



Award Winning Newsmagazine of the North Orange County Computer Club

Vol 28 • No 3 MARCH 2003 \$4.00

# NOCCC MEETINGS - March 2

9:30 a.m. *Irvine Hall*  
**NEW TECHNOLOGIES**  
*Herbert Wong Jr*  
**Connecting to the Internet**  
*See Page 4 for details*

1:00 p.m. *Irvine Hall*  
**MAIN MEETING**  
*Steve Gibson of GRC*  
**Internet Security**  
*See Page 4 for details*

**8:30 a.m.**  
*Visual Programming I* ..... **Science 109**  
Visual Basic and Visual Basic Script for Beginners

*Vendors* ..... **Science 127**  
*Visual Programming III* ..... **Science 109**  
Intermediate and Advanced Visual Basic

**9:00 a.m.**  
*Autocad* ..... **Wilkinson 111**  
*Linux for Desktop Users* ..... **Wilkinson 210**  
*Visual Programming II* ..... **Science 109**  
Visual C++ and Visual J++ for Beginners  
*Windows* ..... **Science 111**  
Windows Tips, Tricks, Q&A

**11:15 a.m.**  
*Computer Security* ..... **Science 203**  
*Linux Programming Concepts* ..... **Wilkinson 210**  
*Macintosh* ..... **Wilkinson 221**  
*Office Suites* ..... **Science 111**  
*PC Q & A* ..... **Irvine Hall**  
Jim Sanders • Most questions answered, some problems solved, assorted demos done

**9:30 a.m.**  
**NEW TECHNOLOGIES** ..... **Irvine Hall**  
*See box above*  
*Computer Aided Investing* ..... **Wilkinson 221**  
Member Investment Strategies, Techniques and Software  
*Gaming PC & Mac* ..... **Science 203**  
Mac/PC gaming SIG newly forming. Bring your friends! :-)  
*Hardware Essentials* ..... **Irvine Hall**  
Connecting to the Internet by Modem, DSL, Cable.....  
*Intermediate Linux* ..... **Wilkinson 210**  
Linux for administrators or programmers  
*Palms O/S PDA's* ..... **Science 203**

*Understanding Operating Systems* ..... **Wilkinson 111**  
Get Help with DOS, Windows 3.1, Windows 9x, OS/2, etc.  
*Visual Programming IV* ..... **Science 109**  
Office program development using VB

**10:00 a.m.**  
*Linux for Server Administrators* ..... **Wilkinson 210**

**12:00 Noon**  
*PIG SIG* ..... **Argyros Hall Cafeteria**  
A lunch get together and talk. See SIG Reports

**1:00 p.m. Main Meeting, Irvine Hall**  
*See box above*

**2:30 p.m.**  
*Genealogy* ..... **Irvine Hall**  
Discover your family history with modern tools  
*Hardware Essentials* ..... **Science 109**  
*OS/2 News and Installation* ..... **Science 203**

**NOCCC web site:**  
**<http://www.noccc.org>**

**Future Meetings**  
**April 6 • May 4**

# Table of Contents

<b>President's Message</b> .....	3	TCP/IP Illustrated .....	13	New Tech & Hardware SIG .....	24
<b>Membership Benefits</b> .....	3	Learn NaturePainter Digital .....	14	Computer Aided Investing SIG .....	24
<b>Board Meeting Minutes</b> .....	4	SuSE Linux 8.1 Professional .....	14	Computer Security SIG .....	25
Upcoming Presentations .....	4	McAfee VirusScan Online .....	15	Office Suites SIG .....	25
NOCCC Officers .....	5	<b>February Meeting Photos</b> .....	16	AutoCad SIG .....	26
Consignment Table .....	5	Murach's Beginning Visual Basic .....	18	MAC SIG .....	26
<b>Computer Talk</b> .....	6	Drive Image 2002 .....	19	Games SIG .....	27
Printer Technology 2003 .....	6	Handy Backup 3.9 .....	19	Palm O/S's SIG .....	27
Computer Video Editing .....	11	<b>Reviews Editor's Corner</b> .....	20	Pig SIG .....	3
<b>Product Reviews</b> .....	12	Products Available for Review .....	20	SIG List .....	28
A Tutorial Guide to Autocad 2002 ....	12	Preparing a Review Article .....	20	<b>NOCCC Help Line</b> .....	29
Zone Alarm Pro 3.1.395 Firewall .....	12	<b>Meeting Reports</b> .....	22	MacWorld, OS9, and OS X .....	29
		February 2 General Meeting .....	22	Are You an NOCCC Member? .....	32



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VOLUNTEER NEEDED!!!!

**Commercial Swap Meets** • Distributes Orange Bytes and NOCCC material at swap meets.  
VOLUNTEER NEEDED!!!!

**Commercial Advertising** • Obtains ads from both national and local vendors for the Bytes; the success of this helps our club finances.

VOLUNTEER NEEDED for local ads!!!!

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**Classified Advertising** • Obtains members' computer-related non-commercial ads.

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**Help Line** • Maintains the volunteer list, and the software and hardware subjects for which they are willing to answer questions.

Ted Williams • 639-1009 ..... TedWilliams@alum.mit.edu

### HELP WANTED

#### User Group Web Page Reporter

To check other User Group's web pages for articles that could be reprinted in the *Orange Bytes*



## President's Message

It is time to start planning for next year. We will have our annual elections of officers in June. Traditionally we've published the nominees for the board in the April and May issues of the Orange Bytes. The elections are at our June meeting. For the past few years, there have been no challenges to any of the officers or directors! Any current member is eligible to serve on the board. If you are interested, please call me and I'll add you to the list.



We need help in getting speakers for our meetings. While George Margolin has been doing this job for the past several years (16 he thinks) he's willing to let someone else have the honor. If you know of someone who could come to our meeting with an interesting topic, please let me know.

We need articles for the Orange Bytes. If you the majority of our publication is SIG reports and product reviews. We need to get some more stuff in it.

This month is also one of our bigger months for renewals. If your membership expires in March or April (check your mailing label) please renew promptly and save us the postage.

As a reminder, the next ACP swap meet is on Sunday, April 6. That's the same time as our meeting. You can go to the swap meet at 8:00 and come to our meeting by 9:30.

Alan Pearlman  
pearlmanA@aol.com

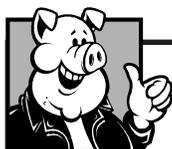
## LIGAS Microsystems

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*Routers installed, sick computers healed*

[jsanders@ligasmicro.com](mailto:jsanders@ligasmicro.com)

714-636-5523

NOCCC member, Jim Sanders



## Pig SIG Open To ALL

Meet us in the Cafeteria in Argyros Hall around 11:30 am (until about 1pm). If you're hungry, there is a buffet lunch and snack bars open.

There are several sets of tables where NOCCC people gather, eat and chat. Just look for the badges, grab a chair, and join in! This is an informal group, so many different subjects are discussed. It's a great opportunity to mix, mingle and network. See ya there!

## Membership Benefits

*As a valued member, you receive discounts and offers, as part of the entire benefit of belonging. (Caveat - we are unable to endorse these companies and products but make these offers as a service to our members). If you have suggestions for items for this column, e-mail them to **Cathy Grammer-Margolin** at: [cgmargolin@pobox.com](mailto:cgmargolin@pobox.com).*

**NaturePainter Digital Canvas version 1.1**, NOCCC members are offered a special discounted price of \$24.95 (current price is \$39.95, regular price is \$49.95) for the download version. This is a realistic painting program that makes it easy to learn how to paint with oils and acrylics before spending a bundle on supplies. You can take advantage of this pricing by going to:

[http://www.naturepainter.net/products\\_secret.aspx](http://www.naturepainter.net/products_secret.aspx)

**New Fast Defragmentation Program - VOPT XP**—VOPT XP is now out and will work with Win 95, 98, ME, 2000, and XP. By Golden Bow software ([www.goldenbow.com](http://www.goldenbow.com)). Download a free 30-day trial to see how fast it will defrag your hard drive. Mention "Margolin" to get the user group discount of \$30 or \$10 off the \$40 price.

**Orange Bytes on PDF earlier in the month!** Members ONLY - Watch your e-mail every month for the Password to get the award-winning Orange Bytes much earlier in the month via PDF file on the [www.noccc.org](http://www.noccc.org) website. Make certain you let us know any e-mail changes ([membership@noccc.org](mailto:membership@noccc.org)) so you can get the jump on all the great reviews and articles

### PowerQuest- New Partition Magic 8

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- Drive Image v5 (List \$69.95) Full System Backup Utility including DataKeeper \$35.00

<http://www.ugr.com/order/> with group code

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**Redmond Technology Press**—20% discount to User Groups. To receive the discount, user group members need only to order directly from the Redmond Technology Press web site at [www.redtechpress.com](http://www.redtechpress.com) and identify themselves as a user group member when they give their name (for example, John Doe, CUG member).

**NewRiders Book Discounts**—Please visit [www.newriders.com](http://www.newriders.com) and check out our Promotions section. You can see examples there of some of the UG discounts we have set up for our partners.

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**AOL, Earthlink and Compuserve**—If you are a member of AARP, you can get up to 10-20% off each month. Visit AARP at <http://www.aarp.org/benefits-computers/>

# February Board Meeting Minutes

The meeting was called to order at 7:33 p.m. February 3rd at Elise Edgell's home. In



attendance were Alan Pearlman, Elise Edgell, Jim Peugh, Ted Littman, Herb Wong, John Johnson, Gerry Resch, George Margolin, Jim Sanders, Elsie Olavsson and Linda Russell.

## Officer's Reports

**Secretary** (John Johnson) - The minutes of the January Board Meeting were approved as published.

**Treasurer** (Elise Edgell)

Raffle - \$258.00

Consignment — \$28.31

Membership — \$630.00

**President's Report** (Alan Pearlman) — We should begin thinking about elections. Anyone wishing to run for the Board or one of the office positions is welcome. Contact Alan or any Board member. The next ACP swap meet will be on April 6th, our scheduled meeting date. We need to get volunteers to man the booth than day.

**Publications** (Jim Sanders) — Production of the Orange Bytes is going well.

**Reviews** (Ted Littman) — There are 21 items being reviewed. Ted has 17 items available for review (11 of them are downloadable programs, 3 are boxed software and 3 are books). Eight reviews have been received. Seven reviews

were published in the January issue of Orange Bytes. Three reviews are pending (late) and six are currently in progress. Seven product were given out at the February meeting.

**SIGs** (Linda Russell) — Linda has worked on the Web SIG listings and should be able to keep it current. A question of SIG promotion was brought up and will be discussed further. The problem with the Mac SIG was addressed at the Main Meeting by Jim Peugh and corrected..

**Programs** (George Margolin) — George would like help with suggestions for the next few meetings. Some ideas were presented by the Board, but more work is needed.

**Membership Committee** (Elsie Olavsson) — She is now back from her trip, but will be leaving soon on another one. Any help that can be offered with the distribution of meeting flyers will be greatly appreciated.

**Internet Committee** (Jim Peugh) — The Mac SIG link has been fixed.

## Old Business

1. Scholarship Award. George has been unable to contact the University President about this, but is still working on it..

## New Business

1. Jim Sanders brought up the subject of SIG names. This will be presented to the SIG's in question.

## Next Meeting

The next club meeting will be March 2nd and the Board of Directors will meet on Monday the 3rd at Elise Edgell's home.

**Adjourn** — The meeting adjourned at 820p.m. ■

## March 2nd Meeting Preview

### **MAIN MEETING 1:00 Irvine Hall**

Steve Gibson founded Gibson Research Corporation. It is a recognized leading developer of personal computer software, and significant ongoing contributor to the personal computer industry. Steve routinely speaks to industry-related groups around the country on the subject of the technology, experience, and future, of personal computing. After eight years writing InfoWorld Magazine's top-ranked weekly TechTalk column, Steve continues serving as a contributing editor for InfoWorld.

Steve is fluent in many popular micro, mini, and mainframe computer machine/assembly languages including: 6502, 8080, Z80, 8088, 8086, 80286, 80386, 68000, 32000, COPS-400, TMS 1000, Nova, PDP-8, PDP-10, PDP-11, VAX 11/780, Interdata 7/16 & 7/32, and also with several higher-level languages including BASIC, C, PASCAL, MODULA, FORTH, ALGOL, FORTRAN, LISP and SMALLTALK. But he promises to use English for his presentation.

### **NEW TECHNOLOGIES 9:30 Irvine Hall**

Herb Wong will be presenting "*Connecting to the Internet by Modem, DSL, Cable Modem, Satellite*"

This should help you decide how your money can best be spent.

# Consignment Table

1. The consignment table is for members only. Only current members can place items for sale, but non-members are welcome to purchase items from the table. This is a great place to get some money for your surplus computer items, and help your Club at the same time.

2. The consignment table operates on a 90/10% basis — with the owner getting 90%, and the Club treasury 10%.

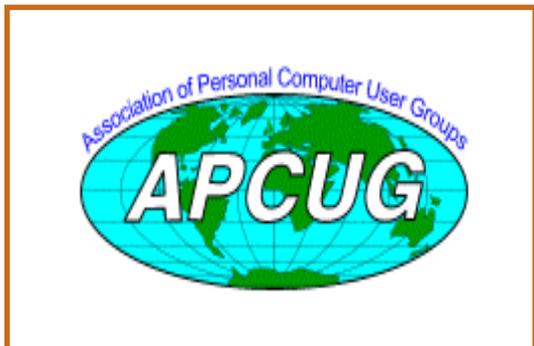
3. Fill out a tag on each item! It must contain: Seller's Name, NOCCC Membership Number, Item name, a short description and selling price.

4. Also, fill out the USER LIST with Name, Address, Phone Number. and a complete list of items and their selling prices.

5. All items and/or money may be picked up by the owner at any time, but MUST be picked up no later than 2 PM on day of sale.

6. Any items and/or money not picked up by 2 PM, will become the property of NOCCC and will be subject to disposal at the Club's discretion.

7. NOCCC is NOT RESPONSIBLE in any way for items bought and/or sold at the Consignment Table. Each item is placed and sold on an AS-IS BASIS.



