similar to tuning the tint and color on a TV.

### Options in the Hue and Saturation dialog box:

Hue            You can modify the hue by moving the scroll bar to the left or right. Moving all the way to either side has the same effect, as if you were moving 180 degrees around a circle.

Saturation    Ranges from -100% (gray) to 100% (very intense colors). You can modify the saturation by dragging the scroll bar left or right.

### To use the Hue and Saturation command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Hue and Saturation from the Enhance menu, or press F4 key. The Hue and Saturation dialog box appears.
3. Move the Hue scroll bar to the right or to the left to change the hue of your image.
4. Move the Saturation scroll bar to the right to increase color intensity or to the left to reduce color intensity.
5. Repeat steps 3 and 4 until the result is satisfactory.
6. Click OK to apply the changes, or click Cancel.

### Note:

The Hue and Saturation command is not available when: 1) the file is an Indexed Color image and has a selected area, or 2) the file is a Grayscale (or Black-and-White) image.

### Related topics:

[Brightness and Contrast Command](#)  
[Tone Adjustment Command](#)

## Enhance: Tone Adjustment...

This command selectively lightens and darkens the highlights, midtones, and shadows of the entire image or selected area. Adjusting the highlights, midtones and shadows affects the contrast of the image. The Tone Adjustment command is similar to the Brightness and Contrast command, but it offers more control.

### The Display Box in the Tone Adjustment dialog box

The display box contains two different graphical representations which can help you in making a tone adjustment.

1. The shaded figure in the display box is a histogram for the entire image or the selected area.
2. The black line in the display box is the mapping curve.

### Options in the Tone Adjustment dialog box:

Highlight	Adjusts the size of the image's highlight area. Moving the bar to the left to make the image darker. Moving it to the right to expand the highlight areas, and increase the contrast in the midtone area.
Midtone	Adjusts the gamma value of the image's midtone areas. Ranges from -100% (very dark) to 100%(very light). Moving this scroll bar darkens or lightens the image without affecting the highlights or shadows.
Shadow	Adjusts the size of the image's shadow areas. Ranges from -100% to 100%. Moving the bar to the left darkens the image, as well as increasing the contrast in the midtone area. Moving it to the right will have the opposite effect.
Channel	Allows you to control the color components affected by your tone adjustment. Select the RGB button if you want to adjust all three colors at the same time; select one channel to adjust only one color.
Auto	Automatically changes the highlight or shadow functions in a way that expands the dynamic range of the image.

### To use the Tone Adjustment command:

1. Select the area you want to modify; or make sure no area is selected if you want to change the entire image.
2. Choose Tone Adjustment from the Enhance menu or press F5 key. The Tone Adjustment dialog box appears.
3. Choose one of the four options in the Channel box.
4. Move the Highlight scroll bar to the right to lighten the bright area or to the left to create the opposite effect.
5. Move the Midtone scroll bar to the right to lighten the midtones of the image or to the left to darken them.
6. Move the Shadow scroll bar to the left to darken the shadows or to the right to create the opposite effect.
7. Repeat steps 3 through 6 until the result is satisfactory.
8. Click OK to apply the adjustment, or click Cancel.

### Note:

The Tone Adjustment command is not available when: 1) the file is an Indexed Color image and has a selected area, or 2) the file is a Black-and-White image.

### Related topics:

Brightness and Contrast Command



## Enhance: Color/Gray Mapping...

This command gives you total control over the shape of the mapping curve for the entire image or the selected area. In contrast, the command makes quick but only very general adjustments to the mapping curve.

### The display box in the Color/Gray Mapping dialog box:

This display box contains two different graphical representations which will help you create or modify your own color map.

1. The shaded figure in the display box is a histogram representing the distribution of pixels over the range of possible color or Grayscale values. The Horizontal axis represents the color brightness of the pixels from 0 to 255 (left to right). And 255 represents brightest, 0 represents darkest. The vertical axis is the number of pixels with a particular brightness value.

Example: If the histogram is tall on the left side, say from 0 to 50, and it is short everywhere else, then a large portion of the pixels in the picture must be dark, and the picture is likely dim.

2. The black line in the display box is the mapping curve. It represents the way the original image will be converted into a new image. The horizontal axis of the mapping curve represents the input values of color brightness from the image. The vertical axis of the mapping curve represents the output values of color brightness for the new image.

Example 1: If the mapping curve is a straight line from the bottom left corner to the top right corner of the display box (the default curve), then there is a one-to-one correspondence between the input and output numbers of the pixel, such that all pixels with the brightness number four will be mapped to four, and pixels that start as fifty will be output as a fifty. The picture would remain unchanged.

Example 2: If the mapping curve is a straight line across the top of the display box, then all of the values of the input will be mapped to 255, such that four will become 255, fifty will become 255, etc., and the entire image will become white.

Example 3: If a mapping curve extended from the upper left corner to the lower right corner then the image would be inverted; the pixels with small numbers would become pixels with large numbers and vice versa. The effect would be similar to a photographic negative.

### The Position box in the Color/Gray Mapping dialog box:

The Position box helps you draw your mapping curve by telling you the position of the pointer in the display box as it relates to the possible mapping curve values.

### Options in the Color/Gray Mapping dialog box:

Mapping Curve	You can draw your own mapping curve on the display box by, pressing the left button wherever you want the curve to start, dragging the arrow along the shape you want your curve to take, and releasing the button when you are finished.
Channel	This box will allow you to control which color components are affected, by your color/gray mapping. Select one from RGB, R, G and B.
Reset	Clicking on this button will change your curve back to its default shape, and also resets the preview image.

Gamma	Used to apply a gamma curve to the mapping curve. When clicking on this button a dialog box will appear for inputting a new gamma value.
Smooth	Clicking on this button will even out the rough edges of the curve.
Load	This button allows you to load previously saved mapping curve files with the ".map" extension. When you click on it, the Load Color Map Curve dialog box will appear.
Save	This button allows you to save mapping curves as files with the ".map" extension. When you click on it, the Save Color Map Curve dialog box will appear.

**To use the Color/Gray Mapping command:**

1. Choose Color/Gray Mapping from the Enhance menu.
2. Adjust the mapping curve until you are satisfied with the preview image.
3. Click OK to apply the change on the main image.

**Notice:**

The Color/Gray Mapping command will be dimmed if the image document is an Indexed Color image and has a selected area, or it is a Black-and-White image.

**Related topics:**

[Brightness and Contrast Command](#)

[Tone Adjustment Command](#)

## Enhance: Color Table Adjustment...

This command adjusts the color table of an indexed color image. Each unit in the color table represents a small section of the indexed image which is also that color. Changing a value in the color table will also change the color of the respective section in the image.

When choosing the Color Table Adjustment command, a dialog box appears.

### Options in the Color Table Adjust dialog box:

- Display Box** This box displays colors contained in the image's color table, which represents the colors used in the active image. It will have either 16 or 256 color squares depending on your document type. You should first notice that one of the squares in the Display Box is surrounded by a white border unlike the rest of the squares which are bordered by black lines. This highlighted color is the one shown in the Color On Table box along with its color channel values.
- Color On Table** This box displays the color and its RGB values of the square highlighted in the Display Box of the color table. To display the color in another square in the color table, click on a new square in the Display Box of the color table. This new color along with its color values will appear in the Color On Table box.
- New Color** The New Color box is used to input new colors for the image color table. The color in the highlighted box will be replaced with the color displayed in the New Color box as soon as you click Replace button. When you first open the Color Table Adjust dialog box, the New Color box will show the active color. To select a color from the color table for the New Color box, double click the appropriate square in the display box. To make any other color appear in the color box, simply type its color values into the R (red), G (green), and B (blue) boxes.
- Replace** Choosing Replace will change the highlighted square in the Display Box to the new color shown in the New Color box.

### To use the Color Table Adjustment command:

1. If the image has a selected area, remove it. This command works only with the entire image.
2. Choose Color Table Adjustment from the Enhance menu. A dialog box appears.
3. Pick your new color by double clicking a square on the Display Box or by entering new values for R (red), G (green), and B (blue) in the New Color box.
4. Choose the color in the color table that you want to change, by clicking on the appropriate square. The square will be highlighted and the color in the Color On Table box will be updated.
5. Clicking on Replace to change the color in the highlighted square to that of the New Color box.
6. Repeat step 3 to 5 to replace any other colors in the color table. Once you are happy with the adjustments, click OK to have changes transferred to the main image. Click Cancel if you decide not to change any colors.

### Notice:

The Color Table Adjustment command will be dimmed if the image is not an Indexed Color image or there is a selected area.

## Enhance: Color Reduction...

This command reduces the number of color/gray brightness levels in the image to the number you set. Pixels are mapped to the new value that is the closest.

### Options in the Color Reduction dialog box:

Levels Per Channel Ranges from 2 to 128. You can modify the number of levels per channel, by moving the scroll bar to the left or right.

Channel Controls color channels that will be affected.

### To use the Color Reduction command:

1. Select the area you want to modify; or make sure no area is selected if you want to change the entire image.
2. Choose Color Reduction from the Enhance menu. The Color Reduction dialog box appears.
3. Choose one of the four options in the channel box.
4. Move the Levels Per Channel scroll bar to the right or left to change your image file.
5. Repeat steps 3 and 4 until the result is satisfactory.
6. Click OK to apply the changes or click Cancel.

### Note:

1. The Color Reduction command is not available when: 1) the file is an Indexed Color image and has a selected area, or 2) it is a Black-and-White image.
2. It is possible to reduce color levels for more than one particular color but by different amounts. Select a channel, make the desired change, preview, and choose OK. Then, reenter the dialog box and change the next channel.

### Related topics:

[Threshold Command](#)

## **Enhance: Equalization**

This command redistributes the grayscale or color values of the pixels in an image more evenly. The effects are varied by the image histogram, but in general, the lines in the highlight and shadow areas will be sharpened.

### **To use the Equalization command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Equalization command from the Enhance menu.

### **Note:**

The Equalization command is not available when: 1) the file is an Indexed Color image and has a selected area, or 2) the file is a Black-and-White image.

### **Related topics:**

## **Enhance: Negative**

This command inverts the grayscale or color brightness values of every pixel in the selected area or the entire image. The new image will look like a photographic negative of the original. Using the Negative command again will bring the image back to its original state.

### **To use the Negative command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Negative command from the Enhance menu.

### **Related topics:**

[Solarization Command](#)

## **Enhance: Threshold...**

This command gives the Grayscale or color image to the highest possible contrast in black-and-white with a threshold control. All pixels lighter than the specified threshold value will be set to 255 (white). All pixels darker than the threshold value will be set to zero (black).

### **Options in the Threshold dialog box:**

Threshold      You can decrease or increase the value by moving the scroll bar to the left or right respectively.

### **To use the Threshold command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Threshold from the Enhance menu. The Threshold dialog box appears.
3. Adjust the scroll bar to set the Threshold value.
4. Repeat step 3 until the result is satisfactory.
5. Click OK to apply the changes or click Cancel.

### **Note:**

The Threshold command is not available when: 1) the file is an Indexed Color image and has a selected area, or 2) the file is a Black-and-White image.

### **Related topics:**

[Color Reduction Command](#)

## Enhance: User's Filters...

The User's Filters command lets you create your own special filters and then save them for future use. These user defined filters work by recalculating the grayscale/color values of each pixel in the image. They use both the value of the pixel being recalculated and the values of the surrounding pixels to determine a new color or gray value. The following section will describe how the User's Filters command works. But to really understand and master it, you will probably have to play with it, entering values and seeing what effects they have on the image.

When choosing the command, the User's Filters dialog box appears.

### Options in the User's Filters dialog box:

Symmetry	This option makes it easier to enter data into the matrix by replicating entered values in boxes which correspond symmetrically. For example, if you choose the horizontal symmetry box and enter a number into the upper left corner of the matrix that same number will appear in the upper right corner of the matrix. If you had chosen 4-Way symmetry the number would have appeared in all of the other three corners.
5x5 Matrix	The five by five matrix of boxes represents the square of pixels that surrounds the target pixel ( the center box is the target pixel ). By entering numbers between -999 and 999 into the boxes, you determine if and how much a pixel's value will affect the target pixel. The new value in the target pixel is the result of following computing steps: 1) Multiplying numbers in the boxes by the values of the corresponding pixels respectively. 2) Making a summation from the results of the multiplication obtained. 3) Dividing the summation by the number shown in the Scale box. 4) Adding the value in the Bias box. Therefore, entering a one into the center box in the 5x5 matrix with all other boxes kept zero will give you back the original image, while the value in the Scale box is 1 and in the Bias box is 0.
Scale	Use this box to input a number for dividing the summation mentioned above. This factor can be used to control the brightness of the image and to keep the new gray/color values in the range from 0 to 255. The number input here must be a non-zero value.
Bias	This factor can be used to control the brightness of the image and to keep the new gray/color values in the range from 0 to 255.
Reset	Clicking on this button will return all of the values to their default settings.
Load	This button allows you to load previously saved filters. When you click on it, the Load User Defined Filter dialog box will appear for loading ".udf" files. Clicking OK will load the selected filter and update the 5x5 matrix accordingly.
Save	The Save button allows you to save your custom filters. When you click on it, the Save User Defined Filter dialog box will appear for saving the filter shown in the User's Filters dialog box as a ".udf" file.

### To use the User's Filters command:

1. Select the area you wish to modify, or if you want to change the entire image, make sure that no area is selected.
2. Choose User's Filters from the Enhance menu. The User's Filters dialog box appears.
3. If you simply want to use a filter that has already been created, choose Load to open the Load User Defined Filter dialog box.
4. Pick one of the four options in the Symmetry box.
5. Enter integers into the filter matrix, the Scale box ( this must be a non-zero number ), and the Bias box.



