

SONOMA VALLEY
COMPUTER GROUP

The Newsletter for Sonoma County's Mac and Windows Users October 2004 Vol.1 No 10

Spookiness
Scariness
Creepiness

Happy
Halloween-ness



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Apple and Windows Users Group



Sonoma Valley Computer Group

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BOARD MEETINGS

Usually following General Meeting. Open to all members. Call 935-6690 for further information.

MEMBERSHIPS

S.V.C.G. Annual Membership: \$20.
S.V.C.G. Family/Couple membership: \$30 (residing at same address). Membership renewals are due and payable at the beginning of each year.

GENERAL MEETINGS

S.V.C.G. meets second Saturday of each month at Sonoma Public Library, 755 West Napa Street; hours: 9:30AM to 11AM unless otherwise notified. Meetings free; guests welcome.

ABOUT THIS PUBLICATION

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RECYCLE: Donate Used Inkjet and Laser Cartridges

Kathy Aanestad is collecting used inkjet and laser cartridges to recycle. Don't throw yours away. Bring your used cartridges to any meeting. They will be gladly accepted. Thank you.

SVCG UG Benefits

Benefits to being a member of the Sonoma Valley Computer Group are a summer Adobe Photoshop Elements 2.0 workshop, O'Reilly Press and PeachPit Press/NewRiders Press giving you a 20% or more discount on all their books and software! For more information, please contact Kathy Aanestad at 935-6690 or email at 'aanestad@vom.com'.

Additionally, SVCG belongs to the Apple User Group program whereby members can purchase Apple products at a savings. Contact Kathy Aanestad for user ID and password in order to access their online site. We need members help with finding contacts for PC user group offers so that they can be included in the newsletter postings.

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SVCG Members Aid Library

Fearless leaders from the Sonoma Valley Computer Group are volunteering their time at the Sonoma Regional Library. The Library has six new flat-screen, high-speed, Gateway public-access computers gifted by Friends of the Sonoma Valley Library.

These machines offer access to the Library Catalog, Internet Resources, Microsoft Works, and Super Search Interlibrary Loan. Although the "front-end" screen format looks a little unfamiliar when recalling the old terminals, the advanced search-limiting and sorting capabilities far surpass what was previously available.



Those with questions, as well as those reluctant to try new online command protocols, are invited to ask SVCG volunteers for assistance. Our volunteers hours are 11am Friday morning.

SVCG affiliation has been a significant factor in our ability to continue as a computer club. We are pleased to participate in community affairs such as this.

Kudos go to Jeanette Woods, Jeanette Barekman, George Pick, Joan Fabian, and Wes Ford, Beth Pickering, and Elizabeth Palmer. Thank you for your help.

John Nouveaux
November's Speaker

How to Back-up Your Files

What's News by Edupage

NSF FUNDS SIX NEW RESEARCH CENTERS

Six universities will receive more than \$69 million from the National Science Foundation (NSF) for the creation of research centers to study nanotechnology. Since 2001, the NSF has funded eight similar centers. Included in the latest awards are Northeastern University, which will study techniques for nanomanufacturing and assess their environmental impact; Ohio State University, where researchers will work to develop nanotechnology for medical applications; Stanford University, which will develop nanopores and methods to control nanoscale events; the University of California at Berkeley, where researchers will study chemical and biological sensing applications of nanotechnology; the University of Pennsylvania, which will study the interaction of nanotechnology and biology at the molecular level; and the University of Wisconsin at Madison, which will conduct research into the self-assembly of materials at the nanoscale level. Chronicle of Higher Education, 23 September 2004 (sub. req'd)

<http://chronicle.com/prm/daily/2004/09/2004092304n.htm>

CLASS MEETINGS MOVE TO VIRTUAL WORLD

A company called Linden Lab, creator of a 3D digital "world" called Second Life, has announced a program called "Campus: Second Life," which allows college and university faculty to use the simulated online environment to host class sessions. In the Second Life world, participants choose characters who can do things such as change forms, build vast structures, and fly. Aaron Delwiche, an assistant professor at Trinity University, uses Second Life for a course in developing games. He described the tool as "a shared virtual experience," saying it provides his students with an opportunity to experience the kinds of electronic media they plan to develop later. Anne Beamish of the University of Texas also uses Second Life as the "location" for class meetings and student interaction. Beamish said the digital world is similar to the real world but with different physics, which causes students to react differently. The result, she said, is that students "think more deeply about how one designs public spaces." Wired News, 24 September 2004

