

Amateur Computer Group of New Jersey NEWS

Volume 35, Number 4

TCF Edition 2010

TCF Keynote and Banquet Speaker



Our keynote speaker for the 35th anniversary of TCF will be Richard Stallman. The keynote will take place on Saturday, April 24th 2010 at 2:35pm.

Keynote Topic: “Free Software, Free Society”.

Richard Stallman is considered the originator of the free software movement. Free software is a matter of the users’ freedom to run, copy, distribute, study, change and improve the software without limitation, interference or restriction. In furtherance of this concept, he founded the Free Software Foundation (<http://www.fsf.org>).

This year’s festival will include:

- * IT Professional Conference (April 23rd)
- * ARRL New Jersey State Convention (April 25th)
- * Keynote Speaker Address
- * Outdoor Flea Market, Indoor exhibit and Sales area
- * Talks, Workshops, Tutorials, Demos, Special Events
- * Amateur radio course and license exam
- * Apple/Mac Day with David Marra on Sunday
- * Windows 7 & Office 2010, David Soll, Sat & Sun
- * Fine Art Photography Exhibit
- * Circuit-Bending Workshop on Saturday
- * Kip Rosser’s Theremin Concerts, Sat & Sun
- * STEM Seminars (Science, Technology, Engineering, and Mathematics) on Sunday

Complete speaker schedule:

<http://www.tcf-nj.org/documents/speakerchart2010.pdf>

In 1985, Stallman published the GNU Manifesto, which outlined a free operating system, which would be compatible with Unix. The name GNU is a recursive acronym for GNU’s Not Unix. Stallman was responsible for contributing most of the necessary tools needed to create the operating system that eventually emerged as GNU/LINUX. These tools include a flexible and powerful text editor (Emacs), a compiler (GCC), a debugger (gdb), and a build automator (gmake). These tools have formed the critical underpinning of computer products that are used constantly around the globe.

Come hear Stallman’s Keynote presentation at TCF2010 on Saturday April 24th at 2:35 pm. It is sure to be an interesting and thought-provoking presentation by a true computer pioneer, whose philosophies have greatly influenced the construction and dissemination of operating systems and software development tools and applications.

Richard Stallman will also be the Banquet Speaker on Saturday April 25 at 6pm, speaking on “Free Software - the Inside Story”. The banquet will be held in TCNJ Brower Student Center - Room BSC 202E. For Advanced Tickets, \$25: <https://www.tcf-nj.org/zc/>. Saturday April 24 tickets will be \$30 (while supplies lasts). ☒



<http://www.acgnj.org>

Founded 1975

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Typographic Note: The ACGNJ News is produced using Corel Ventura 5. Font families used are Times New Roman (TT) for body text, Arial (TT) for headlines.

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A Bottleneck in the Cloud

Bob Hawes (bob.hawes@acgnj.org), ACGNJ

In 2006, 2007 and 2008, in this space, I made mostly optimistic predictions about “the future”. In 2009, I outlined plans for my *own* personal future. Now, I come bearing a warning about a “dark cloud” hanging over *all* of our futures. It involves Cloud Computing, which has been getting a lot of attention lately. Basically, it all boils down to keeping even more stuff on the Internet and even less stuff on our individual computers. This sounds like a good idea to some people; but *not* to me. Allow me to quote Finagle’s Law of Dynamic Negatives (also known as Finagle’s corollary to Murphy’s Law); “Anything that can go wrong, will - at the worst possible moment”. (From Wikipedia, the free encyclopedia: www.wikipedia.org). Nobody seems to be planning for disaster any more. What would we do if we just flat out couldn’t get our stuff *back* from the Internet?

Incident One

This happened to me on September 15th through 17th, 2008. Over those three days, in just about *twenty-three hours* of real time (that is, *not* counting sleeping, eating or bathroom breaks), I could successfully download only 275 of our old Newsletter PDF files from the ACGNJ website. (Thus retrieving a measly total of only 414.6 MB. Not much more than *half* of a single CD). However, at the same time, I could download *much* larger files from *other* websites; and, also in that time period, when I asked *other* club mem-

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only historical record). Now, the way Adobe Acrobat Reader was designed to handle an Internet PDF file is that it opens itself on screen right away; and simultaneously begins to download that file’s contents to a temporary location on the local computer. As soon as it can, it displays the first page, even as it continues to download the rest of the PDF in the background. However, on most attempts this time, I never even saw page one. Just *once* when I actually did get a first page was I able to scroll all the way down to the last page of the file without crashing. (Only then could I hit the “Save a Copy” icon).

In frustration, I un-installed Adobe Reader and installed Foxit Reader 2.3 in its place. Foxit *doesn’t* try to open itself right away. Instead, it displays a download indicator, then loads and displays the file after the download is completed. Usually, I like Adobe’s way better, but this time, Foxit’s method clearly showed me that my downloads were hanging up partway through the process *every single time*. I couldn’t get even *one* file to open with Foxit. Even more frustrated, I un-installed Foxit and installed Adobe Reader 5.0 (an earlier, less intrusive, less bloated version that I sometimes prefer). In multiple tries, version 5 only let me save *one* usable PDF copy, too.

A less bloated and intrusive Reader hadn’t helped, but what about an operating system less bloated and intrusive than XP? Coincidentally, for another project, I’d recently loaded Windows 2000 onto a spare hard disk. So I shut down my

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bers (living in other towns) to try it, *they* could download ACGNJ newsletter files just fine. Something weird was going on, seeming to affect Internet traffic *only* between my house and wherever the ACGNJ website server was physically located.

What could have caused this? Most likely, it was a piece of substandard equipment. Or maybe it was defective software of some kind. Least likely (but most frightening), it could have been some kind of “virus”, intentionally infecting something. We’ve already had deliberate physical sabotage of the Internet; and virtual sabotage as well, such as DDOS (Distributed Denial Of Service) attacks. *Not* counting fiendish plots, what might the future bring? We can get some clues from history: Take New York City, for example. There, we hear about broken water mains and shorted underground electrical cables all the time. Right now, we only occasionally hear about Internet equipment failures; but as that infrastructure grows older, outages will inevitably happen more often *there*, too. (Don’t believe the Internet Service Providers when they promise to keep all their equipment up to date, either. Years ago, that’s what the water and power people said).

Let’s get specific. On September 15th, 2008, I tried to resume my “SIG History” project (which I hadn’t worked on since the preceding June), and I *couldn’t* get into most of our old Newsletter files. (They’re pretty much our club’s

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computer, pulled the XP hard disk, and replaced it with the Windows 2000 disk. In two hours and thirty-seven minutes, while running Adobe Reader 7.0 under Windows 2000 SP4 URP1, I managed to save good copies of just *twenty* PDF files before I became too discouraged to continue. (Incidentally, URP1 is *not* a digestive disorder. It stands for Update Rollup Package 1. That’s what Microsoft released instead of Service Pack 5). Incredibly, it had taken me *one whole day* to download a total of twenty-two files that added up to a measly 38.3 MB.

The next day, down but not defeated, I decided to try an even-more-different operating system: Linux. (Obviously, this was *before* I made the full time switch from XP to Linux in 2009). So I set up my older “experimenter” computer with an empty FAT32 hard disk (for storing my downloaded files); and then booted from the Slax version 6.0.7 live-CD. Slax booted up nicely, then launched KDE (the K Desktop Environment). There, Konqueror was the default program handling both the file management *and* web browser functions. Most of the time, I kept two Konqueror windows open. One was set to the web page where our files are listed, the other was set to my target FAT32 hard disk. My procedure was to click on the PDF file I wanted to download. Then, I’d click on the “Save As” button in the small pop-up window that would appear. That, in turn, brought up a larger “Save As” window, where (after the first time) the correct destination and file name would

already be filled in. I just had to click the “Save” button. That launched yet another pop-up window; “Copy File(s) Progress”. This was where the action was. It had a sliding progress bar with a “?? %” indicator, a “?? MB of ?? Mb completed” indicator, and a KB per second indicator.