6. If you do not want to lose your filter, choose the save button to open up the Save User Defined Filters dialog box. Make sure that when you save your filter you make it a ".udf" file so that it will be easy to load when you want to use it.
7. If you are unhappy with the preview image caused by your filter and you want to start over again, choose Reset.
8. Click OK to have changes transferred to the main image. Click Cancel if you decide not to apply any filter.

**Notice:**

There may be some discrepancy between the way the preview box and the active image are changed by the filter due to differences in image size. The effect may look stronger in the preview box than it does on the image. In general, the larger the main image, the stronger the discrepancy.

**Related topics:**

[Smooth Filters Command](#)  
[Sharpen Filters Command](#)





## **Enhance: Special Filters**

The Special Filters submenu contains a number of filters which improve the image quality.

Maximum...

Median...

Minimum...

Add Noise...

Find Contour...

Solarization

Logarithm

## Special Filters: Maximum...

The Maximum filter examines the area around a pixel and changes its brightness value to the brightest in the area. This filter gives an effect similar to raise brightness by increasing the size of the bright areas and shrink the shadows. It also blurs the image.

### Options in the Maximum dialog box:

**Square Size** Determines the size of the sampling area around each pixel. Ranges from 2 (for a 2x2 square), to 32 (for a 32x32 square).

### To use the Maximum command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Maximum from the Special Filters submenu. The Maximum dialog box appears.
3. Adjust the Square Size scroll bar.
4. Repeat step 3 until the result is satisfactory.
5. Click OK to apply changes or click Cancel.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust accordingly.

### Related topics:

[Median Command](#)

[Minimum Command](#)

## Special Filters: Median...

The Median filter examines the area around a pixel and change its brightness value to the median in the area. This filter decreases the noise in the picture and blurs the image.

### Options in the Median dialog box:

**Square Size** Determines the size of the sampling area around each pixel. Ranges from 2 (for a 2x2 square) to 32 (for a 32 by 32 square).

### To use the Median command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Median from the Special Filters submenu. The Median dialog box appears.
3. Adjust the Square Size scroll bar.
4. Repeat step 3 until the result is satisfactory.
5. Click OK to apply changes or click Cancel.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust accordingly.

### Related topics:

[Maximum Command](#)

[Minimum Command](#)

## Special Filters: Minimum...

The Minimum filter examines the area around a pixel and change its brightness value to the darkest in the area. This gives an effect similar to lowering the brightness control by increasing the size of the shadows and shrinking the bright areas. It also blurs the image.

### Options in the Minimum dialog box:

**Square Size** Determines the size of the sampling area around each pixel. Ranges from 2 (for a 2x2 square), to 32 (for a 32 by 32 square).

### To use the Minimum command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Minimum from the Special Filters submenu. The Minimum dialog box appears.
3. Adjust the Square Size scroll bar.
4. Repeat step 3 until the result is satisfactory.
5. Click OK to apply changes or or click Cancel.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than the modified image. Adjust accordingly.

### Related topics:

[Maximum Command](#)

[Median Command](#)

## Special Filters: Add Noise...

This filter makes your image noisier by replacing some of the pixels in your image with pixels of random color or grayscale.

### Options in the Add Noise dialog box:

Intensity      Controls the portion of pixels that will be randomized. Ranges from 1 to 100.

### To use the Add Noise command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Add Noise from the Special Filters submenu. The Add Noise dialog box appears.
3. Adjust the Intensity scroll bar, between 0 and 100, for the portion of pixels to be converted to noise.
4. Repeat step 3 until the result is satisfactory.
5. Click OK to apply changes or click Cancel.

### **Note:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust accordingly.

### **Related topics:**

[Film Grain Command](#)



## Special Filters: Find Contour...

This filter traces the edges of color and grayscale images with lines of the particular color channel responsible for the edge. The rest of the image is in black.

### Options in the Find Contour dialog box:

- Threshold      Determines which edges will be traced. The Find Contour command compares adjacent pixels to find the contour: an edge is a place where one pixel is greater than the threshold value and the other pixel is less than the threshold value. Ranges from 1 to 254.
- Channel          Choose the RGB button if you want to adjust all three colors at the same time (this is the default setting), or just choose one color from R, G, or B.

### To use the Find Contour command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Find Contour from the Special Filters submenu. The Find Contour dialog box appears.
3. Choose one of the four options in the Channel group box.
4. Adjust the Threshold scroll bar.
5. Repeat step 4 until the result is satisfactory.
6. Click OK to apply changes or click Cancel.

### Related topics:

[Sketch Command](#)

## **Special Filters: Solarization**

This filter blends the image and its negative together. The effect makes the images look as if they have been partially exposed while developing.

### **To use the Solarization command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Solarization from the Special Filters submenu.

### **Related topics:**

[Negative Command](#)

## **Special Filters: Logarithm**

This filter applies a logarithm to the mapping curve of the active image, which makes the image brighter.

### **To use the Logarithm command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Logarithm from the Special Filters submenu.

### **Related topics:**

[Tone Adjustment Command](#)





## **Enhance: Smooth Filters**

The Smooth Filters decrease the contrast between adjacent pixels in the entire active image or the selected area. The effect blurs and softens the edges between objects in the image. If you want to blur the image more selectively, use the Smooth Tool.

Average...  
Blur Lightly  
Blur  
Blur Heavily  
Despeckle  
Gaussian Blur...

## Smooth Filters: Average...

This filter blurs the active image or selected area by changing the value of each pixel to an average of itself and its surrounding pixels.

### Options in the Average dialog box:

**Square Size** Determines the size of the sampling area around each pixel. Range from 2 (for a 2x2 square) to 32 (for a 32x32 square).

### To use the Average command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Enhance menu, and choose Average from the Smooth Filters submenu. The Average dialog box appears.
3. Adjust the Square Size scroll bar.
4. Repeat step 3 until the result is satisfactory.
5. Click OK to apply changes or click Cancel.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview box than in the modified image. Adjust accordingly.

### Related topics:

[Blur Commands](#)

[Smooth Tool](#)

## **Smooth Filters: Blur Lightly, Blur and Blur Heavily**

Blur Lightly, Blur, and Blur Heavily are slightly stronger commands which decrease the contrasts between adjacent pixels in the parts of the image where there are significant color shifts. The effects are similar to the Average filter, but you have three choices instead of one.

### **To apply the Blur Lightly, Blur, or Blur Heavily filter:**

Open the Enhance menu, and choose Blur Lightly, Blur, or Blur Heavily from the Smooth Filters submenu.

### **Related topics:**

[Average Command](#)

[Smooth Tool](#)



## Smooth Filters: Despeckle

By comparing each pixel to its neighbors, this filter detects the edges where significant color changes occur and blur the entire image or selection except the edges. It is usually used to reduce the noise in the image while keeping the edges sharp.

### **To use the Despeckle filter:**

Choose Despeckle from the Smooth Filters submenu in the Enhance menu.

### **Related topics:**

[Average Command](#)

[Blur Commands](#)

[Gaussian Blur Command](#)

[Smooth Tool](#)

## Smooth Filters: Gaussian Blur...

This filter uses the Gaussian curve as a weighted averaging function to blur the image.

When you choose the command, the Gaussian Blur dialog box appears.

### Options in the Gaussian Blur dialog box:

**Square Size** The Square Size scroll bar is used to determine how much the image will be blurred. The values refer to the width (in pixel) of the square size involved. The larger the square size, the stronger the effect.

### To use the Gaussian Blur command:

1. Select the area you wish to modify, or if you want to change the entire image, make sure that no area is selected.
2. Choose Gaussian Blur from the Smooth Filters submenu in the Enhance menu. The Gaussian Blur dialog box appears.
3. Pick the size of the sampling region around each pixel by adjusting the Square Size scroll bar.
4. Repeat step 3 if the preview image is not satisfactory and you wish to readjust the square size.
5. Click OK to have changes transferred to the main image. Click Cancel if you decide not to use this filter.

### Notice:

There may be some discrepancy between the way the preview box and the active image are changed by the filter due to differences in image size. The effect may look stronger in the preview box than it does on the image.

### Related topics:

[Average Command](#)

[Blur Commands](#)

[Despeckle Command](#)

[Smooth Tool](#)





## **Enhance: Sharpen Filters Submenu**

The Sharpen Filters submenu sharpen the image. If you want to sharpen the image more selectively, use the Sharpen Tool.

Sharpen Lightly

Sharpen

Sharpen Heavily

Sharpen Horizontally

Sharpen Vertically

Unsharp Mask...

## **Sharpen Filters: Sharpen Lightly, Sharpen and Sharpen Heavily**

Sharpen Lightly, Sharpen, and Sharpen Heavily are progressively stronger filters which will increase the contrast between adjacent pixels in the image where there are significant color shifts.

### **To use the Sharpen Lightly, Sharpen, or Sharpen Heavily filter:**

Go to the Enhance menu and choose Sharpen Lightly, Sharpen, or Sharpen Heavily from the Sharpen Filters submenu.

### **Related topics:**

[Sharpen Tool](#)

## **Sharpen Filters: Sharpen Horizontally and Sharpen Vertically**

These filters allow you to sharpen the image in either horizontal or vertical direction respectively. These commands are helpful if you wish to sharpen lines which move in a particular direction across the screen.

### **To apply the Sharpen Horizontally or Sharpen Vertically filter:**

Go to the Enhance menu, and choose Sharpen Horizontally or Sharpen Vertically from the Sharpen Filters submenu.

### **Related topics:**

[Sharpen Tool](#)

## Sharpen Filters: Unsharp Mask...

This filter enhances the contrast along the edges with a lighter line and darker line generated on each side of an edge, while sharpening the image as the other sharpen filter dose but giving more control. Images that have been blurred may need this filter for obtaining refocus again.

When you choose the command, the Unsharp Mask dialog box appears.

### Options in the Unsharp Mask dialog box:

Square Size	The Square Size scroll bar determines the size of the sampling area around each pixel. The scroll bar range is from 2, for a 2 by 2 square, to 32, for a 32 by 32 square. The larger the square size, the stronger the effect.
Effect	The Effect scroll bar, ranging from 1 to 100, is used to adjust the intensity of the sharpness. Larger value will have a stronger effect.
Threshold	The Threshold scroll bar, ranging from 0 to 255, is used to set a value for the difference of the color/grayness between the adjacent pixels to determine if the sharpening is necessary to apply on an edge. To have a stronger effect, input a lower value.

### To apply the Unsharp Mask filter:

1. Choose Unsharp Mask from the Sharpen Filters submenu in the Enhance menu.
2. Select values for Square Size, Effect, and Threshold by adjusting their respective scroll bar, and repeat this procedure until you are satisfied with the image in the preview box.
3. Click OK to apply the filter to the main image and exit the dialog box.

### Notice:

There may be some discrepancy between the way the preview box and the active image are changed by the filter due to differences in image size. The effect may look stronger in the preview box than it does on the image.

### Related topics:

[Sharpen Tool](#)

[Other Sharpen Filters](#)







## Effects: Composite...

This command combines images in several different ways by mathematically combining the corresponding pixels of the two images. It also allows you to perform mathematical functions on the color/grayscale values for the all of the pixels in an image by combining the image with itself. The Composite command will only combine images that are exactly the same size and have exactly the same number of pixels. But this shouldn't stop you; just use the Resample command from the Transform menu to resize one of your pictures before using Composite. If necessary, use the commands in the Convert menu to change the data type of one of your images, too.

When choosing the Composite command, a dialog box appears.

### Options in the Composite dialog box:

Principal	The image document listed to the right of the Principal will be the <u>active image</u> from the PhotoStudio desktop.
Secondary	The secondary image can be any image that is on the desktop and has exactly the same size and data type as the Principal image. To change the secondary image, click on the down arrow and pick from the list of potential images. If an image is not in this list, it is not on the desktop, or not of the same data type, or it is the wrong size.
Parameter	It will be active whenever the current Operation requires a parameter. This box will prompt you for the type of parameter that is necessary.
Operation	It shows the function that will be performed when the OK button is clicked. Clicking on the Operation down arrow will give you a list of all the possible operations which can be performed on the pixels from Principal and Secondary images. The mathematical function that the current operation performs will be listed just below the operation box as "result =...". The possible operations are listed as follows.
Add	This operation will average or sum the two corresponding pixels to form the new image. The Parameter setting determines whether it will average (2) or sum (1) the color/gray values. The result of this function will look like a blend or an overlay.
Subtract	This operation lowers the color values of the pixels in the active image by the amounts of those from the secondary image and then divides by either one or two.
Multiply	This operation multiplies the corresponding pixel values from two images and then divides by 255. It can also be used to darken an image as well as increase the contrasts in an image if you multiply it by itself.
Blend	This operation is similar to Add, but it allows you to control the contribution of each image to the new picture. The highest possible contribution from an image is 100%, in which case you would not see the other image. You enter the contribution of the active image and the contribution of the secondary is calculated from that.
Difference	This operation is similar to Subtract, but it does not divide by a parameter, rather it uses the absolute value of the difference. Performing Difference or Subtract on two images which are the same will yield a black picture.
Darker	This operation blends the two images by using the darker of the corresponding pixels.
Lighter	This operation blends the two images by using the lighter of the corresponding pixels.

**To use the Composite command:**

1. Decide which image you want to be the Principal one, and make it the active image. Also, make sure that the image you want as the Secondary is on the desktop.
2. Choose Composite from the Effects menu. The Composite dialog box appears.
3. Click the down arrow to the right of the Secondary image to see a list of possible Secondary images. Pick the Secondary image by clicking on it.
4. Pick the Operation you want to perform by clicking the down arrow and choosing from the list of options.
5. Enter a value into the Parameter box if necessary.
6. Click OK if the preview image is satisfactory.