<http://www.wired.com/news/games/0,2101,65052,00.html>

POWERING LAPTOPS WITH PHOTOSYNTHESIS

Researchers at the Massachusetts Institute of Technology (MIT) have developed a device that demonstrates the feasibility of using photosynthesis to power electronic devices. To survive, the proteins that effect photosynthesis require an environment that typically damages electronic equipment. MIT's Shuguang Zhang, working with researchers from University of Tennessee and the U.S. Naval Research Laboratory, however, was able to keep the proteins alive in an electronic environment using something called detergent peptides. The researchers then used proteins from spinach to develop a device that produced a small electrical current when light was shined on it. Zhang compared the current to a penny, saying that a single penny is not much but that "one billion pennies is a lot of money." Advantages of this approach to generating electricity include its portability and, because it produces no waste, its environmental

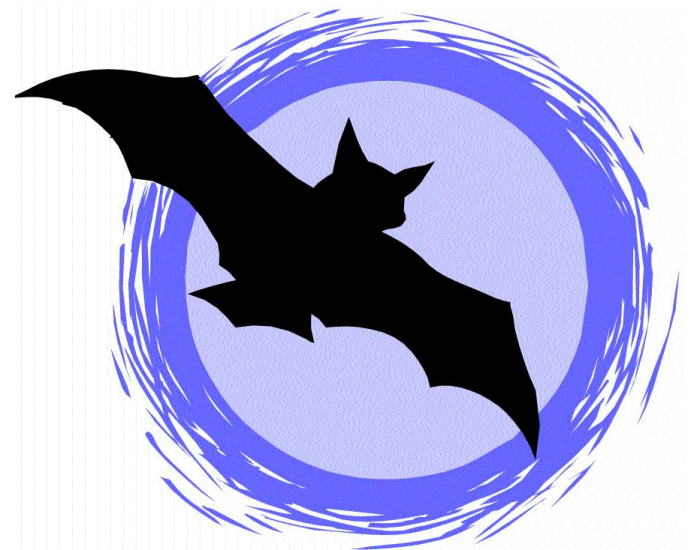
friendliness. Though real-world uses of the technology are likely many years away, the development has possible applications in a range of portable electronic devices, including laptop computers and cell phones. Washington Post, 24 September 2004

<http://www.washingtonpost.com/wp-dyn/articles/A47002-2004Sep24.html>

CONCERN GROWS OVER JPEG FLAW

Some security experts are warning users that a recently announced flaw in the way some Microsoft applications handle JPEG images could lead to the next large-scale virus infection. David Perry of anti-virus firm Trend Micro noted that the combination of several factors has his firm especially worried about the JPEG flaw. Those factors, Perry said, include the number of applications that are affected by the flaw--more than a dozen--and the fact that there has not been a significant virus attack for some time, which may have the effect of lowering users' attention to preventive measures. When the flaw was announced, no code had yet appeared that exploited it. Within the past week, however, such code has been written and has appeared on a private mailing list and a public Web site. Perry characterized the current situation as "the virus equivalent of a harmonic convergence." Others were not as worried about the threat posed by the flaw. Graham Cluley of anti-virus firm Sophos noted that so far no malicious code is being delivered using the flaw. "It is purely being done as a 'proof of concept,'" said Cluley. BBC, 24 September 2004

<http://news.bbc.co.uk/2/hi/technology/3684552.stm>



SVCG

Plugged into Technology 



FREE ONLINE MUSIC

No Fears: Laptop D.J.s Have a Feast

By JON PARELES

DOWNLOADING music from the Internet is not illegal. Plenty of music available online is not just free but also easily available, legal and - most important - worth hearing.

That fact may come as a surprise after highly publicized lawsuits by the Recording Industry Association of America, representing major labels, against fans using peer-to-peer programs like Grokster and EDonkey to collect music on the Web. But the fine print of those lawsuits makes clear that fans are being sued not for downloading but for unauthorized distribution: leaving music in a shared folder for other peer-to-peer users to take. As copyright holders, the labels have the exclusive legal right to distribute the music recorded for them, even if technology now makes that right nearly impossible to enforce.

Recording companies have tried and failed to shut down file-sharing networks the way they closed the original Napster. (That name is now being used for a paid-download service.)

Courts have ruled that the services can continue because they are also used to exchange material that does not infringe on recording-company copyrights. At the same time, a bill before Congress, the Inducing Infringement of Copyrights Act of 2004, seeks to restrict the way file-sharing programs are constructed.

While the recording business litigates and lobbies over music being given away online, countless musicians are taking advantage of the Internet to get their music heard. They are betting that if they give away a song or two, they will build audiences, promote live shows and sell more recordings.

As with the rest of the free content on the Internet, there's no guaranteed quality control. Lucas Gonze, whose webjay.org lets music fans post playlists that connect to free music and video, describes free Internet music as "a flea market the size of Valhalla."

