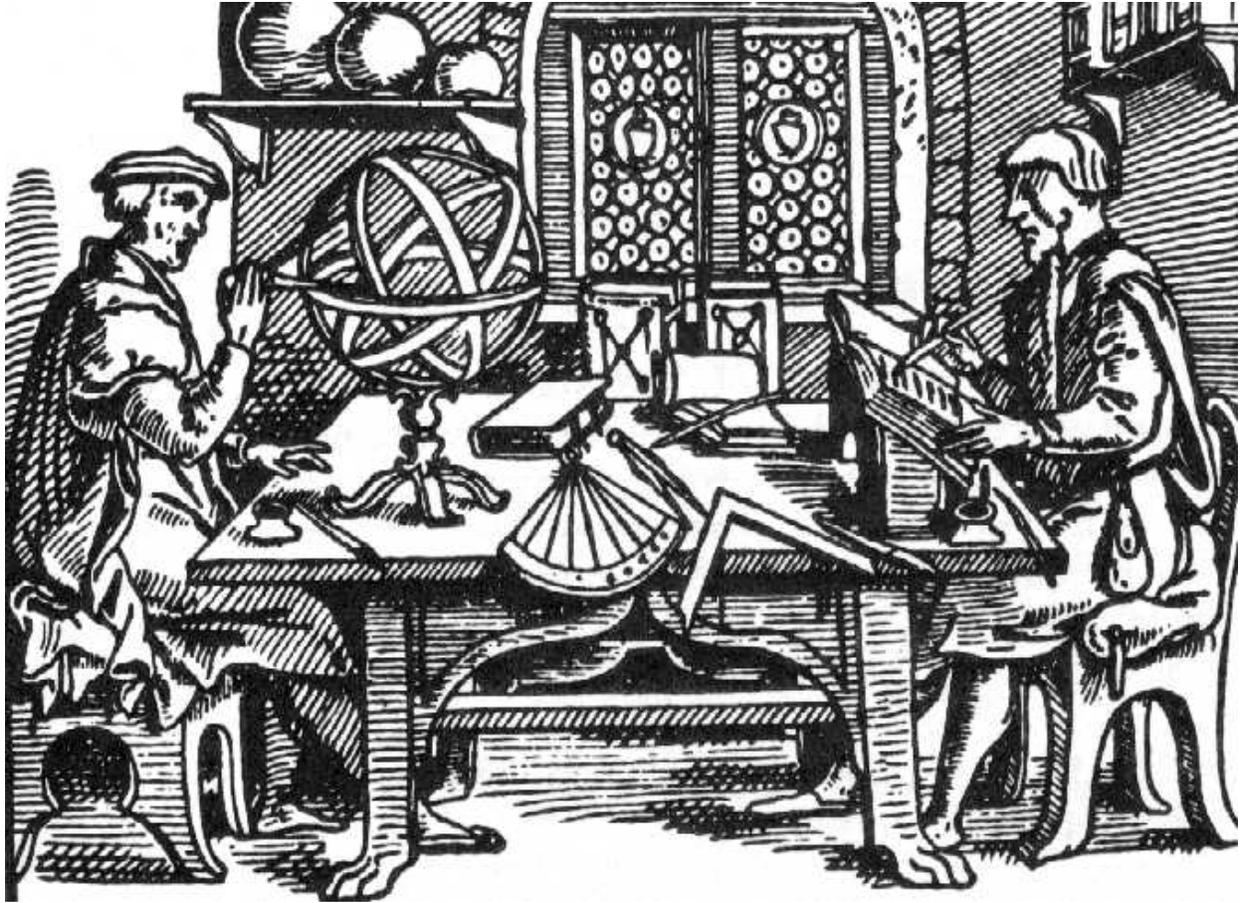


**The
New York Society Library
Presents:**



Digital Images

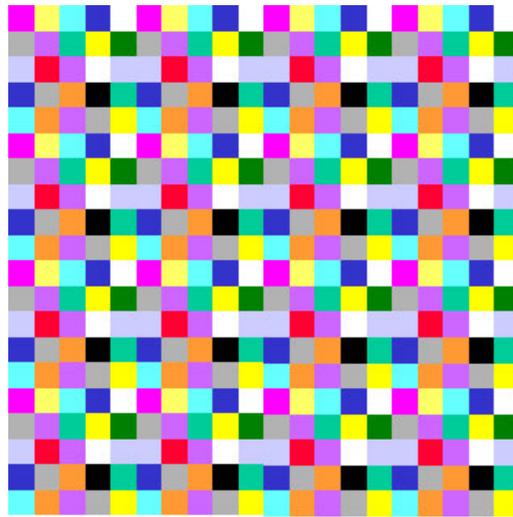
Ingrid Richter
Head of Systems



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DIGITAL IMAGING



DEFINITIONS:

Images are made up of tiny dots that have been assigned, or "mapped," to a given space. These dots are referred to as pixels. The resolution of an image is defined by the number of pixels per inch that make up the image. High resolution images contain more (smaller) pixels per inch than low resolution images.

