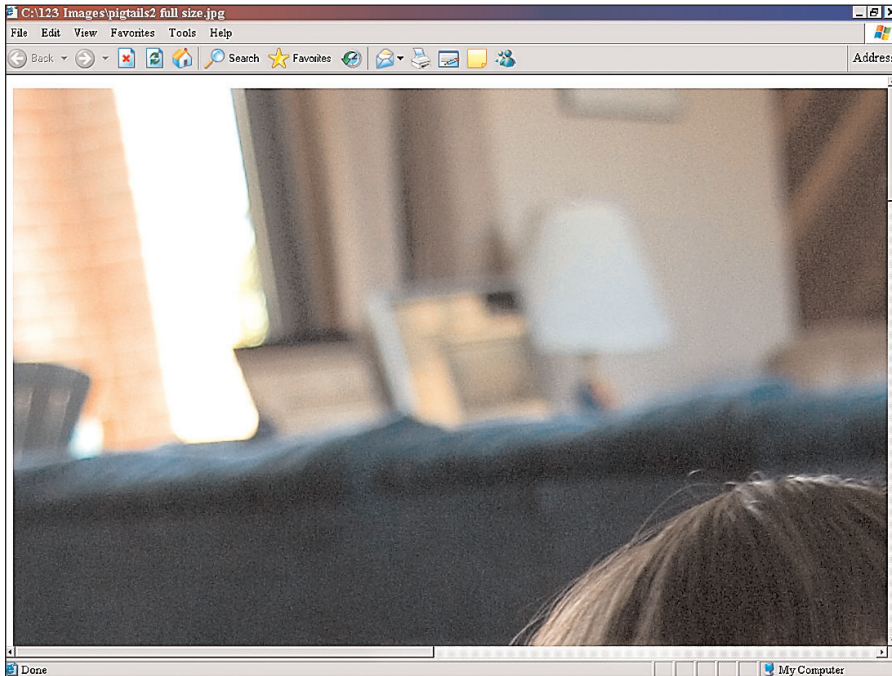# TECHNOLOGY

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Bits & BYTES

WAYNE PALMER

In the screen shot at right, a large image has been brought into a browser and is being viewed at standard screen resolution, without any scaling. In the inset photo, the same image has been drastically scaled down, from millions of pixels to just a few hundred thousand. As a result, the image now fits easily.

When small is beautiful

Resize digital images for faster downloads, email transfers

One of the great things about this digital age of photography is the ability to share pictures almost instantly anywhere around the world.

While in China last year, I was able to post images of my newly adopted daughter for family and friends to see.

Even though we were halfway around the world, the instant communications made the distance seem unimportant.

With the holidays soon to be upon us, many of us will be sharing our own special memories by sending electronic pictures.

For many, it may simply be a matter of attaching the file to an email message and hitting the "send" button. However, depending upon the size of the file, you may have trouble sending images.

Many Internet Service Providers limit how large a file can be transferred by email and may cut you off at around 2 MB. With today's digital camera's ever-increasing file capture size, a 2 MB file is not uncommon.

Additionally, the time to send and receive a file this size can be very long if the Internet connection is dial-up service.

Those who have broadband connections may not think about transfer speeds much anymore, but not everyone has high-speed connections.

If any recipients of your message are on a slow service, they may not appreciate having their computer and phone line tied up waiting for a large file to transfer.

Another downside to sending large files is that the recipient often can't see the entire picture and has to scroll around on the screen to view it.

As you may know, digital images are made up of thousands of pixels, individual colored "dots." Image-editing programs generally suppress enough of them that your photo fits on your screen, but other programs may display the whole file at normal screen resolution. At 72 dpi (dots per inch), an image 3,000 pixels wide will give you a display width of more than three feet.

So with all these extra pixels and the time it takes to transmit them, do you really need them in the first place?

That is a key question. The amount of information needed to display a satisfactory image on screen is vastly smaller than the amount needed to print large high quality pictures. They are at opposite ends of the spectrum.