**Notice:**

This command works with 24-bit RGB True Color and 8-bit Grayscale images only.

**Related topics:**

[The Clone Tool](#)

[The Blend Command](#)

[The Resample Command](#)

[Converting Commands in the Convert Menu](#)

## Effects: Area Merge...

This command merges the floating selection with its underlying or the active color by using a mask. The merging percentage on pixels will be determined by the varying brightness values in the mask. The brighter pixels in the mask, the more contribution from the floating selection. This command is especially useful when you want to smoothly merge an image with a completely different background.

When choosing the Area Merge command, the Area Merge dialog box appears.

### Options in the Area Merge dialog box:

**Mask** This box lists all the Grayscale images on the desktop. You may select any of them as a mask.

**Invert** If this box is checked, the brightness values of the mask are inverted.

**Merge Source** You may select either Underlying or Active color as the source to be merged with the floating selection.

### To use the Area Merge command:

1. Open 8-bit Grayscale images on the desktop as masks.
2. Import an image as a floating selection into the image document you want to merge with.
3. Choose Area Merge from the Effects menu. The Area Merge dialog box appears.
4. Pick a Grayscale image document from the Mask box.
5. Change the Invert box status if you wish.
6. Select one from the options in Merge Source.
7. Click OK if the preview image is satisfactory.

### Notice:

This command works with 24-bit RGB True Color or 8-bit Grayscale images. The active image must have a floating selection and there must be at least one 8-bit Grayscale image document opened on the desktop.

### Related topics:

[The Blend Command](#)

[The Fill Color Command](#)

## **Effects: Fine Art**

The functions in this submenu converts the active image into artistic representations.

Oil Painting...

Sketch...

Film Grain...

## **Fine Art: Oil Painting...**

This command makes your picture resemble an oil painting.

### **Options in the Oil Painting dialog box:**

Intensity      Adjust the intensity of the effect. Ranges from 1 to 15.

### **To use the Oil Painting command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Oil Painting from the Fine Art submenu in the Effects menu. The Oil Painting dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### **Note:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust Intensity accordingly.

### **Related topics:**

[Sketch Effect](#)

[Film Grain Effect](#)

## **Fine Art: Sketch...**

This command is similar to the Find Contour command. It sketches an outline of the image.

### **Options in the Sketch dialog box:**

Tool	There are two options to choose the style of your effect. Crayon: color lines on a black background. Pencil: gray lines on a white background.
Threshold	Controls the sensitivity of sketching. You can move the scroll bar to the left for more lines in the sketch; or move to the right for the opposite effect.

### **To use the Sketch command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Effects menu and choose Sketch from the Fine Arts submenu. The Sketch dialog box appears.
3. Choose a tool: Crayon or Pencil.
4. Adjust the Threshold scroll bar.
5. Click OK to apply the effect to the main image.

### **Related topics:**

[Oil Painting Effect](#)

[Film Grain Effect](#)

[Find Contour Command](#)



## **Fine Art: Film Grain...**

This command simulates painting a picture on a rough surface.

### **Options in the Film Grain dialog box:**

Intensity      Adjusts the strength of the effect. Ranges from 1 to 100.

### **To use the Film Grain command:**

1. Choose the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Film Grain from the Fine Arts submenu in the Effects menu. The Film Grain dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### **Related topics:**

[Oil Painting Effect](#)

[Sketch Effect](#)

[Add Noise Effect](#)

## Effects: Liquid Effects

The functions in this submenu creates water-like effects in the image.

Squeeze...

Splash...

Melting...

Ripple...

Wrinkle...

## Liquid Effects: Squeeze...

This command requires a Grayscale image to work. It squeezes the image by different amounts in different places and uses the Grayscale image as a distortion template (distortor) to determine how the parts of the image will be distorted. The amount of squeezing or distortion is determined by the distribution of the brightness values in the distortor.

### Options in the Squeeze dialog box:

Squeeze Source	The Squeeze Source option allows you to select which distortor will determine the squeeze pattern. All Grayscale images opened in the desktop are listed in this list box. If there is no any Grayscale image opened, a message box, in stead of the Squeeze dialog box, will appear.
Rate	The Rate scroll bar adjusts the strength of the effect and has a range from 1 to 100. The larger the Rate value, the stronger the effect.
Direction	The option allows you to choose whether the distortion is moving along the horizontal or vertical direction.

### To use the Squeeze command:

1. Select the area you wish to modify, or if you want to change the entire image, make sure that no area is selected.
2. Make sure a Grayscale image (distortor) is opened.
3. Choose Squeeze from the Liquid Effects submenu in the Effects menu. The Squeeze dialog box will appear.
4. Select one image document from the Squeeze Source list box as a distortor.
5. Choose either Vertical or Horizontal from the Direction box to determine how the distortion happens across the image.
6. Move the Rate scroll bar to the right to strengthen the effect or to the left to weaken the effect.
7. Click OK if the preview image is satisfactory.

### Notice:

1. A message box rather than the Squeeze dialog box will appear if there is no Grayscale image document opened in PhotoStudio.
2. There may be some discrepancy between the way the preview box and the active image are changed by the filter due to differences in image size.

### Related topics:

[Splash Effect](#)

[Melting Effect](#)

[Ripple Effect](#)

[Wrinkle Effect](#)

## Liquid Effects: Splash...

This command blurs the image and makes it look as if water is splashed on it.

### Options in the Splash dialog box:

Intensity      Adjusts the strength of the effect. Ranges from 1 to 100.

### To use the Splash command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Splash from the Liquid Effects submenu in the Effects menu. The Splash dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### **Note:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than the modified image. Adjust Intensity accordingly.

### **Related topics:**

[Melting Effect](#)

[Ripple Effect](#)

[Wrinkle Effect](#)

## Liquid Effects: Melting...

This command makes the image look like it is melting and flowing down the screen.

### Options in the Melting dialog box:

Intensity      Adjusts the strength of the effect. Ranges from 0 to 100.

### To use the Melting command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Melting from the Liquid Effects submenu in the Effects menu. The Melting dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### **Note:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust Intensity accordingly.

### **Related topics:**

[Splash Effect](#)

[Ripple Effect](#)

[Wrinkle Effect](#)

## Liquid Effects: Ripple...

This command shows the image as it would be viewed through ripples of water.

### Options in the Ripple dialog box:

Intensity      Adjusts the strength of the effect. Ranges from 1 to 100.

### To use the Ripple command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Ripple from the Liquid Effects submenu in the Effects menu. The Ripple dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than the modified image. Adjust Intensity accordingly.

### Related topics:

[Splash Effect](#)

[Melting Effect](#)

[Wrinkle Effect](#)

## Liquid Effects: Wrinkle...

This command wrinkles the image.

### Options in the Wrinkle dialog box:

Intensity      Adjusts the strength of the effect. Ranges from 1 (weak) to 100 (strongest).

### To use the Wrinkle command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Wrinkle from the Liquid Effects submenu in the Effects menu. The Wrinkle dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### **Note:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than the modified image. Adjust Intensity accordingly.

### **Related topics:**

[Splash Effect](#)

[Melting Effect](#)

[Ripple Effect](#)







## Effects: Tiling

The Tiling submenu converts the selected area or entire image into tiles in two different styles: 3D Grid and Mosaic.

3D Grid...

Mosaic...

## Tiling: 3D Grid...

This command adds a grid of thick, partially transparent lines to the image as if it were printed on tiles.

### Options in the 3D Grid dialog box:

- Grid Size      Three default sizes for tiles : Large, Medium, and Small.
- Contrast        The options in this box affect the apparent depth of the tiles as well as the transparency of the lines on the screen. High contrast tiles will have the greatest depth and the least transparent lines, low contrast tiles will have the least depth and the most transparent lines, and medium contrast tiles will be in between.
- Grid Pattern    Allows you to choose either perfectly square tiles or irregularly shaped tiles.

### To use the 3D Grid command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Go to the Effects menu and choose 3D Grid from the Tiling submenu. The 3D Grid dialog box appears.
3. Choose a tile size.
4. Choose one option from the Contrast box.
5. Choose Regular or Irregular shapes from the Grid Pattern box.
6. Click OK to apply the effect to the main image.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust accordingly.

### Related topics:

[Mosaic Effect](#)

[Fill Pattern Command](#)

## Tiling: Mosaic...

This command makes the image look like a mosaic of colored tiles.

### Options in the Mosaic dialog box:

Width            Adjusts the width of each tile. Ranges from 2 to 32.  
Height          Adjusts the height of each tile. Ranges from 2 to 32.  
Square          If this box is checked, the tiles will have same width and height like squares.

### To use the Mosaic command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Mosaic from the Tiling submenu in the Effects menu. The Mosaic dialog box appears.
3. Check or uncheck the Square box by clicking on it.
4. Use the scroll bars to adjust the width and height of the tiles.
5. Click OK to apply the effect to the main image.

### **Note:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust accordingly.

### **Related topics:**

[3D Grid Effect](#)

[Smooth Filters Effect](#)

## Effects: Emboss...

This command makes the image appear raised from or stamped on the background surface.

### Options in the Emboss dialog box:

Color	You have four options to create the type of the effect. Original: creates an embossed image in the same color as the original. Midtone: creates an embossed image in gray, but the color contour lines are in the original color. Gray: creates a monochromatic image in gray. Active: create a monochromatic image using the <u>active color</u> .
Direction	Allows you to choose the direction that the shadows fall. You have choices of eight directions.
Depth	Adjusts the depth of the background. Ranges from 1 to 10.

### To use the Emboss command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Emboss from the Effects menu. the Emboss dialog box appears.
3. Choose one of the four options from the Color box.
4. Click one of the arrows in Direction.
5. Move the Depth scroll bar to the right to strenghten the effect, or to the left to weaken the effect.
6. Click OK to apply the effect to the main image.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than the modified image. Adjust accordingly.

## Effects: Motion Blur...

This command simulates a photograph of a moving object.

### Options in the Motion Blur dialog box:

Speed            Adjusts the speed of the motion. Ranges from 2 to 32.  
Direction        Allows you to choose the direction of moving. You have choices of eight directions.

### To use the Motion Blur command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Motion Blur from the Effects menu. The Effects dialog box appears.
3. Adjust the Speed scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click one of the arrows in the Direction box.
5. Click OK to apply the effect to the main image.

### **Note:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust accordingly.

### **Related topics:**

[Smooth Filters Command](#)

## Effects: Fisheye...

This command makes the image bulge from its center in the shape of an eye.

### Options in the Fisheye dialog box:

Intensity      Adjusts the strength of the effect. Range from 1 to 100.

### To use the Fisheye command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Fisheye from the Effects menu. The Fisheye dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust Intensity accordingly.

### Related topics:

[Cone Effect](#)

[Sphere Effect](#)

## Effects: Cone...

This command pulls the image towards its center.

### Options in the Cone dialog box:

Intensity      Adjusts the strength of the effect. Ranges from 1 to 100.

### To use the Cone command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Cone from the Effects menu. The Cone dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust Intensity accordingly.

### Related topics:

[Fisheye Effect](#)

[Sphere Effect](#)



## **Effects: Sphere**

This command makes the image bulge from its center in the shape of a sphere.

There is no option for the Sphere command.

### **To use the Sphere command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Sphere from the Effects menu.

### **Related topics:**

[Fisheye Effect](#)

[Cone Effect](#)

[Cylinder Effect](#)

## Effects: Whirlpool...

This command makes the image look like it is being pulled down by a whirlpool.

### Options in the Whirlpool dialog box:

Intensity      Adjusts the strength of the effect. Ranges from 1 to 100.

### To use the Whirlpool command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Whirlpool from the Effects menu. The Whirlpool dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust Intensity accordingly.

### Related topics:

[Spiral Effect](#)

## Effects: Spiral...

This command twists the image around its center.

### Options in the Spiral dialog box:

Intensity      Adjusts the strength of the effect. Ranges from 1 to 100.

### To use the Spiral command:

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Spiral from the Effects menu. The Spiral dialog box appears.
3. Move the Intensity scroll bar to the right to strengthen the effect or to the left to weaken the effect.
4. Click OK to apply the effect to the main image.

### Note:

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust Intensity accordingly.

### Related topics:

[Whirlpool Effect](#)

## **Effects: Cylinder**

This command wraps the image around a cylinder.

There are no options for the Cylinder command.

### **To use the Cylinder command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Cylinder from the Effects menu.

### **Related topics:**

[Fisheye Effect](#)

[Cone Effect](#)

[Sphere Effect](#)

## **Effects: Ribbon...**

This command stretches the image into a thick, wavy ribbon.

### **Options in the Ribbon dialog box:**

Frequency Controls the number of waves in the image ribbon. Ranges from 1 (a small part of a wave) to 100 (many waves).

Amplitude Controls the distance the ribbon travels from the top to the bottom of the image window. Ranges from 1% to 100%. Increasing its value increases the distance the ribbon travels and decrease the thickness of the ribbon.

### **To use the Ribbon command:**

1. Select the area you want to modify, or make sure no area is selected if you want to change the entire image.
2. Choose Ribbon from the Effects menu. The Ribbon dialog box appears.
3. Use the Frequency scroll bar to adjust the number of the ribbon undulations.
4. Use the Amplitude bar to control the thickness of the ribbon.
5. Click OK to apply the effect to the main image.

### **Notice:**

Due to the compact size of the preview box, the effect may seem stronger in the preview image than in the modified image. Adjust accordingly.

## Effects: Magic Mirror...

The Magic Mirror is a very powerful tool which can be used to generate many different image effects. The most effective way to develop a understanding of the options in the Magic Mirror and how they can be used to create effects is to play around with the controls. Keep trying different permutations until you really get a feel for how to use the Magic Mirror's functions.

