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CE MARKING STATEMENT

This equipment has been tested and found to comply with the requirements set up in council directive on the approximation of the law of member states relating to electromagnetic compatibility (89/336/EEC).

JAPAN VCCI REGISTRATION

This equipment has been tested and registered in accordance with regulations for Voluntary Control Measures, Article 8 (Japan)

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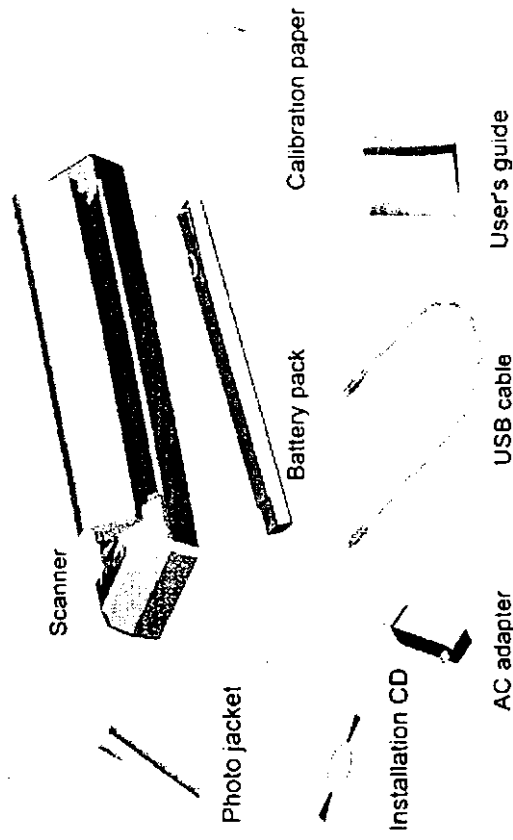
MiniDoc Installation Guid



Before you get started....

Checking the contents of your MiniDoc

Before using your MiniDoc, please make sure that the following items are included in your package:

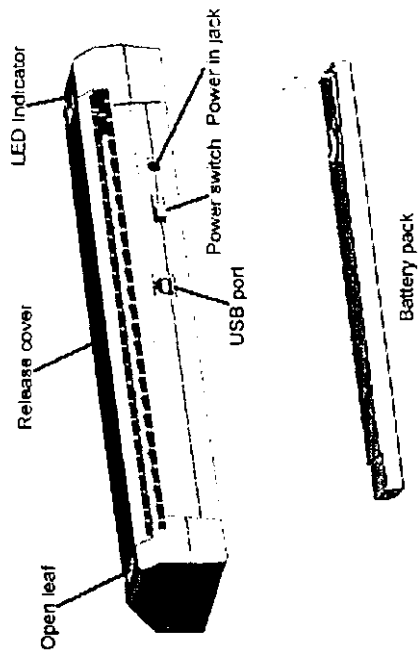


System requirements

To use the scanner and software, you'll need the following:

- ◆ Windows® 95/98, 486-based computer or higher
- ◆ 16MB RAM minimum, 32MB RAM recommended
- ◆ 50MB available hard disk space
- ◆ Color Monitor with true color VGA
- ◆ CD-ROM drive to install the software package
- ◆ USB(Universal Serial Bus) port interface

Features



1. Battery pack

Consists of a NiMH battery capable of 1-hour continuous operating time.

2. LED indicator

A color LED -- (orange and green light). Green indicates normal operating status with the power switch in position "1". When you turn the power switch to position "0", the orange light indicates the battery is charging. After the battery is fully charged, the orange light will turn off.

3. Open leaf

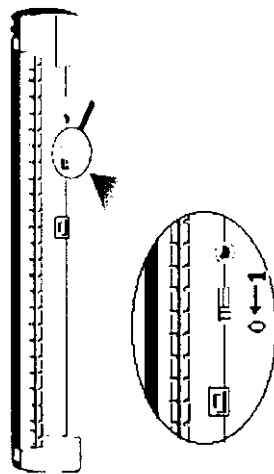
You may open the release cover by pushing out the yellow release leafs on top of the scanner.