The first place to look for free music online is at musicians' own sites. Many performers, from Bob Dylan (www.bobdylan.com) to the Yeah Yeah Yeahs (www.yeahyeahyeahs.com), post hard-to-find songs for listening: some as free downloads, some as streaming audio (which can be recorded with a free program like StepVoice at www.stepvoice.com). A next place to look is the labels, particularly independent rock and electronic labels like Matador (www.matadorrecords.com/music/mp3s.html), Vagrant (www.vagrant.com/vagrant/audio/audio.jsp), Barsuk (www.barsuk.com), Saddle Creek (www.saddle-creek.com) or Tigerbeat6 (www.tigerbeat6.com/html/catalogue.htm).

Many public radio stations also maintain music archives for

streaming or downloading. Among them are the classical-music station WNYC (www.wnyc.org) and eclectic stations like WFMU in Jersey City (www.wfmuc.org) and KCRW in Santa Monica, Calif. (www.kcrw.org), all of which have troves of live performances. MTV (at www.mtv.com) presents an entire album each week as an audio stream.

Following is a selection of sites offering free music online. Most of them are best used with either a broadband connection or nearly infinite patience. While major-label recordings are largely (but not entirely) off limits, there's more than enough available music to satisfy every listener.

Epitonic

The first and best place to look for any band with an independent recording is www.epitonic.com, a superbly organized site that is likely to have music from nearly everyone heard on college radio. It includes not only downloadable songs but also biographical information and links for hundreds of acts, grouped under genres and subgenres. And it has an invaluable "Similar Artists" feature that can direct fans of one band to dozens of potential new favorites. Within Epitonic's huge roster is at least a song or two from some major-label acts, among them the New York band Secret Machines, the Texas band Sparta and the English bands Radiohead and Spiritualized. But independent bands like Bright Eyes or Godspeed You Black Emperor are every bit as good.

Webjay

At www.webjay.org, music fans share their Web finds with the world. There's no music on the site, just lists of links that allow users either to play entire lists or to download items directly one by one; it also includes links to videos and news sound bites. Webjay is something like the lists submitted by customers at www.amazon.com, but with connections to the music itself. As such, it's only as good as the widely varied skills of its contributors, and its links aren't always dependable. But it is a way for musical obsessives like bigwavedave to share his fondness for garage-rock or for OddioKatya to point listeners toward a wide assortment of Brazilian songs.

Furthurnet

Before the Internet became ubiquitous, the Grateful Dead's fans built up their own network to exchange concert recordings, a network that expanded as other jam bands sprang up. The logical extension of the process is Furthurnet (www.furthurnet.com). It is a peer-to-peer network that trades only recordings of bands that encourage listeners to record concerts: not just the Dead but Phish, Gov't Mule, Dave Matthews Band, Los Lobos, Wilco and David Byrne as well. Users need to install a program available on the Web site. Most of the available concert recordings don't use MP3 files, but a better quality audio format, SHN, which also requires some software installation. It's easy; information on the site explains all the technicalities.

Another connection for jam bands is www. etree.org, which points listeners toward recordings stored online and is equally fastidious

about high fidelity. Meanwhile, concert recordings of all sorts, from vintage 1960's bootlegs to music only a few days old, have been traded at www.sharingthegroove.org, although the site is currently undergoing maintenance.

The Library of Congress

Through the years, tax dollars have supported researchers like Alan Lomax on excursions to collect music from every nook and cranny and tradition they could discover across the United States. The Library of Congress has made a considerable amount available free online. A place to start is the American Memory Collection (<http://memory.loc.gov/ammem/audio.html>), with fiddle tunes, American Indian music, border music from the Rio Grande, Dust Bowl songs and more.

Folkways Records

In 1987, the Smithsonian Institution bought the catalog of Folkways Records, which had set out to document every sound in the world and continues to support projects like a 20-disc collection of Indonesian music. Many of the Folkways recordings can be heard on the Web at www.folkways.si.edu, from "Classical Music of Iran" to "Creole Music of Suriname" to "Music of Indonesia Vol. 1: Songs Before Dawn."

Internet Archive

The Internet Archive (www.archive.org) has set out to preserve material that might otherwise disappear from the Internet, including Web pages, documents, books and video clips as well as audio, and it includes a Live Music Archive with more than 10,000 concerts via etree.org. Most are from jam bands, but there is plenty to choose from. (More than a million people have downloaded Grateful Dead music from the archive.) The archive also includes an assortment of other audio under All Collections, which has 131 songs from 78-r.p.m. discs, and more than 3,000 songs on what it calls netlabels, most of them releasing electronic music. Try the exotica-tinged selections from Monotonic.