There, in that KB/s indicator, I could finally see my problem. My downloads were arriving in spurts. The speed measurement would alternately go up and then back down, like it was following a wave. Or like a motor vehicle repeatedly revving up and then backing off on the throttle. That behavior looked suspiciously familiar. A major news item I’d seen a few months previously had announced that Comcast was imposing bandwidth restrictions on its Internet customers. I *don’t* have cable myself, but it’s always fun to blame things on the cable company. Unfortunately, that idea wouldn’t fly. John Raff informed me that our club web site was *not* hosted by Comcast. Too bad.

Let’s take a closer look at my symptoms. Compared to my usual performance, even the fastest speed displayed as a club PDF downloaded was ridiculously slow. Now, I’ve had to endure slow speeds before, especially when downloading from some out-of-the-way place like Luxembourg; but it was a consistent, *steady* slow. This time, the KB/sec figure kept varying wildly; from a high that was usually in the mid twenties or low thirties (and never quite hit fifty) to a low in the single digits before it climbed up again. Worse, it would occasionally come to a complete stop. Then, in-

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sults of 315, 342.75, 335.125, 334.25 and 355.5 KB/s. All consistent, and matching the ISO image download above.

Even though it took a lot more time than I could really afford, I finally got the files I needed for the “SIG History” project. Working furiously, I just barely finished it by the September 25th deadline for our October 2008 issue. *After* that, I decided to see if anything had changed. So I re-downloaded some of the PDF files that had given me so much trouble less than two weeks before. Of course, everything performed perfectly. (Well, as adequately as usual, anyway). After appearing for at least three days just when it could cause me the most trouble, the problem had vanished.

Incident Two

Most of the work done by our 2008 By-Laws Revision Committee can best be described as low grade tedium; but one interesting thing happened. It involved Section 10.1, concerning the indemnification of Officers and Directors. That Section was a monster, written in either Legalese or Martian. Even granting its possible inhuman origins, though, there was still something wrong with its final sentence. It just didn’t scan right. So, on October 10th, 2008, I did a Google search for a dozen words pulled from the middle of that last sentence, and *I got a hit!* Furthermore, that single result (on www.secinfo.com) contained *exactly* the information I was looking for. In a form filed with the SEC (Securities and Exchange Commission) by Thrift Drug, Inc.

stead of displaying a KB/s figure, the progress window just said “Stalled”. Often, after a couple of seconds to a couple of minutes, it would come alive again; but sometimes it would stay dead forever.

I developed a routine. I’d start a download, then go do something else. After a while, I’d go back to the Slax computer. If it said 100%, I’d just start another download. If it said Stalled, I’d write down the filename, kill the hung-up download, start another, then go away again. On that second day, in one marathon twelve hour and eight minute session running Slax, I downloaded 175 files totaling 213.1 MB. On the third day, in four hours and fifty-five minutes, I downloaded 50 more files totaling 102.8 MB. In a total of sixteen hours and three minutes, I’d successfully copied 225 files in 315.9 MB. In that same time, I’d “missed” 28 files (for a just over 12% failure rate). Then, still on day three, I re-processed those 28 files, repeating as many times as necessary. That took another two hours and thirty-five minutes. My three-day total: 275 files in 414.6 MB.

Even though Slax did *a whole lot* better than either version of Windows, that performance was still appallingly abysmal compared to my usual standards. As a last test, I downloaded a 682.8 MB ISO CD image file from a Linux website. This time, Konqueror’s speed stayed between 340 and 349 KB/s the whole time. Much more like it. (Not great, but adequate). As an even-more-final test, I visited five different “Check DSL Speed” websites. I obtained re-

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on November 24th, 2004, the By-Laws of MAXI DRUG, INC. (dated 11/29/90) were included as one of 126 Documents and Exhibits; and Section 8.02 of said By-Laws was obviously descended from the *same* common ancestor as Section 10.1 of our By-Laws. By comparing Sections, I found *two* transcription errors at the end of our Section 10.1. I was ecstatic. It never even occurred to me that something was *very, very* wrong. (Note that secinfo is *not* an arm of the SEC. It’s a private company that accesses SEC documents).

So what was wrong? Google should have found at least *two* hits, because our December 2001 By-Laws (carrying its own Section 10.1 containing those exact same words) had been posted on our website for the previous *seven* years. It seemed that Google (arguably the most enormous “800 Pound Gorilla” in the search-engine business) *couldn’t find the ACGNJ website!* It’s my contention that whatever disturbance in the Internet that had confounded me that September was still out there, and that it remained pervasive enough to interfere with the operations of a really, *really* big operator.

However, in early May of 2009 (when we had *seven* different versions of our revised-all-over-again By-Laws posted on our website), I repeated that twelve-word search. That time, Google found *all* seven, as well as the secinfo website. Also, sometime in the spring of 2009, a fellow ACGNJ member told me that he *couldn’t* access the club

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Newsletter. Furthermore, as I'm writing this article (on March 19th, 2010), I repeated that Google search yet again, and I got **nothing!** Fortunately, back in October 2008, I wrote down the address of the secinfo web page. Now, I copied that link into my browser bar, then accessed it; and it's **still there**, including Section 8.02. Apparently, though, Google can't find it, **or** the ACGNJ website either. So I tried a few other search engines. Ask (formerly Ask Jeeves) found secinfo.com but not the ACGNJ site, while AltaVista, Bing, Dogpile and Yahoo found the ACGNJ By-Laws on the ACGNJ website, but **not** the secinfo website.

Now, what do I **truly** know? I know for certain that from September 15th to 17th, 2008, I had an Internet "connection" that was, in reality, unworkable. If whatever "culprit" caused me those problems had gone **completely** bad, my network packets would have been re-routed around it, and I'd have been given a good connection. Instead, I got a connection that "looked" good, but just flat out **couldn't** transmit the information I requested. This I know, and I've got data to prove it; but I've only **logically concluded** that a fellow club member's inability to access the club newsletter (about six to nine months later) was caused by the same fault. (That's **not** the same as proof). Finally, I've **assumed** that Google's failure to find the ACGNJ website on October 10th, 2008 and March 19th, 2010 (almost a year and a half apart), and the inconsistent results obtained by those

other search engines on March 19th, 2010 were also caused by that same fault: undiscovered, unfixed and **still** causing trouble. (That's not the same as proof, either). However, I think I've made a pretty good case that **some** kind of intermittent but persistent problem exists.

To me, these results shed a **giant** black cloud over the whole concept of "Cloud Computing". We already know that international organized crime has a **big** presence on the Internet (not to mention terrorists). Now we can add unpredictable and inexplicable phenomena that could make it impossible for us to actually make use of any data files we may have stored out there. Furthermore, our newsletter PDF files are **small**; averaging just under 2 MB each. What would have happened if we had been storing big files out there, and suddenly couldn't access any of our data? I can hear you say; "Backup, backup, backup". However, another current trend is to make off-site backups to the Internet as well. That's just begging for Murphy's Law to strike. The Internet is a **fabulous** tool, but we're just asking for trouble if it's the **only** one we stick in our metaphorical "tool belt". I'd advise everyone to think long and hard before jumping on the Cloud Computing bandwagon.

