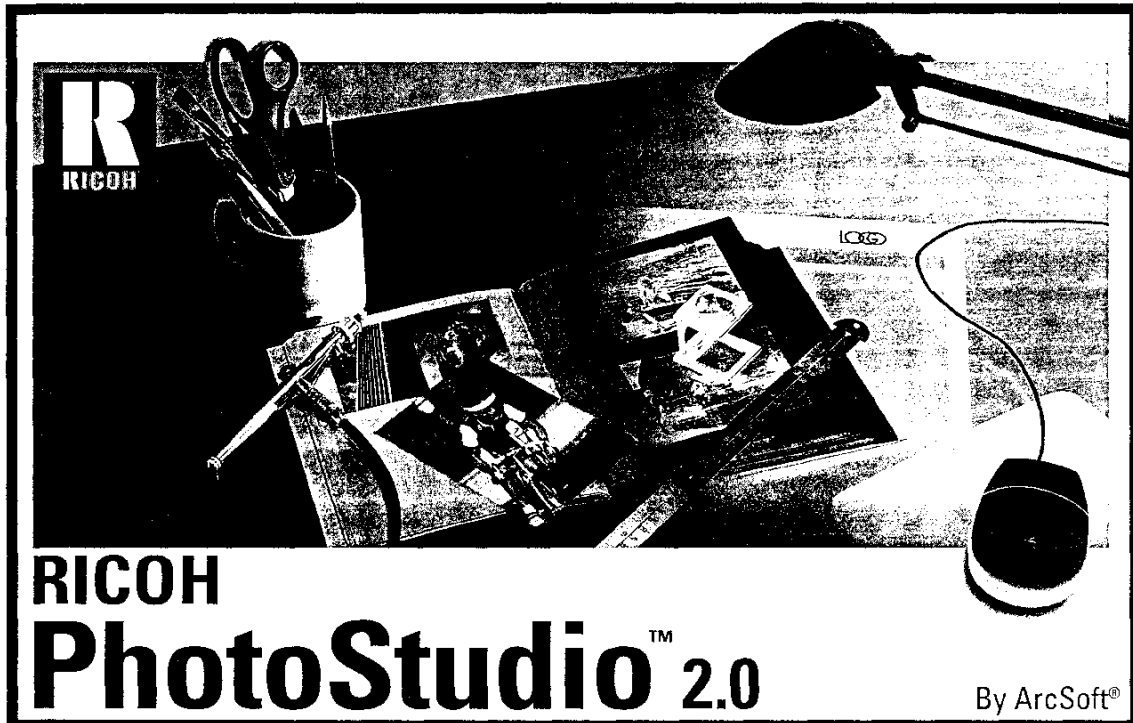


RICOH®



RICOH
PhotoStudio™ 2.0

By ArcSoft®

Chapter 5 - Glossary

User Manual

Windows® 3.X, Windows 95® and Windows NT®

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Active Color - The color that is currently selected in the Active Color Swatch in the Tools Palette. This is the color that you're using for all the painting and drawing tools. If you were to draw a line with the pen tool, for example, it would be a line of this color.

Active Image - The image that you are currently working on. The active image is always the one in the window with the darkened title bar. To change your active image, just click on the window's title bar of the image you want to activate.

Album - a user-created grouping of image files that can be viewed and edited with the Album Manager.

Alternative Color - The color that is selected in the Alternative Color Swatch in the Tools Palette. It is used for some features, like the Gradient Tool, but primarily it is a convenient place to store a color that you think you might want to make into the Active Color at some point.

Aspect Ratio - The ratio of the height to the width of an image or part of an image. You may already be familiar with this term from TV and movies. The aspect ratios for television and movie screens are different; that's 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.

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's a very light pink; if it's very dark, it's 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 is used by the Airbrush, Pen, Paintbrush, Smudge, Brighten/Darken, Smooth/Sharpen, and Revert Tools; it tells Ricoh PhotoStudio the size and shape of the area you want these tools to affect when they are used.

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

Cancel - (1) The button on a dialog box that tells Ricoh PhotoStudio to forget all the changes that were made in the dialog. It also tells Ricoh 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. It requires three channels to fully describe a color. Grayscale images only require one (brightness).

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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 so the tip is on what 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 Ricoh 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 something that's in the clipboard an 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. The Ricoh PhotoStudio clipboard is NOT the same as a standard Windows application clipboard. In the Ricoh PhotoStudio clipboard, mask information is also contained. In addition, the Ricoh PhotoStudio clipboard can import from and export to the Windows clipboard.