Iuma

The Internet Underground Music Archive (www.iuma.org) was a pioneer of free Internet music. It was founded in 1993 as a place for musicians to post their own music online, and it just keeps on expanding. Unfortunately, it is both overwhelming and overwhelmed; finding a good song requires extraordinary luck, and downloading it will take a while. Like the other send-it-yourself sites noted here, Iuma can make a user appreciate what record company scouts do.

Garageband

Hopefuls face Darwinian competition at www.garageband.com, where musicians are encouraged to rate 30 songs before submitting one of their own (or pay a \$19.99 fee instead) and other listeners are also assigned tracks to rate. The songs that rise to the top of the charts have a chance to be heard on Garageband's radio outlets or collected on its compilation albums. Garageband demands original songs, not cover versions, and its top-rated ones tend to sound more professional, if not always more distinctive, than those at other

mass upload sites.

CNet

The computer experts at CNet include an extensive selection of music among their software downloads at <http://music.download.com>. A vast bulk of the music is submitted by musicians themselves, so there are a lot of derivative sounds to wade through, but the well-organized site also includes worthwhile bands as Editor's Picks, currently including Dios and Ex Models.

Vitaminic

A huge site based in England, www.vitaminic.co.uk, offers tens of thousands of aspiring bands and a smattering of better-known acts, although brand-name bands like Franz Ferdinand tend to offer only streaming audio rather than downloads. But the site is well organized and also includes video clips from the likes of Nick Cave.

BeSonic

A European site where musicians can place their songs online, www.besonic.com has a slightly more international perspective than the other newcomer sites. Rankings and recommendations help visitors sift the material. Registration is required for downloading.

Pure Volume

More than 76,000 songs are available at yet another site for aspiring musicians, www.purevolume.com, which is strongly weighted toward rock. To winnow the site, try the Pure Picks column or look under the category Music for Top Artists (Signed).

DMusic

Musicians can also post their own songs on DMusic (www.dmusic.com). It helps users wade through more than 17,000 acts - an overwhelming majority categorized as alternative or rock - by listing DM Picks and by having users give songs a thumbs-up or thumbs-down and append comments. As with Iuma, most are amateur submissions, with plenty of jokes, but there are some enjoyable tracks scattered among the picks.

Smart-Music

Dance-music experimenters dominate at www.smart-music.net, a selective site that draws its downloadable MP3's from hard-to-find small labels. Dipping into the genres and subgenres of electronica, Smart-Music has about 300 songs available from (relatively) well-known groups like Mouse on Mars and Zero 7 as well as basement laptop obsessives, and a high percentage of them turn out to be worthwhile.

Ragga-Jungle

Slow, deep reggae bass lines are the foundation for whole families of dance music represented at www.ragga-jungle.com. It's an outlet for amateur and professional producers and toasters (rappers), and the downloadable songs, available free after registration, include echoey dub-reggae vamps, sparse dance-hall

productions and frenetic jungle tracks. Each track has ratings and comments, and quick streaming allows users to sample tracks before committing to a download. Contender for best title: "A Waste of Half an Hour of My Life, and Four Minutes of Yours" by the Archangel.

Classic Cat

With so much classical music in the public domain, it's a surprise that there aren't more free downloadable sites offering it, although the length of classical compositions can make them inconvenient to download. At www.classiccat.net, it's possible to search by composer, from Monteverdi to Messiaen. The selection is spotty and links don't always work, but it's a start.

Asian Classical

Need some Indonesian gamelan music? On the Internet at www.asianclassicalmp3.org, a dedicated collector of Asian music has transferred recordings from cassettes to downloadable MP3's. The site includes music from nine countries, including 28 minutes of gamelan music from Java.

Iraqi Music

The straightforwardly named www.iraqimusic.com is a resource for both the classical Iraqi improvisations called maqams and more recent Iraqi recordings based on traditional (and thus noncopyrighted) songs. "Sister Sites" provides links to other sites with Middle Eastern music.

Trama

A Brazilian record label, Trama (www.tramavirtual.com), offers about 10,000 MP3's, primarily from local Brazilian bands. The site is in Portuguese and requires users to sign up, but after that, it is fairly easy to navigate. "Baixar" means download.

Micromusic

The Internet is home to countless obsessives. The ones gathered at www.micromusic.net make their electronic music from the sounds of the first primitive video games. Proud of what they can generate from eight-bit gizmos, they have placed hundreds of blipping, buzzing ditties online, garnering the attention of Malcolm McLaren, the Sex Pistols' manager, among others. Registration is required, but it's a modest inconvenience on the way to tunes like "How Bleep Is My Love."

