

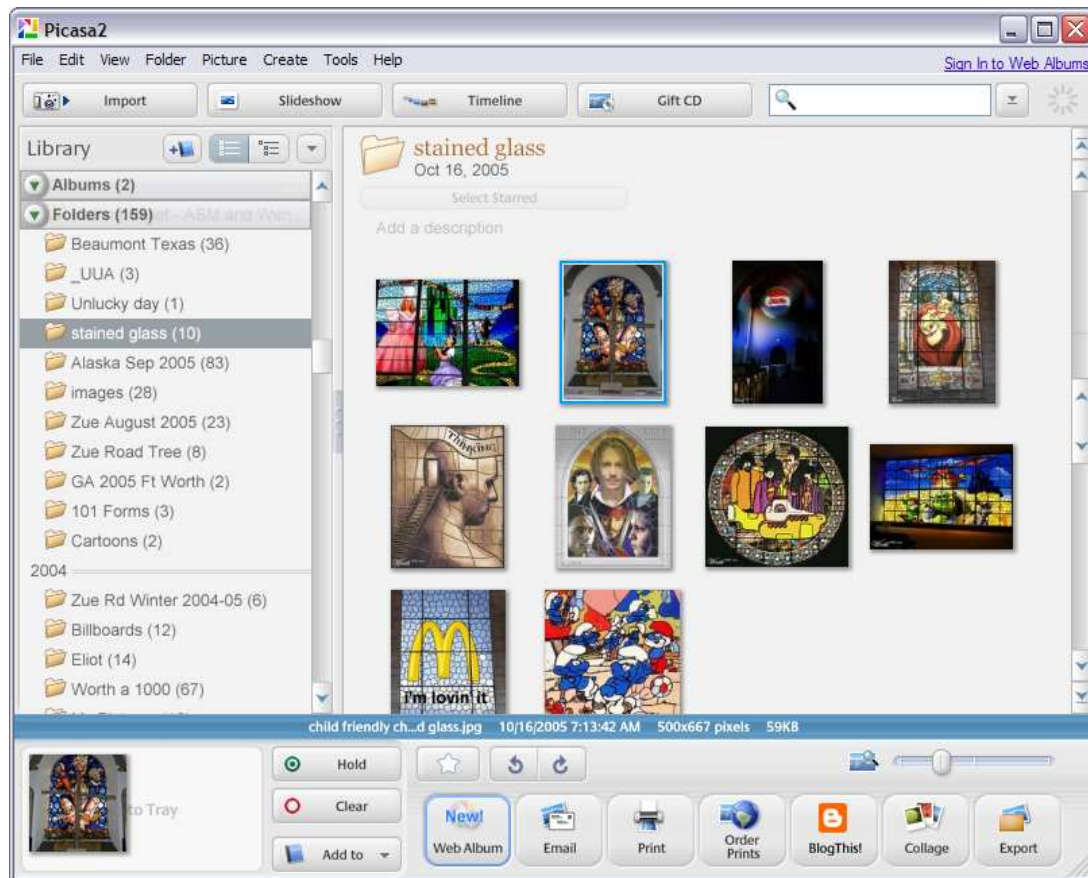
Making, Managing, Enhancing and Using Digital Images