When choosing the Magic Mirror command, the Magic Mirror dialog box appears.

### Options in the Magic Mirror dialog box:

Mapping	The four options in the Mapping box allow you to pick the direction of the effect. Horizontal allows you to stretch, squeeze, and flip your image in along the horizontal direction, while Vertical allows you to do this in the up-and-down direction. Radial will have these same effects in a radial direction projecting from the center of the image. Angular will spin the image around the center.
Magic Curve	The shape of the magic curve in the dialog box determines the way of how to transform a pixel in the image to another location in either Horizontal, Vertical, Radial, or Angular dimension, depending on the setting in Mapping box. For example, a linear curve from the upper-left corner to the lower-right corner will flip the image horizontally if Horizontal is selected in the Mapping box, or flip the image vertically if Vertical is selected. A linear curve from the lower-left corner to the upper-right corner is a no effect curve and the Magic Mirror will cause no change on the image. To draw a magic curve simply click on the curve's starting point, and drag the pointer along the path of the curve.
Operate	The Operate box includes two part: the list box and Operate button. The list box provides you seven functions which can help to generate a smooth magic curve: Circle, Exponent, Logarithm, Sine, Arcsine, Square, and Squareroot. The other two functions in the list box are Reset which will change the curve back to the no effect curve mentioned above, and Smooth which will take the rough edges off of a curve that you have drawn. When you click the Operate button, the selected function will act on the current curve.
Load	The Load button allows you to load a previously saved curve in the ".mmc" format. When you click on it, the Load Magic Curve dialog box will appear for loading ".mmc" file.
Save	The Save button allows you to save your magic curve for future use. Be sure to save curves as ".mmc" files, because this is the only type of file that will be listed in the Load Magic Curve Dialog box.

### To use the Magic Mirror command:

1. Select the area you wish to modify, or if you want to change the entire image, make sure that no area is selected.
2. Choose Magic Mirror from the Effects menu. The Magic Mirror dialog box will then appear on your screen.
3. If you want to use a curve which has already been created and saved, select Load.
4. Pick the dimension you want to change from one of the four options in the Mapping box
5. To draw a new curve, move the pointer to the place in the dialog box where you want your curve to start. Then, click the left mouse button and draw a new curve by dragging the pointer as desired. When you are done simply release the left button.
6. To operate on the magic curve with one of the seven mathematical functions, or with the Smooth or the Reset functions, select one in the list box and then click the Operate button. Be aware that each time pressing the button will cause the selected function operating on the current curve again.

7. If you want to save your magic curve for future use, click the Save button. Make sure to save your curve as a ".mmc" file.
8. Click OK if the preview image is satisfactory.

**Notice:**

There may be some discrepancy between the way the preview box and the active image are changed by the filter due to differences in image size.

**Related topics:**

[Fisheye Effect](#)

[Cone Effect](#)

[Sphere Effect](#)

[Whirlpool Effect](#)

[Spiral Effect](#)

[Cylinder Effect](#)

[Flip Horizontally Command](#)

[Flip Vertically Command](#)

## **Effects: Plug-In Filters**

This submenu lists all PhotoShop Plug-In filters for special effects (with file extension of \*.8bf). PhotoStudio will look for all the \*.8bf files in its PLUGINS subdirectory, or the directories shown in the entry of the PluginDir1, PluginDir2, and 3 etc. in the PSTUDIO.INI file that is located in the Windows directory.

### **Related topics:**

[Import Command](#)

[Export Command](#)







## **Convert: To 1-bit Black-White...**

This command converts the active image into a Black-and-White image file. Black and white image has only two pixel values 0 (black) and 1 (white), and requires the least memory.

### **Options in the To 1-bit Black-White dialog box:**

There are four options in this dialog box: Ordered Dithering, Error Diffusion, Dot Diffusion, and None. None converts darker pixels to black and brighter pixels to white.

Ordered Dithering, Error Diffusion, and Dot Diffusion provide different ways to create the effect of grayness by mixing black and white dots. You can try on each of them until the result is satisfactory.

### **To convert an image into the Black-and-White format:**

1. Choose To 1-bit Black-White from the Convert menu.
2. Choose your dithering option.
3. Choose OK and a new Black-and-White image file appears.

### **Related topics:**

[Convert To Grayscale Command](#)

[Convert To Index 16-Color Command](#)

[Convert To Index 256-Color Command](#)

[Convert To RGB True Color Command](#)

## **Convert: To 8-bit Grayscale**

This command converts the active image into an 8-bit Grayscale image file with 256 shading levels. All PhotoStudio functions are available for 8-bit Grayscale images.

### **To convert an image into the 8-bit Grayscale format:**

Choose To 8-bit Grayscale from the Convert menu.

### **Related topics:**

[Convert To Black/White Command](#)

[Convert To Index 16-Color Command](#)

[Convert To Index 256-Color Command](#)

[Convert To RGB True Color Command](#)

## **Convert: To 4-bit Index 16 Color...**

This Command samples the colors in the active image and then convert it into an Indexed 16-Color image. You may lose image information when you use this conversion. VGA monitors that display in 16-color mode uses this data type. Black-and-White images can not be converted into indexed color images.

### **Options in the To 4-bit Index 16 Color dialog box:**

Palette        This box has two options. System: creates the color table using the standard VGA systems color palette. Optimize: signifies PhotoStudio finds the most frequently used 16 colors and then use these 16 colors to best match the original image.

Dither         This box has three options: None, Diffuse, and Pattern. These options determine how PhotoStudio will create color gradations in the indexed image.

### **To convert an image into the Index 16-Color format:**

1. Choose To Index 16-color (4-bit) command from the Convert menu.
2. Choose one Palette option.
3. Choose one Dither option.
4. Click OK and the Index 16-Color image appears as a new image file.

### **Related topics:**

[Convert To Black/White Command](#)

[Convert To Grayscale Command](#)

[Convert To Index 256-Color Command](#)

[Convert To RGB True Color Command](#)

## **Convert: To 8-bit Index 256 Color...**

This Command samples the colors in the active image and then converts it into an Index 256-Color image file. If you convert RGB True Color images to this format, you may lose image information. Most super VGA boards that display in 256-color mode use this data type. Black-and-White images can not be converted into indexed color images.

### **Options in the To 8-bit Index 256 Color dialog box:**

If the active image is RGB True Color, you must select a palette and a dithering style for the converted image. There are three options for selecting a palette. System 666 and System 676 will make the image color table by using one of the two predefined color palettes. Optimize signifies that PhotoStudio will find the most frequently used 256 colors and then use these 256 colors to best match the original image. The Dither options determine how PhotoStudio will create color gradations in the indexed image. There are also three options: None, Diffuse, and Pattern for selecting a dithering style. By trying, you will find out the difference resulting from one of these three.

If the active image is 8-bit Grayscale, a dialog box with two options appears. Firelight and Pseudo Color represent different ways to convert the shading values in the image to certain predefined colors.

### **To convert an image into the Index 256-Color format:**

1. Choose To 8-bit Index 256 Color command from the Convert menu.
2. Choose one option from the dialog box.
3. Choose OK.

### **Related topics:**

[Convert To Black/White Command](#)

[Convert To Grayscale Command](#)

[Convert To Index 16-Color Command](#)

[Convert To RGB True Color Command](#)

## **Convert: To 24-bit RGB True Color**

This Command converts the active image into a 24-bit True Color image file, which retains the maximum amount of pixel information. All PhotoStudio functions are available for 24-bit True Color.

### **To convert an image into the 24-bit RGB True Color format:**

Choose To 24-bit RGB True Color command from the Convert menu.

### **Related topics:**

[Convert To Black/White Command](#)

[Convert To Grayscale Command](#)

[Convert To Index 16-Color Command](#)

[Convert To Index 256-Color Command](#)

## **Convert: Separate To**

Colors can be represented by different models depending on how image will be used. For example, the RGB color model is usually used in input and display devices; while the CMYK color model is widely used in color printers and in the press industry.

The Separate To submenu contains commands which can split the active RGB True Color image into various separate channels based on RGB, HSV, CMYK, or YIQ color model, and present them as Grayscale images. Each Grayscale images represents a particular channel in the respective color space.

You can edit individual channels of the image separately and recombine them to a 24-bit RGB True Color image by using the Combined By command. This will give you great flexibility when editing a color image.

When you select CMYK Channels from the Separate To submenu, the intensity of Cyan, Magenta, Yellow and Black channels is determined by the settings in the Separation Setup dialog box.

### **To use commands in the Separate To submenu:**

1. Make sure the 24-bit True Color image you want to split is active.
2. Choose Separate To from the Convert menu. The submenu pops up.
3. Choose RGB Channels, if you wish to use the RGB color model, and image will split into three separate Grayscale images which represent the red (R), green(G), and blue(B) channels. Choose one of the other commands if you wish to use that color model.

### **Notice:**

The Separate To submenu will be dimmed if the active image is not an RGB True Color image.

### **Related topics:**

[Combined By Submenu](#)

[Separation Setup Command](#)



## **Convert: Combined By**

The commands in the Combined By submenu create a RGB True Color image by merging a few Grayscale images that represent separate channels in RGB, HSV, CMYK, or YIQ color model. These Grayscale images must be opened and have the same width and length.

You may split the channels by using Separate To command, work with individual channels of the image first and then recombine them to the 24-bit RGB True Color image. Of course, you should NOT use RGB Channels command in the Combined By submenu if the image was separated to CMYK channels.

When you select CMYK Channels from the Combined By submenu, PhotoStudio uses the settings in the Separation Setup dialog box. The parameter settings should be the same as the CMYK channels were separated.

### **To use the Combined To submenu:**

1. Make sure all Grayscale images needed are opened and one of the them is active.
2. Go to the Convert menu and choose Combined By. The Combined By submenu will pop up.
3. Select RGB Channels, if you wish to use the RGB color model, and a dialog box will appear. Three list boxes are shown for choosing a Grayscale image as one of the channels in the RGB color model. The list boxes in the dialog box only list the Grayscale images that are the same size as the active one. Select one of the other commands, if you wish to use that color model, and the respective dialog box will appear.
4. Click OK to combine images.

### **Notice:**

The Combined By submenu will be dimmed if the active image is not a Grayscale one.

### **Related topics:**

[Separate To Submenu](#)

[Separation Setup Command](#)

## Convert: Separation Setup...

This command sets parameters for the Separate To CMYK and Combined By CMYK commands. PhotoStudio uses the Gray Component Replacement type of color separation.

When you choose the command, the Separation Setup dialog box appears.

### Options in the Separation Setup dialog box:

- Black Generation** A parameter used to determine the intensity of the black channel. Available value ranges from 0 to 100 percent. The higher the percentage, the more black generated.
- UCR Amount** The Under Color Removal Amount, is used to determine how much cyan, magenta, and yellow inks are removed. Available value ranges from 0 to 100 percent. The higher the percentage, the more inks removed.
- Total Ink Limit** A parameter used to set the maximum ink density allowed by your press. Available value ranges from 200 to 400 percent.

### To use Separation Setup:

1. Choose Separation Setup from the Convert menu. The Separation Setup dialog box appears.
2. Adjust the scroll bars to set the values for Black Generation, UCR Amount, and Total Ink Limit respectively.
3. Click OK to accept your changes or click Cancel to exit dialog box without changing anything.

### Related topics:

[Separate To Submenu](#)

[Combined By Submenu](#)





## **View: Actual View**

If you have magnified or reduced the active image , this command changes the image back to its original size.

### **To use the Actual View command:**

Choose Actual View from the View menu.

### **Note:**

Double clicking on the Zoom Tool button has the same result.

### **Related topics:**

[Zoom In Command](#)

[Zoom Out Command](#)

[Zoom Tool](#)

## **View: Zoom In**

This command magnifies your view of the image from one to sixteen times. The Status Line displays the current level of magnification.

### **To magnify the active image :**

1. Choose Zoom In from the View menu. The Zoom In submenu lists all the magnification values available.
2. Choose one of the magnification values.

### **Note:**

You can also use the Zoom Tool to magnify the active image.

### **Related topics:**

[Actual View Command](#)

[Zoom Out Command](#)

[Zoom Tool](#)

## **View: Zoom Out**

This command shrinks your view of the image from one to sixteen times. The Status Line displays the current level of size reduction.

### **To shrink the active image :**

1. Choose Zoom Out from the View menu. The Zoom Out submenu lists the reduction levels available.
2. Choose one of the reduction levels.

### **Note:**

You can also use the Zoom Tool to shrink the active image.

### **Related topics:**

[Actual View Command](#)

[Zoom In Command](#)

[Zoom Tool](#)

## **View: Fit In Window**

This command adjusts the size of your image to fit in any size window. This command is usually used when the current view of an image is larger than the image window.

### **To use the Fit In Window command:**

Choose Fit In Window from the View menu.

### **Related topics:**

[Zoom Out Command](#)



## **View: Full Screen**

This command makes the desktop disappear, and show only the image in the center of the screen against a black background. You can then use the left and right mouse buttons to enlarge or to shrink the image, and the Enter key to switch between images that are opened.

### **To use the Full Screen command:**

1. Choose Full Screen from the View menu.
2. Click on the left button to magnify the picture. Click on the right button to shrink it.
3. To view other open images, simply press Enter.
4. Press Enter to return to the desktop.

### **Related topics:**

[Zoom Tool](#)

[Slide Show](#)

## **View: Rulers**

This command makes a pair of rulers (with pixels as unit measurement) appear along the top and left sides of the image. The arrows on the rulers indicate the position of the pointer in the image. The position of the pointer is also displayed in the Status Line.

### **To use the Rulers command:**

Choose Rulers from the View menu and two rulers appear on the edges of the image window. Choose Rulers command to make the rulers disappear.

