Techbits

Fox ad designed to thwart TiVO

LONDON (AP) — Fox is running a 30-second television spot with just one static image in an effort to reach viewers who fast forward through ads using digital video recorders like TiVos.

U.K. advertisements for Fox's new drama, "Brotherhood," which premieres in Britain in October, simply shows an image of Providence, R.I., where the show is set, and the program's logo. Viewers fast-forwarding through the ad would see the image for a few seconds; those watching it normally would hear dialogue from the show in the background.

Jon Hollett, a Fox International spokesman, said the company was experimenting with ways to get its messages to DVR users who routinely breeze through ads without antagonizing real-time viewers by broadcasting a flat, silent image for thirty seconds.

"This is something that is going to have to be addressed one way or another," he said. "Making sure that you can get to your viewers when they're fast forwarding ... is of crucial importance."

Television executives fear the new technology could make ad-supported free programming obsolete. In the United States, DVR users could dodge as much as $8 billion of the $74 billion in television ads shown this year, according to Jupiter Research, a technology consulting company.

Some media companies have attempted to fight the trend. One DVR provider, ReplayTV, was driven into bankruptcy in 2003 by a lawsuit over its automatic ad-skipping feature.

Trojan Horse can capture mousing

BOSTON (AP) — In hopes of fighting Internet fraud, some online banking sites make customers use "virtual keypads" — a method of entering passwords on the screen, generally with a mouse. The system is designed to thwart keystroke-logging programs that capture everything a user types.

Now those virtual keypads appear just as vulnerable to snoops.

A Spanish security company, Hispasec Systems, has revealed details of "Trojan horse" programs that can capture video imagery of an unsuspecting person's computer use. If the user enters a PIN on a bank's virtual keypad, the dastardly program is a witness.

Like most Trojan horses, the ones detected by Hispasec are slipped onto users' computers when they visit certain Web sites, often through spam links, said Hispasec researcher Bernardo Quintero. Often you'd have no clue if you were hit. When Quintero's group tested whether more than 30 anti-virus programs would block a recent video-logging Trojan, only six did so.

Gartner Inc. security analyst Avivah Litan said screen-capture programs that attacked virtual keypads emerged as early as 2003, when banks in Brazil fell prey. She said the technique has remained relatively rare because the programs consume a lot of bandwidth and storage, and there have tended to be a lot of easier targets.

Litan says banks would be wise to focus more resources on behind-the-scenes software that can analyze Web banking sessions to gauge their legitimacy.
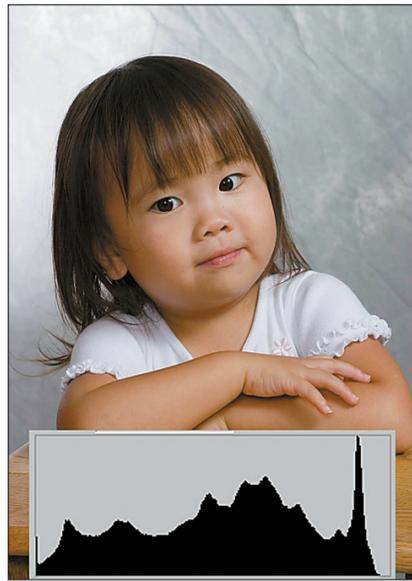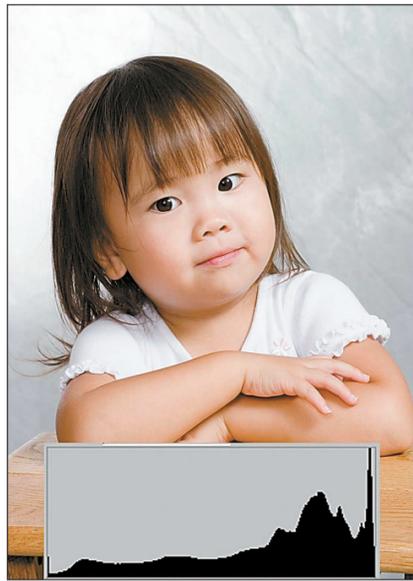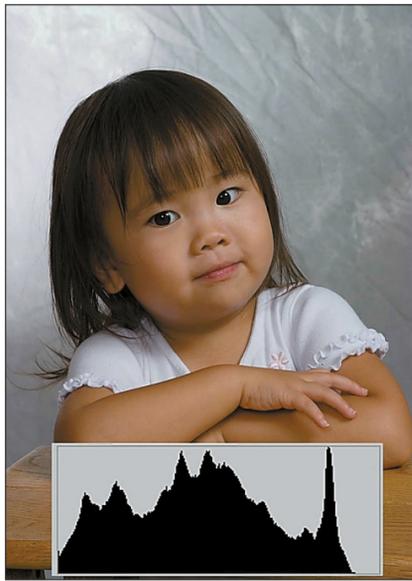
From left, three photographs of the same subject and their associated histograms show exposures that are too dark (histogram skewed left), too light (histogram skewed right) and just right (histogram spread evenly across exposure range).