See you next month.

(This article contains excerpts from three previous articles. For further details, see *Turkey with Gremlins* in the November 2008 issue of ACGNJ News, *The Historical Record* in the December 2008 issue, and *A Great Disturbance in the Force* in the End-of-Year 2008 Supplement). ☐

Cryptography

A big word that helps keep the internet secure.

Phil Sorrentino (president (at) spcug.org), Sarasota PCUG (www.spcug.org)

You may have asked yourself some of the following questions. How secure is the internet? What has been done to make the Internet secure? How safe is my private information during an internet transaction? If so, read on; if you are a very trusting individual and figure that "they" will keep the internet secure, jump to the next article. During this time when the Internet provides essential communication between tens of millions of people and is being increasingly used as a tool for commerce, security has become a very important issue.

When it comes to computers, "security" is of concern on many different levels. There is physical security that keeps your computer hardware from being stolen. There is software security that keeps people out of our private files. There is "malware" security, that keeps your computer software from being infected with viruses, spyware, worms and the like. And finally there is "network" security that keeps private data protected as it goes from one computer (or client) on the internet to another computer (or server) on the internet. This article deals with network security, which is ensured by applying cryptography to messages that are transmitted on the Internet.

Remember the "s" in "https://" and the little lock icon on the browser when you went to a "secure" website? Well, cryptography is behind all that security. Cryptography is used to secure Internet and even telephone communications. Cryptography is nearly as old as written language itself. It was invented to address the age-old question: How can I communicate with my friend, so that no one else will know what was communicated? Cryptography becomes necessary whenever one is attempting to communicate private information over an "un-trusted" medium, such as the Internet. You can be sure that the message you send over the internet will get to its destination, but you cannot guarantee that intermediaries (computers along the way) will not be able to see and read your message, unless it is protected. With a collection of not-so-expensive equipment and a good deal of knowledge, a message on the internet can be intercepted (sniffed), and if it is "plain text", it can be read. For mundane e-mail messages, this is not much of a concern, but for messages that contain private information, such as passwords or bank account or social security numbers, this could be an invitation for Identity Theft.

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Cryptography to the rescue. Cryptography (from the Greek for “hidden writing”) is the ancient science of encoding messages so that only the sender and receiver can understand them. Cryptography can be defined as the conversion of data (plain-text) into a scrambled code (cipher-text) that can be sent across a network, and deciphered by the rightful receiver at the other end. There are two main techniques used to encrypt data, Symmetric and Asymmetric. Symmetric encryption uses the same key for encryption as it does for decryption. Symmetric encryption is also called Secret-key encryption because the key is kept a secret between the two cooperating parties. Asymmetric uses separate keys for encryption and decryption. Asymmetric encryption is also called Public-key encryption because one of the keys is allowed to circulate in the public (and one is kept private). Cryptography is now available to everyone thanks to the development of modern computers, which can perform more mathematical operations in a second than a human being could do in a lifetime. An ordinary PC, with the proper software, can produce codes of such complexity that the most powerful supercomputer using the best available software could not break them in thousands of years.

Before modern times and the personal computer, cryptography was concerned solely with message confidentiality. Message confidentiality is conversion (encryption), of messages from a “plain-text” form into an incomprehensible one (cipher-text) for transmission and then back again to the original form, at the other end (decryption). This keeps the message unreadable by interceptors or eavesdroppers who do not have knowledge of the “key” needed for decryption of that message. (With the advent of the personal computer and the proliferation of digital information, the field of digital message protection has expanded beyond only confidentiality concerns to include techniques for message integrity checking, identity authentication, digital signatures, and password protection all of which we will leave for future discussions.)

As stated above, Secret key cryptography refers to encryption methods in which both the sender and receiver share the same key. Secret key cryptography is ideally suited to encrypting long messages, providing privacy and confidentiality for messages typically used in computer to computer transactions. Public Key Cryptography refers to methods in which two keys are owned by each participant, one for en-

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ryption (public key) and one for decryption (private key). Public Key cryptography is suited to short messages and is typically used to exchange “secret keys” between two computers. Public Key cryptography could, theoretically, also be used to encrypt messages but this is rarely done because Secret-key cryptography is about 1000 times faster than Public-key cryptography.

So, just how do these schemes work in our typical computer to computer (network) communications? Secret-key and Public-key cryptography are used to setup and maintain a secure data path from a client (your computer browser) to a server (information or data storage system). Because Secret-key cryptography is best used for long messages, a secret key will be used to encode all messages during the transaction. But how do we get a secret key to be used by both computers for the transaction. In comes Public-Key cryptography. Public-key cryptography, which is best suited for short messages, is used to send the secret key (which is short) from one computer to the other, so that both will have the secret key for encoding the messages that follow.

The server has a public key for the client (your computer) and it encodes a “secret key” with that public key. It then sends the encoded message to the client and the client can then decode the message with its private key. The private key is used to decode the “secret key message” so that the client knows what to use as the secret key for subsequent message encoding (i.e., the decoded secret key). This all sounds very complicated, and it is, but all of this is controlled by the “secure software protocols” and you, the user, don’t have to get involved at all. (I’ve actually simplified the operation a bit, but the essence of how cryptography is used is still pretty accurate.) So, with the use of Pub-

lic-Key, and Secret-Key cryptography, you can rest assured that the messages you are sending over the Internet will not be of any value to anyone attempting to intercept such information. What more could you ask for - through the use of cryptography, the un-trusted Internet can now be used to send private messages, therefore providing secure communications, over the Internet, for everyone.

This article has been obtained from APCUG with the author’s permission for publication by APCUG member groups; all other uses require the permission of the author (see e-mail address above). ☐

Back Issues Needed

We are attempting to build a CD containing all issues of ACGNJ News in pdf format, but our collection is incomplete. We’re hoping some faithful reader has been hoarding them and will be willing to lend them to us just long enough to scan them. We will return them quickly. Thanks Joseph Gaffney, who loaned his collection for scanning, and to Alex Goldfinger for contributing five missing issues and hard copies of many we had previously borrowed. Below is a list of what we still need.

1985: June, July, August, September

1984: August

1976: January

1975: #2 and #3 (Also pamphlet-size booklets.)

If you can supply any of these missing issues (or scanned images or good clear copies), please contact the Editor (bdgroot@ptd.net). Those who supply missing issues will receive a copy of the resulting CD as our thanks for your help. ☐

MotionDSP vReveal: Flawed Video No More

Steve Miller (stevemiller1 (at) comcast.net), Brookdale Computer User Group (www.bcug.org)

“Do you shoot video with your cell phone, digital camera, or other handheld device?” is the question found on the website for vReveal. “Then the chances are good that you have shaky, dark, noisy, pixilated, or blurry videos. Less-than-ideal videos that obscure your life’s best, captured moments.”

“But those moments don’t have to be lost to common video problems anymore,” the site promises. “vReveal has the advanced enhancement technology and “one click” touch-up tools that make it easy to dramatically improve the quality of flawed videos.”

I was impressed by vReveal’s enhancements of my video. I was equally impressed by the dramatic speed increase resulting from off-loading computing from my motherboard CPU to my system video card. As advertised, vReveal improves snowy/jerky/low quality video. It also exports a high quality photo, derived from lower quality source video.

Installation

I own a compatible late-model NVIDIA graphics card (8800GT). I downloaded the latest NVIDIA graphics driver, which enabled vReveal software to use parallel processing by ~100 processors in my video card. During the simple vReveal installation, I specified a video folder to be “watched” by the new program.