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Open

### University Liaison

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# Printer Technology 2003

By Herbert Wong, Jr., NOCCC Hardware SIG  
Leader

Are you still using a dot matrix printer? Of course you are! Most printers apply linear patterns of dots across a page. Taken in as a whole, this is a *dot matrix*.

The predominant printing technologies are inkjet, laser, LED, dye-sublimation, impact, thermal, and solid ink (thermal wax transfer).

## TCO

**Total Cost Of Ownership** (TCO) determines the actual amount incurred by buying, using, and maintaining a product over the course of its life. Costs include purchase price, cost of consumables, replacement parts, repair costs, maintenance costs, disposal, etc. until the product is removed from service.

Simplifying this for our study, the total cost of ownership for a printer is the initial purchase price plus total ink cost (ink cost per year times the number of years for useful lifespan).

Ink cost per year varies for each end user, depending upon what and how much is printed. Ink cost per year is the average cost per page times the number of pages printed per year.

A few years ago, a popular computer magazine finally recognized the importance of total cost of ownership for printers. It calculated TCO for several printers. The two extremes were dramatic.

A two hundred dollar printer and a forty-nine dollar printer were contrasted. The initial purchase price and printing costs for the three year estimated life were about \$770 and \$2,700, respectively. Therefore, saving one hundred fifty dollars at the time of purchase could cost an additional two thousand dollars after three years. This brings to mind the saying, “penny wise, but pound foolish.”

I really do not have to tell you, if you print a reasonable number of pages, the total cost of ownership will quickly overshadow the purchase of a “*less expensive*” printer.

## Mathematics of Color

**Additive color** is a process where simple combinations of *primary colors* (*red, green, and blue; RGB*) of visible light are visually perceived as *secondary colors* (*cyan, magenta, and yellow; CMY*); combinations that are more complex result in other colors. Additive color starts with a black (no light) image and ends up at a full white image. The most common example is computer monitors (using CRT and LCD displays).



One part red plus one part blue creates magenta. One part blue plus one part green creates cyan. One part green plus one part red creates yellow. One part red, one part green, and one part blue creates white.

Two parts red plus one part green creates orange. Two parts green plus one part red creates lime. One part blue, one part green, and four parts red creates brown.

**Subtractive color** is a process whereby the light source (usually white ambient light) strikes a colorant (such as inkjet ink) that absorbs (filters out) specific frequencies of light while reflecting (possibly from the underlying white paper) the remainder of the (formerly white) light. The human eye interprets this reflected light as colored. Subtractive color starts with a full white image and ends up at a full black image.

Here is how subtractive color inks work on white paper in white light. Cyan absorbs red light (reflecting green and blue) to appear cyan. Magenta absorbs green light (reflecting red and blue) to appear magenta. Yellow absorbs blue light (reflecting red and green) to appear yellow.

Magenta plus yellow absorbs green and blue (reflecting red) to appear red. Cyan plus yellow absorbs red and blue light (reflecting green) to appear green. Cyan plus magenta absorbs red and green light (reflecting blue) to appear blue.

The question you now should ask is “why is there a black ink cartridge?” The subtractive color combination of cyan, magenta, and yellow, theoretically, should absorb all colors (reflecting nothing) and appear black. In practice, it appears dark brown. Therefore, black ink produces better results (and, at a lower cost).

**Dithering** is a technique that uses a limited number of colors (ex. – four) and many discrete dots to synthesize a single new color (available from a broad range of possible colors). Dithering depends upon the eye not being able to discern the individual color elements and consequently interpreting them as a single color created with the proportions of the individual colors.

Dithering effectiveness depends upon the particular pattern employed. Different patterns may be created depending upon the circumstances. Different manufacturers use different patterns and different printer models use different patterns. Proprietary dithering patterns can substantially change effectiveness of the resulting printout. Test the results using your eyes.

## Resolution

Resolutions come in many flavors, including text, image, and printer.

**Text resolution** comes in printer resolution and enhanced resolution. **Printer resolution** is standard printing of text (ex. – 600 dpi). **Enhanced resolution** involves adding additional dots via mathematical

*interpolation* of areas around curves or lines that will provide increased perceived resolution (ex. – 1200 dpi). This has led to the deceptive term “1200 dpi class” (or similar). This enhancement does not positively affect photographic images and is commonly found in laser printer specifications.

Black only (i.e. - monochrome or no gray scale) dots can be used for line art (and potentially text). Without the need for dithering, line art can display the maximum printer resolution (for the black ink head). Dots will be either present or not (on or off).

## Printer Fonts

*Printer resident fonts* come in two types, *Microsoft True Type* and *Adobe Postscript*. These fonts are printer resident mathematical formulas (vectors) that are scaleable (resizable) on demand. They are called *vector* (or *outline*) *fonts*.

Printer resident fonts enable the fastest possible text printing for a particular printer. An application sends a minimum amount of instructions and simple character data (possibly a few thousand bytes per page of text) to the printer. The printer’s microprocessor converts the character data into vectors (possibly millions of bytes of data) and prints the page. This saves a tremendous amount of time transferring data to the printer across a slow cable connection.

Each vector font type has many associated characteristics that are common to the versions for the printer and the video display.

Applications and the operating system use vector based *screen fonts* (the counterpart of printer fonts) to draw scaleable (resizable) characters that are optimized for the video display.

*Raster fonts* (*bitmapped fonts*) are available and optimized for one particular font size (ex. – 8 point). You could have a raster font with size 8, 10, 12, and 24 points. If you desired 16 point size, the operating system would use an existing font (ex. – 12 point) and twist it into 16 point size. The results could have ugly jagged edges (stair stepping). Imagine stretching 24 points into 72 points.

“Font” is used incorrectly here (because it is usually used incorrectly in printer discussions). Properly, the term “font” specifies a particular typeface, typestyle (ex. – bold, italic, underline, strike through, etc.), and type size.

## Printer Speed

Everyone wants the fastest printer. Every advertisement shows the printer’s speed in pages per minute. The one with the highest page per minute specification is better? Wrong!

Many years ago, I purchased my first inkjet printer. It printed eight pages per minute in *draft mode* (lowest quality, highest speed). Other printers touted similar print speeds.

Upon extensive research (in the days before the Internet made it so easy), I found that my printer printed eight pages per minute at about 300x300 dpi (or perhaps slightly higher at 320x320 dpi). The competitor’s printer yielded eight pages per minute at 180x180 dpi, which was of horrible quality for text. Changing their resolution to a more comparable 360x360 dpi resulted in a tremendous reduction in pages per minute.

You must know what printer configuration is set in order to

determine the impact upon performance. I recognized these printer tricks over a decade ago. However, more than just popular consumer, personal consumer, printer consumer, etc. (you know what I’m hinting about) Magazine rate printer speeds using each printer’s individual default mode.

Default mode depends upon what niche the printer is targeted. A high-end photographic printer will stress quality over speed. A low-end printer might stress text speed (at low resolution). Remember to compare similar products that are configured how you will use them, so it will be your own default.

## Inkjet Technology

*Piezo-electric* devices are solid-state materials (typically crystal or ceramic) that exert a mechanical movement when an electric current is applied. Conversely, if pressure is applied, an electric current is generated proportional to the force. Piezo-electric devices are used in tweeter speakers (especially for very-high audible frequencies), cigarette lighters (to ignite the lighter fluid fuel), SONAR, etc.

*Piezo-electric inkjet heads* use an ink chamber with a piezo-electric device at one end and a nozzle opening (jet) at the opposite end. The movement compresses ink in the chamber and the resultant pressure expels ink through the nozzle. Due to the nature of the mechanism, piezo-electric inkjet heads do not boil the ink.

*Thermal inkjet heads* have a nozzle opening (jet) at the bottom, a relatively larger ink chamber in the middle, and a heating element at the top. Typically, an ink reservoir resides above the head.

On demand, an electrical pulse to the heating element instantly causes the ink in the chamber to boil (temperatures as high as 400 degrees are possible). Resulting expansion and high pressure expels ink through the nozzle to the paper below. As the remaining ink and ink chamber quickly cool, a slight vacuum (low pressure) results and fresh ink is drawn from the ink reservoir through a hole in the heater element into the ink chamber below. The process repeats thousands of times per second; through as many as a few hundred nozzles per inkjet head.

*Dye based ink* is the standard for most inkjet printers. Inkjet dyes are similar to food coloring. They are transparent/translucent (cyan, magenta, and yellow) and thin liquids. When exposed to any significant amount of light, common



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# Computer Talk

dye base inks observably fade. Strong sunlight will completely erase such printouts in a matter of weeks. Water makes the printouts bleed.

**Pigment based ink** is designed to reduce the shortcomings of dye-based ink. Microscopic particulates are suspended in the fluid. These solids have much greater resistance to fading due to light and air. The lifespan of printouts is now extended to many months under low light conditions.

**Archival ink** and storage promise many decades of print quality. Unfortunately, the requirements for archival lifespan are no different from museum storage. Start with very expensive proprietary **archival paper** and matching archival inks. The final printout must be immediately stored under protective glass or special (read that as *expensive*) archival plastic sleeves in binders; out of high heat and light conditions. The idea is to eliminate exposure to atmospheric gases and damaging light.

Archival paper, ink, and storage can yield printouts that last for many decades. The cost of materials and maintenance may discourage proper deployment of the archival system. There are only so many photographs that one can display under framed glass.

Suppose you own a printer loaded with high cost archival inks and you print many pages of material besides photographs. What is the cost per page? The archival inks can cost several times that of normal ink cartridges. The high cost of using photo quality and archival ink for disposable printout (e-mail, web pages, directory listings, etc.) usage only benefits the ink cartridge manufacturer.

Many new inkjet printers employ ink cartridges that contain “smart chips” that determine that the disposable cartridge is used and prevents refilling. Some chips determine how much was printed and then disable cartridge at a certain point.

Prevailing rumors suggest that future, if not some current printers, will not permit the temporary removal of one cartridge and the temporary substitution of another ink cartridge because of these smart chips built into each cartridge. The chip would prevent the cartridge from functioning in this scenario.

Most printers have a dedicated black ink cartridge because most non-photographic printing is plain text. That will save you money when printing most text. As a side note, with printer software set to print “only” with black ink, many inkjet printers will add small amounts of color (cyan, yellow, magenta) to improve the black’s appearance.

Color printing traditionally was limited to **CMY (cyan, yellow, magenta)** and **black** (the **K** in **CMYK**). So-called “photo” printers add *light cyan* and *light magenta* to improve particular color ranges. They require high quality (expensive) paper.

## Inkjet Maintenance

After printing “For Sale” signs, you find that you do not have dark blue ink in the printer. Actually, the giant red letters consumed plenty of magenta (and yellow) ink. The “missing dark blue” ink is created by mixing magenta and cyan. When the magenta was depleted, only cyan printed in those areas

where blue was required.

You wish to simply replenish the magenta ink. Unfortunately, most printers have only two ink cartridges, black and a tricolor CMY (cyan, magenta, yellow). The cyan and yellow are full, but you must throw out a thirty-dollar color cartridge because you printed signs so you could sell ten dollars worth of old clothes from your garage sale!

Some printers have individual ink cartridges for each color. This enables you to now replace a single cartridge as needed. However, if you do not print a significant amount of color, you will not replace many cartridges. That mitigates the potential cost savings. Also, do not buy too many spare cartridges until you determine that you can consume them all before their expiration date.

Print heads can have hundreds of microscopic nozzles. When contaminants, pigments, dust, and dirt clog a nozzle, a white line appears on the page. A software driver might offer a head cleaning operation to try to remove the clog. This consumes lots of ink and, consequently, many dollars.

If you do not use your inkjet regularly, the ink will tend to clog the nozzles. Software cleaning cycles and miracles are required to clear the nozzles. Print using the inkjets every few days in order to minimize clogged nozzles.

This is one technology where failure to use the product guarantees failure of the product! Clogged inkjets instantly rendered useless a \$500 inkjet printer of mine. In a personal quest for better computer product reliability, I find inkjet cartridges without built-in print heads to be unacceptable technology.

Do not wipe the print heads with a cloth or other object. You will most likely force contaminants into the nozzles. Various proposed cleaning methods are touted on the Internet. Be cautious. Replacing print heads on a printer might make buying a new printer (with new cartridges) a reasonably priced alternative consideration.

Some models of inkjet printers have the print heads built into cartridges. Therefore, every time you replenish the ink supply, you replace the print head. Sometimes, there is little or no price difference from competing printers.

New printers frequently come with cartridges that are only partially full. The manufacturer’s profit margin may only be fifteen to twenty percent on printers. The manufacturer’s profit margin on ink cartridges may exceed fifty percent.

In the days of double-edged razor blades, manufacturers sold solid-brass, silver, and gold razors at little or no profit. The razor blades cost about one dollar, which was a few hours pay. Marketing strategy was to giveaway the razors and sell the expensive blades. Now it is printers and ink cartridges.

Inkjet heads print row after row down a page. Non-printed areas between rows appear as white lines. This is **banding**. This is due to microscopic inaccuracies in positioning or alignment of the paper or print heads. The cause can be mechanical damage (from vibration or dropping) or manufacturing problems (low precision design or assembly).

## Laser

Laser printers apply dry, solid pigmented toner (instead of liquid ink) to paper to form a long lasting image. Laser printers are sophisticated mechanisms that have recently reached commodity pricing and are cousins to photocopiers.

A photoreceptive drum (cylinder) rotates inside the laser printer. A stationary wiper (or brush) removes excess toner by using the drum's rotation. A *discharge lamp* neutralizes any residual *static electric* charges on the drum surface. A *corona wire* (aka *corotron*) applies a uniform negative static electric charge along the length of the drum.

A laser beam pulses with the row's dot data that will form the image. The laser light that strikes the drum creates a small positive electrical charge that locally discharges (neutralizes) the static electric charge created by the corona wire. The drum rotates (1/600<sup>th</sup> of an inch at 600 dpi) and the laser quickly draws another row. This repeats for the length of the page.

Before the static electric image of the page's top reaches the printer paper, a mechanism places toner particles in close proximity to the drum. Those areas covered by static electric charges will draw toner to the drum's surface. The fully formed (mirror) image is now on the drum's surface in a dusty powder.