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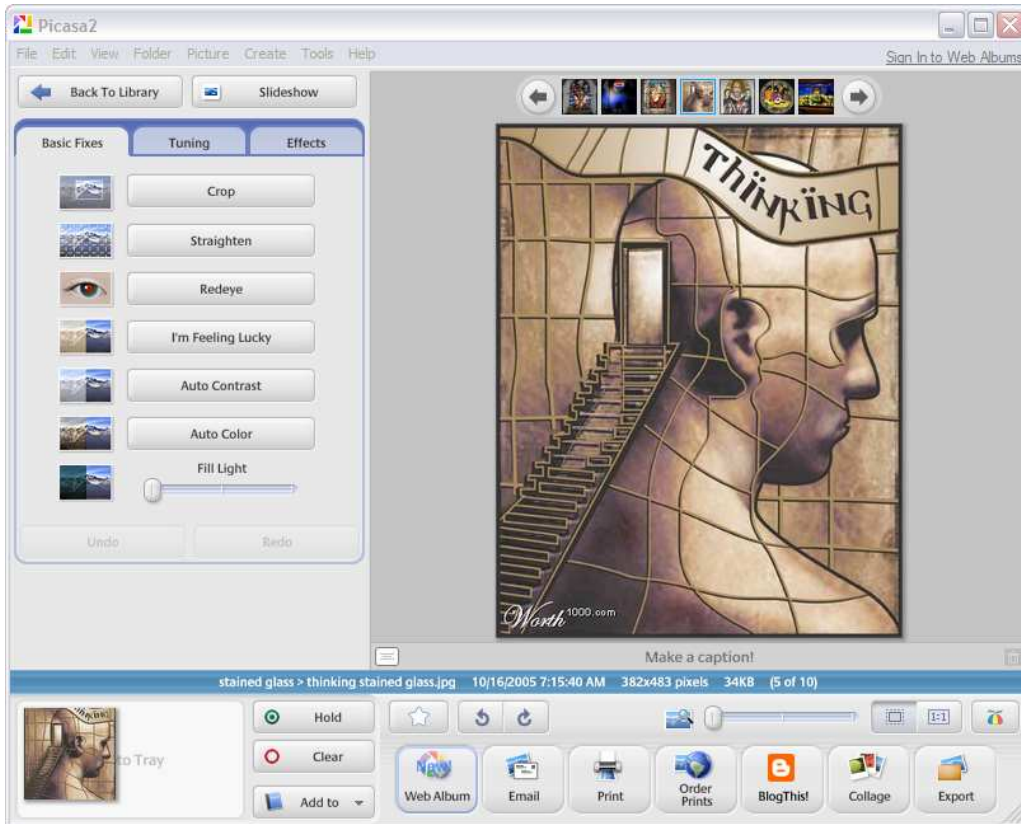
Clip-art is out and digital pictures are in. Whether you are creating a PowerPoint presentation or a cover for a printed report, using digital pictures (photographs taken with a digital camera) can set you apart from the pack. In this session, we'll explore how to take quality digital pictures, how to organize them so you can find what you are looking for, where to get photos taken by others, how to use free and inexpensive tools to enhance them, and how to position them where you want them in your documents and presentations.

Organizing your digital images

If you're looking for software to store, organize, and do some basic editing of your digital images, look no further. Google's Picasa software is a full featured organizer and a decent editor. With Picasa, you can rename, categorize, and publish your images on a blog. You can easily create "slide shows" from your images, and save them to CD.



Picasa includes a wide array of tools to let you edit your image.



Choosing the best graphic format for the job

If you've ever wondered why the formats of graphics on the Web are different from those used in documents, presentations, or spreadsheets, you're not alone. With TIFFs, GIFs, BMPs, and PNGs, it's hard to know which format to use and which program to use it with. Knowing what formats are out there and learning about the advantages and disadvantages of each can help you create lively documents, presentations, and Web pages.

Popular raster graphic formats

BMP (bitmap), GIF (Graphics Interchange Format), JPEG (Joint Photographic Experts Group), PNG (Portable Network Graphics), and TIFF (Tagged Image File Format) are raster image formats. A raster image is also known as a bitmap and is created from rows of small dots called pixels ("picture elements") or "bits." Because a raster format uses a fixed method of specifying an image, the image cannot always be immediately rescaled without losing definition.

Bitmap (BMP)

The Microsoft Windows® BMP format (.bmp file extension) can display millions of colors. Because it is supported by several programs, it is an extremely practical file format to use when you are providing an image to someone who may not have the program in which you created the image.

Graphics Interchange Format (GIF)

The GIF format (.gif file extension) is one of the two most common file formats for images on the World Wide Web, because it is supported by almost all Web browsers. Because this format can only display a maximum of 256 colors, it is best used for black-and-white line drawings, color clip art, and

pictures with large blocks of solid colors. The GIF89a format also supports both transparency (used to remove the area, often white, that surrounds the actual image) and animation on the web and in applications like PowerPoint. Use GIF files for:

- Images that contain transparent areas
- A limited number of colors, such as 256 or less
- Colors in discrete areas
- Black-and-white images
- A small-size image, such as a button on a web site
- Images in which sharpness and edge clarity are important, such as line drawings or cartoons
- Images containing text
- Animations

Note: GIF is pronounced "jif" like the peanut butter

Joint Photographic Experts Group (JPEG)

The JPEG format (.jpg or .jpeg file extension) is the other most common file format for images on the Web. It is not limited to 256 colors, so you can use it to display high-quality photographs, or pictures containing millions of colors. Because it is designed as an image storage format, it can efficiently compress large, high-quality photos into very compact files, so it is very useful when you want to send a large image in e-mail. However, the more you reduce your image's file size (or modify and re-save the image), the more image information is discarded— and quality is decreased. Moreover, this format does not support transparency or animation. Use JPEG files for:

- Photographs
- Natural-looking images
- A large number of colors (think millions of colors, not thousands)
- Rich detail, such as a photograph of a house on a real estate site
- An image with large dimensions

Portable Network Graphics (PNG)

The PNG format (.png file extension) can display millions of colors. Because it is such a new format, however, fewer browsers currently support it (although it is quickly gaining support). Images saved in this format will not degrade in quality, even if the file is compressed. It supports transparency, but it does not support animation because it cannot contain multiple images.