## **View: Image Information**

This command displays the filename, width, height, resolution, data size, and data format of the active image . It can also be used to see the histogram of the image.

### **To use the Image Information command:**

1. Make sure the image you want to know about is active.
2. Choose Image Information from the View menu. A dialog box displaying the information appears.
3. To see the image histogram, choose the Histogram button in the dialog box; and after the Image Histogram box appears, choose one option from RGB, R, G, and B.
4. Click OK to exit the dialog box.

## **View: Show/Hide Tools**

If the Tools palette is showing on the desktop, you can make it disappear by choosing the Hide Tools command from the View menu. Choose the Show Tools command again to make the Tools palette reappear.

### **To make the Tools palette appear or disappear:**

Choose Show/Hide Tools from the View menu.

### **Note:**

1. If you have already selected Show Tools command and you still can not see the Tools palette, adjust the size of the PhotoStudio window to make it visible.
2. You can also hide the Tools palette by double clicking on its title bar.

### **Related topics:**

[The Tools Palette](#)

## **View: Show/Hide Color Palette**

If the color palette is showing on the desktop, you can make it disappear by choosing the Hide Color Palette command from the View menu. Choose Show Color Palette again to make it reappear.

### **To make the Color Palette appear or disappear:**

Choose Show/Hide Color Palette from the View menu.

### **Note:**

You can also hide the color palette by double clicking on its title bar.

### **Related topics:**

[The Color Palette](#)

## **View: Show/Hide Brush Palette**

If the Brush Palette is showing on the desktop, you can make it disappear by choosing the Hide Brush Palette command from the View menu. Choose Show Brush Palette again to make it reappear.

### **To make the Brush Palette appear or disappear:**

Choose Show/Hide Brush Palette from the View menu.

### **Note:**

You can also hide the Brush Palette by double clicking on its title bar.

### **Related topics:**

The Brush Palette

## **View: Monitor Gamma...**

This Command allows you to adjust the monitor's gamma values. The default value for the R, G and B channels is 1.4. The values from 0.75 to 2.5 work best, depending on your monitor setting. If for whatever reason the colors on your monitor differ from the colors of the original image, you may need to adjust these values.

### **To adjust the monitor gamma values:**

1. Choose Monitor Gamma from the View menu. The Monitor Gamma dialog box appears.
2. Type your new values into the Monitor Gamma boxes. Gamma values for each channel must be between .001 and 16.0.
3. Click OK to adjust the monitor gamma values and exit the dialog box.







## **Windows: New Window**

This command creates a duplicate image window for the active image so that you can view the same image file at different view ratio at the same time. Changes made in one image window will be updated simultaneously in the others.

### **To use the New Window command:**

Choose New Window from the Windows menu.

## **Windows: Tile**

This command arranges the image windows without overlapping so that you can see all image files simultaneously.

### **To use the Tile command:**

Choose Tile from the Windows menu.

### **Related topics:**

[Cascade Command](#)

[Arrange Icons Command](#)

## **Windows: Cascade**

This command arranges the image windows so that they overlap and their title bars are visible.

### **To use the Cascade command:**

Choose Cascade from the Windows menu.

### **Related topics:**

[Tile Command](#)

[Arrange Icons Command](#)

## **Window: Arrange Icons**

This command arranges minimized image file icons.

### **To use the Arrange Icons command:**

Choose Arrange Icons from the Windows menu.

### **Related topics:**

[Tile Command](#)

[Cascade Command](#)

## **Window: Close All**

This command closes all the image files opened in PhotoStudio. If there are any unsaved changes or any image that is new, PhotoStudio prompts you to save.

### **To close all images on the screen:**

Choose Close All from the Windows menu.

### **Related topics:**

[Close Active Image](#)

[Exit PhotoStudio](#)

## **Window: Image Window List**

This is a list of all opened image files. The one with a checked mark is the active image. Highlight a file to activate it.







## **Procedures: Importing Images**

There are several ways to bring images into PhotoStudio.

You can open existing image files by using the Open command, or create an entirely new image file by using New command. Use the Paste command to get images from the Windows Clipboard or use the Acquire command to get images from hardware devices like scanners and digital cameras. You can even input images straight from other Windows applications by using the Capture command.

**For more information, refer to the following topics:**

[Creating New Images](#)

[Opening Image Files](#)

[Capturing Images](#)

[Scanning Images](#)

[Using Clipboard](#)

## **Procedures: Converting Image Data Types**

PhotoStudio supports images of the following data types: 1-Bit Black and White, 8-Bit Grayscale, 4-Bit Index Color, 8-Bit Indexed Color, and 24-Bit RGB True Color. (4-Bit Indexed and 8-Bit Indexed Color are also known as 16-Color and 256-Color Indexed, respectively.)

You may need to convert an image from 24-Bit RGB True Color to indexed color so that the image can be used by other applications or displayed on low-resolution systems. On the other hand, because the 24-Bit RGB True Color type retains the maximum amount of a color image information, you might want to convert an indexed image to this type so that you can use most PhotoStudio functions and tools for editing. Similarly, you would convert a 1-Bit Black and White image to Grayscale for any processing. Of course, you may also want to convert an image for stylistic reasons. You can convert a color image to grayscale for stylistic effect, for example, or convert a grayscale one to color so you can hand-tint it.

The data type of the current image will be shown in the Status Line at the bottom of the PhotoStudio screen.

### **For more information, refer to the following topics:**

[Converting To Black and White](#)

[Converting To Grayscale](#)

[Converting To Indexed 16-Color](#)

[Converting To Indexed 256-Color](#)

[Converting To RGB True Color](#)

## **Procedures: Displaying and Viewing Images**

PhotoStudio gives you excellent control over the desktop environment. You can make the Rulers, Tools Palette, Brush Palette, Color Palette and even the desktop itself invisible, and you can arrange the palettes and image windows with complete flexibility.

PhotoStudio also gives you a number of ways to control your view of an image. You can magnify or reduce your view, control the shape of the window and force the image to fit fully in any window, no matter what the size is. You can also have many different image files displayed on the screen at the same time, or you can have PhotoStudio present images in a series like a slide show.

**For more information, refer to the following topics:**

[Using the Zoom Tool](#)

[Using the Grabber Tool](#)

[Using the Slide Show Command](#)

[Using Commands in the View Menu](#)

## **Procedures: Selecting and Masking Images**

You can use the selection tools to select a rectangular area, an elliptical area, or an area drawn by hand free.

The dotted-line boundary that surrounds a selection is called a mask. When you use a mask, PhotoStudio tools and commands affect only the masked area. Masks focus your image-editing on a specific part of your picture and protecting the unmasked part from any changes. To get rid of a mask, use the None command from the Mask menu. To discard a mask and all changes that have been made in it, use the Trash Can Tool. (See topics below).

### **For more information, refer to the following topics:**

[Using the Rectangle Select Tool](#)

[Using the Ellipse Select Tool](#)

[Using the Freehand Select Tool](#)

[Using the Magic Wand Select Tool](#)

[Using the Trash Can Tool](#)

[Using Commands in the Mask Menu](#)

## **Procedures: Editing Selections**

There are several tools and commands which allow you to edit a selection area. You can Cut or Copy a selection and Paste it to other selected areas in either the same image or other image files. You can move the selected area anywhere within the image by using the Image Move Tool, or move a mask alone using the Mask Move Tool.

You can also change the masking mode so that new selections are added to or subtracted from the current selection.

### **For more information, refer to the following topics:**

[Using the Cut Command](#)

[Using the Copy Command](#)

[Using the Paste Command](#)

[Using the Mask Move Tool](#)

[Using the Image Move Tool](#)

[Using Commands in the Mask Menu](#)

## **Procedures: Applying Transformations**

Several commands and tools are available in PhotoStudio for transforming images or selections by flipping, rotating, distorting, or resizing them.

**For more information, refer to the following topics:**

[Using the Transform Tool](#)

[Using the Transform Commands](#)

## **Procedures: Making Color Corrections**

Image captured with scanners and other devices often do not perfectly represent the original. For example, if a scanner is not calibrated properly, a scanned photo can appear off-color. With the options in PhotoStudio, you can correct the computer image to better represent the original or even improve upon the quality of the original.

**For more information, refer to the following topics:**

[Using the Brightness and Contrast Command](#)

[Using the Hue and Saturation Command](#)

[Using the Tone Adjustment Command](#)

[Using the Brighten/Darken Tool](#)



## **Procedures: Applying Special Effects**

Special effect filters can convert ordinary images into interesting, artistic creations. PhotoStudio provides you more than 40 filters to create special effects. A filter is a special command that creates one type of visual effect with variable intensity that you can control. The best way to understand these effects is to try them out.

The special effect filters work with 24-Bit RGB True Color and 8-Bit Grayscale images only.

**For more information, refer to the following topics:**

[Applying the Oil Painting Effect](#)

[Applying the Splash Effects](#)

[Applying the Ripple Effect](#)

[Applying the Emboss Effect](#)

[Applying the Motion Blur Effect](#)

[Applying the Whirlpool Effect](#)

## **Procedures: Working With Colors**

At the bottom of the tools palette, there are two squares that display the active color (in front), and the alternative color (behind the active color). The active color is available for most major commands, functions, and tools; the alternative is used with the active color when applying the Gradient Fill effect.

There are three ways to change the active color:

- (1) Pick the color directly from your image by clicking on it with the Eyedropper Tool;
- (2) Select the color from the Color Palette;
- (3) Or double-click on a swatch to call up the Color selection dialog box, which gives you precise control over the color values.

You can use these same methods to pick grays for a grayscale image.

**For more information, refer to the following topics:**

[Using the Eyedropper Tool](#)

[Using the Color Palette](#)

[Using the Color Swatches](#)

## **Procedures: Using the Painting Tools**

PhotoStudio provides you Stamp, Gradient Fill, Bucket Fill, Airbrush, Paintbrush, Smudge, Pen, Brighten/Darken, Smooth/Sharpen, Clone, and Revert Tools in the Tools Palette for drawing, painting, and retouching images.

Click on a tool to activate it. Then click on the image you want to modify. For example, if you want to use the Paintbrush Tool, first click on the tool, and then click on your image. The Clone and Gradient Fill tools act differently because of their special natures. See the corresponding topics below for more information.

Almost every tool has a few options that change the way it acts. To view or change a tool's options, double-click on the tool button. A dialog box with the options will appear.

**IMPORTANT NOTE:** If a tool does not create any effects, make sure that you are not using that tool outside of the mask. If there is currently no mask on the image, check your tool settings, active and alternative color selections. Also, make sure that the image you are trying to edit is the active image.

### **For more information, refer to the following topics:**

[Using the Stamp Tool](#)

[Using the Gradient Fill Tool](#)

[Using the Bucket Fill Tool](#)

[Using the Airbrush Tool](#)

[Using the Paintbrush Tool](#)

[Using the Smudge Tool](#)

[Using the Pen Tool](#)

[Using the Brighten/Darken Tool](#)

[Using the Smooth/Sharpen Tool](#)

[Using the Clone Tool](#)

[Using the Revert Tool](#)







## Tools: Rectangle Select Tool

This tool allows you to select rectangular portions of your image. To use it, click and drag in the image window. As long as you hold the mouse button down, you can change the size of the selection. To make it larger, drag the mouse diagonally away from the point where you first clicked. To make it smaller, drag the mouse closer to that point. To make it taller, drag up or down; to make it wider, drag left or right. Release the mouse button when you complete the selection. The pointer position and the size of the selected rectangle are displayed in the status bar (located at bottom of the PhotoStudio window) during the selecting operation.

If you want to remove the mask you have created, click (but do not drag) anywhere in the image, or choose None from the Mask menu.

You can also combine the existing mask with the new selection by holding down the Shift key and dragging the mouse.

Tip: To make accurate selections, make sure the mouse pointer is at one corner of the rectangular area you want to select before you start to click and drag. If the options are set to Draw From Center, make sure the pointer is at the center of the area you want to select. (See "Options" below.)

Double-click on the Rectangle Select Tool button, and a dialog box appears with more options. Click OK to activate your setting.

### Options in the Rectangle Select Tool dialog box:

Square	Allows you to make a square selection.
Draw From Center	Allows you to draw a rectangular selection, from the center of the area you want to select. To draw from center, click at the center of the area you want to select and then drag the mouse out toward any corner of the area.
Size Fixed	Allows you to make a selection in a fixed size you specified. If you also checked the Square option, PhotoStudio will require the width and height fields to be equal.

### Related topics:

[Ellipse Select Tool](#)

[Freehand Select Tool](#)

[Magic Wand Select Tool](#)



## Tools: Ellipse Select Tool

This tool allows you to select elliptical or oval-shaped portions of your image. To use it, click and drag in the image window. As long as you hold the mouse button down, you can change the size and shape of the selection you are making. To make it larger, drag the mouse diagonally away from the point where you first clicked. To make it smaller, drag the mouse closer to that point. To make it taller, drag up or down; to make it wider, drag left or right. Release the mouse button when you complete the selection. The pointer position and the size of the selected area are displayed in the status line (located at bottom of the PhotoStudio window) during the selecting operation.

If you decide you want to remove the existing selection, click (but do not drag) anywhere in the image.

You can also combine the existing mask with the new selection by holding down the Shift key and drag.

Tip: For more accurate selections, imagine that you are using the rectangle select tool to make a rectangular selection that is just the right size to contain the oval area you want. Make sure the mouse pointer is at one corner of that imaginary rectangular area before you start to click and drag. Also, you may want to try the Draw From Center option. (See "Options" below.)

When you double-click on the Ellipse Select Tool button, a dialog box with more options appears. Click OK to activate your setting.