If your goal in sending an image is simply to let someone see it on screen, you do not need to send a large file at all.
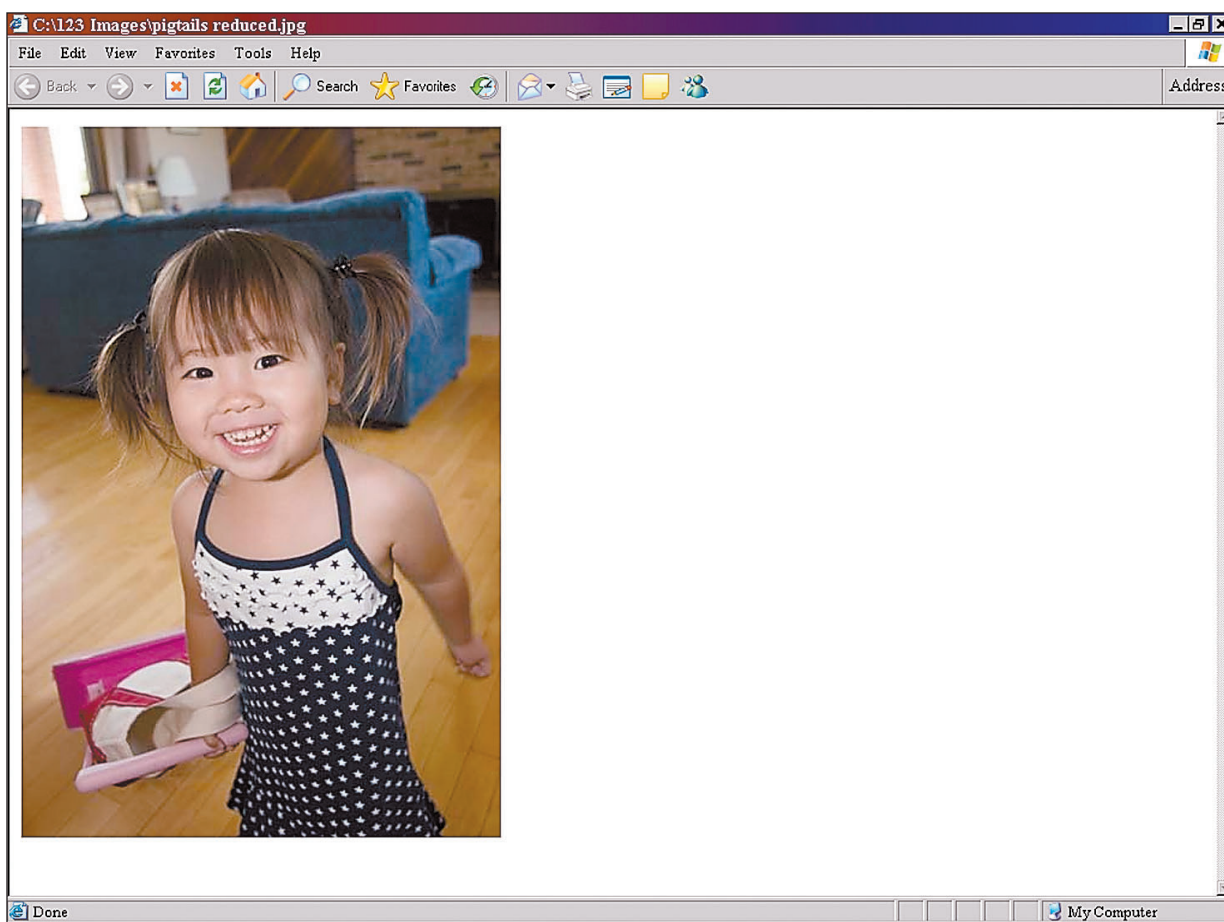
Resize the file and compress it as a JPEG file.

Resizing is not a difficult task, and there are programs that can do it with a simple click.