The destination printer paper should now be directly aligned with the toner image on the drum. A stationary *transfer corotron* (corona wire) below the paper now applies a larger negative static electric charge along the length of the drum. The greater static electric charge draws the toner away from the drum and the paper moves ahead, away from the drum. A discharging *detrac corona* (corona wire) neutralizes the static electric charge on the paper.

Rollers above and below the paper apply heat and pressure that fuses (melts) the toner to the paper's surface. Finally, the printer expels the paper. However, if the printer has a *duplexer* (page turning mechanism) enabled and there are additional pages in the document, the paper automatically returns to the printer so the obverse side can be printed.

This process is for monochrome (one color of toner) printers. A monochrome printer can use black toner or specialty single color toner. However, the whole page is entirely covered in the single color.

It is possible for laser printers to have variable size dots. That will allow improved dithering of images.

*Color laser* printers apply four colors using CMYK toner. Color laser printers spin the drum four times, once for each color. Some printers apply toner to the paper one color at a

time. Some laser printers build four layers on the drum before transferring the toner to the paper. As a result, a sixteen page per minute monochrome printer rate becomes a four page per minute color (CMYK) printer rate.

*Color LED (light emitting diode) printers* offer compelling performance increases. The significantly smaller LED optical mechanism replaces the laser mechanism. In color LED printers, four-color processing mechanisms make single pass color printing a reality.

Ultimately, a color LED printer can provide sixteen pages per minute monochrome and sixteen pages per minute in four colors. Currently, color LED prices are higher than color laser printers, but they deliver four times the print speed!

Laser/LED printers offer many benefits. The toner used is highly resistant to water (as compared to traditional inkjet ink). Printouts of text can be of very high resolution and at the rated speed of the printer's engine. Duplex printers are becoming common.

Toner based laser and LED printers do not suffer the fatal flaw of inkjets. No nozzles ever clog (or ink spilt) from these printers. If you leave your laser printer off for a month, you can safely presume that it will still work perfectly. If you do not run your inkjet regularly, it will suffer from clogged nozzles.

Most importantly, the cost of monochrome printouts is unsurpassed. Costs of between one to two cents per page are easily possible.

I hope to never own another inkjet printer. In another generation or two, laser and LED printers will offer quality printing, low total cost of ownership, and lower initial prices.

## Page Printer Versus Raster

*Page printers* receive data from the computer and format the final text and images in the printer before printing. A page printer contains a high speed RISC (reduced instruction set computing) microprocessor. A page printer can receive print data from DOS (as well as other operating systems like Linux, Unix, Apple Macintosh, etc.) and correctly print the result. This is due to its ability to emulate a particular printer (ex. – Epson FX-80) or have its own personality.

Page printers require enough memory buffer capacity to contain the bitmap image to be printed. The memory requirements increase dramatically when going from plain outline (vector fonts), simple images, color, page size, etc. Memory buffer configurations start at a few megabytes and can sometimes reach a few hundred megabytes.

At one time, page-printing technology was in every type of printer (laser, inkjet, dye sublimation, etc.). However, today's inkjets tend to be WinPrinters with raster technology.

*Raster printers* print one band (row) of data at a time. Print head width determines the band's width. At one time, raster printers always had microprocessors in them to format the image (to some extent).

In an effort to cheapen things, Microsoft has introduced a



## Share Your Expertise

We wish that all of the articles in the *Orange Bytes* were written by NOCCC members! Why don't you share some of your expertise with the rest of us by writing an article for our Computer Talk section?

# Computer talk

number of initiatives that make products without microprocessors (and native intelligence) and dependent upon Microsoft operating systems for even rudimentary operation. Look for brain-dead devices with trademarked names that begin with "Win," such as WinModem and WinPrinter.

**WinPrinters** (sometimes called **GDI printers**) receive completely formatted pages from the Windows GDI (graphics device interface). The WinPrinter must only receive and buffer one band (row) of data to begin printing. Memory buffers in WinPrinters are very small (typically under a few hundred kilobytes).

WinPrinters have many drawbacks. The operating system becomes occupied with processing the printing data for the page, so interface response time and other running applications will noticeably slow down. There are now millions of bytes of data traversing the slow parallel port or USB connections. Operating system RAM (random access memory) requirements are increased to support page composition. WinPrinters are typically unusable with alternative operating systems.

If you are thinking about using alternative operating systems with a printer, be certain that the manufacturers (printer and operating system) guarantee compatibility. In particular, you will require printer drivers for your operating system. **Printer drivers** allow the operating system to use the features of that particular printer.

## Dye Sublimation Printers

**Dye sublimation printers** convert solids into vapors (gases) to print images. The tremendous advantage is the ability to mix colors and produce **continuous tones**. Continuous tones allow a huge range of colors in a single dot. Any two adjacent dots can independently be the correct desire color. Dithering is not required.

Dye sublimation printers do not have a great maximum resolution, but that is not required to produce tremendously good images (because of the continuous tones). Dye sublimation printers can be slower than other technologies.

Dye sublimation printers use a fixed amount of film ribbon and special paper for every image printed. As a result, the price per print is predetermined and fixed; it is also very high.

Specialty dye sublimation printers are dedicated to 4"x6" images. Paper and film ribbon cost about fifty cents. Other size printers are available.

## Other Printers

**Impact printers** are incorrectly called **dot matrix printers**. Impact printers that use pins are dot matrix printers, but so are inkjet, laser, LED, etc. Impact printers use an electromagnet to propel a pin or a fully formed type-character (as in a daisy wheel printer) into an inked or carbon film ribbon. The ribbon strikes the underlying paper to form an image. Impact printers still are required to print multipart forms.

**Thermal printers** use heat and special paper to record an image. They are limited in output quality and are limited to special applications, such as cash register receipts. Thermal-

paper printouts quickly fade and damage easily from heat and excess light.

## Print Quality

Higher printer resolution does not automatically improve print quality. There is a correlation between image resolution and the printer's resolution. A continuous tone printer can print at the same resolution as the image (ex. - image at 150 dpi) and get a good-looking result.

A four-color printer requires many times more printing dots in order to equal a single continuous tone printer dot. Therefore, the maximum source image resolution should only be some fraction of the maximum (desired) printer resolution. This is subjective and related to the printer's ability to effectively dither the colors in as few dots as possible.

A source image resolution of over 300 dpi is probably be excessive! A four-color printer might not be able to produce a satisfactory result. The printing time for a large page could be unbearable. Moreover, do not forget the huge memory requirements of the operating system to manage such an image.

## What's New?

The latest generation of printers has changed some of the basic assumptions. The newest generation of low cost monochrome laser printers is priced the same as moderately priced inkjet printers. The cost per page can easily be under two to three cents.

Historically, most printer technology (particularly inkjet, laser, and LED) did not permit the layering of ink dots on top of each other. Likewise, the mixing of ink on the paper was not possible except in continuous tone technology printers (ex. - dye-sublimation).

Historically, most printer technologies created images using ink dots that were a constant diameter. Some new printers are able to create several different dot sizes. This enables new proportions of inks to be created in the same size area. This also suggests the possibilities of layering small dots on top of larger dots.

Photographic printers add a few new colors, usually light cyan and light magenta, to improve the range of printed colors. This adds significantly to the cost of printing, so do not use the inks indiscriminately (for printing throwaway pages).

Archival inks and paper extend the shelf life of the resultant printouts. It requires specific storage and display conditions to yield the longer existence. Again, this adds significantly to the cost of printing. ■

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# Is Your Computer Ready For Video Editing?

By Timothy Everingham, NOCCC,  
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With video cameras becoming cheap, more people are looking to create their own videos. However, to consistently produce good video, you will have to edit the video you have filmed. There are some good video editing programs around \$100 for a person to start out with from Ulead, MGI, AIST, and Pinnacle Systems and probably sometime in 2003 from Adobe Systems. However is your computer up to it?

You may have seen Intel and AMD emphasize computer game, video, and audio applications when promoting their processors. The reason is that those are the only applications that might interest a large number of people that could significantly benefit from most of their processors introduced in the last two years. When we reached the point of 500 MHz processors further jumps in speed became irrelevant for most computer applications. Do you need a 3 GHz machine to do video editing? No. However, today's consumer video editing programs include a number of effects; including the ability to composite stills, graphics, or other video on to your original video. There is also the ability to do cropping and color, brightness, and contrast correcting. If you anything other than just cutting and pasting video clips together you will need to render, which is where all those effects and changes are combined. If your computer is too slow and editing in a frame size that is suitable for video for a DVD, the rendering of even a short video could take hours. Because of this I would recommend if you are running a computer with less than a 1 GHz processor you need to upgrade. If you are going to upgrade, either get a 2 GHz or greater Pentium 4 or the equivalent Athlon (the Athlon ratings are roughly equivalent to the GHz rating on the Pentium 4s). Also, the front side bus speed of the processor is important because in video editing you will do a lot of swapping of data between the processor and RAM.

Video editing is memory intensive. Your RAM should have 512 MB or more. With memory being so cheap a lot of video editors are going for 1 GB. As with processors, the faster RAM the better. Rambus RAM is on its way out. Instead go for DDR (Double Data Rate) RAM. Of course you have to have a motherboard to support a particular processor and type and speed of RAM. Not all boards and chip sets are equal. A low performance motherboard can rob you of the performance you paid for in your other components. A good motherboard can even help out in other ways, such as many Athlon motherboards incorporate AMD's hypertransport technology which some report more than compensates for the lower speed

of the front side bus of Athlon processors. Some motherboards have sound capability, but check its quality. It still might be better to add a good Creative Labs or Turtle Beach card. Be sure the motherboard will support what components you will be putting in your computer, including having an ATA 100 or better drive controller. To find a good motherboard checkout the reviews at Tom's Hardware Guide ([www.tomshardware.com](http://www.tomshardware.com)).

Recent 7200 RPM IDE drives are perfectly fine for video editing, so you don't need SCSI anymore. You also do not need to use a RAID configuration for your drives, but it can be helpful under certain circumstances. However, if you have older drives that are not high performance SCSI drives or newer drives less than 7200 RPM you need to buy a new hard drive. Also, you really need at least two physical hard drives. One drive that can be a 5400 RPM, the primary drive where your operating system and applications are. The other drive is your video data drive, which needs to be at least 7200 RPM. No drive on the IDE cable to either of these drives should be less than ATA 100 because it will slow down the data transfer to and from all drives to its low level. The larger the hard drive the better because video takes up a lot of space. DV format video (most common used in new camcorders) is 3.6 MB per second or 13 GB per hour. The general rule is you will have three times the amount of raw video on your hard drive than the length of the final edited video and you may wish to keep more than one editing project on your computer at the same time. Be sure that your drive controller (IDE or SCSI) can handle the size of drive you buy.

So what about the video card. Do you need one of those really expensive 3D gaming cards? No. Video is 2D. So what you need is a video card that will support 85 Hz refresh rate at the screen resolution you will be using. I personally use 1024x768, but some people use 1280x1024. For a monitor, 17" is a minimum. I use a 19" monitor and many use 21". Many professionals use two computer monitors plus a TV monitor to look how their output looks on a TV screen right away (NTSC is the TV standard in North America, which video professionals jokingly say stands for "Not Twice the Same Color"). Get a good quality monitor because during video editing you will be staring at it for hours. Yours eyes will thank you.

You need something to get you video from your video camera into your computer so you can edit it. First you need to look at what are your video camera's outputs are. The most common are composite, s-video, and Firewire (IEEE-1394). Composite outputs are found on almost all video cameras. However, they only provide VHS quality output. S-video outputs produce S-VHS quality output for camcorders using Hi-8 or greater formats. Both composite and s-video are analog outputs, which means you need a video capture card for your computer to convert into a digital video format that is editable. However, Firewire which is in DV format video cameras is better since it will transfer the already digitized DV

CONTINUED ON PAGE 28 



# A Tutorial Guide to AUTOCAD 2002

by Joe Mizer, NOCCC

Shawna Lockhart an experienced author and professor at Montana State University write this book. The tutorial guide is for the complete novice and can be used for classroom instruction or for self-instruction. When you have completed the entire set of tutorials you will have a sound foundation and be able to compete in the field. Getting a job is mostly about being able to pass a skill test. Every tutorial has the problem of knowing where to start so the complete novice is not left out. Installing the software is not covered, however configuring windows for AutoCAD is covered including creating a working directory so you work is automatically saved in the correct directory and your own user profile is created. These are important not only in a classroom environment with shared computers but also at home so you can later find the files you have created. AutoCAD has the largest user base in the world. Using AutoCAD 2002 with this tutorial you will create 2D and 3D models and finished drawings, which can be given to others to use for information, assembly instructions or to take to a manufacturing shop to make parts.

The first two chapters of the book will get everyone to the same starting level, which are followed by the 15 tutorials to make you an AutoCAD operator. Skipping the early chapters, even though they seem simple would be like jumping into the deep end of the pool before learning some basic strokes.

- Chapter 1 Configuration of AutoCAD's environment and menus.
- Chapter 2 Introduction of the screen display, use of Help and mouse conventions.
- Tutorial 1&2 Basic drawing commands, Menus, toolbars.
- Tutorial 3&4 Editing commands and geometric constructions.
- Tutorial 5 Drawing management, template drawings, and layers
- Tutorial 6 Orthographic projection of views.
- Tutorial 7 Adding dimensions and dimension styles.
- Tutorial 8 Custom Toolbars and Blocks.
- Tutorial 9/10/11 3D solid models and Assemblies.
- Tutorial 12 Section views.

- Tutorial 13 Auxiliary views.
- Tutorial 14 Advanced dimensioning and Tolerancing.
- Tutorial 15 Rendering and Shading of 3D models.