Bit depth is a measure of how much computer memory is used by each pixel of the image. Each pixel has a bit depth ranging from 1-32. The larger the number, the more memory used and the better the quality of the image. Simple black and white images, which have a bit depth of 1, will have a much smaller file size than the same image saved in 24-bit depth in 16 million colors

FILE FORMATS:

BMP - Bitmap

Standard image format on DOS and Windows-compatible computers. The BMP format supports RGB, indexed-color, grayscale, and bitmap color modes. True-image format - can be edited and resaved without loss of information.

TIFF - Tagged Image File Format

A type of image file format, TIFF files can include color or grayscale. The quality of the image is determined by its resolution or dpi. Especially useful for graphics that will be used in many applications or on more than one computer platform. True-image format

GIF - Graphical Interchange Format

One of the two most common image file formats on the Internet today, especially for banners and logos. A GIF image can consist of a maximum of 256 colors (8-bit color depth). Compressed-image format. Editing and resaving image will degrade image.

JPEG - Joint Photography Experts Group

A common file format for photo-realistic images. Not as common as GIF for banners because JPEG compression has a tendency to blur small text. Compressed-image format with 24-bit color depth.

DIGITAL IMAGING



INTERNET IMAGES:

One of the primary ways to get digital images onto your computer is by downloading them from the Internet. The easiest way to find these images is by using search engines. To start, go to <http://images.google.com>, <http://www.altavista.com/image/> or <http://office.microsoft.com/clipart/> (for clip-art) and perform a search for whatever image you are interested in. Load the web-page containing the picture and right-click the picture with your mouse. Choose "Save Picture As" and choose a location on your hard drive. Keep in mind that many pictures on the web are copyrighted.

DESKTOP BACKGROUND:

Windows Users: To set this picture as your desktop background, select a blank section of your desktop. Right-click and choose "Properties" from the drop-down menu. Select the "Desktop" tab under "Display Properties" and choose "Browse". Find your picture on your hard drive and click "Open" and "OK". You can center, tile or stretch the image to fit your desktop.

SCREEN CAPTURE:

To take a snapshot of your computer screen, hold down <SHIFT><Print Screen> simultaneously. Open a graphics program (Start→ Programs→ Accessories→ Paint) and select Paste.

DIGITAL IMAGING



SCANNERS

A secondary means of converting photos and clippings into digital format and onto your computer is by using a scanner. Scanners work on a premise similar to a photocopier. The two major types of scanners are: flatbed (desktop) and hand-held (portable).

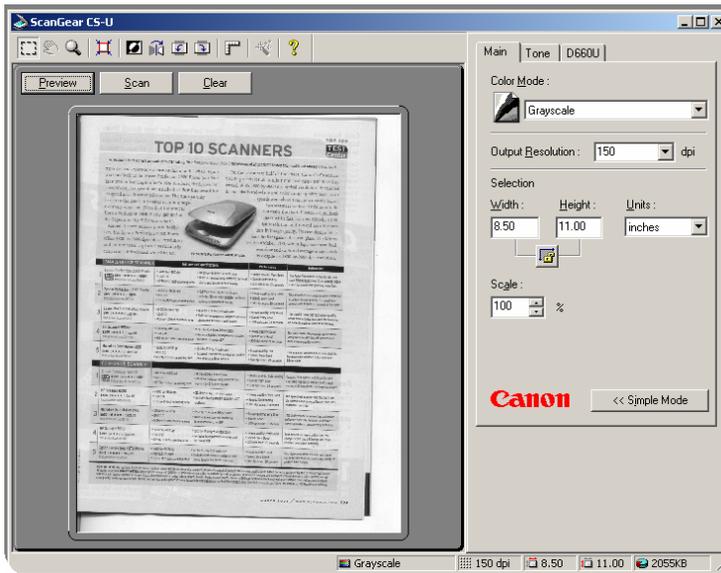
The Library currently owns two scanners:

1. Canon CanoScan D660U scanner

This is a flatbed scanner the library purchased in October 2001 for \$130. Nice, simple, clean interface with OCR (Optical Character Recognition - translates pictures of text into pure text; great for scanning books and such) and a USB interface.