When resizing images for Internet use, you need to think in terms of screen real estate, not in print output terms like inches.

You will seldom know your recipient's screen resolution and many readers may not even know their own. But one fairly common standard is 1,024 x 768 pixels. A picture taken with a 6-megapixel camera, by comparison, is 3,072 x 2,048 pixels.

Both length and width are roughly three times larger, which means the total area is about nine times greater (three times three). So again, if the goal is to have the image show up in its entirety on your recipient's monitor, then resiz-

ing the image is desirable.

To do so, you need some type of image editing software. Photoshop Elements, now in its fifth version, is probably the most feature-filled program for the money, and I can't recommend it highly enough.

However, if a new program is not in your budget, there are a number of alternatives.

Your digital camera most likely came with software that would allow you to resize pictures and there are several freebies out there as well.

Adobe offers a free program for download called Photoshop Album Starter, which not only provides a way of organizing your images, but also has an automatic image-resiz-

ing feature.

One of my favorites is a neat little utility for Windows XP users you can download from Microsoft under the Power Toys section called Picture Resize.

After installation, you can right click on any image file in Explorer and choose a preset image size from a menu.

The utility makes a copy of the original file, downsizes it and converts it to JPEG format. You can even select a group of pictures, having all of them resized simultaneously.

If you would like to send files that can both be easily viewed and make a good print, a 1024 x 768 resolution will offer enough resolu-

tion to make a 5x7-inch.

One last little tidbit if you use Internet Explorer to view images. Buried in the Advanced Internet Options is one called "Enable Automatic Image Resizing." Check this option and large images will be resized to fit within the browser.

Downsizing your images before emailing them off to family and friends will make them transfer a lot faster and your friends on dial-up service will appreciate your thoughtfulness. And, it will display your Web graphics savviness.

If you have digital imaging topics you would like to see covered in the new year, feel free to contact me at pmi@palmermultimedia.com Happy Holidays!

How to manually resize a picture

Almost any image-editing program has a way of resizing pictures, with many of them having an Image Size dialog box. In this box, the dimensions of the image are displayed in terms of actual pixels and how the image is sized for printing. You can resize the file by simply changing the dimensions.

If the file will be smaller, the unneeded information will be discarded. If the file is to be larger, the program will make up data to fill the new dimensions, a process called interpolation.

VERY IMPORTANT: Perform this task on a "copy" of your file or be sure to do a "Save As" for the file and give it a different name. Overwriting your original file with one that has been made smaller will throw away information you won't be able to get back.
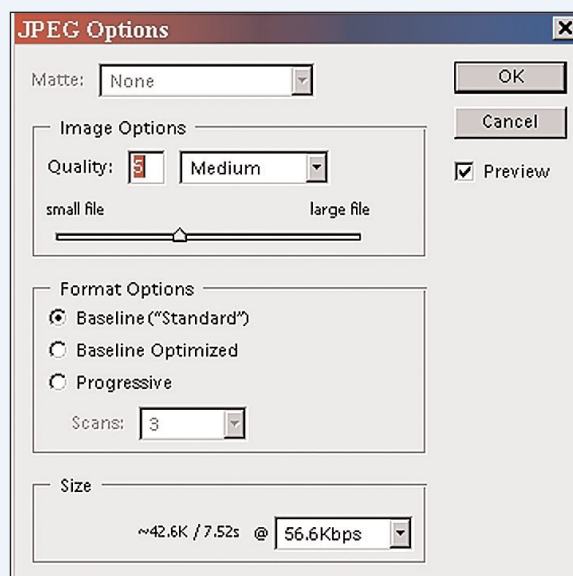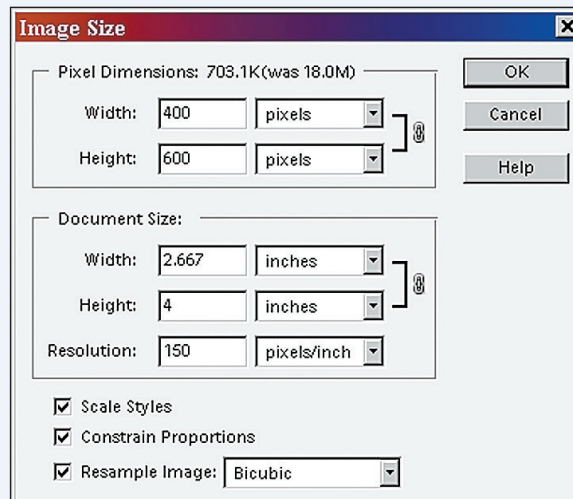
Step 1 - In the Image Size dialog box, change the height or width of your image to something that would fit on a normal screen.

