

## Scanning Tips & Hints

The information provided in this appendix is for your information and does not imply any warranty or support for anything you do with this information.

### *Scanning*

To get the best possible scans, there are several factors other than the scanner that will influence how you view the image.

1. Your graphics card will affect the way you see the image. The more colors you can display, the better. If you can, set your video to 16-bit Hi Color or 24-bit color True Color. 16-bit color allows the computer to use thousands of shades or variations of color. 24-bit allows millions of color. Contrast this with 256 colors or, worse yet, 16 colors.
2. For visual part of the display, having an SVGA monitor is infinitely better than a VGA monitor (capable of displaying better resolutions & colors).
3. On some computers and with some originals, you can get a better image if you adjust the gamma, brightness, contrast and/or other effects.
4. The graphics program that you are using to scan can also effect the image, especially after you have scanned it. Some more advanced graphics programs will allow you to adjust several effects in your image: sharpening, auto-cropping, descreening and other image corrections. Whether you need to use some of these effects will depend on your use for the image and the quality or source of the original. The process of scanning will magnify any flaw in your image, even if that flaw is not readily visible when you look at the image without any magnification. For example, scanning magazine pictures will often reveal a moiré pattern because of the resolution of the original and the process used in the printing (moiré will often look almost as if someone has a dirty screen laid over the image). Moiré can, in some instances, be corrected through de-screening either during the scanning process (such as in many ImageReader scanners) or in more advanced graphics programs after the image is scanned (such as in Ulead Photo Impact).

### *Printing*

If you are going to be printing your scanned image, there are some important things to keep in mind for both your printer and while scanning.

1. A printer capable of higher resolutions and more colors (16-, 24-, or 30-bit color) will give you a truer image.
2. A printer which is capable of higher resolution will also improve your printed output. You may have to use special paper to get the best results or to achieve the higher resolution setting of your printer.
3. Scan at the resolution of the printer (i.e. if the printer is 300dpi scan at 300dpi).
4. Make sure your scanned image does not exceed the available printing area of your printer (all printers require margins & most will shrink the image to fit within those margins).
5. When scanning documents with the Copier function, it will be processed as an image not a text document. If there are margins on the document but you scan at the full 8 ½ x 11 inches, the printer will see that as an 8 ½ x 11 inch image and will shrink it to fit its margins.

6. When scanning documents, you can often get better results by scanning in Line Art or Bi-tone (which mode depends on the available scanner driver setting).
7. You can only print color images with a color printer.

### ***Saving***

After you have scanned an image, you are likely to want to save the image as a file.

Click **File**

Click **Save As** or **Save Image As**

This will open a dialog box that will help you to save the file.

1. Type a **file name**. Don't worry about a three-letter extension, the program will add that for you based on the file type you choose. In 16-bit programs, your file name must be eight letters or less. In the file name, you can also include some other characters such as numbers, dash, underline, and many of the symbols above the numbers. Your file name cannot include a period or dot, a question mark, an asterisk or star, a slash, a back-slash, a colon, a semi-colon, or a comma.
2. Choose a file type. Click on the down arrow by **Save File as Type** or **Save as Type**. **BMP** is an uncompressed format that can be viewed in Windows Paint and Paintbrush as well as most graphics programs. **JPG** and **GIF** are compressed formats that will create a file that will take up less space but require a special graphics program to view. JPG and GIF are the preferred formats for sending as email attached files.
3. Choose where to save the file. Remember where you save the file so you can find it later.
  - a) To change the drive (such as to the floppy drive, which is A:), click on the down arrow of **Save in**.
  - b) To change the folder, double click on the folder icon.
4. Click on **OK** or **Save**.

### ***OCR, Changing a scanned document into text you can use in a word-processor***

When you want to do OCR, there are some important things to keep in mind.

1. In InfoCenter 32, the scan mode should be set to grayscale. In most other OCR applications, the scan mode should be set to Line Art (which is black and white only).
2. The resolution should be between 300-400dpi.
3. The original document to be scanned should be in clear, plain typewritten text (best results will come from something printed on a laser printer).
4. Be sure the scanned image is right side up. OCR will not work on an image that is upside-down, side-ways or tilted.
5. OCR in InfoCenter 32 will **not** work on handwriting of any type, on most decorative fonts, or on a document with a background image (like a printed watermark).
6. Most error messages while doing OCR are the result of one of the above not being as it should be (ie. too high of a resolution or an incorrect scan mode).
7. Most OCR applications cannot retain your page layout, but will only convert the word present. Many OCR applications also do not handle fancy fonts or drastic font sizes accurately. If you have images on your page or special fonts circumstances, your OCR results may be diminished.

### ***Saving to Floppy Diskettes or for Email***

When you are saving a file to a floppy diskette, the file **MUST** be smaller than 1.44 Mb (the

maximum capacity of a floppy diskette). When you want to email an image, there is one very important thing to keep in mind: the bigger the file the longer it will take to transfer (upload or download).

There are three things that influence the size of the file created when scanning an image: Resolution, Mode, and Scanning area. A higher resolution (dpi) will yield a clearer picture, but it will also create a larger file. A color mode (millions of billions of shades) will create a larger file than a grayscale (256 shades) or black and white (LineArt, Half-tone, Bi-tone, only two shades) mode. A larger scanning area will also create a larger file than a small scanning area. The following example is a letter-sized image scanned with a 30-bit scanner (billions of shades in the color mode). All sizes are approximate and may differ from your own results. Information on how to change the resolution, mode and scanning area is in the *Scanner Operation* section.

	color	grayscale	black and white
100dpi:	2 ½ Mb	1 Mb	120 Kb
300dpi:	25 Mb	8 Mb	1 Mb
4800dpi:	6 Gb	2 Gb	260 Mb

The way you save the file will also influence the final size. If you use an uncompressed format, such as BMP, your saved file will be as large as the scanned image's temporary file. For email or saving to a diskette, you should use a compressed file format, such as JPG or GIF, which will reduce the size of the saved file (when you email an image, be sure your recipient has software capable of viewing the file type you are sending). Most commercial imaging programs (such as the one that came with your scanner) supports either the JPG or GIF format.

### ***Emailing Images***

When you want to email a JPG or GIF or any file, you will have to attach the saved file to your email message. Different email programs have different methods of attaching a file, you will need to consult the documentation that came with your email program for information on attaching files. Some email programs have a button with a paperclip icon that will start the attachment process.