While working on the tutorials I was re-introduced to many commands I do not normally use in my daily work. Some of these are as simple as having multiple drawings open at the same time, I never use survey coordinates and describe a line segment as @100.12<N29d59' however it is great for Civil Engineers. The only suggestion I can make for the 2D section of the book is by adding a 3D isometric view of the object being drawn would aid visualization for the student. The book teaches good construction style, and this is important since everyone develops his or her own working style. I work mostly with Desktop and Inventor so my working style is adjusted to solid models and I will not comment more on style other than to say it is more important than most designers will admit. Sections 9/10/11 are most important to continuing with solid modeling. I can only speak for the industry I am in, but the only 2D drawings I normally make are wiring diagrams, schematics, pneumatic, and hydraulic drawings. Solid modeling is the way of the future in mechanical design and after you finish this excellent set of tutorials you are ready to advance.

The book is published by Pearson Education a division of Prentice Hall Publishing.

The ISBN number 0-13-035136-9. The suggested retail price is \$61.00 and is available from Amazon, Barnes and Nobel, and other on-line booksellers. I can recommend this book as an excellent way to learn AutoCAD 2002. If you are into mechanical design, sheet metal and similar tasks you will want to make the transition into Mechanical Desktop or AutoDesk Inventor 6. Lockhart and Johnson have an excellent text on Mechanical Desktop and there are many excellent books available for Inventor 5 or 6. ■

## Zone Alarm Pro 3.1.395 Firewall

By Ted Littman, NOCCC

In the November Orange Bytes, I discussed the use of a firewall to supplement the protection afforded by a good antivirus program. I also reviewed a top-rated firewall from Sygate Technologies. In this article, I offer my views on another top-rated firewall, Zone Alarm Pro 3.1 from Zone Labs.





Zone Alarm Pro 3.1 is an outstanding firewall based on my personal experience and the reviews of top PC magazines as well as other sources. It is easy to install, personalize, and use. It has very good help information, and affords your computer excellent protection against intrusion for the purposes of spying, stealing, or damage. In addition, it has effective tools to deal with intrusive “cookies” and those annoying Web site pop-up ads and banners that can make surfing an unpleasant experience.

Zone Alarm’s awards include “Editor’s Choice” from PC Magazine (September 2002), “World Class” and “Best Buy” from PC World (September 2002), and “Editor’s Choice” from CNET (March 2002). Based on my personal experience with the software, these citations are well deserved.

Zone Alarm Pro performs all the basic functions of a good firewall needed to protect your system. Customizing your setup is relatively straight forward with lots of guidance provided as you proceed from Internet Zone Security settings to e-mail protection. However, the novice may have a problem in trying to designate which programs and components are OK to access the Internet or function as a Server. In that case, it is better to use Zone Alarm’s default settings.

To maximize your defense, it is best to set Internet and Trusted Zone Security settings at High (i.e., “stealth” mode) after the firewall has run for a while. At the outset, there will be pop-up “Program Alerts” when one of your programs tries to access the Internet. Zone Alarm can remember your response to either grant access (e.g., e-mail programs like MS Outlook Express) or block it (if you don’t recognize the program’s name). Fortunately, Zone Lab’s AlertAdvisor can assist you since it has a good database on common programs. My bottom line: No problems have been experienced while using the Zone Alarm Pro firewall.

I particularly like Zone Alarm’s 3-tier ad blocking capabilities to prevent banners, pop-ups/unders, animation, and ads that don’t load within a given number of seconds

Another useful tool is called “MailSafe.” This supplements your antivirus scanner by “quarantining” auto-executing e-mail attachments that may contain a virus, including, Zone Labs claims, ones not yet classified formerly as such. MailSafe alerts you and prevents the attachment from running without your permission.

Zone Alarm also can block session, persistent, or 3rd party cookies and set cookie expiration dates. While some cookies may speed your web surfing, others can intrude on your privacy or worse. With this firewall, you have a reasonable measure of control.

In addition to a very good-for-beginners tutorial and program wizards, help is available from a 145-page electronic pdf User’s Manual. Zone Alarm’s Web site Support Center provides further help through its FAQs; or you can post questions for response from the Technical Support group.

System requirements for the PC software include a Windows 98/Me/NT/2000/XP operating system, 233 MHz (or

faster) processor, and 10 MB free hard disk space. My system is a Dell 500 with lots of hard drive space and an Adelphia cable modem, which downloaded the program in seconds.

Individual home PC users can download a free basic “no frills” Zone Alarm firewall. The Pro edition adds SPI and intruder tracing, password protection, ICS/NAT protection, an antivirus tool, ad blocking, and cookie control. Single user list price for Pro is \$49.95, including 1-year of updates as well as online support. Subsequent annual updates/online support costs \$19.95. The boxed version is available from the usual sources; or the program can be downloaded from [www.zonelabs.com](http://www.zonelabs.com). This takes about 8 minutes with a 56K modem. If you believe in “try before you buy,” you can download the pro version for a 30-day free trial before paying. According to Zone Labs, there are 17 million users of their security products! ■

## TCP/IP Illustrated

by Dave Keays, NOCCC

TCP/IP Illustrated; Volume 3 written by Richard Stevens, published by Addison - Wesley; Professional Computing series, ISBN: 0-201-63495-3, date: January 1996

“TCP/IP Illustrated” is a very informative series of books on network standards, practices, and guidelines. Volume 3 proved itself as the best explanation I have seen of computer networking. While I already knew that TCP (Transmission Control Protocol) had something called a “three way handshake”, this book showed me why it did. Unfortunately, the subtitle for the book (“T/TCP; TCP for Transactions . . .”) confused me; I thought the book was primarily about T/TCP.

When I first saw this book at the review desk, I really got excited. Here was a book that was a part of a series that is considered by many to be almost definitive. Then I was disappointed when I started thinking the book is about a dead protocol. (I couldn’t find any references to T/TCP being used anywhere, and at least one place recommended not using it because of it’s rarity.) However, I went ahead and read the book and found-out that it really didn’t matter if the subject was not in use.

What Mr Stevens was describing was a proposed protocol (TCP for transactions: T/TCP). He explained the basics so well that I couldn’t help but understand them better. To explain why T/TCP was necessary he showed the difference between UDP and TCP (both are known as ‘transport protocols’; a way of delivering data from one computer to another). He showed the source code necessary for both a client and a server to show what it takes to read or write internet traffic. He then went on to show how T/TCP is a compromise between UDP and TCP. (TCP is reliable but slow and UDP is fast but unreliable. What if you need something reliable but fast?

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# Product Reviews

## TCP/IP Illustrated *continued from previous page*

T/TCP was supposed to fill that gap.)

The book didn't even stop there, it also showed HTTP (the protocol the web is based on), NNTP (the protocol newsgroups use), and DNS in a UNIX world.

While I had heard good things about this series over all, I found that volume three is a very good intermediate networking explanation. I now want to get my hands on the first two volumes and anything else Mr. Stevens wrote. (Mr. Stevens home page is [www.kohala.com/start](http://www.kohala.com/start)).

I would recommend this book to anyone who needs to understand the details of network traffic for socket programming or network administration. (While you do need to already have some knowledge of networking, this book will put all those scattered facts into one whole picture.)

"TCP/IP Illustrated; Volume 3" is sold both alone and as a boxed set (all 3 volumes). ■

	Volume 3 only	All 3 Volumes
Listed Price	\$49.95	\$164.99
bookpool.com	\$38.50	\$125.95
aw.com	\$44.95	\$164.99
amazon.com	\$49.95 (new) or \$23.50 (used)	\$164.99 (new only)

## Learn the Basics of Painting with NaturePainter Digital Canvas

By Ted Shapin, NOCCC

I've tried sketching with a pencil but I've never tried painting with brushes using oils or acrylic paint. I thought I'd try out this program to see what I could learn without buying art supplies. The news release said, "Do you want to learn to paint, improve your skill, or rediscover your artistic side? "NaturePainter Digital Canvas" is a software program that makes it easy to practice painting on your computer screen."

The program comes on one CD or can be down loaded over the Internet. It is a large distribution, about 4 megabytes. You can get a demonstration version that does almost everything except allow you to save your work. I tried installing it on both a Windows XP system and a Windows 98 system and had no problems.

With the tutorials that come with the program, you can try out many things. The brushes and paint produce results on your computer screen exactly as real brushes and paint would work on canvas. You set two sliders, one sets how much paint you put on your brush from a palette. The other selects how hard the

brush will be pressed against the "canvas," in this case your screen.

The "basics" tutorial teaches you how to use different brushes: the liner brush, filbert brush, flat brush, round, oval and flat brushes and the palette knife to spread paint on your digital canvas. I learned that these brushes of different shapes and widths are the basic tools that an artist uses. The tutorial shows an animation of using the different brushes and the effects that you can get.

As you click and draw your brush, the paint starts out dark and then fades out just as a real paintbrush would. By moving your mouse from side to side holding the right mouse button down, you can twist the flat brush before you touch the surface. Buttons let you select the whole brush, just the side of a brush, or half of the brush. You can also use a dry brush. When you pass this over the "wet" paint, it smears the wet paint to blend it.

I had a little trouble discovering how to add colors to my palette until I read Help carefully. It was different than Microsoft's usual method of picking colors. However it turn out to be more like the way an artist would actually squeeze globs of color on his/her palette and then mix them. This actually gives a better result and is closer to the real thing.

The three other short tutorials show you how to paint a blue sky, trees and foliage, snow-capped mountains, and a sunset over the sea.

This program is especially suited for painting landscapes. The registered version comes with twenty landscape images to give you "inspiration." It is hard to tell if they are pictures or paintings. They are in a non-standard graphic format with the extension ".npi" You can only view them; you cannot edit them. Your paintings can be saved as either bitmap or jpeg files.

This is an excellent program to teach yourself the basics of painting before you spend lots of money on artist's supplies. You can use it to make interesting paintings and print them out on your inkjet or other color printer. Download a trial version at

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

The trial version will not save your work. The regular price for the downloaded program is \$39.95. NOCCC members can download it for \$29.95 by going to the site listed in the Orange Bytes newsletter. ■

## SuSE Linus 8.1 Professional

By Everett Freywald, NOCCC

Having a spare 40 GB HD, I decided to use it for the installation. Since my motherboard (ECS K7S5A) allows me to boot on any hard drive with a boot manager in CMOS, I didn't have use a software boot manger. That way I didn't mess up the MBR (Master Boot Record). Since I'm using Windows XP Pro it helped.

The SuSE installation is better then the earlier install



packages for Linux. I use Yast2. It installed from my pioneer DVD drive flawlessly. I chose the automatic installation and it found most hardware I have installed in my PC; that included: Audigy Sound card, Hauppauge TV card, and 3com network card. It didn't find my Promise ATA 133 card to support my Maxtor Ata 133 drives. But much to my surprise, all my drives were accessible including my NTSF-formatted drives; that allowed me access to my data files under Windows.

After the dust settled, I had KDE 3.0 on my desktop and it installed several software packages. SuSE comes on seven disks. There is a lot of software you can install and a list is presented when you choose to. SuSE 8.1 comes with Open Office 1.0.1, Abiword 1.0.1, Mozilla 1.0.1, (my favorite even in Windows), 2d and 3d games, a working Java environment and Macromedia Flash plug-in, Broadcast 2000, Real Player, Opera, and more. For those interested, it comes with Wine - no, not the bottle. It is an alpha program that allows the use of Windows-based software with Linux. You can get more information about this at [www.winehq.org](http://www.winehq.org), an interesting site.

The best way to get used to using this Linux, or any of the other operating system packages, is to get in there and experiment. I don't recommend using Linux for critical data unless you are comfortable with the OS.

My opinion on SuSE 8.1 is a little mixed. I have tried a number of Linux distros and this one is very close to a no brainier to install. There are a few questions you have to answer, but not all that bad.

Since I loaded this OS I have watched TV on my Hauppauge TV card. The KWINTV software failed to get the channel numbers correct, but I worked around that. My audegy sound card was recognized and was active on first boot up. It also recognized my Video card Matrox g400 max.

If you're looking to change operating systems and you are the adventurous type, this is a good one to try out. It does have problems with USB. I'm not sure why, but I am going to keep this on my system for a while and try to find out about the USB problem.

If I were rating this OS, I would have to give it a 7.5 out of 10. It still isn't as good as Windows but it is very close. ■

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## McAfee VirusScan Online

By *Linda Russell, NOCCC*

McAfee Virus Scan Online is designed to provide automatically updated virus protection for your computer. I was amazed at how easy it is to download and install this software. And then, it works relatively automatically after installation. Every time you go online, this software checks with the VirusScan Online website. If there is an update available, a small window pops-up on your computer screen. This window tells you

there is a VirusScan update available, and gives you 3 options: Continue working & ignore the update. Get the update now. Or, notify me again in 10 minutes, etc. All the options work very well. Novices will find this software extremely easy to use.

Before using McAfee VirusScan Online, I used McAfee VirusScan 5.0. VirusScan Online is vastly superior because it automatically updates itself. I do not have the time to remember when I should go update my virus protection. I need my software to do this automatically for me. Someone recently sent me an e-mail with the Klez virus, and this software protected me by not allowing the virus into or onto my PC. It quarantined it in my Eudora e-mail software and would not allow it to be downloaded to my computer. I removed Eudora from my computer, and there remains no trace of the Klez virus. I have friends who went through days & weeks of nightmares when their virus software did not stop the Klez virus.

I have not used other virus protection software, so it is hard for me to compare McAfee with other virus protection, like Norton. I don't know how Norton could be better than McAfee, because McAfee VirusScan Online works so well.

This software is available for all Windows O/S. My computer is a Toshiba Satellite Pro 4300 Series laptop running Windows 2000 Professional. VirusScan Online requires a PC with a 486 or higher processor (Pentium recommended); minimum of 16 MB RAM, 32 MB recommended. I have 512 MB RAM and 8 MB free hard-drive space. Offered in English, French, German, Italian, Japanese and Spanish, although functionality may vary.

This software detects viruses and automatically cleans infected files. It provides 24 x 7 (24 hours/day and 7 days/week) continuous online and offline background scanning, and uses more than 8,000 Akamai servers worldwide to ensure you have critical updates and upgrades, even during virus outbreaks. This software utilizes a new file compression technology that dramatically reduces the download size and time for installing your product upgrades. It allows you to create an emergency floppy disk to start and clean your PC in case of boot sector infections. Subscribers receive free unlimited e-mail and chat-based support. It allows you to run a complete scan of your computer at a scheduled time and interval that is convenient for you. VirusScan Online safely isolates and neutralizes infected and suspicious files. Files are moved to the built-in quarantine directory, encrypted and their file extension changed rendering them harmless until further action can be taken.