4. Power in jack

This jack is where the power adapter is connected. Use it to operate the scanner or to charge the scanner's battery.

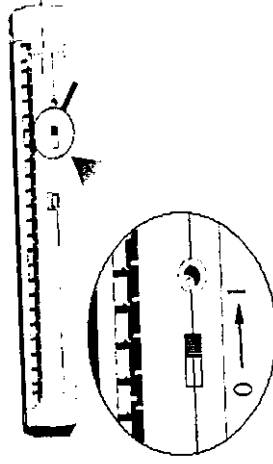
5. Power switch

Position "0" (Turn off the scanner)



Turn off the scanner to save power (electricity) when not in use. The orange LED indicates the charge circuit is operating. After the battery pack is fully charged, the charge circuit will go into trickle charge mode and the orange light will go out.

Position "1" (Turn on the scanner)



Turn on the scanner by positioning the power switch to 1 ("ON" position). A green LED indicates normal operating status. If you need to turn off the scanner, place the switch on position "0". See above for more information.

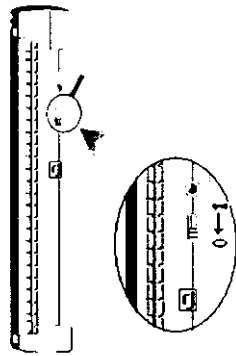
6. Release cover

To clean the sensor or clear a paper jam, you may open the release cover by pushing out the yellow release leafs on top of the scanner. When you clean dust from the CIS sensor, be careful not to damage its internal components.

Hardware installation

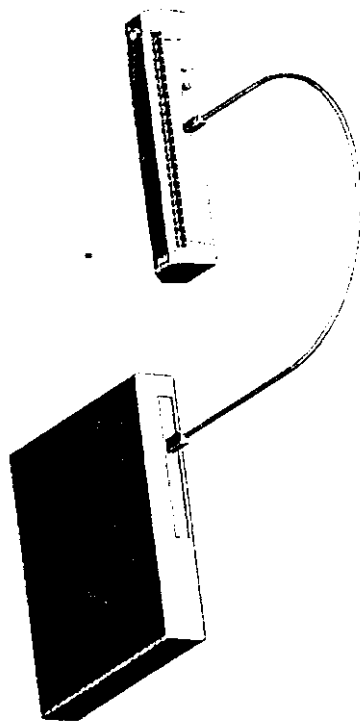
Connecting the scanner to the computer

1. Please turn the power switch to the OFF or "0" position. Insert the battery pack into the battery cavity.



2. Before you proceed to step 3, turn off your computer and unplug the power cord.
Remember to save any open files before closing Windows.

3. Connect the provided USB interface cable to your computer's USB port connector (printer port). Attach the other end of the parallel interface cable to the USB connector on the back of your MiniDoc.

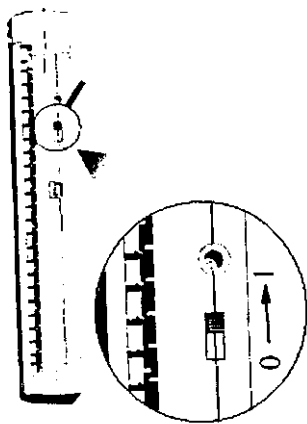


4. Plug the power adapter into an available AC outlet. Connect the power plug into the "Power In" jack on the back of the scanner.

5. The orange LED will come on indicating that the battery pack is charging. We recommend you fully charge the battery pack before using the scanner. The battery is charged when the orange light goes out (about 3 hours).

6. Once all the connections have been made, turn on your computer and the power switch on the back of your scanner to the ON or "1" position. You are now ready to

install the MiniDoc software package.



Hardware description

Standby mode

The scanner will go into standby mode when it finishes scanning. The scanner will power off the CIS sensor and motor. It is reactivated when paper is detected.

Power supply

The MiniDoc is a truly portable scanner. Versatility is ensured with a choice of two power sources, battery power and AC adapter.