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- High Definition video

I then “burned” a standard DVD, and also “burned” a High Definition BluRay DVD (encoded with the optional HDV MPEG2 format). I used Cyberlink “Power DVD” software with a 24 inch Samsung LCD (1680X1050) to “play” the DVDs, and compare SD video (with and without enhancements) to the HD video.

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Visible results

The original (un-enhanced) SD content was clearly deficient to HD video content. After enhancement, my SD content exhibited remarkable video improvement (although not quite up to the high definition sources): Snow (especially resulting from low light) totally disappeared on my SD content after enhancement. Colors were brighter, blacks were blacker, and contrast was enhanced.

vReveal, owned by NVIDIA, includes a performance and control dashboard to showcase the speed increase resulting from leveraging NVIDIA video card GPU (graphics pro-

Evaluation

My video was displayed split-screen, in order to contrast before and after application of the video enhancements. I discovered an important, but unadvertised use for this amazing software. vReveal improves the quality of Standard Definition (SD) video, so the contrast becomes less noticeable when SD videos are used in the same movie with High Definition (HD) video.

My Standard Definition video sources include traditional SD camcorders as well as my digital still camera (in “video capture” mode). My HD sources include a HD camcorder, and digital photos, which I “pan” and “zoom” to create motion. I used the following vReveal settings to enhance my Standard Definition video:

- “One Click Fix” (this automatically “Cleaned”, “Sharpened”, and AutoContrast”).
- “De-interlace”. (“de-interlace” is an important feature which prevented unacceptable artifacts during video with fast motion).

To view the result of video enhancement, I used my favorite video editor to create one timeline that contained three types of content.

- Standard definition video, no enhancement
- Standard Definition video, enhanced with vReveal

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cessors). My jobs ran twice as fast when I shifted the processing from my high performance quad core to my lower-end video card!

(Enhancement of my 40 minute SD video took about 90 minutes when off-loaded to the video card, and took about 180 minutes when confined to my high performance quad processor.)


System Requirements

Hardware: Intel or AMD 1.6GHz CPU, 1GB RAM, 50MB hard drive space; NVIDIA video card with “CUDA” enabled (GeForce 8-series, and higher); 100GB free disk per hour of enhanced video (uncompressed AVI)

Software: Microsoft® Windows XP with Service Pack 2 or Windows Vista™ Home Premium, Business, Ultimate, or Enterprise (certified for 32-bit editions).

Output file types supported: WMV and uncompressed AVIs

Price: \$49, download from www.nzone.com 30-day trial software is available (watermark is applied to output video files.) For more information: <http://www.vreveal.com/>

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Book: Build it, Fix it, Own it

A Beginner's Guide to Building and Upgrading a PC

Joe Mizer (editor (at) noccc.org), North Orange County Computer Club (www.noccc.org)

This book, published by QUE, is a good guide to understanding a PC from the inside out. Building a PC is easier than selecting stereo and video entertainment equipment for your home; you decide on the features you want and the performance level desired. In both situations the components inside a PC such as the mother board, memory, disk drives, optical drives, sound cards, and video cards all have standard interfaces and when connected, become a PC inside the case you selected.

This book is targeted for beginners with the desire to build a PC from scratch. The book is laid out in two parts; the first part is about getting to know your PC. The chapters cover in detail the options and decisions to be made when selecting a motherboard, and CPU, memory type and size, drives, audio and video options, networking, parts and building skills. The author in a step-by-step approach discusses the choices available with each of these components and how to guarantee your selections will operate as a fast and reliable system. This book was an introduction into the technology changes that have occurred since I last built a system from scratch. My understanding of the latest hardware options, are clearly much different from the past. In fact, many of the performance changes make the devices

more than just updated versions of those available only a few years ago.

In a careful step-by-step journey, the book explains the technology so you will really understand the choices you need to make when selecting the parts for your new computer and how to get the best deals on the parts you decide on. My favorite chapter in the first section is chapter six which introduces the reader to networking and security without the complex technical discussions which are normally included with networking. The second part of the book puts all of the details discussed in part one into action by designing five computers, each as a project / chapter and aimed at different jobs. Chapter 10 Building a Basic Business PC explains goals and expected requirements as well as how to select components and to overcome problems you will probably encounter. A detailed assembly section answers a lot of the expected questions, and gives a check list procedure to actually use when powering up a new machine for the first time. Chapter 11 is on Building a home theater PC. This project builds a computer which connects to your television either analog or digital, your audio system, cable box, gaming interface, and other digital and analog devices. Chapter 12's project is Building a high performance com-

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puter. Chapter 13's project is Building a Killer Gaming PC, and Chapter 14 covers building a Building a Budget PC.

The most important reason for building a new computer is the chance to configure it exactly as you want it - you can have a blazing fast machine or an average business computer. You can have the best audio or the standard small speakers, and the best of all internal components, or not. You also get to select the operating system of your choice, which in my opinion is not any version of Vista. As you can guess I do not like the Vista operating system, and really I do not know whether Vista is the problem or just that I am out of date again. This is why I am now going to read "Windows Vista" by Steve Johnson and see if I can learn to do things the Vista way.

Avoiding only one mistake will easily save you more than that amount. I recommend this book because since I last built a system, so much has changed in the hardware available, I was just plain not up to speed on selecting the best stuff. With this book at my side, even though I skipped the chapters on salvaging parts from old computers and renovating old computers because I just don't like to reuse old parts. I now feel I know the questions to ask and where to get advice when making the necessary decisions to build a new system, hopefully it will be faster and live longer.

This book is available from amazon.com, the publisher (<http://www.informit.com/store/product.aspx?isbn=0789738279>) And,

of course, your local book store. The list price is \$29.99 USA. ISBN-13 978-0-7897-3827-1

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SPAMfighter – Free Spam Filtering Software

Ira Wilsker

According to a recent report published by Symantec's MessageLabs, 81.2% of all email in 2008 has been some form of spam, or unwanted commercial email, down slightly from the rate in 2007. Almost all of the spam is coming from "botnets", or hundreds of thousands of computers which are unknowingly infected by "zombies", which have hijacked the bandwidth of those computers for the purposes of propagating spam, malware, and other malicious software. Many internet service providers (ISPs) offer spam filtering at the mail server level, but many do not. Locally, one major broadband provider offers excellent spam filtering for its integral email service, but the other major broadband provider does offer a third party security suite which incorporates spam filtering, but for a variety of reasons it is not widely implemented. Many of us have multiple email accounts with other email services, and they vary greatly in their ability (or inability) to filter the enormous quantity of spam mail we routinely receive. Some contemporary internet security suites offer spam filtering as a feature, while many others do not, leaving countless users exposed to the scourge of spam emails.

For those lacking an ISP with spam filtering, or those without a security suite spam filter, spam mail can be an overwhelming problem. Fortunately for us, there are sev-

eral independent spam filters that we can incorporate on our computers, and some of those are free. One I recently experimented with was SPAMfighter (free version), available for download from www.spamfighter.com. SPAMfighter will run on almost all 32bit versions of Windows, including Windows 98, ME, 2000, XP, and Vista. This software integrates with most contemporary Microsoft email platforms, including Outlook Express (version 5.5 or later), as well as the full versions of Outlook (versions 2000, 2002, XP, 2003, and 2007) and with Microsoft's Windows Mail.

SPAMfighter was originally developed in Denmark, and has over 5.7 million registered users all over the globe, including about 600,000 in the US. SPAMfighter has offices in the US, Denmark, Germany, Ukraine, and India, and is available in 18 languages. The company is a Microsoft Gold Certified Partner, and the SPAMfighter software has been well reviewed by major computer publications. In May, 2008, PC World magazine awarded SPAMfighter one of its top awards, and stated that it was "The only recommended spam filter." Computerworld rated it as one of the top 100 programs available. The software service TUCOWS has awarded SPAMfighter its highest "Five Cows" rating, and ZDNet gave it its highest "5 Star" rating. Other publications have given its spam filtering technology numerous awards.