2. HP ScanJet 3570c

Another flatbed scanner purchased for \$150 in September 2002. Has a slightly larger scan bed (11"x14"). Uses a USB port to plug in but doesn't come with optional OCR software.



To scan a photo, place in the upper-right hand corner of the scanner. Open your graphics program and select File→ Scan Image. Click "Preview" to load the new image. Highlight the portion you want scanned and select "Scan".

There are several additional settings off to the right that you may also wish to modify, including color mode (black & white, grayscale, color), resolution (dpi) and size (in inches, centimeters or pixels).

DIGITAL IMAGING



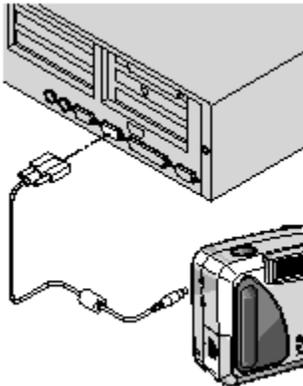
DIGITAL CAMERAS

Another way to get pictures into your computer is with a digital camera. Digital photographs are already in a format that makes them incredibly easy to distribute and use. With many cameras you can immediately see your images on a small LCD screen on the back of most cameras. More information on digital cameras (including buying tips) at: <http://www.shortcourses.com/choosing/contents.htm>

The library currently owns:

1. Olympus D-550 Zoom Digital Camera

Purchased in January 2003 for \$296. Dependable and a workhorse.



To get pictures from your camera onto your computer, you'll need a special USB cable and the software from your camera. Plug your camera into the cable and the cable into your computer.

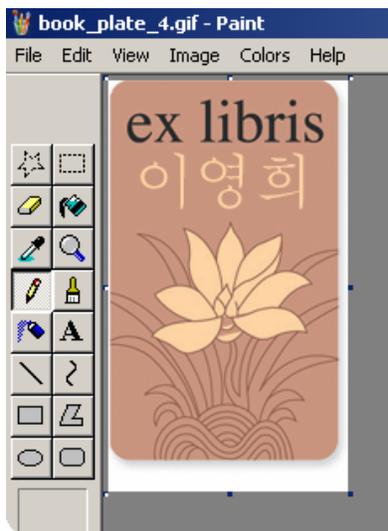
If the pictures don't start transferring automatically, click on Start→ Settings→ Control Panel→ Scanners and Camera. Double-click on your camera to start the picture transfer. You may also have the option to delete the photos after the transfer.

OTHER DIGITAL OPTIONS

<http://www.kinkos.com>

If you do not wish to buy a scanner, or if you want photo-quality prints from your digital camera, Fedex-Kinko's offer a variety of services, including: Sony PictureStation (digital camera/scanning/printing/CDs), Photo Enlargements, Photo to Art Prints and Photo Gifts (calendars, mugs, t-shirts, etc). Visit their website for more details.

DIGITAL IMAGING

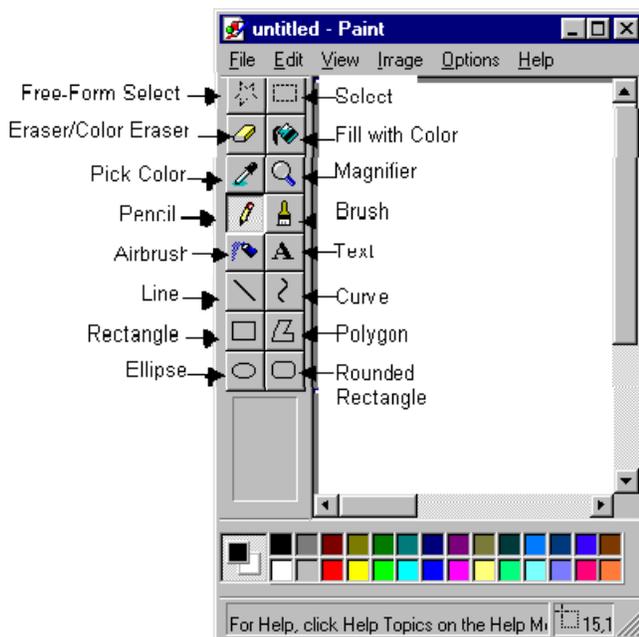


MICROSOFT PAINT

Click Start→ Programs→ Accessories→ Paint

Paint is a drawing tool you can use to create simple or elaborate drawings. These drawings can be either black-and-white or color, and can be saved as bitmap files. You can print your drawing, use it for your desktop background, or paste it into another document. You can even use Paint to view and edit scanned photos.