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 better representation.

Color/Gray Mapping - A method that allows you to adjust all the color (or grayscale) aspects of your image by remapping current color intensities to the intensities that 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.

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Color Table - All 16 or 256 colors in a 16- or 256-color indexed-color image are displayed in the image's color table. 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 Ricoh PhotoStudio, each color value is a number from 0 to 255. For example, the blue color value for a bright blue would be 255. The green and red 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 the circular diagram by hue, with similar colors next to one another, and complimentary colors directly across from one another.

Command - An instruction you issue to Ricoh 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.

Copy - Makes a duplicate of the current selection or image on the clipboard.

Crop - The process of omitting all but the currently selected area from an image. In Ricoh 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 duplicate of the current selection or image on the clipboard and removes the original from the image window. A solid area filled with the active color appears in the place of the original.

Darken - To decrease the brightness of.

Default - The standard, ordinary 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.

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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 Ricoh 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."

Down Arrow - A button in a dialog box that has a downward-pointing arrow on it. Clicking on the button reveals a scrolling list of possible options.

DPI - Dots per inch. A 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. Ricoh PhotoStudio can read the BMP, TIF (TIFF), JPG (JPEG), PCX, TGA (Targa), PCD, and GIF file types, etc.

Filter - A visual effect that can be applied to an entire image or selection.

Floating Selection - A selection that can be deleted or moved without affecting the image that it is in. Such a selection is like a sticky note; it can be moved around on the image without altering the underlying image.

Font - A typeface in which text can be typed.

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.

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Gradient - A transition from one color to another, like the transition you see near the horizon from blue to orange during a sunset.

Grayscale - A type of image that contains 256 gray shades.

Gray Value - Like color value, a numerical measurement of the amount of brightness in a gray.

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, because ink does not bleed and smear as much when the image is composed of dots. 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/gray distributions, or say, the number of pixels of each color/gray value present in the entire active image or selection.

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.

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.

Indexed-Color Image - An image which has been reduced to 16 or 256 colors. To do this, Ricoh PhotoStudio (and other image editors) determines which 16 or 256 colors are the best for representing the image. Each pixel that's not in that 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.

JPEG - A file format that encodes color or grayscale images in a compressed form.

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Line Art - Black-and-white images, with no grays.

LZW Compression - A type of lossless compression often used to reduce the size of image files, which tend to be large and good candidates for compression.

Mapping Curve - The curve in the Tone Adjustment dialog box that helps to guide how to remap current color intensities to new ones.

Mask - 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.

Maximize/Minimize Boxes - The buttons at the upper right 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 Ricoh PhotoStudio, the computer's memory contains information on DOS, Windows, Ricoh 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 Ricoh PhotoStudio screen that contains the names of the menus. Clicking on the name of a menu causes the menu to appear.

Midtones - 1) The parts of an image that are of middling brightness. 2) The colors of those parts.

Noise - Like "snow" on a television, noise is random interference and degradation in an image.

OK - The button on a dialog box that tells Ricoh PhotoStudio to accept all the changes that were made in the dialog box or process the command. It also tells Ricoh 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 Ricoh 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 to the right of your screen, and the other two are hidden.

Paste - Places a duplicate of the clipboard's contents in the image window in a floating selection.

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Pattern - A repeating sequence of pixels.

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 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 general impressionistic effect.

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.

Resample - To alter an image's dimension and resolution. The color of the pixels in the new image is determined by the computer's best guess.

Resize - To change the size of the selected area.

Resolution - The amount of pixel density in an image. Higher-resolution images have greater density and better appearance. DPI (dot per pixel) is usually used as its measurement of unit.

Retouch - To make subtle changes to an image to remove flaws.

Revert - To return to a previous version. In Ricoh 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 - A type of image that reproduces the color of the original subject by using three channel, 24-bit RGB color.

Saturation - One of the channels in the HSV color model. Saturation is a measure 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 Ricoh PhotoStudio.

Select - To make a mask. See mask.

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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 Ricoh 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 - Some menu items call up submenus when they are clicked on. A submenu is necessary when a menu command can be invoked in several different ways. The submenu appears to the side of the menu item and presents the possible choices.

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.

Thumbnail - a reduced-size version of an image that is displayed on the Album window.

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 that tool the 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.

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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 Ricoh 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 undoes 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 Ricoh PhotoStudio operates under. For more information on window, see your Windows manual.

Zoom - To enlarge (zoom in) or reduce (zoom out) the size of the current image view.