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The basic version of SPAMfighter, referred to as the "Standard Version" is completely free for home and school users, but incorporates an "I'm protected by SPAMfighter" message as a footer to your outgoing e-mails, and displays a short text advertisement in your email client. The SPAMfighter Pro version is available for \$29, and can be used in commercial environments. The Pro version also adds increased functionality, and does not append the "I'm protected by SPAMfighter" message as a footer to your outgoing e-mails, and does not display the text ad in the email client. The Pro version is available as a 30 day free trial, and will regress to the free Standard version if not registered (paid) within the trial period.

Using a very intuitive and simple interface, and a short toolbar in Outlook, SPAMfighter protects against one of the worst scourges in the spam kingdom, which is the identity theft tool known as "Phishing", as well as other types of identity theft and email frauds. It can automatically filter emails based on the originating language, and can recognize spam sent as pictures, and not as text. The software is automatically updated very frequently, and manages both blacklists (prohibited email sources), and whitelists (allowed email sources). If a spam email slips through the defenses, a single mouse click enables "revenge mode" which will report the email as suspected spam, and automatically notify the other 5.7 million users. A feature called "Automatic real mail protection" assures that legiti-

mate business related emails are not filtered. Unlike many competitors, SPAMfighter does not trigger or filter on simple phrases or words, and does not censor legitimate content. The users' privacy is protected, as the publisher does not see any of the users' emails. SPAMfighter can be used on multiple email accounts on a computer.

The company that publishes SPAMfighter also publishes a variety of other products, including an Exchange spam filter, a server spam filter, hosted spam filtering, and antivirus utility, and a spyware remover. All of these commercial products are available as a free 30 day trial from www.spamfighter.com/Other_Products.asp.

For those computer users who do not have spam filtering services or software, SPAMfighter would be a very worthwhile utility. ☐



Norton Internet Security 2010

Ash Nallawalla (ash (at) melbpc.org.au), Melbourne PCUG, Australia (www.melbpc.org.au)

It's about that time of the year when we have to update our antivirus (AV) software and so I installed Norton Internet Security (NIS) 2010 on my Windows 7 desktop. My previous AV package was Norton 360, which includes much of NIS 2009.

There is a whole virus-making industry out there on the Dark Side, which constantly unleashes new malware and makes it more sophisticated all the time. These days, the infections try not to damage your files. You may not even be aware of the threat, because your PC is more valuable as a remotely controlled zombie. Your PC could be used to send a moderate amount of spam, or be used as a proxy site to perform some shady actions, or to propagate malware.

Features

NIS 2010 requires a minimum of Windows XP 32-bit with SP2 or later. In Windows Vista and Windows 7, both 32-bit and 64-bit versions are supported. As is to be expected with an Internet security product, NIS 2010 provides the following features:

- Blocks viruses, spyware, Trojans, worms, bots and rootkits
- Two-way firewall
- Email protection
- Parental controls

- Home and public network security
- Identity protection
- PC tune-ups

NIS does not perform a backup/restore of important files as is done by Norton 360 Version 3.0 but I didn't miss that feature as I use another program for backups. It does a little more in the tuneup department, so I felt a little better off.

Technology

A staple ingredient of AV software has been a look-up table of "signatures" – sequential bits of programming code whose presence on your PC means that you are infected. A full PC scan compares all your files with these signatures and takes action as you wish, e.g. clean, quarantine, or delete the infection.

Over the years, AV vendors also introduced heuristic scanning, which examines your files for signs of code that could do the wrong thing. For example, if your Word document is infected with malware that includes an instruction to format your disks, then this is considered abnormal and flagged as a risk. You can imagine that the poor AV software has a lot of checking to do and could slow down your work if the list of signatures keeps rising.

Mutating malware becomes harder to detect, as the signatures keep changing, so all unknown files need to be

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checked. Symantec now uses a family of techniques called Quorum to speed up this scanning. Quorum uses reputation to assess each new file it finds, based on the Norton Insight Network community of other people who use the same software. For example, if you downloaded a PDF file from a site that is flagged as risky by Norton SafeWeb, then it will be scanned. If the filename and signature are known to it, say, a Microsoft product, then it will skip it by default. If many people run some new application from a new company, in time, this anonymised usage data will get to Symantec (with your permission) and eventually it will get to the safe list.

In Use

The single-user version came on a car-shaped USB drive and installed easily. It disabled Windows Defender and got to work, downloading updates immediately. I don't surf at dubious sites so I don't expect to find viruses every other day, but when I inserted a little-used USB drive, it found a virus in its autorun file.

One of the benefits of using Norton security products is that your web browser is enhanced to show a green tick, red cross or a question mark when you perform a search. This is part of Norton SafeWeb, which has a collection of known safe sites and known harmful sites. The rest are yet un-

known to SafeWeb. I was looking for a file and clicked a likely result, but I remembered that the website was classified as unsafe, and then wondered why I wasn't seeing the ticks and crosses.

Upon reading the Norton support forum (<http://community.norton.com>) I found out that the Skype add-on for Firefox was the problem. I removed the add-on and the SafeWeb markers returned.

Availability

NIS 2010 is available from most software retail outlets for \$100 or less.

For information about Quorum, see tinyurl.com/quorum2. For a study of similar products by AV-Comparatives, see <http://tinyurl.com/na5k5x>.

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Windows 7 Upgrade – My Experience

Sandy Berger (sandy (at) compukiss.com), CompuKiss (www.compukiss.com)

Those of you who follow me know that I really like Windows 7 and have no qualms about recommending it. This is not a program that you have to wait to purchase until the problems have cleared. I have been successfully using it for months and have just installed it on my everyday computer. So if you are ready to buy a new computer, go right ahead and buy one with Window 7. However, if you are going to upgrade an older computer, there are a few things you should know.

First, I don't recommend upgrading an older computer running Windows XP. Although Windows 7 may run on your old XP computer, XP is more capable for computers with limited memory and outdated graphics. Also, if you upgrade from XP to 7, you have to do a clean install. (More on that later.)

Even if you are upgrading to Window 7 from Vista, there are a few things that you should know. My recent upgrade experience may help.

Last week I got a copy of Windows 7 and decided to upgrade my Vista computer. There are two possible ways to upgrade: An in-place upgrade or a clean install. A clean install is preferable, but it means that all your data and your programs are wiped out. This is good because it puts your computer into a like-new status. However, a clean install requires a lot of work. It entails backing up everything, re-installing all of the programs, transferring the data from a

backup back to the computer after the upgrade, and re-justing any programs that you had previously customized. After listing the number of programs that I had installed on my computer, I decided that after a clean install it would probably take me at least 2 days to get my computer back to where it was. With time at a premium, I opted for an in-place upgrade. I had already installed all of the updates and service packs, so my computer was ready to be upgraded.

The first thing that I did, (and that everyone should do before upgrading), was to back up my data. I chose to use a program called True image by Acronis to make a complete backup of everything on my computer. I put the backup on a portable hard drive. It was 350GB, so I expected this upgrade to take a long time.

Then I surfed over to the Microsoft website to check out their compatibility upgrade advisor for Windows 7. I installed this Microsoft program on my computer and ran it. It told me that my Belkin wireless network needed a new driver for Windows 7 and that my Logitech webcam might not work properly with Window 7. I surfed over to both manufacturers' websites and found that they had no specific drivers listed for Windows 7. Since I already had the most current Vista drivers, I decided to just go ahead with the upgrade.