McAfee provides an extensive library of valuable information on their website regarding using their products, and the latest news on viruses and hoaxes. I highly recommend this product. I even gave gift subscriptions to my family members for Christmas 2002. McAfee made a promotional offer of \$26.95 for a full-year's gift subscription. I went online and paid by credit card. McAfee sent an e-mail confirming the gift subscription with a "hot link" that I e-mailed to my daughter, the recipient of one of my gifts. Even she found it easy to install and use, and she is a true novice on computers. Cost = \$34.95 for a year's subscription. \$29.95 to renew subscription annually. 30-day satisfaction guaranteed or your money back. ■

# The Belkin crew

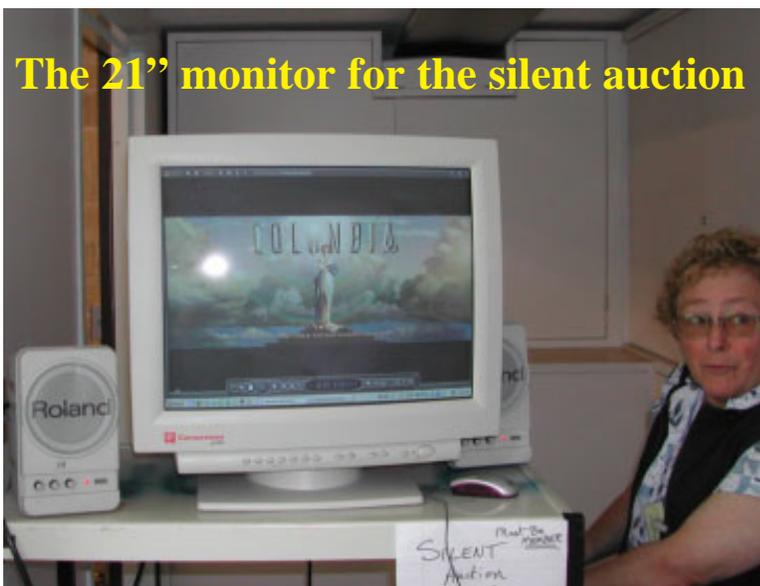
Ali. Emad

H. Keith Renty



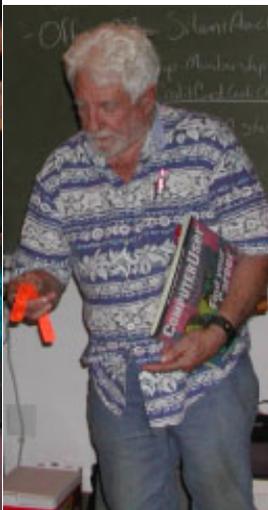
The consignment table crew

The 21" monitor for the silent auction





The very nice raffle prizes donated by the great folks at Belkin, after giving us a very informative presentation on the products! Thank you H. Keith Renty and Ali. Emad for a great meeting.



The happy winners



Ted Littman at the Review Table





# Murach's Beginning Visual Basic .NET

By Herbert Wong, Jr., NOCCC.

The .NET architecture still attracts a lot of attention from the general public. Most assume that Visual Basic .NET is the language that will offer the easiest access. These people need to buy Murach's Beginning Visual Basic .NET (authored by Anne Prince).

Murach's web site has details about this book (<http://www.murach.com/books/bvbn/index.htm>). It also provides a complete table of contents (<http://www.murach.com/books/bvbn/toc.htm>), free download of the applications in the book (<http://www.murach.com/books/bvbn/download.htm>), what software you need, and free download of chapters one, two, and three (<http://www.murach.com/books/bvbn/chapters.htm>).

The five sections of this book are The Essence of VB.NET Programming, How to Work with Forms and Controls, More on Features You'll Use All the Time, Get Started with Database Programming, and Get Started with Web Programming.

Section one is the longest with about 250 pages. The essential elements of the .NET Framework, .NET architecture, and Visual Basic .NET language are covered.

The *Visual Basic (.NET) Language Essentials* chapters are quite elementary. This early preparation involves a lot of programming technique and style considerations. This is a good thing.

Visual Basic has not drastically changed. However, the burden of learning the .NET Framework requires a thorough understanding of the .NET architecture that subtly, yet drastically, affects certain aspects of Visual Basic.

The programmer's challenge is not learning Visual Basic .NET, but learning the .NET Framework. The new architecture is designed to be language neutral. The Framework is supposed to be the employed similarly in each .NET language. Programs written in Visual Basic .NET, C#, Java.NET, COBOL.NET, etc. are not supposed to enjoy advantages (or disadvantages) over each other.

Section two focuses on designing interface elements. The chapter topics are Windows controls, multi-form applications, and enhancing the user interface.

Section three extends the language functionality. The chapter topics focus on dates, strings, arrays, collections, structure, files, XML with files, and object-oriented programming.

Section four starts business application programming. The chapters introduce database programming, ADO.NET, bound controls, and parameterized queries.

Section five introduces Web Forms programming and web services.

Each chapter ends with several exercises. Of course, they provide a means for further study on the current material. Murach offers presentation materials for course instructors who use this book as a scholastic textbook.

Murach employs a great format in Beginning Visual Basic .NET. The immediate topic is short, informative, and detailed. The left side page is narrative and the right side page is demonstrative. Most topics are two pages.

The even numbered pages may describe a topic, what to do, what to expect, why it needs to be done, theory, navigation, limitations, ranges, etc. Since this text is limited to one page, it well focused. As an additional benefit, topics are easy to isolate when you are searching for a particular procedure or technique. This is significant since those quests usually happen in the middle of the night.

The odd numbered pages present the previously described code. There are many screen captures of dialog boxes or the Visual Studio IDE (integrated development environment). Below that are additional descriptions in bulleted form that contain information and suggestions about functionality or implementation.

In combination, the dual page presentation feeds the right brain and the left brain (or is that the left brain and the right brain?). On the other hand, consider it instruction presented in two styles to reinforce or clarify the topic.

The book's "lay flat" binding makes it very easy to open the book to a particular page, place it next to the keyboard, read, and type. This is a good compromise between having a normal paperback book and a traditional (expensive) hardcover book.

This tutorial-style book does not have the oppressive feel of a seemingly endless classroom textbook. The dual page format lends itself to reading comfortable segments rather than trying to plod through forty, fifty, and sixty page chapters. Some people will find this characteristic invaluable to actually reading the entire book (which is highly recommended). It will make the daunting .NET Framework a little easier to approach.

Murach's Visual Basic .NET is the best starting place for anyone who has an interest in using the .NET architecture with Visual Basic .NET. Seasoned programmers will find the last two-thirds of the book to be of far more use than the early Visual Basic Essentials chapters.

Combined with a few .NET Framework reference books, a novice will have enough material to comfortably begin the long nights in front of the computer. ■

### Murach's Visual Basic .NET

(<http://www.murach.com/books/bvbn/index.htm>), 2002.  
ISBN: 1-890774-15-4.

Author: Anne Prince. Writer: Doug Lowe.

Researcher: Matt Stuemky. Editor: Judy Taylor.

**Mike Murach & Associates, Inc.**

2560 West Shaw Lane, Suite 101  
Fresno, California 93711-2765



## Drive Image 2002

By Ted Littman, NOCCC

According to PowerQuest, the maker of this software program, "Imaging is the process of creating an exact clone of your hard disk (or partitions on the disk) in another location. An image file can include the operating system, any applications you have installed, and your personal configurations and settings (including hidden files) – in addition to your data files. ....the image file includes everything you need to get your system back up and running quickly after a system failure." The program is not intended to back up individual files or groups of files. For that, there are many other available backup programs.

The destination of an image file can be a local partition (or disk) that you are not copying from (such as the one containing your operating system), removable media like CD/CD-RW, Zip, or Jaz disks, or an external hard drive. (However, PowerQuest says that external hard drives are not officially supported.) Drive Image will also store an image file on a network drive.

Use of removable media probably should be considered primarily for small image jobs. For example, if you were imaging a 10 GB disk, it would require 6-8 CDs with full compression. A large external hard drive with a fast USB 2 connection makes a good image destination, if you are aware of its limitations.

Drive Image 2002 is intended to operate within Windows (from 98 through XP), but there must not be any open programs or processes within the partitions you are trying to image. If there are, then Drive Image reboots and runs in DOS mode since this limitation does not apply. Is this bad? Well, that depends on your destination for the image file. Your operating system must be able to recognize the destination. Unfortunately, DOS can't "see" an external drive since there are no DOS drivers currently for such hardware.

When I tried to use Image 2002, I ran into problems with open processes when trying to image to my 60 GB AcomData external hard drive running on USB 2.0. I looked through all of the good documentation provided by PowerQuest in their Drive Image Help file, Read Me file, numerous papers posted on their Web site, and several reviews. However, no matter what I did, I could only get Drive Image to run in Windows XP Pro and image a small partition with few files to my external hard drive.

I then turned to for help to Gene Barlow who heads PowerQuest's User Group Relations and runs all over the country speaking to User Groups like ours. He was very patient and his suggestions via e-mail were prompt and insightful. So, it boiled down to shutting down every interfering program/process such as Go Back, Norton anti-virus, several firewalls, spam killers, etc. that run in the

background every time you turn on your computer. However, trying to do this manually didn't work since I wasn't sure how to close all the interfering programs. Then Gene suggested that I run Windows in "Safe Mode." That did it!

Safe Mode allowed me to run Drive Image in Windows and image all of my partitions (except the one containing the XP operating system), to my external hard drive. This included a partition containing a shut-down Windows 98 operating system. Now, I don't know if PowerQuest's regular technical support provides the same level and timeliness of help, but Gene Barlow sure came through for me.

What about recovering your system after a hard drive failure using an image file? Well, this is straightforward. You can restore to the same hard disk or to another local hard disk. If you restore to another computer, it must have the same hardware and configuration to avoid problems, unless you are imaging only data files. When you restore from an image file, your system is returned to the state it was in when the image was created. Scheduling this operation on a regular basis is the recommended way to go.

In spite of problems, due mostly to my limited computer knowledge, I recommend Drive Image 2002 (or its successor) to anyone wanting to protect his/her computer system from a major failure. The program does everything it is supposed to if you are careful to avoid my pitfalls.

In an Aug. 2002 review by PC World, it was rated 4 ½ stars (out of 5) and cited as "The best drive-imaging tool." The program also provides limited partitioning capability. It is relatively fast, imaging a GB in 10 minutes or less. To help the novice user, there are four "Wizards" which run as advertised.

Drive Image 2002 lists for about \$70, but it can be purchased at the usual computer stores or on-line for much less. User group members can purchase Drive Image 2002 for only \$35 plus \$5 shipping by accessing the secure web order form at [www.ugr.com/order](http://www.ugr.com/order) and completing the form, including a special code of UGFEB03. The product is normally shipped within 24 hours via US Priority Mail and should arrive in 2-3 days. ■

## Handy Backup 3.9

By W. D. Allen Sr., NOCCC

There are two kinds of PCs, those that have had a hard disk failure and those that will have a hard disk failure. Those of us who have had a hard disk failure know the critical need to do always three things: back up, back up, and back up!

A handy program for ensuring your vital data files are saved on a regular basis is the \$30, 2.43 MB Handy Backup 3.9 from Novosoft [<http://www.handybackup.com>]. Like other more expensive backup programs Handy Backup 3.9 has some

CONTINUED ON PAGE 30 

# Reviews Editor's Corner

If you write a review for the *Orange Bytes*, you may keep the item. If you would like to review a specific product (software, hardware, or book), please let me know and I will try to obtain it. If you are interested, please contact me:

**Ted Littman**

**NOCCC Reviews Editor**

- (714) 779-1936
- [reviews@noccc.org](mailto:reviews@noccc.org)
- [TedLit@Adelphia.net](mailto:TedLit@Adelphia.net)

## Products Available for REVIEW

A number of products have been obtained from vendors for review by qualified NOCCC members. If you are interested in doing a review (which will be published in *Orange Bytes*), please call or send an e-mail to me and provide your membership number, phone number, and e-mail address. Remember, **YOU GET TO KEEP THE SOFTWARE, HARDWARE, OR BOOK!**

Currently available are the following software programs:

**Quickeys for Windows 2.5** –

Automate hundreds of computer tasks from typing text to launching programs to controlling Windows with a single mouse or key click.

**WinPatrol Plus 4.0** – A popular program from BillP Studios that monitors & detects changes on your computer system. Alerts you when any new programs are added without your permission.

**WinBackup** – Backup & restore your data fast & secure with one of the most intuitive user interfaces.

**Watznew 1.9.5** – Award-winning software that regularly checks your

favorite web sites and mailboxes and notifies you of changes.

**SendPhotos** – The easiest and fastest way to e-mail pictures for all skills level.

**Sygate's Home Network 4.2 for 6 Users** – The top-notch firewall to protect your home network.

**Red Earth Software's Policy Patrol 2** - Protect yourself against e-mail security threats with virus scanning, spam blocking, and other tools.

**ViraLock** – The first software that prevents the spread of e-mail-borne viruses by preventing them from escaping an infected computer. It is complementary to current anti-virus programs.

**IconLover 1.11** - A great solution for extracting, cataloging, and managing PC computer icons.

**Essential Net Tools 3.1 for Windows** - A suite of network tools.

**Xplay** - Enables Windows users to use Apple's i-Pod. It brings to you the power of the ultimate portable MP3 player.

**Apycom Java Menu Applets 3.0** - Create cross-browser drop down menus, bars, buttons, etc. for your Website.

**3D-Album for Windows 2.03** – Create TV-quality animated 3D photo shows with music, text, & voiceover using dozens of different presentation styles.

**VicMan's Photo Editor Pro 7.0** – An inexpensive versatile image editor from Russia with intuitive skin interface that comes with a range of essential features for both novices and professional designers.