In this example the original file has downsized to a height of 600 pixels, a size that can be seen on most screens. This also reduces the original file size from 18MB to 703K.

Step 2 - In the Save As dialog box, the file is saved as a medium quality JPEG file, which reduces the image to a mere 43K

Such a small file won't take long to transmit regardless of Internet connection speed.

Most photo-editing programs offer the ability to resize a file. In example at top right, an 18MB file is reduced to 703K just by entering in a value that will fit a normal screen resolution. Most programs also offer the ability to compress a file to make it smaller. In the example at bottom right, the 703K file is reduced to 43K.

Techbits

Microsoft hopes AURA aids shoppers

Technologists have long dreamed of using the Internet to send data about consumer products to shoppers in real time, wherever they happen to be. Researchers at Microsoft Corp. claim they're getting closer to making that happen.

Beginning this week, people who have phones and other portable devices that run the company's Windows Mobile operating system can download a free Microsoft application known as AURA. It stands for Advanced User Resource Annotation and is designed to connect shoppers on the go to a world of information about products.

People with an AURA-enabled device would use its digital camera to snap the bar code on a product. AURA then would deliver several links and search results about the item to the handheld computer. A consumer might learn whether the same product is available for a lower price elsewhere, for example, or whether the item was manufactured in a country with controversial labor practices.

Microsoft hopes everyday users would eventually augment the information AURA delivers by using AURA's Web site to post reviews and other details about things they own.

Some search results risky

NEW YORK (AP) — It's slightly safer to use search engines, but about 4 percent of search results still lead to sites deemed risky, a new study finds.

Ben Edelman, a security expert who serves as an adviser to security software vendor McAfee Inc., said that although the overall riskiness of search engines declined 12 percent since May, some 4.4 percent of results still lead to sites flagged with a "red" warning or a cautionary "yellow" by McAfee's SiteAdvisor service.

SiteAdvisor rates sites based on whether they result in spyware, viruses, excessive pop-up ads, junk email or other problems. Keywords were sent through the top five search engines — Google Inc., Yahoo Inc., Microsoft Corp.'s MSN, Time Warner Inc.'s AOL and IAC/InterActive Corp.'s Ask.

Risks are about three times greater when clicking on keyword ads that make up much of these companies' revenues, and adult-related search terms are twice as risky as non-adult terms, the study found. Queries using the word "free" are also more likely to produce risky sites.

Group seeks more professional blogs

NEW YORK (AP) — Robert Cox wants to bring some professionalism to the blogosphere.

As president of the Media Bloggers Association, Cox is about to unveil new membership policies designed to help bloggers who see themselves more as journalists than freeform diarists.

The Pew Internet and American Life Project finds that about 8 percent of American adults keep Web journals, most of them personal in nature even though the most high-profile ones may be about news, politics or technology. It's the more serious efforts that Cox is courting.

Among the planned criteria: Members would have to take an online course offered by the Poynter Institute, a journalism think tank, covering legal issues related to blogging.

Members also could seek credentialed status by undergoing training or demonstrating other work as professional journalists. They also must agree to the organization's ethical standards and adopt formal editorial and corrections policies.