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I put the Windows 7 disk in the computer and clicked on "Install". I made a few choices, like choosing between an in-place and a clean install. To my surprise, the install program told me that I had quite a few incompatibility problems. In addition to the two devices that I had been warned about, it listed a printer that I had previously uninstalled and several games that also had been previously removed. However, it also listed iTunes as incompatible. I use iTunes everyday to sync my iPhone, so this could have been a deal-killer. Yet, I knew that I had the latest version of iTunes, so I just crossed my fingers and clicked "Next" to go on.

After that, the installation was easy. The computer pretty much did all the work, including rebooting several times. While a clean install can be accomplished in about ½ hour, my in-place install over 350 GB of programs and data on a pretty speedy computer took 3 hours.

Once the update was complete, I found myself at the Windows 7 desktop. There was a new desktop background and the taskbar had much larger icons (something that I like about windows 7), but other than that, all of my icons were there and my desktop looked pretty normal.

To my surprise, the Belkin wireless card that I had been warned about worked seamlessly. The Logitech Quick Cam, however, gave me an error. On a hunch, I reinstalled the webcam driver. Although this was the same driver that I had been using with Vista, Windows 7 now seemed to like it. It also functioned perfectly. Oh, and the iTunes program that I had been warned about, also worked perfectly except that I had to reauthorize the computer, which was a simple process.

I am not sure if Microsoft was a little too harsh in their assessments of incompatibilities or if I was just lucky. Since I did my upgrade before the actual launch of the Windows 7 product, Microsoft's Windows 7 Capability Center was not yet available. As you read this, however, it should be open. Just type "Windows 7 Compatibility Center" in the search box at the Microsoft website and you should be able to check the compatibility of most software and hardware.

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SIG News

Hardware Activity

Mike Reagan (hardware@acgnj.org)

This group is dedicated to repairing, refurbishing and/or recycling older computers. Ten people attended the first meeting of the ACGNJ Hardware Activity; so there is still a market for this type of event. One guy came all the way from the Bronx! Although we looked at some of the older equipment stored in the back room, most of our time was spent in talking about past experiences and planning for the future. Hopefully, we can establish a viable long-term schedule of projects, and keep the interest of those who attended this inaugural meeting. If you have a hardware

problem, bring it in and we can all help fix or demolish it. (no guarantees either way)

March: While Mike S., Mike R., and Bob H. worked on the hardware Paul S., Lenny T., David M. and John R. worked on getting the B. Arnold's Bmailer working at the club sending out TCF EBlasts. Lots of surprises and scratching of heads with hardware and lots of fiddling and configuring with the Bmailer. A good time was had by all. **Our next meetings April 22, May 27.** ☐

C/C++ Programming

Bruce Arnold (barnold@ieee.org)

<http://acgnj.barnold.us/index.html>

This group is devoted to programming languages in general and C, C++, and C++ for Windows programming in particular. Each month a small but hopefully useful program (complete with source code) is presented for discussion.

March: Air Log Chart - A Charting Utility to Display Air Card Data

Last month's program recorded daily data from Network Usage to help control costs. Now, a separate program will analyze the data and plot a monthly chart. The application uses standard C++ GDI+ graphics to produce the above chart with options to print the chart and also to display the numeric data for each day. The chart can be advanced or retarded through the calendar from month to month.

Here's a brief synopsis of last month's (February) meeting: Air Cards are becoming extremely popular these days especially with the advent of Netbooks. They combine the features of a Wireless Network Card and a Modem in order to communicate directly from the PC to the Cell Phone Tower. As such, they provide Internet access, browsing, and file transfer without needing the normal land-based Internet provider. They can be built into the laptop or plugged-in via a USB or PCMCIA port.

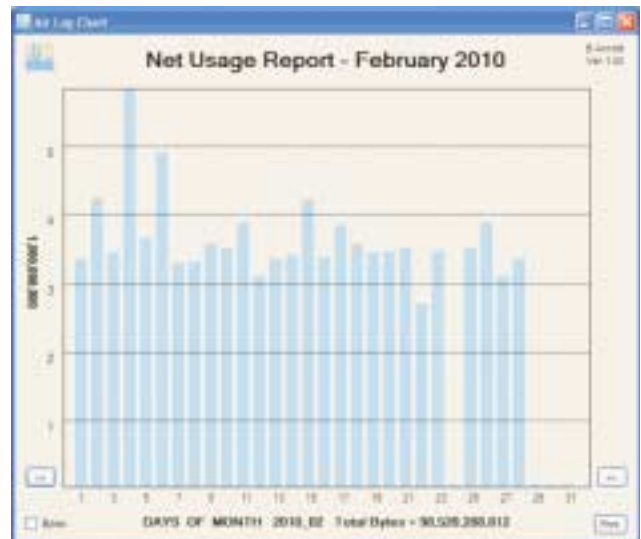
That's all well and good but there is a "down side". A friend has an Air Card from Verizon and it costs him 60 dollars per month. And ... (wait for it) ... he is only allowed to download 5 Gigabytes! There is a surcharge if he goes over that amount. There is also a plan that costs 40 dollars per month but that only allows data usage of 250 Megabytes. Other phone companies have similar costs. So here's the problem: how do you keep track of your usage in order to control your cost?

The object of this program is collect data about your network send and receive usage. As can be seen in the screen shot below, the program displays a real-time account of the current daily network activity as well as the total usage during the current month. At the March meeting I also graphed the historic data that has been collected. (Note: be sure to place the program in your "Start Up" folder.)

Additional Comment:

If you don't have an AIR CARD, the application can be used to monitor any network traffic on your computer. For example, the above screen shot shows that my local network has transferred over 400 MegaBytes of data today. The bar graph is a speedometer showing the instantaneous speed of the network.

Our [download site](#) has code and programs from most meetings. **Our next meetings: April 20, May 18.** ☐



Layman's Forum

Matt Skoda (som359@aol.com)

<http://www.acgnj.org/groups/laymans.html>

We meet on the second Monday of the month (no meetings in July and August) to discuss issues of interest to novice

FireFox Activity

Firefox@acgnj.org

This SIG is intended to be an open forum for **all** FireFox and Mozilla techniques and technologies, to encourage the study and development of web sites of all kinds. All the browsers will be considered and examined. All are encouraged to "think out of the box" about new web site design. All members and guests are invited to check out the design concepts and voice their opinion. *Our next meetings April 19, May 17.* ☐

NJ Gamers

Gregg McCarthy (greggmajestic@gmail.com)

<http://www.NJGamers.com>

www.lanparty.com

The next Friday Night Frags will be April 9 & May 14, 12 p.m. to Saturday 12 noon — 18 hours for 5 bucks!

BYOC - Bring your own computer

BYOF - Bring your own food.

and if you don't like sitting on metal chairs... BYO chair! ☐

LUNICS (Linux/Unix)

Andreas Meyer (lunics@acgnj.org)

<http://www.acgnj.org/groups/lunics.html>

LUNICS is a group for those who share an interest in Unix and similar operating systems. While we do quite a bit with Linux, we've also been known to discuss Solaris and BSD as well. We meet on the first Monday of the month at the Scotch Plains Rescue Squad. See the web page for directions and more information.

Our next meetings, April 5, May 3. ☐

Window Pains

John Raff (jraff@comcast.net)

<http://www.acgnj.org/groups/winpains.html>

Our intent is to provide members with Windows oriented application discussions, Microsoft and Linux style. Presentation to be directed to more heavy technological level of attendee, although newbies are welcomed.