**CrazyTalk Standard Edition 2.5** – The "Talking Heads" program. Make your own still images look like they are talking!

**Microsoft Combat Flight Simulator 3** – The Battle for Europe! From the leader in Flight Sims.

**NoLimits Rollercoaster** – A thrill-filled roller coaster simulator with 9 different track styles, 40 pre-made

tracks, 3-D sound.

The following books are available:

**Windows XP in a Nutshell** – One of the David Karp series to serve as a comprehensive but compact desk reference for XP users.

**Windows XP Annoyances** – Another Karp book to help customize and troubleshoot Windows XP.

If you would like me to try to obtain a specific product (software, hardware, or book) to review, please contact me by phone or e-mail:

**Ted Littman, NOCCC Reviews Editor**

## Membership Drive

Please tell more people about the advantages of membership in NOCCC.

## Preparing a Review Article for the Orange Bytes

*by Ted Littman, NOCCC Reviews Editor*

The following suggestions for preparing a review article for the *Orange Bytes* were extracted from an OCIPUG article and are intended as a guide only. As a reviewer, your audience wants to know your opinion (as an end user) of the product (hardware, software, book) you are reviewing. Please fully identify the product and its cost so that interested club members may be able to purchase it. After you have tested the product consider these questions:

1. What is the product's stated purpose and does it meet it?

2. Within its category of software (i.e., word processor, spreadsheet, database, etc.), does it stand out?

3. What are its major features?
4. Is it easy to use, even for a novice?
5. Can you quote or reference articles/reviews in the computer magazines?

The following list contains more specific questions that apply to either software or hardware:

**1. Requirements:**

1. Operating systems?
2. Windows?
3. Memory?
4. Disk space?
5. Is a Mouse supported?

**2. Installation** (do not overemphasize details):

1. Was it difficult?
2. Copy or write protected?
3. Does it allow drive and directory selection?
4. Does it automatically configure system? Can you control it?

**3. Information** about your system:

1. Hardware?
2. Operating system? Version?
3. Memory?
4. Video display?

**4. Documentation:**

1. What is supplied? Manuals (paperback, electronic) Tutorial? Templates? Table of Contents? Index?
2. Was it clear, concise, helpful?
3. Is there a troubleshooting section?

**5. Product Support:**

1. How is the vendor's tech support?
2. Does it cost anything?
3. Is it a toll call?
4. Does the vendor provide Internet support?

**6. About the product:**

1. What comes with the product?
2. What is the cost? (list & street)
3. Version number? Release date?
4. How difficult is the learning curve?
5. Would you buy/use the product?
6. Do you recommend it?
7. What don't you like about it?
8. What improvements or changes

would you like to see?

9. Can the software be downloaded from the vendor's Web site; is there a free trial period before buying?

10. What warranty is there on hardware?

**7. What are the Name, Address, Phone number (including 800#), and WEB address (e-mail & URL) of the vendor?**

After you have answered all these questions you should have enough information to write your review. Please be precise but do not make it so technical that only a few people can understand. Please advise the Orange Bytes Editor if you need graphics, pictures, or illustrations to get your point across. ■

## Guidelines for Submittal

Important! Please limit the length of your submittals. We request you limit general articles and software reviews to a maximum of 1300 words, SIG reports to 700 words, book reviews to 600 words, low cost CD-ROM titles to 600 words, and more sophisticated CD-ROMs to 1000 words. As far as the minimum is concerned, we'd just like to see you do justice to any general article or to any product that's reviewed. An expensive software package (\$300-700) deserves at least 1,300 words. An inexpensive program (\$50 or less) might have 500 words. Reviews must be completed within 2 months so that the Reviews Editor (Ted Littman) can, in a timely manner, send a copy to the vendor. If you change your mind about doing the review, please call him (714)779-1936 ASAP to make arrangements for returning the product for reassignment. We hope you enjoy writing your review.

You can now e-mail articles directly to the Editor through the North Orange County Computer Club's Web Site:

editor@noccc.org or just give the file on disk and printout directly to Alan Pearlman (President), Jim Sanders (Publications Chm.), or Ted Littman on the next meeting day. If you e-mail your review, please send a copy to TedLit@Adelphia.net.

To transfer your article from your Windows word processor, click at the beginning of the article with your mouse, shift down arrow to the end of the article, then Edit Cut (^C), open your e-mail program, and Edit Paste (^V). This will convert the file to ASCII. If your article is too long to include in an e-mail, please save as ASCII file with a .TXT extension. Then zip the article and attach it to your e-mail.

All documents should have flush left margins, and double carriage returns (skip a line) between paragraphs. The editors will bold your paragraph headings, etc., in order to obtain consistent formatting throughout the Bytes.

Don't use CAPS for emphasis; that's like shouting at someone! We usually have to delete and retype them, which can be a lot of work. CAPS are reserved for computer commands or file names, like AUTOEXEC.BAT or KNOW.TXT. For titles of books and software, capitalize the first letter of each word. We will add the underlining in PageMaker.

Also please spell check your article, and try to follow the ordinary rules of grammar. Don't use columns, tabs, indents, justification, hyphenation or formatting codes. (If columns or tables are absolutely needed, send us a hard copy to guide us.)

We will look forward to seeing your review in print and on the Web site. ■



## General Meeting

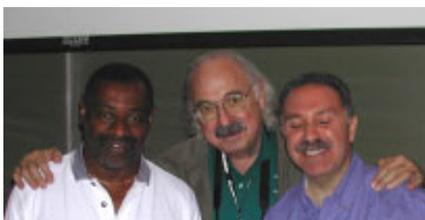
By Eric Saca

In February, H. Keith Renty from **Belkin Inc.** returned for another fascinating presentation on USB technology. He also covered Belkins new products for wireless networking and Bluetooth technology.

The meeting was opened by President Alan Pearlman. Announcements were made.

Cathy Grammer-Margolin announced the silent auction taking place at the end of the meeting. First, a nice 21 monitor, donated by Phil Marks, was being auctioned to the highest bidder. Second, Microsoft had donated a brand-new, full copy of Office XP, which was added to the auction. Cathy also announced that the *Spring Internet World* was moved to San Jose, CA, this year. As a result, she could no longer get free tickets.

George Margolin introduced Keith Renty, Corporate Education Manager and his colleague, Ali. Emad, National Account Manager.



Keith started off by outlining the three technologies he would present:

Wireless networking, IEEE 802.11b  
USB 2.0

Bluetooth (most popular in Europe)

### Wireless

Keith listed four wireless networking products that he would be presenting:

Standard network adapters  
USB network adapters  
Access points  
Cable/DSL gateway routers

He first discussed transmission speeds of Belkin wireless products, which currently follow the 802.11b standard. He presented charts showing how the speeds depend on the distance between devices. At closest range, 11 megabits per second (mbps) can be achieved. This goes down to 1 mbps at the farthest range (which distance can be from 1,800 down to 200, depending on various physical factors).

Keith presented Belkins wireless PC Card (PCMCIA) adapter for notebook PCs. He also displayed the PCI adapter for desktop PCs. With these adapters, Keith noted that a network can be created with up to 64 wireless nodes. To boost reception on the desktop adapter, Belkin also offers an antenna extension. He also announced a Belkin wireless network card for PDAs! (This works on CompactFlash Type II expansion slots.) Along with these, he showed a *USB* wireless network adapter, for any PC (desktop or notebook) with a USB connection.

He next discussed security on wireless networks. He noted that there are two primary security methods available

WEP Wired Equivalent Privacy. This allows you to encrypt all signals on the network. All Belkin wireless products are WEP compliant. Two types of encryption can be set up 64-bit and the more powerful 128-bit.

**MAC (Media Access Control) filtering -- definitely the preferred method. Every network adapter has a unique (MAC) address. MAC filtering is a feature by which network components will only communicate with other network components with specified MAC addresses. As long as you enable MAC filtering and tell your network which MAC addresses are**

**authorized to connect, outsiders with different MAC addresses will not be able to get in.**

Keith then presented Belkins Wireless Access Point. This allows wireless nodes to be added to a wired network. Up to 64 wireless nodes can be added. Keith pointed out two primary uses for the Access Point to act as a bridge between a wired and a wireless network, and to increase a (wireless or wired) networks coverage area.

Finally, Keith presented the wireless Cable/DSL Gateway Router the highest valued wireless product of his presentation. Its most popular use is to connect multiple nodes to the Internet with one high-speed connection (DSL, cable modem, etc.). It has connections to accommodate three wired and 64 wireless nodes. If a router is cabled to one of its three wired connections, then quite a few nodes can access the Internet with this device, via the router, through one Internet link. (Of course, the more nodes added, the slower the connection speed, which is an important consideration.)

A member asked if the Cable/DSL Gateway Router provides any sort of security. Keith replied that yes, it offers a simple NAT firewall. More sophisticated security systems can also be purchased, of course. For the gamers in the audience, he noted that firewalls can interfere with Internet games. The Cable/DSL Gateway Router has a special feature called *DMZ hosting* that creates a special firewall hole for playing games.

Keith mentioned that the antenna is important to the operation of the wireless network. Sometimes other electronic devices, like TVs and microwave ovens, can interfere with signals from wireless components. Movement of the antenna is sometimes required to get the clearest possible reception between these components.



A member asked if Belkin provides network technical support for the use of their wireless networking products. Keith confirmed that they do. In fact, they also provide a service that is unique in the industry pre-sales network technical support. If you believe that you may be able to use a Belkin product to solve a network connection problem, you can call them to get their technical advice free of charge and determine if your network solution will work with their product(s).

Next, Keith discussed the IEEE 802.11 standards, as follows

**802.11a** Allows high 54-megabit per second network speeds. Products under this standard were actually released *after* those under 802.11b because the 802.11a standard was designed to be more powerful. The first 802.11a product was introduced by SMC in January 2002.

**802.11b** This is the most common standard. It reaches speeds of up to 11 mbps and has a much greater range than 802.11a. Most wireless products on the market currently follow it. Such products were first sold in August 2000.

**802.11b+** This special version of 802.11b is sold by D-Link and was first introduced in May 2002. Products following 802.11b+ can be much faster than 802.11b. However, to take advantage of this speed, your network would have to include only 802.11b+ nodes. In other words, all your wireless networking components would have to be purchased from D-Link.

**802.11g** (aka *54g*) Better and faster than all its predecessors. This standard is expected to be ratified by IEEE in May 2003. It will be backward compatible with all other wireless standards except 802.11a. It will offer speeds of up to *54 megabits per second* (hence the nickname *54g*), at distances equal to or greater than those of 802.11b. In order to use the high speeds, however, all network nodes will have to be at 802.11g. All major wireless vendors are now scrambling to produce 802.11g products.

A member asked what standard is

being followed for the integrated wireless network adapters offered in some notebook PCs. Keith said that they are all 802.11b.

## USB 2.0

Keith next began his presentation on USB 2.0 with a chart comparing it to the old USB 1.1. All features were the same except the transfer speed. While 1.1 transfers at 12 mbps, 2.0 runs at **480** mbps an incredible jump! Off the chart, Keith mentioned that USB 2.0 devices also have a bandwidth *40 times* greater than USB 1.1.

He also mentioned that all Belkin USB products are both forward and backward compatible. Thus, USB 2.0 components can talk to USB 1.1 components when necessary (although they will talk at 12 mbps, of course). This is guaranteed when Belkin cables are used between the devices. It is possible that problems may arise between USB versions only if other vendors cables are used. Belkin cannot guarantee the wire gauge or quality of cables from other vendors.

He presented the three main Belkin products that allow users to take advantage of USB 2.0 the 2-Port PCI Card for desktop PCs, the 2-Port Cardbus for notebooks and the 4-Port USB Hub, allowing connection to even more USB 2.0 (and 1.1) devices.

Keith also displayed a list of the types of products compatible with USB 2.0, as follows. **Now**-printers, scanners, digital cameras, disc drives, **Soon**-digital camcorders, digital entertainment centers

## Bluetooth

This fascinating new technology was the third subject of Keith's presentation. Its strange name came from a tenth century European Viking. It is taking off in popularity in Europe. Taken to the extreme, this technology can allow a user to virtually eliminate all cables on his or her PC.

Bluetooth technology enables computing devices to communicate wirelessly with each other. The first part of Keith's presentation covered wireless networking only. Bluetooth

can allow most peripherals connected to a PC to be wireless as well keyboards, mice, printers, modems, scanners, PDAs and even mobile phones. (The only drawback is that in some cases, Bluetooths transfer rates of 721 kilobits per second may not be nearly as fast as wired connections.)

Keith noted that, in getting creative with this technology, users can even allow peripherals to communicate *with each other* when no PC is present! For example, from a Bluetooth internet phone, one can send printouts to a Bluetooth printer. The possibilities with this technology are endless!

Keith then announced the three Belkin Bluetooth products of his presentation The USB Adapter (for desktop PCs), PCMCIA Card Adapter for notebooks and the tiny PDA Adapter card. He then mentioned the **special limited-time deal** for all NOCCC members ALL Belkin products available from the website ([www.belkin.com](http://www.belkin.com)) at **50% off!** This lasted through the Tuesday after the meeting (February 4th). Anyone who did not attend the meeting or hear about the deal through e-mail really missed out. (Belkin offers a wealth of other products as well, including numerous UPS power supplies and surge protector strips *over 40,000* products in all!)

Keith finally noted that all Belkin wireless and USB products come with a lifetime warranty a great advantage for everyone who purchased them through the NOCCC special deal. (Bluetooth comes with a one-year warranty.)

After Keith's presentation, a huge raffle was conducted, in which copies of most Belkin products from the presentation were given away. Then the winners of the silent auction for the Cornerstone 21 inch monitor and Microsoft Office XP Professional, were announced. Our own Richard Shimozone won the monitor for his bid of \$300, and Vance Jochim won the Office XP with a bid of \$190. ■

# New Technologies And Hardware SIG Report

By Herbert Wong, Jr., Hardware SIG Leader

On February 2, 2003, the New Technologies and Hardware SIG met together in Irvine Hall. The topic was printer technology.

The most significant, yet undisclosed, aspect of printers is the **total cost of ownership (TCO)**. Everyone is lured by high speed (pages per minute rate), high resolution, rebate offerings, and low initial price. Somewhere in the back of your mind, you keep thinking that those darn ink cartridges are costing a small fortune. Well, you are right!