<http://www.nytimes.com/2004/09/10/arts/music/10INTE.html?ex=1095824251&ei=1&en=1f66a459ec622478>



November's Presenter



There will be more than turkey on our plate for this meeting. We are very excited about November's guest speaker, John Nouveaux. He will be talking about the most important computing task... backing up your data!

How important is your data to you? Does your business depend upon your computer? Do you have precious memories stored away in photo-imaging program? What would you do if your system's hard drive utterly and completely crashed? What would it cost you if your data had to be reentered by hand? Would it even be possible, for that matter, to reenter all the data you've lost since your last backup? How could you ever get back all those Safari bookmarks you've so painstakingly collected over the months or years? You DO do backups on a regular basis, right?

John's presentation will cover the basics of backing up your data. From simply copying a file to another disk drive to using specialized backup programs to more advanced RAID techniques, this presentation will get you started down the path of protecting your data.

Backing up your data does not have to be complicated, time consuming nor inconvenient. Backing up your data is as crucial as your data is important.

In addition to covering the basics of backing up your data, John will perform a live demonstrations showing a typical backup setup.

Remember, it's not a matter of "if" but "when" your drive will fail. Be prepared.

John Nouveaux is a technical trainer, course developer and consultant who has been teaching people how to administer and backup their systems for over 15 years. John is a Solaris Certified System Administrator, Apple Certified Help Desk Specialist, Apple Product Professional and on the Board of Directors of the North Coast Macintosh Users Group, and a UNIX geek.

Please invite your friends. Free to all. This is a meeting not to be missed. Who knows. We may even have some left-over Halloween goodies!!! ;)

NEW VIRUS

Just got this in from a reliable source. It seems there is a virus called the "Senile Virus" that even the most advanced programs of Norton and McAfee cannot take care of it, so be warned. The virus appears to affect those of us who were born before 1960!

Symptoms of the Senile Virus:

1. Causes you to send the same e-mail twice.
2. Causes you to send blank e-mail.
3. Causes you to send e-mail to the wrong person.
4. Causes you to send e-mail back to the person who sent it to you.
5. Causes you to forget to attach attachments.
6. Causes you to hit "SEND" before you've finished the e-mail.



Editing Photographs for the Perfectionist

by Charles Maurer

I have two modes of taking pictures: point-and-shoot and perfectionist. In the first mode I use a pocket-sized camera with no manual controls. It processes the pictures, I throw them onto my hard drive, and the only editing I'll ever do is remove some occasional red-eye. In perfectionist mode I revert to a previous incarnation and become a commercial photographer again.

This year my perfectionist mode has gone digital and my computer has replaced my darkroom. To effect this change, I reviewed all of the photo-editing software available for the Mac. In this article I shall summarize my take on the most suitable products available for the perfectionist to finish photographs.

Since some readers will come to this from photography and others from computers, I shall not assume that anybody understands the jargon from either side and shall go back to basics frequently. My intent, however, is to point out an approach and products that go far beyond the basics.

****The Raw Truth**** -- The digital sensor in a camera generates a file of raw data that requires an enormous amount of processing to become converted into a usable image. This processing can be done in the camera or by a computer. A computer allows more control and the opportunity to change your mind in the middle.

The conversion of a raw file into an image is not straightforward. Many algorithms are possible, so different programs come out with different results. Try the converter that came with your camera, try Adobe Photoshop, try any others you might have on hand, and see what you like the best. Note that Photoshop and perhaps some other applications will permit you to enlarge the images from the different colour channels to slightly different extents, to compensate for one cause of colour fringing, lateral chromatic aberration. This is useful but don't expect much. Most colour fringing comes from other causes.

Raw files can be converted into TIFF or JPEG. TIFF (Tagged Image File Format) contains full information but is large. JPEG (Joint Photographic Experts Group) is compressed but impoverished. It is sensible to convert raw files to TIFF, keep the TIFF files for editing, then convert them to JPEGs as needed for distribution.

You are likely to be offered the choice of converting your raw files to 8-bit or 16-bit colour. Eight bits ought to be sufficient, but if a picture is poorly lighted or poorly exposed, rescuing it may require teasing apart nearby tones. In that case smooth tonal gradients may break up into discrete bands unless you have more steps. However, 16-bit files are twice the size and take much longer to process. I prefer to use 8-bit colour normally and to take

the risk of needing to reconvert a file on the odd occasion that eight bits aren't enough.

Most raw converters allow you to sharpen the pictures. Indeed, most of them sharpen pictures by default. However, never sharpen pictures at this early point in the process. Sharpening of this sort, "unsharp masking," distorts the image at edges, which then prejudices other manipulations. Moreover, the amount that is useful depends upon the size and purpose of the final image. Sharpening an image should be the very last thing you do.