April 16: Random Access Session hosted by John Raff.

May 21: To be announced. ☐

Main Meeting

<http://www.acgnj.org/groups/mainmeet.html>

Mike Redlich (mike@redlich.net)

April 2: Digital Camera Overview by Lenny Thomas.

May 7: Comparison of OpenOffice.org, MS Office, and other Office Suites, continued from Feb., by Bob Hawes. ☐

Web Dev

Evan Williams (ewilliams@collaboron.com)

This SIG is an open forum for all Website Development techniques and technologies, to encourage study and development of web sites of all kinds. All languages will be considered and examined. The current project is a CMS for the club. Anyone interested in starting a new project, come to the meeting and announce / explain. Provide as much detail as possible. WebDev should be an all-encompassing development and examination forum for all issues, applications, OS, languages and systems one can use to build Websites. We currently have two Web dev languages .NET and Java as SIGs but other languages and OS need to be investigated, examined and tested; Windows, Linux, UNIX, DEC, Vax, HP etc. Intel-PC, Motorola - MAC etc. *Next meetings April 14, May 12.* ☐

Java

Mike Redlich (mike@redlich.net)

<http://www.javasig.org>

April 13: Victor Grazi of CreditSuisse presents Java Concurrent Animated, a series of animations that illustrate each component in the Java concurrent library. Testing concurrency is difficult, because of the non-deterministic nature of concurrent applications. Fortunately the Java concurrent framework provides tools to allow unit tests to simulate all possible application states, by controlling which threads release and when. That framework is difficult to learn. There is an instructive open source Java application designed to educate developers on the use and functioning of the components in the java concurrent library. It consists of a series of interactive animations, one per concurrent component (e.g. CyclicBarrier, ReadWriteLock). The user presses buttons on the UI corresponding to methods on the component to see how threads interact with each other and with some blocking structure. A code snippet pane auto-highlights the relevant code as the threads do their thing. The animations are written in Java and each animation is controlled by the underlying concurrent component it is illustrating, so it depicts the true run-time behavior of the component.

May 11: To be announced. ☐

Investment Software

Jim Cooper (jim@thecoopers.org)

http://www.acgnj.org/groups/sig_investment.html

The Investment SIG continues with presentations on how to use analysis programs TC2000 and TCNet. Large charts are presented on our pull down screen and illustrate the application of computer scans and formulas to find stocks for profitable investments. Technical analysis determines buy points, sell points and projected moves. Technical analysis can also be used on fundamentals such as earnings, sales growth, etc. We're no longer focusing on just Telechart -- if you are using (or interested in) Tradestation, eSignal, VectorVest -- or just in learning how to select and use charting and technical analysis, come join us !!

Our next meetings: April 8, May 13. ☐

Guru Corner

If you need help with any of the technologies listed below, you can call on the person listed. Please be considerate and call before 10 PM.

Software

HTML	Mike Redlich	908-246-0410
	Jo-Anne Head	908-769-7385
ColdFusion	Jo-Anne Head	908-769-7385
CSS	Frank Warren	908-756-1681
	Jo-Anne Head	908-769-7385
Java	Mike Redlich	908-246-0410
C++	Bruce Arnold	908-735-7898
	Mike Redlich	908-246-0410
ASP	Mike Redlich	908-246-0410
Perl	John Raff	973-560-9070
	Frank Warren	908-756-1681
XML	Mike Redlich	908-246-0410
Genealogy	Frank Warren	908-756-1681
Home Automation	Frank Warren	908-756-1681
Operating Systems		
Windows 3.1	Ted Martin	732-636-1942

Discount Computer Magazine Price List

As described by the DealsGuy

	1 yr	2 yr	3 yr
Computer Games	\$10.95	20.95	29.95
Computer Gaming World	14.95	28.95	41.95
Computer Shopper1	16.97	32.95	47.95
Dr. Dobbs Journal	15.95	30.95	
Mac Addict	10.97		
Mac Home Journal	15.97	29.97	
Mac World	12.95		
Maximum PC	9.95	18.95	27.95
Microsoft System Journal	21.95	39.95	
PC Gamer	12.95		
PC Magazine (22/44/66 Issues)	25.97	48.95	68.95
PC World	16.95		
Wired	6.00	12.00	17.00

These prices are for new subscriptions and renewals. All orders must be accompanied by a check, cash or Money Order. Make payable to Herb Goodman, and mail to:

Herb Goodman, 8295 Sunlake Drive, Boca Raton, FL 33496

Telephone: 561-488-4465, e-mail: hgoodman@prod-igy.net

Please allow 10 to 12 weeks for your magazines to start. For renewals you must supply an address label from your present subscription to insure the correct start of your renewal. As an extra service I will mail a renewal notice about 4 months prior to their expiration date. I carry more than 300 titles at excellent prices — email for prices. ☺

ACGNJ MEMBERSHIP APPLICATION

Sign up online at <http://www.acgnj.org/membershipApplication.html> and pay dues with PayPal.

	US/CANADA	FAMILY OF MEMBER	Dues	STUDENT	SENIOR CITIZEN (Over 65)
1 Year	\$25	\$10		\$20	\$20
2 Years	\$40				
3 Years	\$55				\$45

Mail this application and your check to:
AMATEUR COMPUTER GROUP OF NEW JERSEY, INC., P.O. BOX 135, SCOTCH PLAINS, NJ 07076

New Member Renewal Address Change

First Name _____ Last Name _____ Phone _____

Mailing Address _____ E-Mail _____

City _____ State _____ Zip _____ URL _____

What topics would you like to see covered at club meetings? _____

Other Local Computer Groups		
Princeton Macintosh User Group: 7:15 pm 2nd Tuesday, Jadwin Hall, A-10, Washington Rd, Princeton, (609) 252-1163, www.pmug-nj.org	Linux Users Group in Princeton: 7 pm, 2nd Wednesday, Lawrence Branch Mercer Library, Rt#1 & Darrah Lane, Lawrence NJ http://www.lugip.org	New York PC: 3rd Thurs, 7 pm, PS 41, 116 W 11th St. For info call hotline, (212) 533-NYPC, http://www.nypc.org
Computer Education Society of Philadelphia: Meetings & Workshops at Jem Electronics, 6622 Castor Ave, Philadelphia PA. www.cesop.org/	Brookdale Computer Users Group: 7 pm, 3rd Friday, Brookdale Community College, Bldg MAN Rm 103, Lincroft NJ. (732)-739-9633. www.bcug.com	NJ Macintosh User Group: 8 pm, 3rd Tuesday, Allwood Branch Library, Lyall Rd, Clifton NJ. (201) 893-5274 http://www.njmug.org .
PC User Group of So. Jersey: 2nd Mon., 7 pm, Trinity Presb. Church, 499 Rt 70 E, Cherry Hill, NJ. L. Horn, (856) 983-5360 http://www.pcugsj.org	Hunterdon Computer Club: 8:30 am, 3rd Sat, Hunterdon Medical Center, Rt 31, Flemington NJ. www.hunterdoncomputerclub.org , (908) 995-4042.	NY Amateur Computer Group: 2nd Thurs, 7 pm, Rm 806 Silver Bldg, NYU, 32 Waverly Pl, NYC. http://www.nyacc.org
Morris Micro Computer Club: 7 pm 2nd Thurs., Morris County Library, Hanover Ave, Morristown NJ, (973) 267-0871. http://www.morrismicro.com	Central Jersey Computer Club: 8 pm, 4th Friday, Rm 74, Armstrong Hall, College of NJ. Rich Williams, (609) 466-0909.	NJ PC User Group: 2nd Thurs, Monroe Rm at Wyckoff Public Library, 7 pm. Maureen Shannon, (201) 853-7432, www.njpcug.org
Philadelphia Area Computer Society: 3rd Sat, 12 noon Main Meeting, groups 8 am-3 pm. Upper Moreland Middle School, Hatboro PA. (215) 764-6338. www.pacsnet.org	NJ Computer Club: 6:15 pm, 2nd Wednesday except Jul & Aug, North Branch Reformed Church, 203 Rt 28, Bridgewater NJ. http://www.njcc.org	Princeton PC Users Group: 2nd Monday, Lawrenceville Library, Alt Rt 1 & Darrah Lane, Lawrenceville, Paul Kurivchack (908) 218-0778, http://www.ppcug-nj.org