Total cost of ownership adds up the price that you pay to buy, own, and use a product over its lifetime. A printer's initial price, cost of consumables (ink, paper, etc.), maintenance cost, and disposal cost should be included in your purchase decision-making process.

Inkjet technology has become cheaper (at least to initially purchase) and better than ever. There are still problems with fading ink, damage from water, requirement of high quality paper for the best result, etc.

Laser and LED technology has become cheaper and better than ever. The low total cost of ownership can easily surpass other technologies. Unfortunately, for now, low prices are limited to monochrome toner printers.

Built-in network adapter cards or small parallel-port print-server units make home-network printer sharing a pleasure.

If you have not noticed by now, you can find more details in my article "Printer Technology 2003," elsewhere in this issue of the Orange Bytes.

For March 2, 2003, I will be discussing "**Connecting to the Internet through Modem, DSL, and Cable Modem**". Check the Orange Bytes' cover page or <http://www.noccc.org/> calendar for location. ■

## Computer Aided Investing (CAI) SIG



by Bob Krishfield, NOCCC

Market Report - Declines Signal a Bad Start for the Year

The hope for a market upturn in January was wiped out with 3 weeks of declines that ended with January down, which is a down signal for the rest of the year. Looking at market charts and indicators, there were no positive signs for an upturn. And since the current trend is down, it is likely to continue until something changes it. The S&P500 chart shows we're at a support level that could provide an upward bounce. Two optimistic market scenarios for the next 6 months showed paths of a recovery, but our experts don't believe it possible until earnings significantly improve. Irv Saunders chart showed Dow earnings turned down in Jan 2001 and improvements have been minimal since. High valuations continue to impede big money from making commitments to this market, and without institutional momentum, a sustained rally with good volume is not likely. Our consensus is that one needs to be very selective in stock and fund selection since the market does not have upward momentum to provide general support, and there are a lot of negative new events that scare buyers away and drive prices down.

Stock Selection Tools

We continued to review stock screening tools to find quality stocks that have good performance records or good fundamentals that form the basis for beating other stocks when the market allows. Stock Investor Pro from AAII was used to demonstrate the concept of choosing criteria to filter out a handful of good stocks from over 8000 in the database. The point to be made was that there had to be some general concept

of what makes up a good stock and criteria that characterize it, rather than just picking criteria that seem good. Stocks selected using just good criteria result in a list of mixed equities with few common characteristics, and not the characteristics that assure good returns. Successful AAII screens included with the software are a lot more complex and one needs to understand the model stocks they represent.

Vector Vest was demonstrated as another stock selection tool that uses fundamental data similar to Stock Investor Pro. It provides sector and industry rankings to assist in selection of stocks with group momentum and performance. Vector Vest is a subscription service that provides daily downloads which include daily market appraisals (like TC2000). Several special features rate stocks for value, safety and timeliness, which may not help in stock selection, but may be helpful in timing buys and sells. For TC2000 users who want more features at twice the cost, Vector Vest may be of interest to them. While many of us use only a fraction of the features offered by our current set of tools, it makes more sense to learn how to use what we have and find their limits, before moving on.

A survey was taken to determine which investment subjects were of most and least interest. Survey results will be presented next meeting and used to plan topics that get priority in the future. Initial results show technical analysis subjects are the most popular, Mutual fund subjects have a limited interest, and general investing principles are the

least popular. Next meeting we will look at timing buys and sells, and a system that has a better than 75% win to loss ratio. See the details on my website [home.socal.rr.com/bobkrish/cainvestor.html](http://home.socal.rr.com/bobkrish/cainvestor.html) ■

## Computer Security SIG

by Dave Keays, NOCCC

In the February meeting, we looked at three things: the worm that interrupted the internet last week, the study about used hard disks, and a recent hot mail scam.

The worm is being called the “SQL slammer,” “SQL sapphire,” or just plain the “slammer.” While it did no permanent damage to any computers and was eradicated easily, it crippled the internet in America for almost two days and brought the internet down completely in other countries. It was able to do its work extremely fast because it used a networking protocol (UDP) that does not have as much overhead as most internet traffic does. Unfortunately, the press reacted as they normally do so there was a lot of contradictory information going around about what happened. Good papers about the worm can be found at [ROBERTGRAHAM.COM](http://ROBERTGRAHAM.COM) and [GRC.COM/WORMS/25-01-03.HTM](http://GRC.COM/WORMS/25-01-03.HTM). (By the way, the worm does attack desktop computers, and it still seems to be out there- so read these papers.)

The study on used hard drives was authored by Simson Garfinkel and Abhi Shelat (both MIT graduate students) and published in IEEE's new newsletter “Security and Privacy.” They bought 158 hard drives on eBay and found over 6500 credit card numbers. Only 9% of the drives were properly cleaned so the old data couldn't be read by forensic tools. (The DOS programs DELETE, FORMAT, or FDISK will not work.)

Garfinkel suggests the freeware program AUTOCLAVE, which overwrites everything on your hard disk with zeros- be careful with it. (You can find it at [STAFF.WASHINGTON.EDU/JDLARIOS/AUTOCLAVE](http://STAFF.WASHINGTON.EDU/JDLARIOS/AUTOCLAVE).)

Someone on the GRC security newsgroup mentioned that they got an email that was apparently intended to steal hotmail passwords. The email claimed the addressee had to connect to hotmail to keep their account open and it provided a form to do that with the click of a mouse. (What it didn't say is that it would send the password to someone else.)

Next month, we will probably cover ETHEREAL (a network analyzer or sniffer), how Windows hides files from FIND, and a hole found in OPERA.

Subject line for BYTES ETHEREAL, window files hidden from “find”, OPERA 7 hole ■

## Office Suites

By John Heenan, [jc\\_Heenan@a-ware.com](mailto:jc_Heenan@a-ware.com)

### WORKING WITH E-MAIL MESSAGES IN WORD

You just received another great joke from a friend. It's one of those you've just got to share with others, but it has all those annoying “>” that show it has been forwarded 5 or 6 times. You hate those little critters, yet you don't have the time to delete them one by one.

Get rid of them the easy way. Select and highlight one of them. Click Edit | Replace or type CTRL-H. Notice that the Find Replace dialog displays the “>.” character in the “Find what” text box. Click on the Replace All button. Voila!



This works with Outlook when MS Word is the editing tool you chose in the Option settings. It may work with other e-mail clients that have edit-replace capability.

So, how do you get rid of those lines with a couple of words, followed by an often unseen line feed with carriage return (Paragraph marks). You can find this hint at [www.a-ware.com/ots/tips.htm](http://www.a-ware.com/ots/tips.htm). When the index opens, click on Edit | Find ( on This Page) and type “replace” in the “Find what” box and click Find Next button. You will find three Tip sheets with this topic.

### ACCESS QUERY

We had a couple of new guys in the crowd this month, so we spent some time reviewing the rational and methods of importing contacts from Outlook to our Customer table. (See January '03 issue of “Orange Bytes”.) We recreated our Select Query by opening the Database window, and selecting Queries and New. In the New Query window, the highlight is already on “Design View”, so, we click “OK” button, which opens the Show Table window. Selecting the Contacts Table, we click Add and Close. In the Top half of the Query window is the File list for Contacts. The Fields that we need for our Customer table can be chosen with 2 methods. Either we can drag the field name in the table list into each column of the QBE grid at the bottom half of the window, or we can double click on each field name in succession. In either case, the fields selected are the following: Account (which will become the Customer ID), Company, FirstName, LastName, BusinessStreet, BusinessCity, BusinessState, BusinessPostalCode, BusinessCountry, BusinessPhone, AssistantsPhone, BusinessFax, EmailAddress. Clicking the view button, we can see the results of our query and notice that some of the Contact rows do not have Account numbers. We do not need these records, since they are probably friends and kin to whom we send mail but are

Continued on page 26 

not customers or clients.

As we look at the QBE grid, there is a label "Criteria". In this line and under the Account field, we inset the words "not null". As we view our query again, we see that those Contacts that do not have Account numbers and are not customers are no longer part of the query.

Now, change the Select query to an Append query by selecting Query from the menu and Append Query.

An Append dialog opens that allow for entry of the table name that is being appended to. We choose Customers from the list. Notice that the Show line label in the QBE Changes to "Append To:." In each column we choose from a drop down list, the name of the Customer field that is to be associated with the field name at the top of the column. For example, in the Account column, we choose Customer ID. Once completed, we click the Bang icon(!) to copy the selected records from Contacts to an empty Customer table. Check it out! This query will be used as part of a Start-up procedure(macro) each time we open this application.

'Til next time 3/2/03

We will review the conversion of the Select query to an Append query, and recreate a table of Customers suitable for the application. With a Product table and a Customer table, we can now create our first order. ■

## AutoCADD SIG

by Joe Mizer, NOCCC

The group meets at every scheduled meeting of the North Orange County Computer Club, and everyone is welcome. During 2003 we will be concentrating on Autodesk Inventor software and will be presenting all of the material given in a normal college course over the next year or so. We will answer

questions on other Autodesk software such as Mechanical Desktop, and AutoCAD 2000 or 2002. At the February meeting we worked on creation of sketch planes. Inventor is excellent at creating sketch planes, however there are special instances with cylindrical parts when your drawing does not have a flat plane which make adding a new feature more difficult. We will spend more time on creation of sketch planes and use of the standard sketching tools at the March 2 meeting.

If you have questions about a problem or a model you are working on please bring the model with you and we will attempt to solve your problem on the spot. We all learn more by working on real problems rather than classroom examples. We normally set up two computers with Inventor and allow hands on use to those attending.

I hope you can make it to the next meeting on March 2, 2003 at 9:00 AM at Wilkinson Hall room 111 ■

## Macintosh SIG

by John Willner, NOCCC  
[willner@earthlink.net](mailto:willner@earthlink.net)

In attempting to have our Macintosh SIG web page changed NOCCC volunteer Herb Wong pulled our old one. This prompted Apple to send an email message threatening to drop us as a Mac User's Group if a valid URL was not furnished. We initiated action today to place our web page on another site and link it to the NOCCC home page, because otherwise future changes cannot be made without extra work. Hopefully this can be accomplished within the next two weeks and peace restored.

We do recognize that volunteers are not payed and these tasks often take much of their personal time.

Claire Lemire and I then opened our bags filled with goodies from MacWorld.

There was much literature, a T shirt, pen, badge straps, trinkets and many CDs. Then we proceeded to discuss information about Jaguar, OS9 and earlier systems.

We were able to show some of the alternative operating procedures via the projector and a lap top. The sessions at MacWorld were very informative. This technology is moving ahead so fast that one really needs the latest hardware and system software to keep up and take advantage. So long as there is a separate OS9, interface issues will pop up. Some have had printing problems in OS9, when operating in classic mode.

One item of interest was the new Safari, Apple's competitor to Internet Explorer. It is judged as being much faster, and has links directly to the Address book, Google and other applications. All of this is a part of Apple's efforts to organize and speed the transfer of information while remaining self-reliant.

Security aspects in Jaguar were brought up, since the changes from OS9 are rather significant. Here Apple has built upon the well-established and proven Unix system. There are now system administrators and regular users. For single person operations these security demands can be slightly annoying. However, the system is in full operation, and it has a recognizable pattern of control. One must have a System Administrator password to upgrade software, for example. Information brought back from MacWorld showed that a careful and knowledgeable UNIX user can get around some of the security restrictions, but one must type carefully.

We discussed several schemes to communicate between laptop and desktop computers with both operating systems. Airport has been a big asset, and several alternative ways to link other computer equipment were described. What still works under AppleTalk and OS9 was reviewed. Even Claire is now thinking of moving to Jaguar, because it has so many capabilities.

Next month we plan to display an Apple DVD if one arrives in time and review our preferences for upcoming meetings. ■

## Games SIG

by C. Lemire, MA, NOCCC

### Game Play and Development in OC

NOCCC members brought their curiosity and questions about electronic games to the January and February meetings. Arnold Gomez was looking for on-line and off-line games that were safe to play for either security reasons or hardware compatibility. Michael R. Moore and I referred him to several safe online sources, went over the hardware options, and discussed local resource groups. Michael had come to lend his experience and see what the SIG was up to. He has multiple memberships in local computer clubs and enthusiastically believes in supporting them. George Stone was hoping to find an emulator for his wife's favorite Amiga game so he can retire the old system. Tim Everingham and I agreed he would likely find one at [versiontracker.com](http://versiontracker.com) by searching for game emulators at the site. Jim Carter was looking for a stable and challenging strategy game and flight simulator. Tim and I reviewed several with him, giving suggestions for review sources and stability points. We finished the session discussing the current and future trends of the industry.

Game development is looking more and more like movie production. Mega companies buy smaller ones to gain fast advantage. Other companies group together for single projects then disband, reducing the risk. Game trailers are as popular as movie trailers, though often are better visually than the actual game play. For example, MYST gained popularity slowly in the early days of computer games, too slowly for the company to invest in a sequel. It was sold off to a second company which made Riven many years later but the now numerous competition was taking the market in other directions. Still a third company tried again with Exile, hoping to use the nostalgia to fund newer projects. For the player, it

means the shelf life of a game becomes shorter so preserving a favorite game is essential.

For any owner of a purchased game, it is best to copy the original CD or DVD and archive the original. Using the copies to run the games we play over and over is safer than what happened to me. I bought Risk II and never thought it could get scratched just using it in the CD player. Early CD players like mine had spinning problems and scratching happened. Too late to go back. For Mac platforms where the game requires the CD, a disk image can be made using DiskCopy and kept on the desktop to emulate the CD, provided the game has been fully installed. Be sure to check for and archive any updates to games you own before you forget ;-).

See you March 2nd at 2:30 pm in 221 Wilkinson Hall, Chapman College, when we hear the latest from SigGraph.

The SIG email is:  
NOCCCGamingSIG@earthlink.net. ■

## Palm OS SIG

by Vance Jochim NOCCC

We cover Palm OS based handhelds (PDA's) like the Palm, Handspring, and Sony Clie (Kleay). When we refer to Palm users or equipment, we refer to any hardware platform that uses the Palm OS.