You can also use Paint to work with pictures, such as .jpg, .gif, or .bmp files. You can paste a Paint picture into another document you've created, or use it as your desktop background.



The buttons at the top left of the screen (many which will cross over into other graphics program) are:

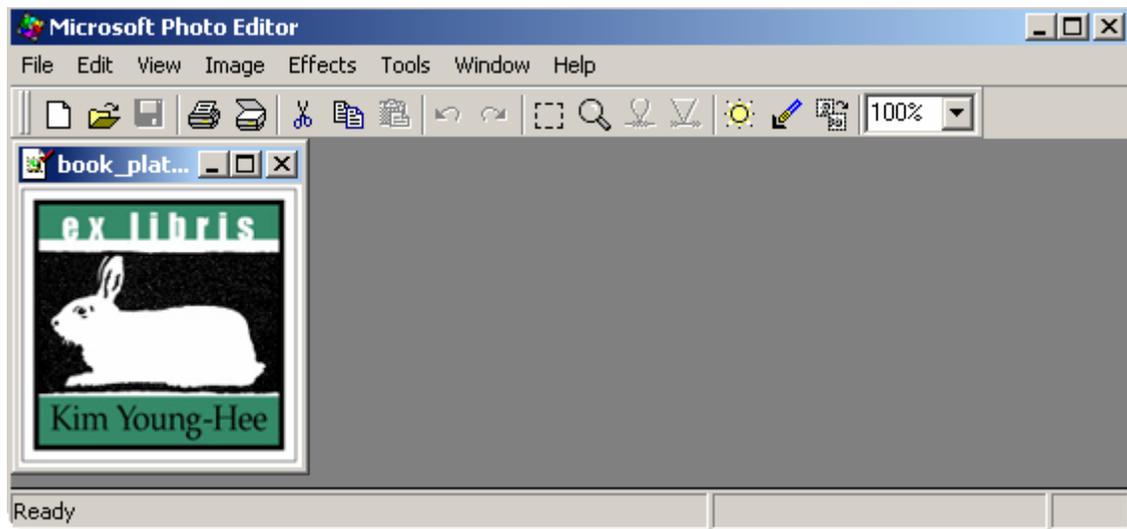
LEFT:

Free-Form Select, Eraser, Pick Color, Pencil, Airbrush, Line, Rectangle, Ellipse

RIGHT:

Select, Fill With Color, Magnifier, Brush, Text, Curve, Polygon, Rounded Rectangle.

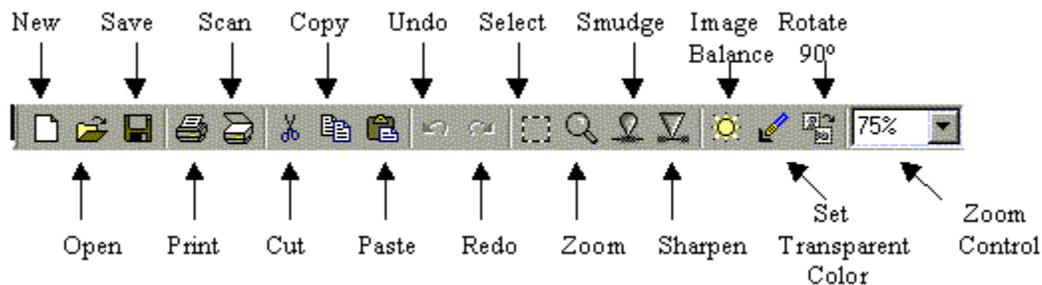
DIGITAL IMAGING



MICROSOFT PHOTO EDITOR

Start→ Programs→ Microsoft Office→ Microsoft Office Tools

Microsoft Photo Editor is an imaged editing program that is part of Office Tools. If you have Microsoft Word or Excel installed on your computer, you might also have Microsoft Photo Editor installed.