****Noise Ninja**** -- A digital sensor always records a certain amount of random noise. Usually this is an insignificant proportion of the image, but it may become objectionable with long exposures or higher amplification (i.e., higher "film speeds" or "ISO speeds"). It can also become noticeable in smooth areas under ordinary circumstances. It is possible to characterize mathematically the noise produced by any particular sensor at any particular amplification and to subtract that noise from the image. This subtraction needs to be done before you modify the image. However, at this stage in the process, it is important that you remove only noise, not detail. Later, after the detail has been brought out as best as possible, it may seem sensible to remove some of it to clean up some more noise, but that comes later. At this point, you want to retain all of the detail.

I have not tried many noise-reduction packages because wherever I read comparisons, one of them always came out at the top for both Macs and Windows: PictureCode's Noise Ninja (\$30 or \$70, depending on whether you need 8-bit or 16-bit output). Noise Ninja can discriminate remarkably well between image and noise. I have found that with images from my Sigma SD-10 shot at ISO 100, Noise Ninja's default settings (other than turning off sharpening) eliminate all the noise that ever becomes visible, yet never affects any detail. Noise Ninja has shown itself to be so reliable that I am about ready to start running images through it automatically in batches - but only for pictures shot at ISO 100. The higher the sensitivity, the more noise, so that the difference between detail and noise becomes less clear. Where there is more noise, it is even more important to use Noise Ninja, but I prefer to run it by hand for greater control.

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

****FocusMagic**** -- Once you've eliminated noise, it's time to wave a magic wand over blurry parts of the picture. If the lens wasn't focused properly or had too little depth of field, or if the subject or camera moved, this magic wand may remove the blur. The wand is Acclaim Software's \$45 FocusMagic. It can't

produce perfection, but 8" x 10" enlargements can show astonishing improvements.

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

Although FocusMagic sharpens the picture, it works quite differently from ordinary sharpening routines. Ordinary sharpening routines enhance contrast at sharp edges; FocusMagic forms sharp edges out of blur. Be sure to use FocusMagic before any other optical correction. To fix focus blur, FocusMagic works at least as well as the \$60 FocusFixer from Fixer Labs and is a bit easier to use. To fix motion blur, I don't know of any alternative.

<http://www.fixerlabs.com/pages/fixer.html>

Unfortunately, although a stand-alone version of FocusMagic is available for Windows, only a Photoshop plug-in is made for Macs and requires Photoshop; it will not run in GraphicConverter.

****A Better Perspective**** -- Now comes the time to compensate for basic optical problems in the photo:

* Compensate as best you can for colour fringing caused by lateral chromatic aberration, if you did not do this in the raw converter.

* Straighten lines that are curved by barrel or pincushion distortion. Straight lines evincing convex curves show barrel distortion; straight lines evincing concave curves show pincushion distortion. With a digital image you can remove so much distortion that you can even straighten the lines of a fish-eye photograph, but with any lens, if the distortion is not simple and symmetrical, then some residual waviness will remain.

* Rotate the image if the camera was not quite straight.

* Correct perspective so that buildings don't appear to be falling over. This can be done horizontally as well. Both corrections make scenes look more natural.

* Correct light fall-off toward the corners caused by wide-angle lenses.

* Correct the magnification toward the edges of wide-angle lenses.

For these corrections I use a quartet of plug-ins by The Imaging Factory: Debarrelizer, Perspective, Squeeze and Vignette (\$40 each, other than the \$20 Squeeze). They are easy to use and combined they offer more control with greater sophistication than any similar products I have found, except for one lacuna: they offer no compensation for pincushion distortion. Unfortunately (in this context), I happen to have no lenses that cause pincushion distortion, so products to repair it are beyond my ken. In theory the \$40 plug-in LensFix from Kekus Digital offers more precise compensation for distortion and chromatic aberration than any other product but with my lenses I found it to be no better, merely difficult to use.

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

<http://www.kekus.com/plugin/>

****Asiva**** -- Up to this point, all of your manipulations are straightforward and mechanical. Now we bring in artistic judgement because we need to adjust tonality and balance colour. The usual approaches to this employ the adjustments built into Photoshop, but I find something else that is easier to use, more subtle, and more powerful: the \$70 Asiva Shift+Gain. This is a product fundamentally different from anything else on the market and fundamentally more useful.

<http://www.asiva.com/products/plugins/ShiftGainTrial.php>

Whenever you edit a photograph, the first thing you need to do is select the pixels you want to change. Often this means complicated masks and careful manipulations of the mouse. The procedures in Photoshop can be anything but simple, even when they happen to be straightforward. Instead, Shift+Gain will "see" and identify the objects that you want to change much as you see them yourself.