### Options in the Ellipse Select Tool dialog box:

- |                  |                                                                                                                                                                                                     |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Circle           | Allows you to make a circular selection. If you try to select an elliptical area, the tool will limit the size of the selection to the largest possible circle within that area.                    |
| Draw From Center | Allows you to draw elliptical selections, from the center of the area you want to select. To draw from center, click at the center of the area you want to select and then drag the mouse outwards. |
| Size Fixed       | Allows you to make a selection in a fixed size you specified. If you check the Circle box as well, PhotoStudio will require the width and height fields to be equal.                                |

### Related topics:

[Rectangle Select Tool](#)

[Freehand Select Tool](#)

[Magic Wand Select Tool](#)



## **Tools: Freehand/Polygon Select Tool**

This tool allows you to create irregularly-shaped or polygonal selections.

To use it, click and drag in the image window. If you want a polygonal selection--like a star or an octagon--you only need to click the mouse on the points of the polygon, in a connect-the-dots fashion. PhotoStudio will connect the points you clicked. (Note: The stamp tool has a template feature that makes some polygonal selections easier.)

By using a combination of these two techniques, you can create a selection that is partly polygonal and partly irregular.

You can also combine the existing mask with the new selection by holding down the Shift key and dragging.

When you are finished with your selection, double-click on the point where you want to end. Most people find it easier to end it where they started. If you do not double-click where you started, PhotoStudio will complete the selection with straight lines.

This tool has no options.

### **Related topics:**

[Rectangle Select Tool](#)

[Ellipse Select Tool](#)

[Magic Wand Select Tool](#)





## Tools: Magic Wand Tool

This tool allows you to select an area of your image based on the color similarity. (In grayscale and black-and-white images, it selects regions of similar darkness.) For example, if your image is a landscape with a blue sky, you can use the magic wand tool to select the sky without selecting the white clouds at the same time. Then you can apply various effects to change the color of the sky.

To make this selection, click on the sky with the magic wand tool. This tool selects everything of that color or a similar color that is in the image. This tool also has an option that allows you to select a contiguous area of your image based on color similarity. In other words, it will select all the blue in the sky, but it won't select the blue ball that's in the middle of the meadow.

Since there are some part of the sky color is lighter than the others, you may end up just selecting partial of the sky. If your image also includes a blue lake close to the sky, you may end up selecting the sky and the lake.

However, you can change the sensitivity of this tool by adjusting the options. And, if you hold down the Shift key, you can add this Magic Wand Tool selection to your current selection.

### Options in the Magic Wand Tool dialog box:

Contiguous Area Only	If this box is checked, the magic wand tool only selects the contiguous area containing the pixel you clicked on. Otherwise, the tool selects all pixels in the image that have the same or similar color to the pixel where you clicked on.
Similarity	This is the default setting for this tool. The Magic Wand selects the color you click on and all colors that are similar to that color. Adjust the similarity degree by moving the R, G, B Sliders. The higher the numbers, the greater the number of colors that will be selected.
Threshold	When you check the Threshold box, the Magic Wand Tool categorizes all the pixels in your image into two types: ones that have RGB values that are all greater than the threshold settings, and others that have values equal to or below them. (A pixel with red and green values greater than the respective threshold settings but a blue value below the threshold blue value would fall into the "less than" category.) Then when you click in your image, the tool selects the color you click on and all colors that are in the same threshold category as the first color.
RGB Sliders	There are three sliders; one each for red, green, and blue. Each one ranges from 0 to 255, which corresponds to the color values given to each color in a PhotoStudio image.

### Related topics:

[Rectangle Select Tool](#)

[Ellipse Select Tool](#)

[Freehand Select Tool](#)



## **Tools: Mask Move Tool**

This tool allows you to move the mask to a different part of your image. When you drag your mask with the Mask Move Tool, you are moving the outline of the mask, not including the content.

This tool is not available if you don't have anything selected in your image. Masks cannot be moved between images with this tool.

### **Related topics:**

[Area Move Tool](#)



## **Tools: Area Move Tool**

Unlike the mask move tool, the area move tool moves both the mask outline and the contents within. To use it, click in the current mask and drag it to its new location.

This tool does not remove the original masked pixels; it only moves a copy of those pixels to the new location. It's like peeling off a copy of that part of your image and then placing the copy elsewhere on the image. The copy is a floating selection, so you can move the copy as many times as you want without hurting the image underneath it.

This tool is not available if there is no current selection. It has no option dialog box.

### **Related topics:**

[Mask Move Tool](#)







## Tools: Text Tool

This tool allows you to add a line of text on top of your image. To use it, click the tool button and click the location where you want the text line to start. The texts flow from left to right.

When you click within the image, the text dialog box appears for entering your text. Type the text you want in the main dialog box. Note that pressing return will have the same effect as clicking on the OK button.

You can also click on the "Font..." button to get the "Select Font" dialog box, which allows you to change the font and add various styles and effects. Changes you make in the "Select Font" dialog box applies to all of the text in the text dialog box.

Once you have created the text, it appears as a floating selection. You can use the Area Move Tool to move this floating selection. The color of the text is the same as the active color. If you click again with the text tool, this tool activates and the floating selection is released, and PhotoStudio will prompt you with a new text dialog box.

Note: Text you create is limited by the overall resolution of your image. If your image is not high-resolution, your text will not be high-resolution either.

### **Options in the Text Tool dialog box:**

Double-clicking on the Text Tool button shows up the "Select Font" dialog box and allows you to designate the default font settings for your text.



## Tools: Stamp Tool

This tool allows you to place a predefined shape on your image with every click and drag of your mouse. The default shape is rectangle in active color at 0% transparency (opaque). To use it, click and drag in your image to create the rectangle, just like you would do with the Rectangle Select Tool if you were making a rectangular selection. If you do not like the result, use the Trash Can Tool to discard the stamp.

You can define your own stamps, too. To do this, create a new grayscale image of the same proportions that you want the stamp to have. Draw your stamp in white on a black background. (If you want your stamp to have holes in it, draw them in black.) Then convert the image to 1-bit Black-and-White format and save it as a ".BMP" file in the STAMPS sub-directory of the PhotoStudio program. Quit PhotoStudio and change the files extension from ".BMP" to ".STM" so that PhotoStudio recognize it as a stamp file. When you run PhotoStudio again, the new stamp name will appear in the list with the other predefined stamps in the Stamp Option dialog box. (Refer to the Options discussed below.)

The Stamp Tool has many options you can access by double-clicking on the tool button.

### Options in the Stamp Tool dialog box:

Source	This contains a list of predefined shapes like ellipse, line, frame, arrow, and star. If you pick one of these shapes, this tool will create that shape until you change your selection again, or until you quit PhotoStudio.
Transparency	Changes the transparency of the stamps made by the tool, from 0% (opaque) to 99% (so transparent you can barely tell that you made a stamp).
Draw From Center	Creates stamps from the center outward. In other words, when you click and drag to create a stamp, the place you click is the center of the stamp.
Default Size	Creates a stamp of a predefined size. If the Draw From Center option is on, the new stamp will be centered at the location where you clicked; if not, it will be located below and to the right of the place where you clicked. The default size varies depending on the current Source selection.

### Related topics:

[Rectangle Select Tool](#)

[Trash Can Tool](#)



## Tools: Gradient Fill Tool

This tool fills the current mask or the entire image with a gradient from the alternative color to the active color. A gradient is a transition from one color to another, like a rainbow.

To use it, click at the point where you want the gradient to start and drag to designate the length and direction of the transition. For example, if you want a gradual, sunset-like gradient, set your alternative color to a sky blue and your active color to a dark orange. Then click at the top of your image and drag straight down to the bottom. If you drag for a shorter distance, the transition will occur more quickly. Also, you can have part of the transition occur outside the current mask or image by dragging past the boundary of the mask or image.

The default gradients are opaque (0% transparency). If you want to change it, double click on the tool button and change the options.

### Options in the Gradient Fill Tool dialog box:

Color Model	Ordinarily, gradients are made in the <u>RGB</u> scale. HSV makes the gradient transition happen in the <u>HSV</u> color scale; the end result is a rainbow-like transition between the colors.
Transition	Allows you to choose a soft or hard transition.
Transparency	Allows you to change the transparency of the gradient.
Color Sweep	Allows you to choose multiple gradients. If you set it on 3, for example, the transition will occur between the <u>alternative color</u> and <u>alternative color</u> . However, right after changing to the <u>active color</u> , it transits back to the <u>alternative color</u> , and then back to the <u>active color</u> once again, for a total of three bands of changing colors.
Gradient Style	The default is linear, a line-by-line gradient style. You can change the shape of the gradients to be circular, elliptical, square, or rectangular.

### Related topics:

[Fill Color Command](#)

[Bucket Fill Tool](#)





## Tools: Bucket Fill Tool

This tool selects an area based on color similarity and adds the active color to it. It's like the Magic Wand Tool (see Magic Wand Tool), but after it makes the selection, it fills the selected area with the active color. To use it, click on the area where you want to add the active color.

Double click the tool button to change the options.

### Options in the Bucket Fill Tool dialog box:

Transparency	Changes the transparency of the <u>active color</u> in the bucket tool.
Color Similarity	Like the Magic Wand Tool, the Bucket Fill Tool's similarity option allows you to make the tool affect more or less of the contiguous area where you have clicked. The higher the number is, the more effect it generates. However, unlike the Magic Wand Tool's similarity option, you cannot separate the red, green, and blue spectrums. Your similarity setting is the same for all three.

### Related topics:

[Gradient Fill Tool](#)

[Magic Wand Select Tool](#)

[Fill Color Command](#)



## Tools: Airbrush Tool

This tool simulates the effect of an artist's airbrush, slowly adding layers of the current active color on top of areas where you click and drag. For a stronger effect, drag back and forth over the area several times. You can change the shape of the airbrush in the Brush Palette.

If you want the color to appear more slowly or more transparently, double click on the tool button and change the options.

### Options in the Airbrush Tool dialog box:

Transparency	Changes the transparency of the Airbrush color (0% is opaque).
Rate of Flow	This default is 100%. Adjust the rate to change the speed.

### Related topics:

[Paintbrush Tool](#)

[Pen Tool](#)

[The Brush Palette](#)



## Tools: Paintbrush Tool

This tool applies a thick, opaque layer of the active color to the area where you click and drag. Like a real paintbrush, the color fades when you drag more quickly. Unlike a real paintbrush, this tool never runs dry; moving the mouse slowly creates the richer color.

You can customize the Paintbrush's settings by changing the options, or change the brush shape in Brush Palette.

### Options in the Paintbrush Tool dialog box:

Transparency	Changes the transparency of the Paintbrush color (0% is opaque).
Rate of Flow	The default is 100%. If you want to moderate the speed of adding the <u>active color</u> , adjust the rate.

### Related topics:

[Airbrush Tool](#)

[Pen Tool](#)

[The Brush Palette](#)



## Tools: Smudge Tool

This tool simulates a finger smearing the "paint" in the image. It's a directional effect; if you click in a red area and drag into a white area, you'll end up creating a small pink area in the white section. Going in the opposite direction makes a pink area in the red section. Also, if you drag faster, the effect is rougher and not as intense.

You can change the shape of the brush in Brush Palette.

### Options in the Smudge Tool dialog box:

Rate                      Changes the intensity of the smudge effect. A higher setting creates a more intense effect.

### Related topics:

[Pen Tool](#)

[Paintbrush Tool](#)

[The Brush Palette](#)



## Tools: Pen Tool

This tool draws like a marker or felt-tip pen. In other words, when you click and drag in the image, it draws an opaque line that is the same color as the active color. (You can change the transparency in the options.) If you drag more quickly, the line becomes less solid.

You can change the shape of the brush in Brush Palette.

### Options in the Pen Tool dialog box:

Transparency            Changes the transparency of the Pen tool effect color (0% is opaque).

### Related topics:

[Airbrush Tool](#)

[Paintbrush Tool](#)

[The Brush Palette](#)



## **Tools: Brighten/Darken Tool**

This tool brightens (or darkens, depending on current settings) the area in your image where you click and drag the mouse. You can change the shape of this tool in the Brush Palette.

The text in the status line changes to reflect the mode of brightening or darkening. The tool cursor also changes: when brightening, the cursor is an arrow with a white star; when darkening, it's a arrow with a black star.

### **Options in the Brighten/Darken Tool dialog box:**

Intensity                      Adjusts the effect of this tool. Ranges from 100% (completely bright) to -100% (completely dark).

### **Related topics:**

[Pen Tool](#) [The Brush Palette](#)



## Tools: Smooth/Sharpen Tool

This tool smooths rough edges or sharpens fuzzy areas. To get the heaviest effect, click (and drag, if necessary) several times in same area.

Smooth Tool is the default function. (To change this setting, double-click on the tool button to bring up the dialog box.) Each time you smooth an area, PhotoStudio averages the color of each affected pixel with the colors of the surrounding pixels. This adds a general blur or haze to the area and hides sharp contrasts.

For example, if you have an image of small red polka-dots on a blue background, smoothing it would make the edges of the dots blurry and purplish. A lot of smoothing would make the whole area purple.

On the other hand, sharpening accentuates the contrast between each affected pixel and its neighbors. If it is the same color as the others but slightly darker, sharpening makes the pixel darker and its neighbors lighter. Too much sharpening makes your image grainy.

When you are in smooth mode, the cursor is an arrow with an arc next to it; when in sharpen mode, the arc becomes an angle.

You can change the shape of the brush in Brush Palette.

To smooth or sharpen your entire image, use the filters from the Enhance menu.

### Options in the Smooth/Sharpen Tool dialog box:

Smooth/Sharpen buttons	Switches the tool between these two different modes.
Effect	Changes the intensity of the smoothing or sharpening.