WAYNE PALMER/
For the Sun-Gazette

Helpful histograms: *Tool helps photographers gauge proper exposures*

Bits & BYTES

WAYNE PALMER

Not so long ago, a photographer would make his best effort to take a good photo and send his film off to the lab for processing.

If the photographer used slide film, the results he or she got back were accurate as long as the lab's chemistry was good. If the photographer shot with negative film, the results were up to the lab's interpretation of the negative.

Brightness, contrast and color where all subjective decisions made by the lab when the negative was printed. This is why reprints seldom matched the original print. Labs would often undo photographic techniques like exposure bracketing, which is the intentional overexposure or underexposure of an image. The experience with film was one of "wait and see" and often the results were painfully dependent upon the quality of the lab.

One the most popular features of digital cameras is the LCD screen, which provides instant confirmation that the picture was recorded as well as that instant gratification that used to come only from Polaroid camera. The whole concept of waiting to see the result has become a thing of the past.

Many photographers tend to trust the image seen in the LCD display as being an accurate representation of the image taken. It is a great tool for determining composition, and expression of the subjects, but it may not be really accurate for judging exposure, color balance and perhaps even focus ... but that's another story.

One of the reasons for this inaccuracy is the LCD screen can appear to change just by tilting the camera or by viewing the image in very bright or dark conditions. Anyone who has tried to view results under bright sunlight is well aware of the problem. This is also why many cameras still have an eyepiece for composition: A picture can be taken without having to rely on the LCD screen.

Many digital cameras can provide a graph of the exposure, called the histogram. The histogram, which looks like an escapee from a spreadsheet program, is a bar graph that depicts the different levels of exposure in the image. It communicates a correctly exposed picture more accurately than the LCD screen. While many cameras can display overexposure information with flashing "hot spots", the histogram can provide information about underexposure and total exposure range.

Side note: It is better to have an underexposed image than an overexposed image. An underexposed image can often be coaxed into a better one through a photo-editing program, but too often there is little that can be done for overexposure. There simply isn't any data in the blown-out areas. But it is still better photography to get the best exposure when taking the photo in the first place and not relying on fixing the image later in a photo-editing program.

In case you have come across the histogram feature in your camera and never quite knew what the display meant, here is an analogy to help explain how the histogram works.

You may already know if you zoom in on your pictures far enough, you will see the little building blocks, called pixels, that make up your picture. Imagine these pixels to be little tiles laid out like a large mosaic. Then imagine this mosaic gets dumped on the floor resulting in a large pile of tiles. To reconstruct the image, you start out by sorting the tiles by brightness, stacking them in piles with the darkest tiles on the left and working your way to the brightest tiles on the right.

If you have followed this analogy, you have a grasp of what the histogram is about. The bar graph displays the number of pixels from dark to light. Advanced histograms can also display the separate primary color information — red, green, and blue — that make up the image.

The histogram can tell you whether you have made a good exposure. Histograms depicting all the information at one end or the other of the scale quickly reveal underexposed or overexposed images. Histograms with all the information clumped in the middle indicate images that have limited exposure range and will have a dull look to them.

Not all cameras may offer histograms, and you may have to dig around in the camera's menu to learn how to view them, but the results can be well worth it. By looking at the graph, you can tell if have a good exposure regardless of whether you can clearly see the image in the LCD screen.

Professionals have even learned to trust the histogram over using separate light meters. By making a few test shots, reading the histogram, and then tweaking the exposure, photographers have been able to greatly reduce the steps needed to get the best exposure.

Histograms are not limited to cameras. They can be found in any good photo-editing program, which can also be very helpful in making photo corrections in the "digital darkroom."

Becoming familiar with this tool will help you to become a better photographer, and when you get to sit down and view your images under controlled lighting you will not be disappointed.