Battery power

When there is no AC power available, you can use the battery pack to power the scanner.

Battery specifications

Four AA size NiMH rechargeable batteries in the pack.

Capacity: 1200 mAh

Charging time: 3 hours

Charging the battery pack

The battery pack is charged in the scanner with the AC adapter. You must fully charge the battery pack in any of the following situations:

1. A new battery pack is being use for the first time.
2. The battery status is low (as indicated by the software).
3. The scanner is not detected (when using the battery pack only).

Charging mode

To charge the battery pack, follow these steps:

1. Plug the AC adapter into an available electrical outlet.

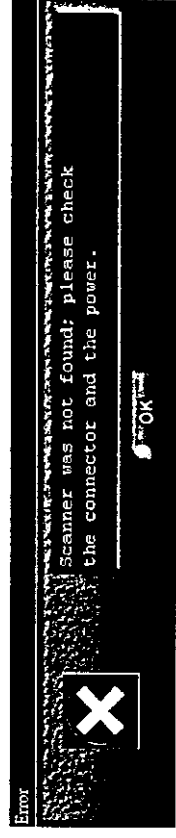
2. Connect the power cord from the AC adapter into the "Power In" jack on the back of your MiniDoc unit.
3. When operating (in position "1"), the charging system in the scanner will charge the battery in the normal way but there will be no indication of charging. When in position "0", the orange LED indicates charging. The orange light will go off when the battery pack is fully charged. Charging in either position takes about 2 hours.

Note:

Battery packs are shipped from the factory in an almost-discharged state, so users must fully charge the battery pack before using it. It might take more than once to fully charge the battery pack when it is new or has not been used for a long period of time. This is normal. The battery will work its way back up to full capacity within five or six charge and discharge cycles.

Battery Low

1. When the battery has run down, it will pop up a message box like the one shown below.



2. Press "OK", and then charge the battery as shown previously.

Safeguarding battery pack life

1. Normal charging causes the battery pack to heat up a little. Let it cool down for 10 minutes before using it.
2. Do not recharge a partially used battery; always use the battery pack completely before recharging.
3. When charging, always fully charge the battery pack.
4. After the battery pack is completely discharged, it will also heat up slightly.

This is normal; you should wait for 10 minutes before recharging.

5. Turn off the scanner whenever it is not in use.

AC adapter

Your AC adapter is a full range switching power supply.

AC Adapter specifications:

Full range switch power supply: 100 Vac to 240 Vac

Frequency: 47 to 63 Hz

Output DC voltage: 7.5Vdc

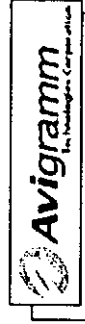
Output current: 2A

Cleaning the MiniDoc mechanism

If you scan items that have high amounts of dirt or dust, the scanner may require cleaning. To clean the scan mechanism, purchase a quality paper-cleaner page that is used for cleaning copy machines and fax machines. Paper-cleaner pages are available from most office supply stores. Follow the instructions in the paper-cleaner kit. Open the release cover (by pushing out the yellow release leafs on top of the scanner) to clear out the dust from the scanning window with a paper-cleaner or a lint-free cloth.

You may also need to re-calibrate the scanner if images appear to have black or white lines running through them.

MiniDoc Getting Started Guide



After you have finished with the hardware installation, you must calibrate and install the scanner's software. This guide will show you how to calibrate the scanner and install the software.

Software installation

MiniDoc software

Welcome to the MiniDoc software installation. This software is what you will use to interface with your computer. Use it to scan images and documents, as well as for changing your scanning preferences. You must install the program to be able to access your scanner. Go to page 24 for installation instructions.