To Resize an Image

1. Pull down the Image menu Resize . . .
2. Enter the new width and height or the percentage of the original
3. Click OK

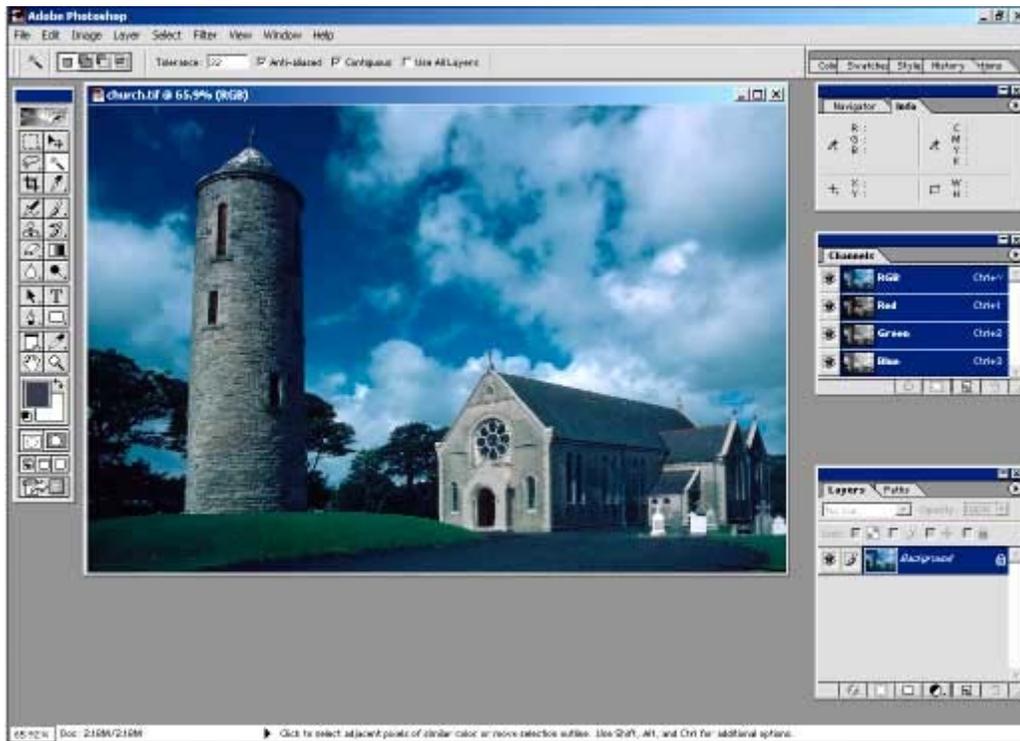
To Crop an Image

1. Click on the Select icon on the toolbar
2. Drag the mouse over the area you want to keep
3. Pull down the Image menu Crop
4. Click OK

To Adjust Image Brightness/ Contrast/ Color Balance

1. Either click on the Image Balance icon or pull down the Image menu and choose Balance . . .
2. Slide the Brightness bar to change the brightness
3. Slide the Contrast bar to change the contrast
4. Slide the Gamma bar to change the color balance
5. You can change individual colors by pulling down the All colors menu
6. Click OK when done

DIGITAL IMAGING



ADOBE PHOTOSHOP

Start→ Programs→ Adobe Photoshop

The Menu Bar

The menu bar consists of nine menus: File, Edit, Image, Layer, Select, Filter, View, Window, and Help. Some menu commands are followed by a right pointing arrow. This indicates a submenu of related commands.

The Status Bar

The status bar at the bottom of the window displays useful information--such as the current magnification and file size of the active image, and brief instructions for using the active tool.

The Toolbox

The toolbox appears on the left side of the screen. Some tools in the toolbox have options that appear in the context-sensitive tool options bar. These include the tools that let you use type, select, paint, draw, sample, edit, move, annotate, and view images. Other tools in the toolbox allow you to change foreground/background colors, work in different modes, and jump between Photoshop and ImageReady applications.

The Palettes

Palettes help you monitor and modify images. By default, palettes appear stacked together in groups.

PHOTOSHOP HELP:

For more information on using Adobe Photoshop, open Photoshop and select "Help" and "Contents." This will bring up an interactive user's guide to Photoshop (installed locally on your computer). Alternately, there is an online Photoshop tutorial at:

<http://graphicssoft.about.com/od/photoshop/l/bllps5out.htm>

DIGITAL IMAGING

NOTES: