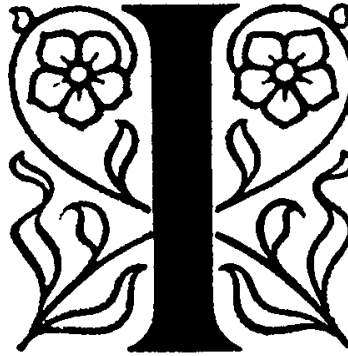


# The New York Society Library Presents:



## Digital Images

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# INDEX

## GETTING STARTED:

What are digital images?.....	Page 03
What use are digital images?.....	Page 03
How do I use digital images?.....	Page 03

## ACQUIRING IMAGES:

Acquiring images from the Internet.....	Page 04
Desktop Backgrounds	
Computer Screenshots	
Acquiring images from a camera.....	Page 05
Photo Tips.....	Page 06
Acquiring images from a scanner.....	Page 07
Scanner Definitions	

## EDITING IMAGES:

Microsoft Paint.....	Page 08
Adobe Photoshop.....	Page 09
Photoshop Tip.....	Page 10

## DIGITAL IMAGES

### GETTING STARTED



#### BOOK COVER SCANS

[http://mail.nysoclib.org/Digital\\_Archives/books/index.html](http://mail.nysoclib.org/Digital_Archives/books/index.html)

#### What are digital images?

A digital image is an electronic form of a picture or article. Digital images are stored as:

- JPG - Used for photos (compressed image)
- GIF - Used for banners and logos (compressed image)
- BMP - Uncompressed bitmaps (true image)
- TIFF - Archival-quality images (true image)

#### What use are digital images?

Digital images are used entirely on computers and the Internet. It's a form of pictures that computers can recognize. In addition, digital cameras are quick and easy to use. Digital cameras don't use film - just storage space for the images.

#### What do I do with a digital image?

Once you have an image in digital format, you can:

- 1) Send it through e-mail as an attachment
- 2) Insert it into Microsoft Word documents
- 3) Insert it into websites and blogs.
- 4) Print a copy (or copies) on photo-quality paper

## DIGITAL IMAGES

### ACQUIRING IMAGES



### IMAGES ON THE INTERNET

An easy way to get digital images onto your computer is by downloading them from the Internet. Find the picture you like and right-click on the image. Choose "Save Picture As" and choose a location on your hard drive.

Below are some places you may wish to start to look for images.

*Caution: many pictures on the web are copyrighted. If you are downloading them for your personal use, don't worry - if you're using them professionally, you will need to check out the permissions.*

#### For Photos:

- Flickr: <http://www.flickr.com>
- PhotoBucket: <http://www.photobucket.com>
- Google Image Search: <http://images.google.com>

Note: Flickr offers a Creative Commons license searching feature for public use of the the photos. From the search results screen (you'll need to perform a search first), chose "Advanced Search" and scroll to the bottom. Click on "Only search within Creative Commons-licensed content" and perform your search. For a full translation of the Creative Commons license, visit: <http://www.flickr.com/creativecommons/>

#### For Clip-Art:

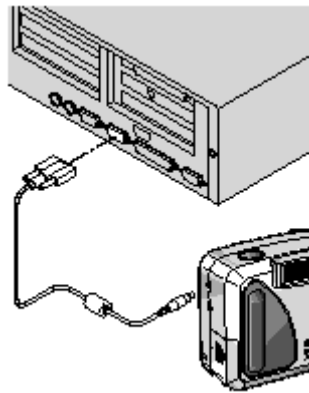
- Microsoft Office: <http://office.microsoft.com/clipart/>  
All of the Microsoft Office Clip-Art images are free to use if you own a copy of Microsoft Office.

## DIGITAL IMAGES ACQUIRING IMAGES



## IMAGES FROM A 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 see your pictures on a small LCD screen on the back of most cameras.



## DOWNLOADING IMAGES

To get pictures from your camera onto your computer, you'll need a USB cable. 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 will also have the option to delete the photos after the transfer.



## Produce Terrific Black & Whites

DIGICAMS CAN TAKE BEAUTIFUL MONOCHROME SHOTS, BUT YOU'LL NEED TO DO MORE THAN JUST FLIP THE SWITCH TO B&W MODE.

### Shoot in color.

Digicams grab a wider range of tones in color mode because they're capturing data for three channels – red, green, and blue. Convert your images to black and white in postproduction.

### Light at an angle.

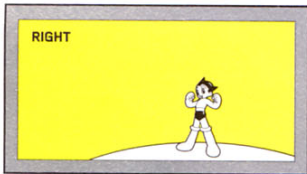
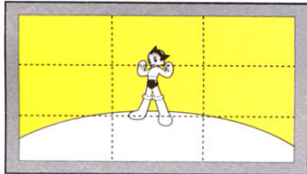
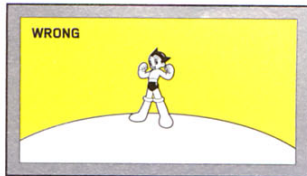
Head-on lighting often results in flat, low-contrast images. Instead, try to have the light hit your subject at an angle. This highlights one side and throws shadows on the other.

### Adjust exposure manually.

Identify the key element in your image and decide how dark you want it (light gray, or whatever). Then over- or underexpose the shot until it has the tonal value you're going for.

### Use Photoshop's Channel Mixer.

To maximize contrast and impact, convert your images to black and white with the Channel Mixer. It lets you select the best tones from the red, green, and blue information in the file.



## Frame a Shot

» DON'T CENTER YOUR SUBJECT. BREAK YOUR FRAME INTO THIRDS VERTICALLY AND HORIZONTALLY, THEN POSITION YOUR SUBJECT ON ONE OR MORE OF THESE INTERSECTIONS. THIS APPARENT IMBALANCE CREATES TENSION IN YOUR PHOTO AND HELPS VIEWERS FOCUS ON WHAT'S IMPORTANT. KNOWN AS THE RULE OF THIRDS, IT'S BEEN A TRICK OF PAINTERS AND PHOTOGRAPHERS FOR YEARS.

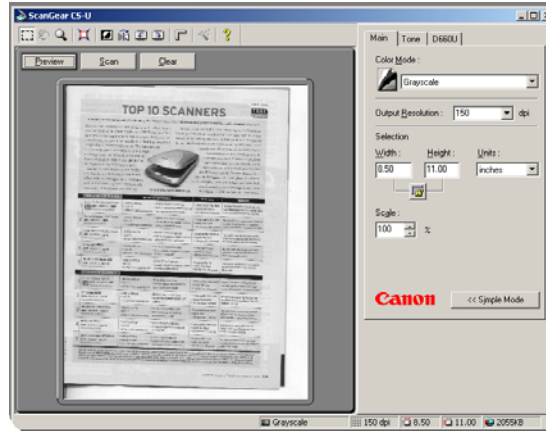
## Snap Killer Candid

That new 8-megapixel digital SLR may boast split-second autofocus, but it still can't do anything about the lifeless "Say cheese!" moments filling up your hard drive. For pointers on better quick pics, we turned to paparazzo [Ron Galella](#). But proceed with caution: Galella's efforts got him sued by Jacqueline Kennedy Onassis and socked by Marlon Brando.

- 1 **LOOK FOR LIGHT** – specifically, reflected light to fill in the subject's features. Hallways and small rooms bounce light around, which can counter the hardness of the flash. Look for 10-foot ceilings and stand 3 to 4 feet from the wall behind you.
- 2 **DON'T POSE SUBJECTS.** People look relaxed and comfortable when they're engaged in activity – smoking a cigarette, fixing their hair, petting the dog. Anything that keeps their mind off your lens is good.
- 3 **USE THE NAKED EYE.** Forget that your camera has a viewfinder and an LCD. Get everything in focus, then hold the cam in front of you and rely on your own sight. This lets your subjects warm up to you and helps you read their expressions.
- 4 **SHOOT FIRST ...** Don't worry about framing the perfect shot while the camera is in your hand. Keep moving, getting as many angles and moods as possible. Click fast and often.
- 5 **... COMPOSE LATER.** Back at home, you can refine your raw material into a beautifully composed candid. Purists like Henri Cartier-Bresson shunned cropping as a kind of photographic half-truth; for the rest of us, there's Photoshop.

## DIGITAL IMAGES

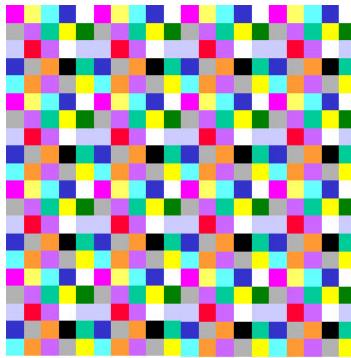
### ACQUIRING IMAGES



### IMAGES FROM A SCANNER

Another 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. 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".