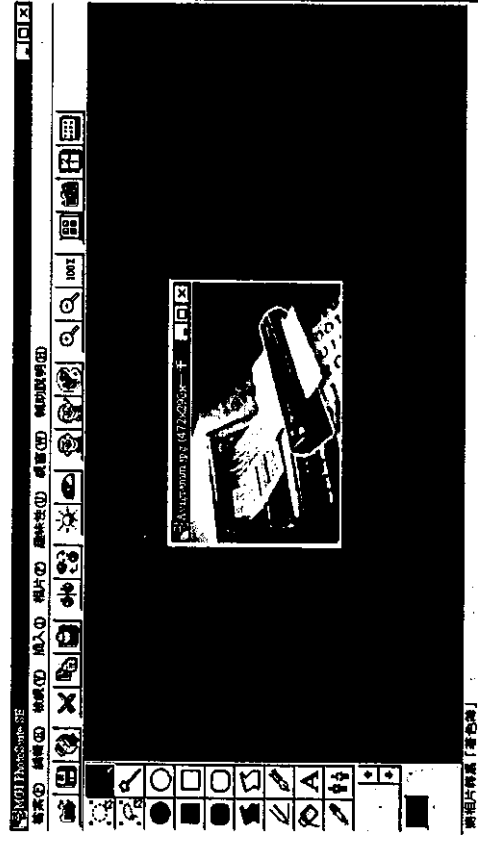
1. Power on your computer.
2. Insert the MiniDoc Installation CD into the CD-ROM drive. The CD will automatically run and the installation program will guide you through the entire process.

◆ *If the Installation program does not launch automatically, follow these steps:*

- 1) *Click on the "Start" button on the task bar and select "Run".*
- 2) *On the command line, type D:\driver\setup.exe (where D:\ is the CD-ROM drive).*
- 3) *Click on the "OK" button.*
- 4) *Follow the on-screen instructions.*

MGI PhotoSuite (install prior to scanning)

MGI PhotoSuite combines the features of many popular image manipulation and presentation programs into one easy-to-use application. MGI PhotoSuite allows you to scan and enhance any image with a variety of special effects, includes a host of paint and drawing tools, and allows you to create your own computer slideshow complete with music.



For more information on how to use MGI PhotoSuite, please refer to the comprehensive on-line Help system at any time. ("Help" menu).

Follow the steps below for installation instructions:

1. Click on the "Start" button on the task bar and select "Run".
2. On the command line of the "Run" command, type D:\PhotoSuite SE\setup.exe
(where D:\ is the CD-ROM drive).
3. Click on the "OK" button or hit the enter key.
4. Follow the on-screen instructions.

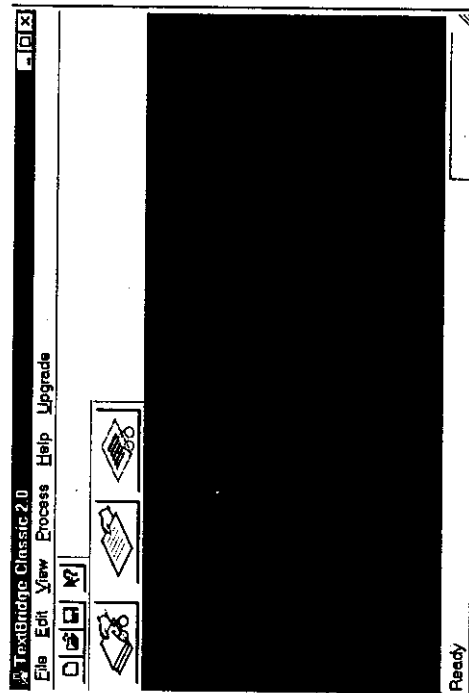
TextBridge (OCR)

TextBridge Classic provides optical character recognition (OCR) for your computer.

TextBridge Classic produces text files from your hard copy documents or image files.

Electronic documents are easily editable. You can use files from TextBridge Classic in text, spreadsheet, or database applications. The online TextBridge Classic User's Guide provides more information.

TextBridge Classic 2.0



Follow the steps below for installation instructions:

1. Click on the "Start" button on the task bar and select "Run".
2. On the command line of the "Run" command, type D:\TextBridge 2.0\setup.exe (where D:\ is the CD-ROM drive).
3. Click on the "OK" button or hit the enter key.
4. Follow the on-screen instructions.