### Related topics:

[Pen Tool](#)

[The Brush Palette](#)

[Smooth Filters](#)

[Sharpen Filters](#)



## Tools: Clone Tool

This tool duplicates one part of your image to another part of the image. For example, you can give a person a third eye in the middle of his forehead if you clone one of his existing eyes.

To do this, click the right button of your mouse on the existing eye. This tells PhotoStudio where the source of the cloning will be; a plus sign (+) would appear at that location for your reference. Then press and drag with the left button in the middle of his forehead.

PhotoStudio does not know exactly what you want to clone, so dragging too wildly will deposit a nose on your victim's left eye and an eyebrow on his hairline. Also, each time you release the mouse button and press it down again, you are telling PhotoStudio that you want to make another clone in the current location, so uncontrolled clicking will create a panorama of eyes.

One of the most powerful aspects of the Clone Tool is that you can clone between images. Just set your source in one image, switch to the other, and clone. You can also activate the Use Clipboard feature in the options dialog. This feature lets you use the image you have on the PhotoStudio [Clipboard](#) as the source for your next cloning operation.

The Clone tool's effective area is determined by the current brush shape. Change the brush shape in the Brush Palette.

### Options in the Clone Tool dialog box:

Transparency	Changes the transparency of the cloned area(s). 0% is the default.
Soft Edge	Makes the edge of the cloned area softer for a better visual match with the existing image. This is turned on by default.
Use Clipboard	This feature allows you to use the current clipboard image as the source for the next cloning operation. If there is no image in the PhotoStudio clipboard, this option is not available. The location of the source point is hard to determine for clipboard cloning, since you cannot see the plus sign on the clipboard, and you cannot define a new source point by clicking the right mouse button on the clipboard. The clipboard source point will be located at the same <u>coordinates</u> as the last source point you used (even if the last source point was not in the same image as the clipboard image). If this is the first time you have used the Clone Tool since you started PhotoStudio, the clipboard source point will be located at the coordinates (0,0) -- that is, the very top left-hand corner.

### Related topics:

[Pen Tool](#)

[Revert Tool](#)

[The Brush Palette](#)





## Tools: Revert Tool

This tool simulates a modified eraser brush, that allows you to blend the changes you made in the mask area with the original area (the underlying image area).

To use it, simply click and drag over the areas that you want to blend. By default, this tool blends the two states equally (50%). You can change this setting in the options dialog box.

This tool only affects changes have been made when the current mask has been active.

To undo all the changes you have made to the current selection, use the Trash Can Tool.

You can change the shape of the brush in the Brush Palette.

### Options in the Revert Tool dialog box:

Underlying                      Changes the opacity of the pixels that are being restored from the underlying image area. The default is 100%.

### Related topics:

[Pen Tool](#)

[Clone Tool](#)

[Trash Can Tool](#)

[The Brush Palette](#)

[Restore Command](#)







## Tools: Zoom Tool

Using this tool is like using a magnifying glass to get a better look at your work; it does not change the actual size of your image. (To change the image size, use the Resample command.)

To zoom in, click the Zoom Tool, then click the left button of your mouse, in the active image window to magnify your view of the image. You can see the current magnification ratio in the status bar at the bottom of the screen; magnification of 1:1 is 100% (normal size), 2:1 is 200%, 3:1 is 300%, and so on.

To zoom out, click the right button in the active image window. 1:2 is 50%, 1:3 is 33%, 1:4 is 25%, and so on.

You can make your view as large as 16:1 or as small as 1:16.

Double-clicking on the zoom tool button sets the viewing ratio of the current image to 1:1.

### **Related topics:**

[Actual View Command](#)

[Zoom In Command](#)

[Zoom Out Command](#)

[Resample Command](#)



## **Tools: Grabber Tool**

This tool adjust the position of your image in the image window. Click on your image with the Grabber Tool and drag in the direction you want your image to move. For example, if your image is very large and you can only see half of it at a time, you can use this tool to move it and look at the other half. It's more convenient than clicking on the image window scroll bars because you can use it to move at any angle with one quick mouse movement.

If you have trouble getting the hang of dragging your image in the right direction, try thinking of your image as a large canvas hanging outside your little bathroom window. (The canvas is your image, and the window is the image window.) Imagine that clicking on the image is the act of grabbing the canvas. Then you drag the canvas in the direction you want it to move.

This does not affect your image in any way; it only adjusts your view of the image.

Double-clicking on the Grabber Tool button has no effect.

### **Related topics:**

[Zoom Tool](#)



## Tools: Transform Tool

This tool allows you to resize the current selection. When you choose this tool from the toolbox, you will get four small black squares at the four corners of the image. (If your selection is not rectangular, PhotoStudio puts a temporary rectangular boundary around it and the squares appear at the corners of this rectangular boundary.) They are "handles" and they disappear when the transformation is completed. Click and drag any one of the handles to resize the selection.

You can resize the selection as many times as you want before you activate the operation. To restore the original selection size, double-click outside the selection boundaries. To activate the operation, double-click inside the selection. To cancel it, press the escape key (Esc).

The resized selection appears as a floating selection; if you move it away with the Image Move Tool, the underlying image remains unchanged.

Double-click on the tool button and the dialog box appears with three other options:

- 1) Rotate -- rotates the selection around its center. As you drag, you can see the rotation degrees in the status bar for your reference.
- 2) Skew -- distorts the selection horizontally or vertically. Visually, this effect makes your selection look like it is leaning to one side (or up or down on one end). Geometrically, this effect gives your selection the shape of parallelogram, and stretches or shrinks part of the image to match the new shape.
- 3) Perspective -- allows you to give your selection a trapezoidal shape, and stretches or shrinks part of the image to match the new shape.

Tip: Repeatedly transforming your selection until you get the result you want is not recommended. Each transformation operation reduces the sharpness of the selection.

### **Related topics:**

[Resize Command](#)

[Rotate Command](#)



## **Tools: Crop Tool**

This tool copies the current selection from your image and makes a new file out of it. The original file remains unchanged. For example, if you select the sun in your landscape image and then crop it, a new, smaller image window contains only the sun appears. The landscape remains the same in its original file.

This tool has no options.



## Tools: Eyedropper Tool

This tool makes the color you click on as the active color. It also displays the color values of the pixels that you point at.

Tip: Sometimes it's very easy to accidentally choose the wrong color, especially when some areas looks in one color, actually contains a little bit of other colors. For example, an orange flower can contain some red and yellow. Make sure that the active color visually matches the color you want after using this tool.

If you double-click on the tool button, a dialog box appears with optional settings.

### **Options in the Eyedropper Tool dialog box:**

RGB and HSV      Selects the color value display: either RGB or HSV scales.

### **Related topics:**

[The Color Palette](#)





## **Tools: Trash Can Tool**

This tool removes the current mask and all changes that have been made in it.

This tool only affects changes that have been made when the current mask is active.

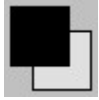
This tool has no options.

### **Related topics:**

[Discard Floating Command](#)

[Restore Command](#)

[Revert Tool](#)



## Tools: Color Swatches

These tools are convenient indicators for your active and alternative color selections. The active color is the color that is applied to your image by the various brush tools, and it is used by other functions and tools as well. It is also the color that displays in your selection after you Cut (from the Edit menu) it. The alternative color helps to determine the effect you get with the Gradient Tool. It is handy as an "on deck" color because you can change it to the active color by clicking on it.

If you move the mouse pointer over the color swatches, the status bar will show you what they are and their respective color values.

To change the alternative color, click on it to make it the active color, change its color, and then switch it back to the original active color.

### **There are three ways to change the active color:**

- 1) Use the Eyedropper Tool. (Please refer to the Eyedropper Tool topic below.) This is the best method for getting the active color to match the color in your image.
- 2) Use the Color Palette. (Please see The Color Palette topic below.) This is a quick way to choose a color from the colors available in PhotoStudio.
- 3) Double-click on the Active Color Swatch to bring up the Color Selection dialog box. This is the best method when you want to use the HSV color system to choose a color, or when you find the Color Palette's selections to be too imprecise.

### **The Color Selection Dialog Box**

This dialog box gives you many color selection options, including two different color systems: RGB and HSV.

When the dialog box first appears, it is in RGB color mode with the red spectrum selected. This is indicated by the button next to R at the top right-hand corner. If you know the RGB color values of the color you want to select, simply enter them into the R, G, and B value boxes at the top right. Then click the OK button to make that your active color.

If you want to switch to the HSV color system, just click on the button next to the H, S, or V at the right. If you have specific HSV values, you can enter them in the value boxes at this time.

The sliding scale at the top of the dialog box and the field below it provide a good two-part system for in-depth color selection. The button that is clicked next to the R, G, B, H, S, or V on the top right-hand side indicates the color characteristic you are currently examining. The scale always shows the range of possible values for that characteristic. For example, if the R button is currently selected, the slider shows a range from black (no red) to bright red. Clicking at different spots on the scale changes the amount of red in the current color selection and in the field.

The field shows all the possible colors you could choose if you were to keep the current red value and vary the other two values (green and blue). If the G button were currently

selected, the field would show varying levels of red and blue; if the H button were selected, the field would show varying levels of saturation and brightness.

It is easier to find the color you want by using the sliding scale to isolate the most important color characteristic and the field.

For your reference, the Old color patch shows the active color and the New color patch shows the color selection you have made in this dialog box.

Of course, if your monitor or video card cannot display 24-bit color, this dialog box cannot show the full range of possible colors. PhotoStudio will arrange the available colors in a way that you can get a good general idea of how the colors look like if you had 24-bit color.

Tips: If you are just browsing for a color, it is often helpful to click on the H button to see the hues displayed like a rainbow in the sliding scale. You can click on the hue you want and then pick your color from the large field below the scale.

**Related topics:**

[The Color Palette](#)

[Eyedropper Tool](#)





## **A**

Active Color  
Active Image  
Alternative Color  
Aspect Ratio

## **B**

Bit  
BMP  
Brighten  
Brightness  
Brush Palette  
Byte

## **C**

Channel  
Clipboard  
CMYK  
Color Correction  
Color Mapping  
Color Model  
Color Palette  
Color Swatch  
Color Table  
Color Value  
Color Wheel  
Continuous Tone  
Contrast  
Control Menu  
Coordinates  
Copy  
Crop  
Cut

## **D**

Darken  
Default  
Directories  
Dithering  
DPI  
Drag

## **E**

Escape Key

## **F**

File Type  
Filter  
Floating Selection

## **G**

Gamma Value  
GIF  
Gray Value  
Gradient  
Grayscale

## **H**

Halftone  
Highlights  
Histogram  
HSV  
Hue

## **I**

Index Color Image  
Image Data Type  
Image Window  
Indexed-Color Image

## **J**

JPEG

## **L**

Line Art  
LZW Compression

## **M**

Mapping Curve  
Mask  
Menu Bar  
Midtones

## **N**

Noise

## **O**

Opacity

## **P**

Palettes  
Paste  
Pattern  
PCD  
PCX  
Pixel  
Posterize

## **R**

Revert

RGB  
RGB True Color Image  
Resample  
Resize  
Resolution  
Retouch

## **S**

Saturation  
Scanner  
Select  
Select Area  
Selection  
Shadows  
Status Bar  
Submenu  
Swatch

## **T**

TGA  
Threshold  
TIFF  
Title Bar  
Tools Palette  
Transparency  
TWAIN

## **U**

Underlying Area  
Undo

## **Z**

Zoom







## **Active Color**

The color that is currently selected in the Active Color Swatch in the Tools Palette. This is the color that you are using for all the painting and drawing tools. For example, if you draw a line with the pen tool, it would be a line in this color.

## **Active Image**

The image that you are currently working on. The title bar of the active image is always darkened. To activate an image, just click on the image window's title bar.

## **Alternative Color**

The color that is selected in the Alternative Color Swatch in the Tools Palette. It is used in some features, such as the Gradient Tool.

## **Aspect Ratio**

The ratio of the height-to-width of an image or part of an image. You may be familiar with this term from TV and movies. The aspect ratios for television and movie screens are different; that is why movies must be letterboxed to be viewed in the original ratio on television.

## **Bit**

The smallest unit of storage on a computer. A bit is either zero or one. When this term is used to describe color formats on a computer, the speaker is talking about how many bits are used to specify the color of one pixel in an image. If you have more bits, you can specify more colors and get a more accurate picture.

## **BMP**

A Microsoft Windows' standard file format for color and grayscale images.



## **Brighten**

To increase the brightness of.

## **Brightness**

Describes how much black or white is mixed with a color. If a red pixel is very bright, it is a very light pink; if it is very dark, it is a blackish red. Brightness is one of the three color components of the HSV color scheme.

## **Brush Palette**

The palette where you specify the shape, size, and drawing speed of the brush. The same brush shape is used by the Airbrush, Pen, Paintbrush, Smudge, Brighten/Darken, Smooth/Sharpen, and Revert tools. Select Show Brush Palette from the View menu to make the palette appear.

## **Byte**

The second-smallest unit of computer storage. One byte is equal to eight bits.

## **Cancel**

1) A button in the dialog box that tells PhotoStudio to forget all the changes that were made in the dialog box. It also tells PhotoStudio to close the dialog box. 2) The process of stopping an undesired function in progress by pressing the Esc key.

## **Channel**

One of the components of a color scheme. For the RGB color scheme, the channels are red, green, and blue; for HSV, they are hue, saturation, and brightness; and for CMYK, they are cyan, magenta, yellow, and black. At least three channels are required to fully describe a color. Grayscale images only require one (brightness).

## **Check Box**

An element in a dialog box that looks like a hollow square or a hollow square with an "X" in it. Check boxes are associated with features or options that can be turned on or off in any combination. If the 'X' is present, the option is turned on.