If you can see a face or leaves or twigs or hair, then you are seeing areas of a certain range of brightness and colour. This range must be distinct from what's adjacent, else you would not see the object. If they are different, then the computer can find them automatically and change them.

Incredible as it may seem, the Asiva folks hold a U.S. patent on this idea. Shift+Gain is one of their implementations of this patent. With Shift+Gain you define some arbitrary region of the photo and instruct the program to find and change therein all pixels of an arbitrary range of brightness and colour. If the object you want to change is too variegated to define - well, then you can define the colours of the surrounding objects and tell the program to change all the pixels that it did not find.

Although computers create colours from red, green and blue, and most programs deal with colours as mixtures of red, green and blue, people do not easily conceive of colours this way. It is easier for us to think of colours as having one place on the rainbow, more or less pure or concentrated, and lighter or darker on a continuum between black and white. Those dimensions are hue, saturation and value.

Asiva Shift+Gain lets you think about colours that way. It provides three graphs with hue or saturation or value on the horizontal axis and amount on the vertical axis. You shape a curve on each graph and Shift+Gain selects the colours that fall under those curves. The selection appears immediately. You can work on the whole photo or on regions that you have selected with the marquis or lasso. You can then make changes to your selection's hue, saturation, value, red, green, blue, or any combination of the six. The changes are in direct proportion to the amounts you specify with your curves (Shift). On top of this, they can be made to increase more when the satu-

ration and/or value is greater (Gain).

This is difficult to understand abstractly, and using the product feels strange at first, but it can make sophisticated transformations trivial. A master painter will model his subject in light and shadow - chiaroscuro - and also in colour. Chiaroscuro and colour are limited on canvas. To add contrast, to define a scene better, a painter will mix the two dimensions by colouring highlights and shadows. Photographs have an even more restricted range of tonality and colour, so mixing the two dimensions becomes even more important in photography, but it is usually difficult. Shift+Gain makes it easy.

Look at the sample picture linked below. I took this snapshot with my point-and-shoot camera on holiday then transformed it with Shift+Gain. This transformation could not have been wrought in Photoshop without a lot of skill, but in Shift+Gain it was simple. The highlights were right but the shadows were too dark, so I tried lightening all the tones that were a little above black. That lightened some shadowed leaves too much, so I played with the saturation curve until things looked right, which turned out to mean lightening only weakly saturated dark tones. This left the shadows fine but the mid-tones were still too dark, so I lightened all of the mid-tones. At this point the tonality was okay but the picture still looked flat. It needed more saturated contrast within the midtones - i.e., brighter colours - so I increased ("shifted") the saturation. That didn't look good, so I tried increasing the gain of the saturation, making more-saturated colours still more saturated but changing less-saturated colours less. That was the right direction but the colours needed different amounts of this treatment and saturated blues needed to be decreased rather than increased.

<<http://www.tidbits.com/resources/748/desertspring.jpg>>

Asiva also makes three other plug-ins that offer the same visual method of selecting areas. Correct+Apply Color (\$50) replaces one hue with another, or overlays a hue as digital make-up, in both cases maintaining the original saturation and value. Sharpen+Soften (\$70) sharpens or softens the selected objects. (Note: do not use Sharpen to sharpen everything. It still isn't time for that.) Selection (\$40) creates a selection in Photoshop for use with other Photoshop tools. All four of those plug-ins are excellent products that are convenient to use and work with alacrity. A \$200 bundle includes them all.

Unfortunately, each of these plug-ins requires Photoshop.

****Photoshop, At Last**** -- This is the point when you can do almost anything else that you want other than enlargement and sharpening. I usually need to retouch out a few specks of dust but not much more. To remove a lot of dust, you might try a free product from Polaroid, Polaroid Dust & Scratch Removal; it's available as either a stand-alone program or a Photoshop plug-in.

<http://www.polaroid.com/global/detail.jsp?FOLDER%3C%3Efolder_id=2534374302023779&PRODUCT%3C%3Eprd_id=845524>

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****PhotoZoom and the Finishing Touch**** -- If you want to crop your photo, crop it now and save the cropped file under another name. When you want to make an enlargement, enlarge the file in Shortcut's \$50 PhotoZoom or \$130 PhotoZoom Pro to create a new file with the optimal number of pixels for the size of print and the resolution of your printer. By default, both of them sharpen the photo too. This, finally, is the time for sharpening and I have found one of their default settings nearly always to be appropriate, although occasionally I have wanted some of the fine-tuning available in PhotoZoom Pro. I've found PhotoZoom Pro 1.0.95 to be buggy, but it makes such superb enlargements that I have not regretted its purchase. Finally, if the enlargement turns out to show too much noise, open the enlarged file in Noise Ninja and optimize it.