Calibrating the scanner

Proper calibration is necessary to produce the best possible image quality. There are two circumstances when calibration is necessary:

- Before the first scan. (After installing the MiniDoc drivers).
- After cleaning the mechanism of the scanner.

To calibrate your MiniDoc, use the calibration paper included with the scanner. Store the calibration paper in a dry, safe location in case you need to re-calibrate the scanner at a later date. Follow these steps if you need to calibrate your MiniDoc:

Note: It is important to realize that different applications may use different methods of acquiring an image and only the most general case is given here. Please refer to your application's user documentation for details on its usage.

1. From Windows, launch the application that will be used to call your MiniDoc. (e.g. MGI PhotoSuite, Adobe PhotoShop, etc)
2. Pull down the "File" menu.
3. Click on "Get Photos From." Remember, the specific wording of parameters may vary among different applications.
4. Choose "Select Source."
5. Select "MiniDoc."

6. Pull down the "File" menu again.
7. Click on "Get Photos From."
8. Select "Camera/Scanner..." to activate the MiniDoc controls.
9. Click on the "Calibration" icon (see image on page 32).
10. Insert the calibration paper into the scanner.
11. Click on the "OK" button when you get the message: "Please insert the calibration paper in the scanner, then press OK".
12. After the process is completed, your scanner is ready for use.

Note: If you lose the calibration paper, you may substitute it with a sheet of blank white paper.

Scanning

Scanning is somewhat similar to calibrating your scanner. To scan a picture or document, follow these steps:

1. From Windows, launch the application that will be used to call your MiniDoc, e.g. MGI PhotoSuite, TextBridge, Adobe PhotoShop, etc.
2. Pull down the "File" menu.
3. Click on "Get Photos From." Remember the specific wording of parameters may vary among different applications.
4. Choose "Select Source."
5. Select "MiniDoc."
6. Pull down the "File" menu again.
7. Click on "Get Photos From."
8. Select "Camera / Scanner..." to activate the MiniDoc controls.

Before you insert an image or document for scanning, select the appropriate settings

for Image Resolution, Image Type and Paper Size. Failing to do so may cause the MiniDoc program to give you "Out of memory" errors or to not respond.

Note: High resolutions take longer and require more hard disk space. We recommend

you start at 300

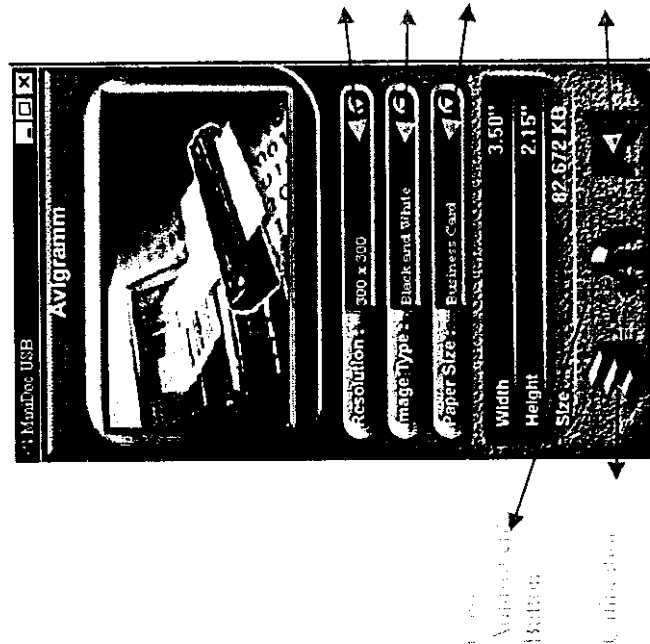
x 300 dpi. For

OCR (Optical

Character

Recognition)

select "Black and White."



9. Insert the image or document into the scanner.



***Note:** Never pull the sheet out of the scanner while scanning is in progress.*

While scanning, a message box will pop up which allows you to stop the scanning process. Press the letter "S" on your keyboard if you wish to stop scanning the image or document.