### Our Website

You can find information about us on two websites. Our parent computer club, NOCCC, has our meeting and time posted on their website at [www.NOCCC.org](http://www.NOCCC.org). They also post the text of their monthly newsletter on the website and our monthly articles (like this one) will be in the online newsletter

when it is posted. Members of NOCCC gain earlier access to the newsletter, so we suggest you join NOCCC if you want to read this column before the meeting.

Our SIG (Special Interest Group) also has our own website with the most current information on the upcoming meetings along with product reviews, news, reference articles, etc. That website is at <http://www.webworks66.com/A55597/OCPUG.nsf>

### Recent Meeting on Feb 2nd

Our January meeting resulted in 12 attendees when it was held at 230pm. However, this February meeting was early in the morning at 930am, and the calendar was not posted on the NOCCC website, so only six attended. However these startup problems should be minimal now, and we will continue at 9:30am for now.

Handspring Prism Demo using Magellan GPS One member showed up with a Handspring Prism with a Magellan GPS add on that displayed actual location of the user via GPS signals, but also had maps. The owner, Nancy, uses it for hiking, and was pleased with it. See the picture below (if the newsletter editor could use it - it is on our website also). ■



Members examining a Handspring Prism with the Magellan GPS add on

*Editors note: more of this report next month when space is available.*

## Note! There is 1 new SIG: The PALMSIG

# SIG List

Those who have listed an e-mail address would prefer to be contacted by e-mail rather than by phone whenever possible

SIG	Bldg	Room	Time	Leader	E-mail	Phone
Autocad	Wilkinson	111	9:00	Joe Mizer	jmizer@earthlink.net	909-688-9848
Computer Aided Investing	Wilkinson	211	9:30	Bob Krishfield	bobkrish@socal.rr.com	714-532-3096
Computer Security	Science	203	11:15	Dave Keays	rdksoft@sbcglobal.net	714-821-4792
Gaming - PC & Mac	Science	203	9:30	Claire Lemire	NOCCCGamingSIG@earthlink.net	714-740-1058
Genealogy	Irvine Hall	—	2:30	John Johnson	jrosjohnson@juno.com	714-991-3314
Hardware Essentials	Science	306	9:30	Herbert Wong	ocug@singularitytechnology.com	714-968-7264
Hardware Essentials	Science	109	2:30	Herbert Wong	ocug@singularitytechnology.com	714-968-7264
Linux for Desktop Users	Wilkinson	210	9:00	Bob C. Ray	bobcray@pacbell.net	714-634-7520
Linux for Server Administrators	Wilkinson	210	10:00	Bob C. Ray	bobcray@pacbell.net	714-634-7520
Linux Programming Concepts	Wilkinson	210	11:15	Bob C. Ray	bobcray@pacbell.net	714-634-7520
Macintosh	Wilkinson	221	11:15	John Willner	Willner@earthlink.net	714-838-1434
New Technology	Irvine Hall	—	9:30	George Margolin	Inventor@pobox.com	949-645-5950
Office Suites	Science	111	11:15	John Heenan	jc_heenan@csi.com	714-998-7660
PALM SIG	Science	203	9:30	Vance Jochim	vjochim@webworks66.com	714-771-6564
PC Q&A	Irvine Hall	—	11:15	Jim Sanders	jsanders@ligasmicro.com	714-636-5523
Understanding OS's	Wilkinson	111	11:15	Charlie Moore	mooreca@adelphia.net	714-529-9071
Visual Programming I	Science	109	8:30	Anson Chapman	aeccrc@hotmail.com	909-860-9515
Visual Programming II	Science	109	9:00	Anson Chapman	aeccrc@hotmail.com	909-860-9515
Visual Programming III	Science	109	10:00	Anson Chapman	aeccrc@hotmail.com	909-860-9515
Visual Programming IV	Science	109	11:15	Anson Chapman	aeccrc@hotmail.com	909-860-9515
Windows	Science	111	9:00	James Smith	jamescsmith@bigfoot.com	714-751-2922

Please report SIG changes to ..... Linda Russell . goodnewsent@compuserve.com

909-949-4930

## Video Editing CONTINUED FROM PAGE 11

format video into your computer, with the additional benefit of higher quality video and easier input into your computer than video capture. ATI, Pinnacle Systems, Dazzle, and Matrox make video capture /video editing/Firewire cards at consumer price levels, some with some good consumer editing software. For video capture cards be sure to check frame size capabilities (320x240 or 352x240 is only VHS quality at best). You may not need all the features of these cards, so an inexpensive Firewire card might be appropriate if you are just going to use Firewire to transfer from and to your camera. If you are going to output to video tape or another analog format you need to more looking towards these cards unless you want to output back to your camera via Firewire and have it transfer the video to your VCR or TV.

I will not into DVD/RW here; but I will warn you there are two competing formats, DVD-RW and DVD+RW, that have some significant and complex compatibility issues. You can

use a CD/RW to create a VCD or Mini-DVD that can be played on recent DVD players if you have the right software. Creating disks that can be played in DVD players is an area that is changing rapidly, so get up to date before you consider buying hardware to do this.

These are the basics when determining whether you need to upgrade your computer to do video editing. Some more details can be found at many places on the web, via friends who have done it for a while, amateur video/film clubs, and content creation circles within computer user groups. So upgrade where needed so that your video creativity can bloom. ■

*Timothy Everingham is CEO of Timothy Everingham Consulting in Azusa. Further information can be found at <http://home.earthlink.net/~teveringham>*

# NOCCC Help Line

The Help Line is in the true spirit of NOCCC, which is to help others to learn more about computers. The following is a list of Help Line Volunteers. The list is organized by the topic that each volunteer is willing to help you with. Please help us to keep this list current. Call or e-mail Ted Williams at 639-1009 or TedWilliams@alum.MIT.edu with additions, deletions, or corrections.



AI	Ron Osborn .....	949-888-5556	
Amiga	Ron Osborn .....	949-888-5556	
Apple	Ron Osborn .....	949-888-5556	
Apple II	James C. Smith. ....	714-751-2922	jamescsmith@bigfoot.com
Apple/Educator	Gerry Resch .....	714-772-6667	
C/C++	James C. Smith .....	714-751-2922	jamescsmith@bigfoot.com
Computer Boards	Martin LaRocque .....	562-697-4318	6-9 p.m.
Corel Draw	Open		
Excel(IBM)	Linda Russel .....	909-949-4930	4-9 pm goodnewsent@compuserve.com
Excel(Mac)	Bob Krishfield .....	714-532-3096	7-10 p.m.
MacIntosh	Bob Krishfield .....	714-532-3096	7-10 p.m.
MacIntosh	Ron Osborn .....	949-888-5556	
Memory/Interrupts	Martin LaRocque .....	562-697-4318	6-9 p.m.
Modem Hardware	Bill Hinds .....	714-639-5792	24 hrs
Modem Software	Bill Hinds .....	714-639-5792	24 hrs
Neural Networks	Ron Osborn .....	949-532-3096	
OS/2	Rollin White .....	562-493-1674	9 a.m.-9 p.m.
Pagemaker 6.0/6.5	Dale Blank .....	714-774-2302	
PC, Beginners	Ron Osborn .....	949-888-5556	
PC Hardware	Ron Osborn .....	949-888-5556	
Quicken 6.0	Jay Chaisson .....	714-997-2707	after 6 p.m.
Quickbooks 5.0	Jay Chaisson .....	714-997-2707	after 6 p.m.
Quicken 2000,2001	Linda Russel .....	909-949-4930	4-9pm goodnewsent@compuserve.com
Quickbooks	Linda Russel .....	909-949-4930	4-9 pm goodnewsent@compuserve.com
Quicken Home & Business 2000, 2001	Linda Russel .....	909-949-4930	4-9pm goodnewsent@compuserve.com
Powerpoint	Vivian Carroll .....	714-996-1409	before 8:30p.m. vcvc@aol.com
Realltime Control	Frank McAnninch .....	714-846-5134	frankmac@worldnet.att.net
Robotics	Frank McAnninch .....	714-846-5134	frankmac@worldnet.att.net
Tcl/Tk	Bob DeWolf .....	714-879-8269	bobS5@aol.com
Unix	Bob DeWolf .....	714-879-8269	bobS5@aol.com
Windows 9X	O. T. Stoll .....	714-521-6915	after 6 ot@stollcomputers.com
Windows 9X	John Heenan .....	714-998-7660	jc_heenana@a-wares.com
Windows 2000	Ted Williams .....	714-639-1009	tedWilliams@alum.mit.edu.
Word	John Heenan .....	714-998-7660	jc_heenana@a-wares.com
Word	Vivian Carrol .....	714-996-1409	before 8:30p.m. vcvc@aol.com
WordPerfect	Ron Osborn .....	949-888-5556	

## FREE AD SPACE

If you are an NOCCC member, and have a computer-related, non-commercial ad that you would like to have placed on the Internet, visit the *Classified Ads* section of our website at: [www.noccc.org](http://www.noccc.org) or contact Jim Sanders at [jsanders@ligasmicro.com](mailto:jsanders@ligasmicro.com)

Club members are also welcome to post "Wanted" or "For Sale" notices on the kiosk, but please do not tape them on doors, windows, or walls.

New volunteers for the Help Line would be appreciated!  
Macromedia volunteers needed.



# MacWorld, OS 9, and OS X

by C. Lemire, MA, NOCCC

John and I brought our bounty from MacWorld for all to enjoy. There were less knick-knacks but more information. This had been the first keynote I attended in person, the primary benefit being the comments made by people around us in the keynote audience. The crowd commented about how the surprises were genuine, Jobs exhausting us with all the announcements and running 30 minutes over the usual keynote pacing. True, not every announcement was ground-shaking, the most reaction coming from the audio development applications. We all received elegant and easy Keynote, the Mac PowerPoint-ish application, as we left contented.

On the showroom floor vendors such as Adobe, Corel, and Aladdin had hands-on short classes and/or seminars by the best in their fields. The Games area was SRO whenever I passed them by on the way to Sonnet to consider buying the Harmoni upgrade for my donor Mac. The free-access Net area was swamped most times as we all checked email. The free Mac Experts booth was great for those nagging questions but don't ask about card upgrades versus new Macs - they will recommend new every time. ;-)

Safari is the new browser by Apple which is available as a beta on download. I loved the search and snap return but was worried about the beta development. Bob and John said vociferously Safari was great even as a beta.

While at MacWorld, I attended two of the three seminars by Ted Landau on OS X problem solving and gave a presentation at the Mac SIG meeting on a few misunderstandings I had resolved. While I did succeed at connecting my two computers by ethernet it was trickier than the info let on - it all had to be done in order and NO back-tracking or the system would reset. The Harmonicard was installed in my second iMac but I chickened out and let Sonnet finish it, my first problem, I realized later, was that I hadn't pushed the card back in firmly enough. Sonnet loaded all the updates, new RAM, and single user profile. I went back through and reset the user for safety, following OS X 10.2 the Missing Manual page by page. While the video rendering is good but small in Preview, QuickTime 6 keeps saying it won't run in 10.2 without 9. The desktop screen saver is jaggy but I can live without it.

I've been spending noticeable time at [www.apple.com/support/](http://www.apple.com/support/) discussions and learning way too much. If you haven't been there, cruise by the different topic sessions. It can be scary to hear all the problems but you feel good when your question is answered or you can answer one for another person.

John is off to Alaska to attend to family and business but will be back for the next meeting March 2, 11:15 am, 221 Wilkinson Hall. The topic is the latest in Macs and an open Q&A. ■

## Handy Backup 3.9 CONTINUED FROM PAGE 19

very nice features. You can set scheduled backups for specific times to run each day, week, month, etc. The feature I find handy is the automatic backup whenever you shut down your PC. Because you can set up for increment backups, your computer shut down time is not significantly extended, while assuring your most recent work is always backed up.

Use of Handy Backup 3.9 is easy. You start with the new item icon in the file menu. Each step for setting up a backup Item [as Handy Backup calls them] is self-evident. There are ample instructions in the Help menu to clarify any points as well. The program provides selectable blowfish encryption and ZIP file compression.

I leave a backup CD in my drive full time, except when I need to run another CD program, so I am assured of a backup whenever I shut off my computer. It beats always remembering to do a backup, especially when you are preoccupied with gathering what you need for the boss's "big meeting".

Handy Backup 3.9 is a set-it-and-leave-it kind of program. You will really appreciate having saved yesterday's backup of that critical report you have spent days preparing when the power went out in your office. Handy Backup 3.9 operates with Windows 95, 98, ME, or XP.

Now for the hard part. The program when installed is not ready to perform backups using your CD-R/RW. It requires an e-mail to the vendor, Novosoft, for specific instructions on installing the necessary Adaptec files for CD-R/RW operation. You go through an eight-step process spelled out in the e-mail. It is easy to do but does require rudimentary knowledge of finding files within the Adaptec folder using Window's file explorer.

Incidentally, the Novosoft technical support manager who responded to my e-mail, Galinda Grekova, is located in the GMT + 6 time zone. While the Novosoft web site indicates Austin, Texas as home, it does acknowledge it is a Russian company. Novosibirsk, in the GMT +6 time zone, is the capital of Siberia. New software programs from Russia sure beats Cold War missiles!

I now use Handy Backup 3.9 every time I shut down my PC. ■



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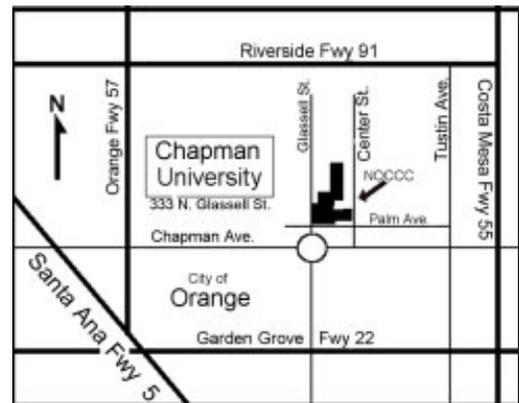
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