## **Click**

To click on something, you move the mouse pointer to where you want to click, and then you press the left mouse button (unless the process you want to trigger specifically calls for a right mouse button click) and release it. This action is often part of a complete "click and drag." If so, you do not want to release the button. Instead, continue holding it down while you move the mouse to specify the shape or length you want, and then release it.



## **Clipboard**

The temporary storage space where PhotoStudio keeps an image or selection that has been cut or copied. This space is actually in your computer's memory, and it can only hold one selection at a time. You can paste the selection in the clipboard unlimited number of times; doing so does not affect the clipboard's contents. If something new is cut or copied, the old selection is discarded.

## **CMYK**

A standard color system for printing full-color images and documents. Most color images can be printed if they are separated into four images--showing the original image's percentages of cyan, magenta, yellow, and black (K is used to avoid confusion with blue)--and then those four images are used to make four printing plates that reproduce those colors on paper.

## **Color Correction**

The process of adjusting the channels of an image or part of an image to get a truer representation.

## **Color Mapping**

A way to adjust the color (or grayscale) aspects of your image by remapping current color intensities to the intensities you want. This is done by adjusting a curve on a "map" (a simple two-dimensional graph).

## **Color Model**

A system for describing colors. The three standard color models are RGB, HSV, and CMYK. RGB describes a color in terms of its percentages of red, green, and blue. HSV specifies a color in terms of its hue, saturation (intensity), and brightness. CMYK uses cyan, magenta, yellow, and black.

# **Color Palette**

A palette containing a broad assortment of colors for quick color selection.

## **Color Scheme**

See "Color Model."

## **Color Swatch**

A little patch on the Tools Palette that displays a current color selection. There are two swatches, one for the active color and one for the alternative color.



## **Color Table**

A table contains various color entry information in an indexed image. Your computer uses color table internally. The best analogy is to theater: a color table is to the image's colors as a cast of characters is to a play's actors.

## **Color Value**

A number that describes one of the channels for a certain color. In PhotoStudio, each color value is a number from 0 to 255. For example, the blue color value for a bright blue would be 255, and the green and red color values would be 0.

## **Color Wheel**

The traditional diagram of all colors and their relationships, which you may have seen in art class. The colors are arranged around a circular by hue, with similar colors next to one another, and complimentary colors directly across from one another.

## **Command**

An instruction you issue to PhotoStudio; by selecting an item from one of the menus.

## **Continuous Tone**

An image in which the colors or grays blend continuously from one to the next. See "Halftone."

## **Contrast**

The amount of difference between bright and dark colors in your image. When you add contrast, you increase the difference, making bright colors brighter and dark ones darker.

## **Control Menu**

The menu that appears when you click on the control menu box in the upper left corner of an image window. It allows you to resize, move, minimize, maximize, or close the window.

## **Coordinates**

A pair of numerical values that tell you exactly where a pixel is located in an image. The first number of the pair tells you where it is horizontally, and the second vertically. The origin is at the top-left corner of the image.



## **Copy**

Makes a duplication of the current selection or image on the clipboard.

## **Crop**

The process of omitting all but the currently selected area from an image. In PhotoStudio, this does not affect the original; it creates new window that only contains the cropped area.

## **Cursor**

The item on your screen that indicates the current location of your mouse. This is usually an arrow, but it can also be a custom cursor depending on the current tool.

## **Cut**

Makes a duplication of the current selection or image on the clipboard and removes the original from the image window. An area filled with the active color appears in place of the original.





## **Darken**

To decrease the brightness of.

## **Default**

The standard setting or selection for a command or tool. If you use a command or tool without changing any settings, you are using the default settings.



## **Dialog Box**

A large box that appears on your screen when you invoke a command or use a tool that requires you to specify more information. A dialog box generally contains several options and settings and has two buttons at the bottom, "OK" and "Cancel", that allow you to accept or reject the current action. See your Windows manual for more information on dialog boxes.

## **Dimmed**

When a menu item cannot be chosen at the current time, it appears in gray in the menu. A grayed-out menu item is also called "dimmed."

## **Directories**

Storage locations on your disk. See your DOS manual for more information.

## **Dithering**

The manner in which PhotoStudio simulates colors in images that do not have enough resolution to accurately represent the color (or gray) of the original subject. To do this, dots of other colors are placed close together so that they visually average out to be like the original color. This gives the image a general rough, speckled appearance. If your video card or monitor does not have the resolution to display a high-quality image, this method is also used.

## **Double Click**

Like a click, except that the mouse button is pressed twice in rapid succession while the mouse is held steady. See "Click."

## **DPI**

Dots per inch. Higher DPI means a higher-quality image or printout.

## **Drag**

The process of moving the mouse while the button is held down. See "Click."

## **Escape Key**

The key marked "Esc", usually located near the upper left corner of a keyboard.



## **File Type**

The format in which a file is stored. There are several different standards for graphics files. PhotoStudio can open and save the following types of files: BMP, JPEG (JPG), PCX, TGA, and TIFF (TIF) file types; PhotoStudio can also open PCD(Photo CD) file format.

## **Filter**

A visual effect that can be applied to an entire image or selection.

## **Floating Selection**

A selection area that can be deleted or moved without affecting the underlying image. Floating selections are like sticky notes; it can be moved around in an image without changing it.

## **Font**

A typeface in which text can be typed.

## **Gamma Value**

A way of measuring contrast in the midtones of an image.

## **GIF**

A standard file format for color and grayscale images that was originally designed by the CompuServe information service. It can contain up to 8 bits of color information per pixel. This file format is only supported in the PhotoStudio retail version.

## **Gradient**

A transition from one color to another, like the transition you see near the horizon from blue to orange during a sunset.

## **Gray Value**

A numerical measurement of the amount of brightness in a shade of gray similar to color value.



## **Grayscale**

A type of image that contains 256 gray shades.

## **Halftone**

An image composed of evenly-spaced color or gray dots, of varying sizes (but all generally small and fitting within the spacing scheme). Halftone images are prepared--usually through a photographic process--for printing purposes. Generally, printed images are halftones.

## **Handle**

The small squares that appear on the corners of a selection when the Transform Tool is being used.

## **Highlights**

The brightest parts of an image.

## **Histogram**

A special type of line chart that shows the color distributions of an image by representing the number of pixels with given brightness values. The horizontal axis represents the brightness of the pixels, and the vertical axis represents the number of pixels with a particular brightness value.

## **HSV**

The color model that defines colors in terms of hue, saturation, and brightness. (This is sometimes also termed "HSB.")

## **Hue**

The color channel in HSV that defines what part of the spectrum a color belongs to. Hue is like the range of colors you see when you hold a prism in the sunlight--it is a complete spectrum, but all the colors are at the same (maximum, in the case of the prism) saturation and brightness. Without control over saturation and brightness, you cannot reproduce pastels, grays, or dark colors.

## **Indexed-Color Image**

An image which has been reduced to 16 or 256 colors. To do this, PhotoStudio (and other image editors) determines which 16 or 256 colors are the best for representing the image. Each pixel that's not in the chosen color set (or "color table") is indexed to the closest color in the color table. Also, colors that are not in the color table will sometimes be approximated by dithering. See color table, dithering.



## **Image Data Type**

A description of an image's pixel and color information. Usually this is composed of two parts: the bit depth ("24-bit"), and the color model type ("RGB").

## **Image Window**

The window that contains your current image. This is a standard Microsoft Windows document window, with scroll bars, a control menu box, and a title bar. See your Windows documentation for information on how to manage a document window.

## **Invert**

To reverse the colors (or grays) of an image to their opposites. This is like the process of creating a photographic negative.

## **JPEG**

A file format that encodes color or grayscale images in a compressed form.

## **Line Art**

Black-and-white images, with no grays.

## **LZW Compression**

A type of lossless compression often used to reduce the size of files, which tend to be large and good candidates for compression.

## Mapping Curve

The curve in the Tone Adjustment dialog box that shows how you remap current color intensities to new ones.

## **Mask**

- 1) The outline (marked on your screen by an animated dotted line) you create using the selection tools. A mask isolates the editing area and prevents unmasked areas from being altered. It also can be used to designate areas you want to copy or cut. See select, selection.
- 2) The act of making a mask.



## **Maximize/Minimize Boxes**

The buttons at the upper right corner of an image window that allow you to control the size of the window. See image window.

## **Memory**

The location where information about the work you're currently doing is stored. For example, when you're working on an image in PhotoStudio, the computer's memory contains information on DOS, Windows, PhotoStudio, the image you're working on, any information in the clipboard, and the last actions you have performed, among other things. Also known as RAM.

## **Menu**

A list of possible commands of similar type that is called up by clicking on the menu bar.

## **Menu Bar**

The area at the top of the PhotoStudio screen that contains the names of the menus. Click on a menu name to display the menu.

## **Midtones**

1) The parts of an image that are of midium brightness. 2) The colors of those parts.

## **Noise**

Like "snow" on a television, noise is random interference and degradation in an image.

## **OK**

A button in the dialog box that tells PhotoStudio to accept all the changes that were made in the dialog box. It also tells PhotoStudio to close the dialog box.

## **Opacity**

The opposite of transparency. Something is 100% opaque when you can't see through it at all. See transparency.







## **Palettes**

Rectangular window-like areas on the PhotoStudio screen that contain tools, controls, and color selections. The three palettes are the Tools Palette, the Brush Palette, and the Color Palette. Ordinarily, the Tools Palette is at the right of your screen, and the other two are hidden.

## **Paste**

To place a duplication of the clipboard's contents in the image window in a floating selection.

## **Pattern**

A repeating sequence of pixels.

## **PCD**

A proprietary format originally designed by Eastman Kodak Corporation for its Photo CD system.

## **PCX**

A proprietary format originally designed by ZSoft Corporation for PC-based painting program.

## **Pixel**

A term used to describe the smallest element of a digital image. Images are composed of grids of pixels, that vary in color. Basically, a pixel is a dot. The name Pixel is a contraction of "picture element."



## **Pointer**

The object on your screen that represents the location of the mouse. See [cursor](#).

## **Posterize**

To decrease the quantity of an image's color values. This creates a poster effect from the image.

## **Press and Drag**

To press the mouse button, and then, without releasing the button, move the mouse while holding the button down. This is the same as a "click and drag" mouse operation. See click.

## **Revert**

To return to a previous version. In PhotoStudio, revert pertains to the Revert Tool, which recalls pixels from the previous version at a user-definable transparency level, making it possible to blend old and new.

## **RGB**

The color model based on three channels: red, green, and blue. See color model.

## **RGB True Color Image**

An image type that uses 24-bit color depth and the RGB color model to reproduce as accurately as possible the color of the original subject.

## **Resample**

To alter an image's dimensions and resolution.

## **Resize**

To change the size of the selected area.



## **Resolution**

The pixel density (number of pixels per inch) in an image. Higher-resolution images have greater density and better appearance.

## **Retouch**

To make subtle changes to an image to remove flaws.

## **Saturation**

One of the channels in the HSV color model. Saturation is a measurement of how pure a color is. At lower saturation values, a color approaches gray; at a saturation of 255, a color contains no gray.

## **Scanner**

A hardware device that reads photos and documents much like a photocopier, but instead of creating paper output, it makes digital image copies of the originals. With a scanner, you can convert your favorite snapshots into image files that can be edited with PhotoStudio.

## Select

To make a mask. See mask.

## **Selected Area**

The part of an image that lies within a mask. If there is no current mask, there is no currently selected area. See mask.

## **Selection**

Same as selected area.

## **Shadows**

The darkest areas of an image.



## **Shift-Click**

To hold the shift key down while clicking. See click.

## **Status Bar**

Also called the status line. The area along the bottom of the PhotoStudio screen that displays information on the current working status, such as instructions on how to use the current tool and the amount of available memory.

## **Submenu**

A list of options available for menu commands that can be used in different ways. The submenu appears to the side of the menu item.

## **Swatch**

See color swatch.

## **TGA**

A file format for color and grayscale raster images originally developed by Truevision, Inc. for its image capture hardware. Sometimes referred to as the "Targa" format.

## **Threshold**

A numerical, user-definable limit, described in terms of color values, that divides all the colors in an image into two groups. Colors with values equal to or below the threshold fall into one group, and colors with values above the threshold fall into the other.

## **TIFF**

A file format that stores color and grayscale images, and is often used to transfer images between different applications and different types of computers. This format is jointly developed and actively supported by Aldus and Microsoft.

## **Title Bar**

The rectangular area at the top of a window that contains the name of the window. This area is blue if the window is active.



## **Tool Button**

The square areas in the Tools Palette that represent the tools. Each tool button has a unique icon. When a tool button is clicked on, it makes it an active tool; when a tool button is double-clicked, it calls up the tool's options dialog box, if there is one.

## **Tools Palette**

The palette that contains all the tool buttons and the color swatches. See [palette](#).

## **Transparency**

The extent to which you can see through one image element (like a fill created with the Bucket Fill Tool) to the original image underneath it. Something is 100% transparent when you can't see it at all, like a clear pane of glass.

## **TWAIN**

A standard for image input from hardware such as scanners, digital cameras, and video grabbers. A program that supports TWAIN (such as PhotoStudio) can receive image input from any TWAIN-compatible device, assuming that the system's hardware and software has been set up correctly.

## **Underlying Area**

The part of an image that is beneath a floating selection. See floating selection.

## **Undo**

To reverse the last change made to your image, as if you had never made it. Undoing twice has no effect, because the second undo reverses the first.

## **Window**

A rectangular area on your screen that contains an image. A window has various controls that allow you to change its size and position, like scroll bars and a title bar. Not to be confused with Microsoft Windows, which is the name of the graphical user interface that PhotoStudio operates under. For more information on windows, see your Windows manual.

## **Zoom**

To enlarge (zoom in) or reduce (zoom out) the size of the current image view.