11. When the scan is complete, either insert another page for additional scanning or click

on the “Exit” button (see image on page 32) to finish the scanning process.

MiniDoc Scanner Specification

Scanning resolution

Optical resolution:

Horizontal 300 dpi

Vertical 600 dpi

9600 dpi (interpolated)

Maximum resolution

Item sizes

Maximum

8.5 × 13 inches (21.6 × 33.02 cm)

Minimum

1 × 1 inch (2.54 × 2.54 cm)

Scanner dimensions

Height

1.7 inches (4.3 cm)

Width

2.6 inches (6.6 cm)

Length

11.2 inches (28.5 cm)

Weight

Total weight

1500g

Scanner

480g

Battery pack

130g

Electrical (AC adapter)

Full range switch power supply

Input

Voltage 100 Vac to 240 Vac
Frequency 47 Hz to 63 Hz

Output

Voltage 7.5 Vdc
Current 2 A

Battery

Output voltage
Capacity

4.8 Voltage
1200 mAh

Cable

3.6 feet (1.1 M) USB cable

Safety and agency certifications

UL, C-UL, GS, FCC Class B, VCCI Class2, CE

Hardware warranty

One-year limited warranty

Four things you should know about scanning...

1. Generally, scanning is best at half of the resolution of the printer that you are using. Otherwise, 300 dpi is acceptable for most applications.
2. TWAIN is defined as a standardized interfacing system that allows software applications to access many different images input devices. Your MiniDoc is fully TWAIN compliant.
3. OCR – “Optical Character Recognition”; translates printed text into computer recognizable symbols. 300 dpi is the recommended scanner setting for OCR scanning.
4. DPI – “Dots per inch,” measurement that defines the density of display.

Troubleshooting

IMAGE QUALITY IS POOR OR SCANNED IMAGE HAS BLACK AND WHITE STRIPS:

Open the release cover and clear the dust from the scanning window with a paper-cleaner or a lint-free cloth. Recalibrate the scanner (see page 27). Also make sure the image quality is good and not dirty.

TEXT RECOGNITION SEEMS SLOW:

Your MiniDoc utilizes a swap file on the hard drive to simulate RAM. Accessing the swap file is slower than when RAM is used, therefore the computer takes longer to recognize text. Please try to close other open documents or applications when scanning. Also, you can try to reboot the system to clear memory fragmentation that might have occurred.

If you work with large documents regularly, the recommendation is to add more RAM to your system. For more information about optimizing system and application performance, please refer to the Microsoft® Windows User's Guide.

NOT ENOUGH MEMORY ERROR OR APPLICATION DOESN'T RUN:

There are several reasons why you might get that type of error. The two main reasons are:

- The image size you are scanning is too large for the amount of RAM or hard disk space you have in your PC. Try lowering the settings (size and resolution) on your MiniDoc software.
- There might be too many applications running or files open in Windows. Close other running applications or re-start your PC. You can also try to delete unneeded files or folders in your PC.

TEXT RECOGNITION IS POOR:

You might be scanning a poor-quality document or a page which does not lie flat.

REMARK

If you buy this scanner out of your home country, please check the power supply connection before you buy it. For instance, the power supply connection in North America is different from the one in Europe. You will not be able to use the North American plug in Europe without using a power converter.

Glossary

About Hardware

- **A/D converter**

A device used to convert data from analog to digital. Analog data is continuously variable, while digital data contains discrete steps.

- **BI-level**

A type of image comprising only black and white pixels.

- **bit**

The smallest unit of memory in the computer. A bit can be either on or off, representing a value of 1 or 0. Bits can be used in combination to represent any higher numbers.

- **bit depth**

The number or bits used to represent each pixel in an image, determining its color or tonal range

- **byte**

The standard unit measure of file size. A unit of measure equal to eight bits of digital information (2 to the 8 th power).

- **Digital-to-Analog Conversion (DAC)**

Conversion of digital information into a state of vacillating voltage levels.

(DAC) Interface to convert digital data (represented in discrete, discontinuous form) into analog data (represented in continuous form).