Tagged Image File Format (TIFF)

The TIFF format (.tif or .tiff file extension) produces very high-quality images and is therefore used in publishing quite often. It can display millions of colors (although grayscale images are limited to 256 colors or shades), and typically results in larger image files than the GIF or JPEG formats. If you plan to edit an image in a program other than the one in which you created it, saving it in this format is helpful because it is widely recognized by various programs.

The most common graphic file formats that Office 2003 supports:

Program	BMP	EMF	EPS	GIF	JPEG	PNG	TIFF	TGA	WMF
Microsoft Word	X	X	X	X	X	X	X		X
Microsoft Excel	X	X		X		X			X
Microsoft FrontPage®	X	X	X	X	X	X	X	X	X
Microsoft PowerPoint®	X	X		X	X	X	X	X	X

Note Depending on the program you're using, you'll need a graphics filter installed to insert images saved in other graphic file formats. If you didn't install the filter when you installed Office or your specific Office program, you can run Setup again and add the graphics filter. For more information about graphics filters, search Help for your program.

Figure out the best file format for your task

When you save your document, data and workbooks, or presentation as a Web page in Hypertext Markup Language (HTML) format, all graphics (including drawing objects and pictures) are saved in GIF, JPEG, or PNG format so that they can be viewed in a Web browser.

If you reopen the Web page in Word, Excel, or PowerPoint, the graphics will be in their original file formats so that you can still edit them as you normally would.

Action	BMP	GIF	JPEG	PNG	TIFF
Post an image on a Web page		X	X		
Export easily to other computer imaging programs	X				X
Compress a large image to create a small file to send in e-mail		X	X		
Use transparent areas in images		X		X	
Create animation files		X			
Decompress images without loss of quality		X		X	
Create highest quality images (for publishing, etc.)					X
Display millions of colors in an image	X		X	X	X
Retain image quality through numerous saves	X	X		X	X

Note The formats that are generally used for Web pages are GIF and JPEG. When you add a graphic other than a GIF or JPEG to a page and then save it, FrontPage automatically converts the graphic to a GIF if it has 8 bits of color or less, or to a JPEG if it has more than 8 bits of color.

Source: Microsoft Office Online (<http://office.microsoft.com/en-us/assistance/HA010563051033.aspx>)

Graphics Resources on the Web

About Digital Photography

Short Courses in Digital Photography

<http://www.shortcourses.com/>

Famous for its books on digital cameras and digital photography.

Explore Digital Photography with Windows XP

<http://www.microsoft.com/windowsxp/using/digitalphotography/default.mspx>

Microsoft's Web site dedicated to information about digital photography in the Windows XP environment.

- Take photos: tips for getting the best pictures
- Organize and store photos: find out what you need to know about getting your photos from your camera to your computer, and then keeping them organized
- Fix and edit photos: photo-editing techniques
- Print and scan photos: a guide to printers and scanners
- Share photos: how to share photos via e-mail, the Web, and more

About Colors and Color Palettes

Which Color Palette? Optimizing Web Graphics

<http://www.webreference.com/dev/graphics/palette.html>

A discussion of the various color palettes and how they differ.

The Browser Safe Palette

<http://the-light.com/netcol.html>

This document describes how to design your Web graphics for computers that use only 256 colors.

Visibone

Resources about color and color palettes for Web design.

<http://www.visibone.com/>

Sources for Free Digital Photographs

morgueFile

<http://www.morguefile.com/>

morgueFile contains free high-resolution digital-stock photographs and reference images for either corporate or public use. The official purpose of the morgueFile image resource is the one of providing free-image reference materials for all creative pursuits.

The archive contains at present over 55,000 digital images, which can be both searched and accessed via a well-organized set of categories.

Pixel Perfect Digital

<http://www.pixelperfectdigital.com>

PixelPerfect Digital is an image archive offering more than 3,000 images free for commercial and non-commercial use.

OpenPhoto

<http://www.openphoto.net/>

The Open Photo Project is a stock-photo community and framework devised, implemented and supervised by Michael Jastremski. Owing largely to years of prior research, the goal of OpenPhoto is to unite photographers and users through Creative Commons licensing.

The Library of Congress

<http://www.loc.gov/rr/print/list/listguid.html>

Prints & Photographs Division staff have selected sets of images on frequently requested topics, focusing on images for which there are no known restrictions.

U.S. Government Graphics and Photos

<http://www.firstgov.gov/Topics/Graphics.shtml>

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For world-class training in Microsoft Office:
www.officebootcamp.com – All Office, All the Time

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