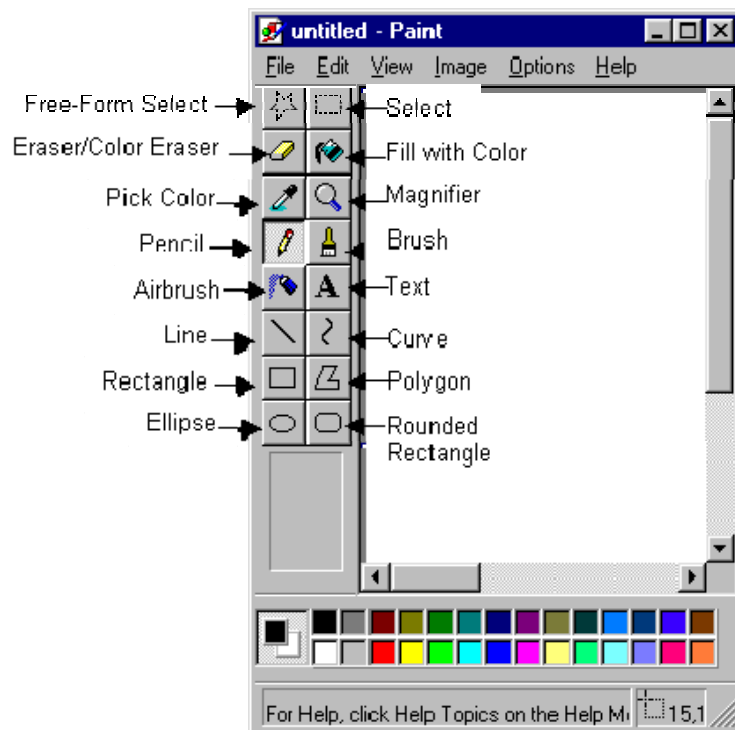
### SCANNER OPTIONS:

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

## DIGITAL IMAGES

### EDITING IMAGES



### MICROSOFT PAINT

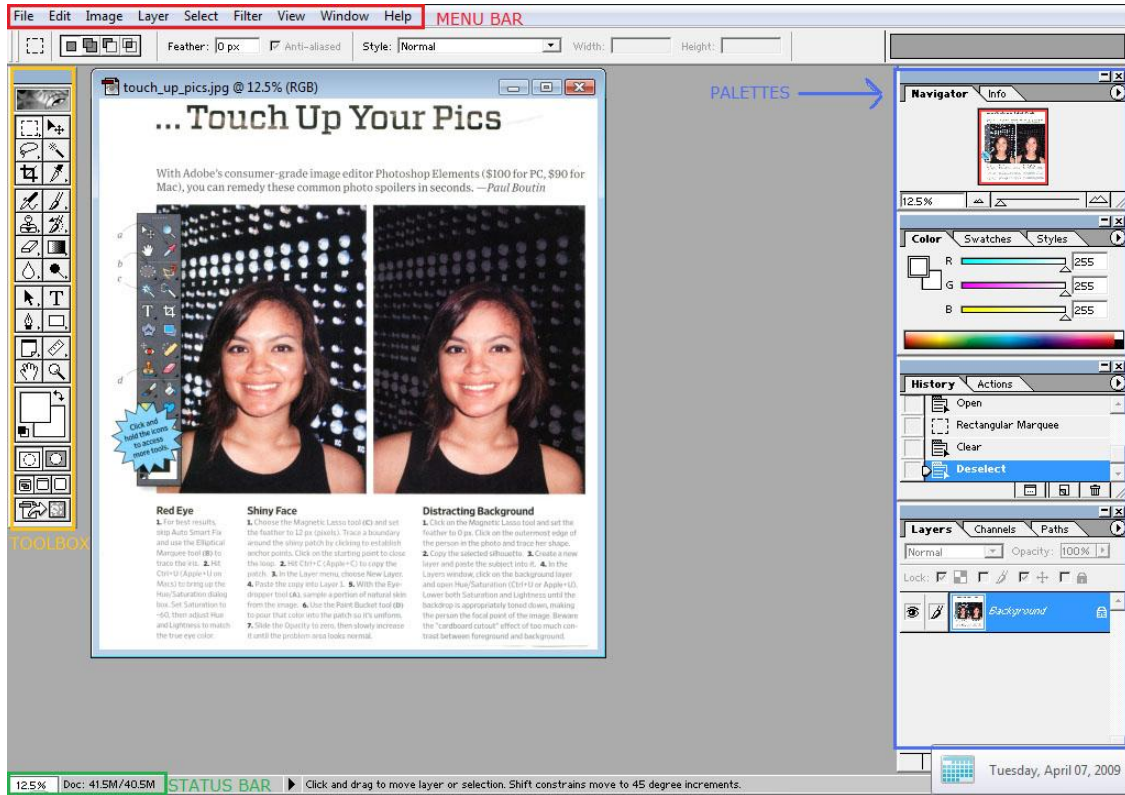
Click Start → Programs → Accessories → Paint