- **dot**

Smallest visible point that can be displayed on a display surface.

- **dot gain**

A printing defect in which dots print larger than intended, causing darker colors or tones. Dot gain measures the increase in halftone dot values that occur during the process of the offset printing production. Total dot gain is measured as the difference in apparent dot size between the final printed product and the original film. Dot gain occurs as the result of both mechanical and optical changes on the original dot size.

- **dots, halftone**

Minute, symmetrical individual subdivisions of the printing surface formed by a half-tone screen.

- **down-sampling**

The reduction in resolution of an image, necessitating a loss in detail.

- **DPI (Dots-Per-Inch)**

A method of denoting the resolution of a scanned image, a digitized image in a file, or an image as rendered by an output device. Also, used interchangeably with pixels per inch (PPI).

- **drum scanner**

An optical input device that mounts reflective or transparent input media on a revolving cylinder for digitizing.

- **flatbed scanner**

Any scanning device that incorporates a flat transparent plate, on which original images are placed for scanning. The scanning process is linear rather than rotational.

- **optical resolution**

In the scanning context, this refers to the number of truly separate readings taken from an original within a given distance, as opposed to the subsequent increase in resolution (but not detail) created by software interpolation.

- **pixel skipping**

A means of reducing image resolution by simply deleting pixels throughout the image.

- **Shading**

The brightest part of an image with discernible details, represented in halftone images by the largest dot patterns.

- **shadow**

The darkest part of an image with discernible details, represented in halftone images by the largest dot patterns.

- **Sheetfed scanner**

Type of scanning device in which the original is moved past the scanning head, rather than having the scanner head move. Usually appropriate only for sheets of paper.

- **single-bit images**

Black and white bitmapped images, of either line art or halftone image type.

- **transparency scanner**

An optical input system for digitizing images from small format positive or negative transparency film.

- **8-bit grayscale**

Images that contain 256 possible shades of gray.

- **24-bit color**

24-bit color images are composed of three 8-bit color channels. Each color channel, similar to an 8-bit grayscale image, contains up to 256 colors. When combined, the red, green and blue channels provide up to approach 16.778 million colors. 24-bit color is well known as True Color and Photo-realistic Color.

- **36-bit color**

36-bit color images have 3 color channels of 12 bits each - one channel each for red, green and blue, plus 8 bits of grayscale data to provide higher detail.

About Software

- **brightness**

The intensity of a color or tone regardless of its hue or saturation.

- **calibration**

Setting equipment to a standard measure to produce reliable results.

- **contrast**

The relationship between the light and dark areas of an image. The more extreme the difference, the greater the contrast.

- **Gamma**

A mathematical function used to describe the relationship between input densities (levels) and output densities (levels.) The measure of how compressed or expanded dark or light shades become in an image.

- **interpolation**

The process of increasing the resolution of an image by the addition of new pixels throughout the image, the colors of which are based on neighboring pixels.

- **line art**

A single-bit image type that lacks any dithering effect. Black and white areas of the image appear simply as black and white.

- **matrix**

1. This often refers to a two-dimensional array of CCD elements.
2. For getting a color balance of HSB transfers .

- **midtones**

The parts of an image between the lighter and darker areas, at around 128 gray level.

- **OCR (Optical Character Recognition)**

The mapping of scanned data to recognize characters so that these can be converted into an editable text file.

- **RGB (Red, Green, Blue)**

The color model representation in which color images are composed of red, green and blue color channels. Usually computer displays and image editing programs use the RGB color model.

- **saturation**

The amount of hue in a color. The higher the hue content, the lower the saturation.

- **scale**

To change a representative image by increasing or decreasing its percentage area.

- **thresholds**

The image level which an action begins or changes. The threshold setting used in scanning line art determines which pixels are converted to black or white level. The threshold defined in the RGB process determines how large a tonal contrast must be before sharpening will be applied to it.

- **tone curves**

Also known as gamma (or mid-tone) curves. These are used to smoothly adjust the overall tonal range of an image, or the individual tonal scope of each color channel.

- **TWAIN**

An industry standard for software that controls optical input devices such as digital cameras, scanners, film recorders and video capture interface cards. Application programs that support TWAIN allow optical input devices to be controlled from the software.

About Interface

- **ECP**

The ECP (extended capabilities port) was first proposed by Hewlett Packard and Microsoft. The ECP is bi-directional and can transfer data at ISA-bus speeds. ECPs have buffers and support for DMA(direct memory access) transfers and data compression.

- **EPP**

The EPP(enhanced parallel port) was originally developed by chip maker Intel, PC manufacture Zenith, and Xircom, a maker of parallel-port interconnections products. As on the PS/2-type port, the data lines are bi-directional.

- **SPP**

The parallel port in the original IBM PC, and any port that emulates the original port's design, is sometimes called the SPP, for standard parallel port, even though the original port had no written standard beyond the schematic diagrams and documentation for the IBM PC. Other names used are AT-type or ISA-compatible.

- **USB**

The USB (universal serial bus) is a cable bus that supports data transfer between a host computer and a wide range of simultaneously accessible peripherals. The attached peripherals share USB bandwidth through a host scheduled token-based protocol. The bus allows peripherals to be attached, configured, used, and detached while the host and other peripherals are in operation. This is referred to as hot attachment and removal.

About Image & Unit

- **banding**

A visible shading of the image in a gradient pattern.

- **bitmap**

An image file formed by rectangular grid of picture elements (pixels). The computer assigns a value to each pixel, from one bit of information (representing black or white) to 24 bits per pixel (for full-color computer displays), to as many as 64 bits per pixel for some types of full-color images. A bitmap is an image defined by a collection of dots, as opposed to a vector image, which is defined by mathematical formulas.

- **black & white**

Refers to line art or halftone bitmapped image data types.

- **black block**

A movable reference line that defines the darkest area in an image, causing all other areas to be adjusted accordingly.

- **gray balance**

The balance between RGB (or CMY) colorants required to produce neutral grays level without a color cast.

- **gray levels**

A continuous tone image in gray bar to recognize tonal steps, inherent to digital data. Most CT images will contain 256 gray levels per color.

- **grayscale**

1. An image variety consisting of shades of gray, with contrast and brightness of black & white (no color). The standard grayscale image contains 8 bits per pixel, which allows for 256 shades.

(2) The depiction of gray tones between black and white. A grayscale monitor is able to display distinct gray pixels as well as black and white ones, but not color pixels. (3) An orderly variable progression in

definite steps of gray densities ranging from minimum zero (white) to maximum density (black). A strip of standard gray tones are placed at the side of the original copy during photography to measure tonal range obtained. Used in processing film or materials such as photographic paper and plates.

- **histogram**

A graphic representation of the number of pixels with given curve of color values, showing the breakdown or distribution of curve of color values in a picture.

- **HSB**

A color model based on three coordinates: hue, saturation and brightness.

- **hue**

The wavelength of spectrum of light of a color in its purest state (without the addition of white or black).

- **JPEG (Joint Photographic Expert Group)**

An image compression/decompression standard forming that divides the image area into cells to condense information based on satisfied analysis.

- **monitor calibration**

The process of optimizing the color settings of gamma curve of a monitor to match selected colors of a printed output.

- **original text**

A term used for any text or graphic that is scanned.

- **TIFF (Tagged Image File Format)**

A file format developed by Aldus Corporation for exchanging bitmap file format monochrome, and full-color images between applications.

- **white reference (calibration paper)**

A movable reference paper that defines the lightest area in an image, causing all other areas to be adjusted accordingly.

Contacting Avigramm

If you need help with this Avigramm products, and you can not find an answer in the previous Trouble Shooting sections, you may contact Avigramm's Technical Support Staff.

Please have the following information ready when you call:

- The name of the product.
- The operating system you are using.
- A list of other hardware installed on your machine.
- A detailed description of the problem.

You can contact Avigramm's Technical Support staff at:

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