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

With dye-sublimation printers and some inkjet printers, it is possible to send the printer a file prepared in PhotoZoom that defines precisely every pixel that the print-head is to print. On my Olympus dye-sub printer, this technique generates photos that are strikingly sharper than any I get by sending the printer a smaller file and having the system software fill the page. Unfortunately, most inkjet printers do not have a fixed resolution, so the printer's software has to fudge whatever file you send it. If the printer's specs show a number of pixels or dots per inch that is somewhere around 300, then it probably has a fixed resolution of that number; if its specs show dots per inch in the thousands, then the number bears no relationship to the resolution you will see. Indeed, in this case the resolution of the print is likely to be undefined and variable.

To understand this, consider a printer that prints 1,440 dots per inch. Each colour of ink is laid down as individual dots and the dots cannot overlap. One dot from each ink required to produce a colour is the number of dots required to form the smallest possible bit of that colour; i.e. a pixel. If different numbers of inks are required to form different colours, the number of dots per pixel will change with the colour. On top of this, the dots are likely not to be laid down in a fixed pattern but scattered about stochastically.

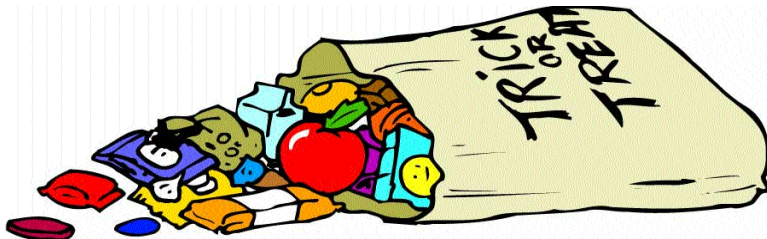
If you are unhappy with your printer's sharpness, then you might try testing it with files created at different resolutions, to see if one of those files prints better than the others. If it does, then you are likely to get better results by feeding your printer files of that resolution. I made a few test files for this purpose; download them in the Zip archive linked below. These are 1-, 2- and 3-pixel stripes with headers showing different numbers of dots per inch. Print them with Photoshop or GraphicConverter, not Preview, because Preview will change the patterns' sizes to make them fit the paper. Examine each one to see how smooth the patterns are; if one particular reso-

lution prints better than the others, then scale your photos using that number of dots per inch. However, do consider that what matters is your photographs, not tests. This test can make any printer look bad. If you are satisfied with your printer's sharpness, there is no point to investigating this particular bit of imprecision. It would be better to let ignorance remain bliss.

<<http://www.tidbits.com/resources/748/PrinterSharpnessTest.zip>>

On the other hand, for everything else involved in printing colour, ignorance is not bliss. With most aspects of colour, it is useful to know the slop in the system, so that you know when you need to be precise and when there is no point to trying. To this end, my next article will introduce you to the wonders and absurdities of colour and ColorSync. It will show you a few simple things that matter and describe a world of complexities and costs that you can ignore.

PayBITS: If Charles's recommendations for perfecting photos helped, he asks that you make a donation to Doctors Without Borders: <<http://www.doctorswithoutborders-usa.org/donate/>> Read more about PayBITS: <<http://www.tidbits.com/paybits/>>



Sonoma Valley Computer Group Membership Application/Renewal Form

New Applicant

Use information below

Name: _____

Address: _____

Home Phone: _____

Work Phone: _____

E-mail Address: _____

Send \$20 (individual) \$30 (family) check to:
Sonoma Valley Computer Group
POB 649
El Verano, CA 95433

I give permission to use this info in the club roster which is for members only

Renewal (expiration date on label)

Use the name and address label

Platform: Mac PC WinNT
 Operating System: OS 8x Win3 Unix
 OS 9x Win95 Linux
 OS X Win98 WinME

Computer Make/Model: _____

How did you hear about SVCG?

class club member newspaper newsletter

User Level: Novice Intermediate
 Advanced Expert

Take newsletter online vs. by mail? YES___ NO___



Sonoma Valley Computer Group
POB 649
El Verano, CA 95433

Postage

Topics:

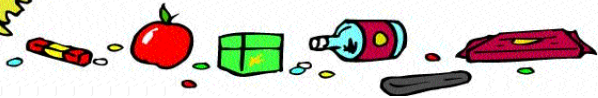
- Mac & Windows Break-Out Groups

Date: Saturday, 10/9/2004

Place: Sonoma Public Library
755 West Napa Street

Time: 9:30am to 11:00am

Place Label
Here



Sonoma Valley Computer Group Newsletter



Apple User Group

for Mac and Windows Users