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.



# DIGITAL IMAGES

## EDITING IMAGES



### ADOBE PHOTOSHOP

Start → Programs → Adobe Photoshop

#### The Menu Bar (in red at top)

The menu bar consists of nine menus: File, Edit, Image, Layer, Select, Filter, View, Window, and Help.

#### The Status Bar (in green at bottom)

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 (in yellow on left)

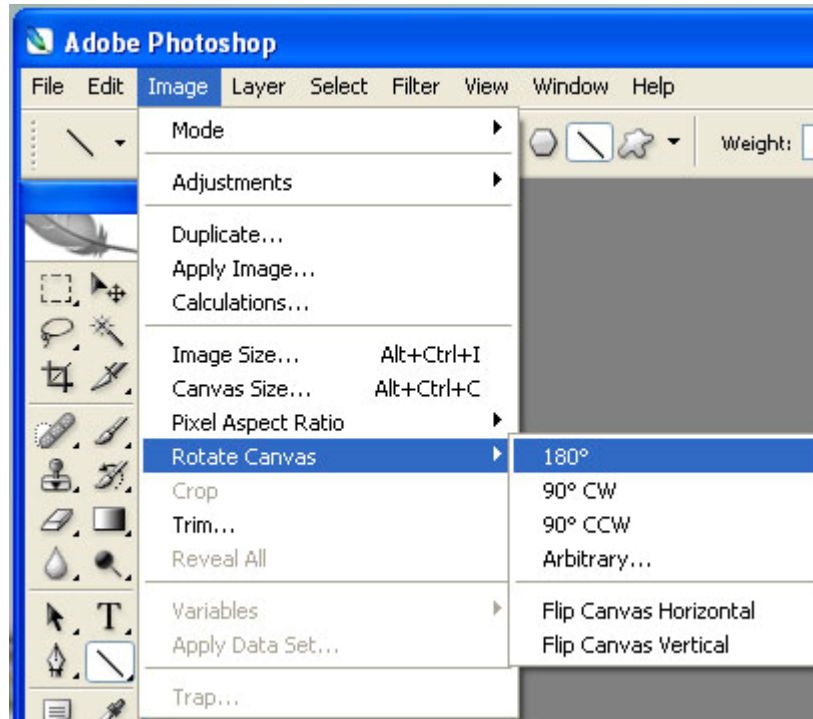
The toolbox appears on the left side of the screen. Some tools let you use type, select, paint, draw, sample, edit, move, annotate, and view images. Other tools in the toolbox allow you to change foreground/background colors, and work in different modes.

#### The Palettes (in blue on right)

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

*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.*

## DIGITAL IMAGES TIPS AND TRICKS



### STRAIGHTENING A CROOKED IMAGE

From: <http://graphicssoft.about.com/cs/photoshop/qt/straighten.htm>

If you have a picture that was taken with the camera tilted or scanned at an angle, Photoshop offers two tools to fix this quickly--the measure tool and the crop tool. Here are step-by step instructions for straightening a crooked photo:

1. Select the measure tool (ruler), from under the eyedropper tool in the toolbox (Shortcut I). You can also toggle the ruler by pressing <SHIFT>+I
2. Click at one point on the horizon, then hold the mouse button and drag across, releasing the mouse button at the other end of the horizon. In other words, drag a line across the document to indicate what should be level. It does not have to be the horizon; it could be a fence line, a roofline, the edge of a shelf, or anything else you know should be perfectly horizontal.
3. Go to Image -> Rotate Canvas -> arbitrary.
4. The rotate canvas dialog appears with a number already filled in. Click OK.
5. Your image is rotated and the canvas expands to accommodate the extra space.
6. Use the crop tool to trim the edges.

**DIGITAL IMAGES**

**NOTES:**