Classified

FREE TO MEMBERS. Use our classified ads to sell off your surplus computer stuff. Send copy to Classified, ACGNJ NEWS, P.O. Box 135, Scotch Plains NJ 07076 or e-mail to the editor, bdegroot@ptd.net. Classified ads are free to members, one per issue. Non-members pay \$10. Send check payable to ACGNJ Inc. with copy. Reasonable length, please.

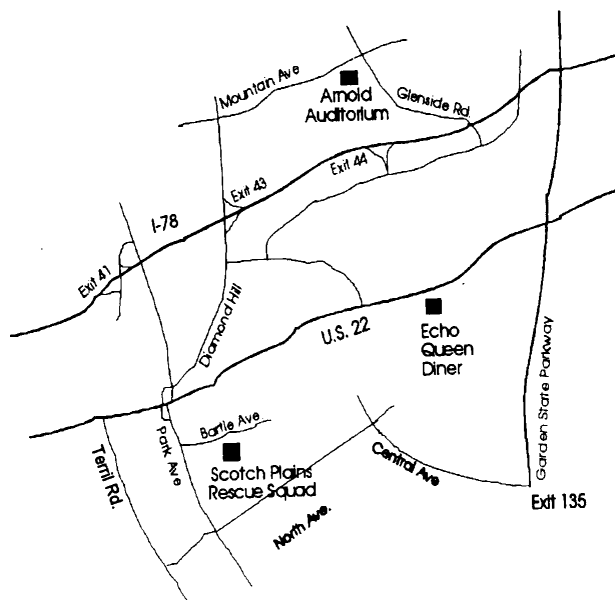
Radio and TV Programs

Computer Radio Show, WBAI 99.5 FM, NY, Wed. 8-9 p.m.

Software Review, The Learning Channel, Saturday 10-10:30 p.m.

On Computers, WCTC 1450 AM, New Brunswick, Sunday 1-4 p.m. To ask questions call (800) 677-0874.

PC Talk, Sunday from 8 p.m. to 10 p.m., 1210 AM Philadelphia. 1800-876-WPEN, Webcast at <http://www.pctalkweb.net>.



<http://www.apcug.net>

Directions to Meetings at Scotch Plains Rescue Squad, 1916 Bartle Ave., Scotch Plains NJ

From New York City or Northern New Jersey

Take Route 1&9 or the Garden State Parkway to US 22 Westbound.

From Southern New Jersey

Take Parkway north to Exit 135 (Clark). Stay on left of ramp, follow circle under Parkway. Bear right to Central Avenue; follow to Westfield and under RR overpass. Left at light to North Avenue; follow to light in Fanwood. Right on Martine (which becomes Park Ave). Right on Bartle Ave in middle of shopping district. Scotch Plains Rescue Squad (2-story brick) is located on the right. Do not park in the row next to the building — you'll be towed.

From I-78 (either direction)

Take exit 41 (Scotch Plains); follow signs to US 22. Turn right at light at bottom of hill and use overpass to cross Rt. 22. Follow US 22 Westbound directions.

From US 22 Westbound

Exit at Park Avenue, Scotch Plains after McDonalds on the right, diagonally opposite Scotchwood Diner on the left, immediately before the overpass. After exiting, turn left at the light and use overpass to cross US 22. Bear right at bottom of ramp to continue south on Park Avenue. Turn left at the second light (a staggered intersection). Scotch Plains Rescue Squad (2-story brick) is on the right. Do not park in the row next to the building — you'll be towed. We meet on the second floor, entering by the door at the right front of the building.

From Western New Jersey

Take US 22 Eastbound to the Park Avenue exit. The exit is about a mile past Terrill Road and immediately past the overpass. Exit onto Park Avenue South and follow the directions above to the Rescue Squad building. ☺

ACGNJ MEETINGS

For the very latest news on ACGNJ meetings visit the ACGNJ Web Page (<http://www.acgnj.org>)

Tuesday, March 30

7 P.M. - Board of Directors meeting.

Friday, April 2

8 P.M. - Main Meeting, Paul Syers (paul.syers@acgnj.org).

Monday, April 5

8 P.M. - Lunics, Andreas Meyer (lunics@acgnj.org)

Thursday, April 8

8 P.M. - Investing, Jim Cooper (jim@thecoopers.org).

Friday, April 9

6 P.M. to 5 A.M.- NJ Gamers. Gregg McCarthy (greggmc@optonline.net), 732-721-6507. Break 8 to 10 P.M.

Monday, April 12

8 P.M. - Layman's Forum, Matt Skoda (som359@aol.com), 908-359-8842. No meetings in July or August.

Tuesday, April 13

7:30 P.M. - Java, Mike Redlich (mike@redlich.net)
908-246-0410.

Wednesday, April 14

7 P.M. - WebDev SIG, Evan Williams (ewilliams@collaboron.com)

Monday, April 19

7 P.M. - Firefox Activity, David McRitchie (firefox@acgnj.org)

Tuesday, April 20

7:30 P.M. - C/C++ Users, Bruce Arnold (barnold@ieee.org),
908-735-7898

Saturday & Sunday, April 24 & 25

Trenton Computer Festival (<http://www.tcf-nj.org>)

Tuesday, May 4

7 P.M. - Board of Directors meeting.

Friday, May 7

8 P.M. - Main Meeting, Paul Syers (paul.syers@acgnj.org).

Monday, May 10

8 P.M. - Layman's Forum, Matt Skoda (som359@aol.com),
908-359-8842. No meetings in July or August.

Tuesday, May 11

7:30 P.M. - Java, Mike Redlich (mike@redlich.net)
908-246-0410.

Wednesday, May 12

7 P.M. - WebDev SIG, Evan Williams (ewilliams@collaboron.com)

Thursday, May 13

8 P.M. - Investing, Jim Cooper (jim@thecoopers.org).

Friday, May 14

6 P.M. to 5 A.M.- NJ Gamers. Gregg McCarthy (greggmc@optonline.net), 732-721-6507. Break 8 to 10 P.M.

Monday, May 17

7 P.M. - Firefox Activity, David McRitchie (firefox@acgnj.org)

Tuesday, May 18

7:30 P.M. - C/C++ Users, Bruce Arnold (barnold@ieee.org),
908-735-7898

Friday, May 21

8 P.M. - Window Pains, John Raff (john@jraff.com).

Thursday, May 27

8 P.M. - Hardware, Mike Reagan (hardware@acgnj.org)

Tuesday, June 1

7 P.M. - Board of Directors meeting.

Friday, June 4

8 P.M. - Main Meeting, Paul Syers (paul.syers@acgnj.org).

Monday, June 7

8 P.M. - Lunics, Andreas Meyer (lunics@acgnj.org)

Tuesday, June 8

7:30 P.M. - Java, Mike Redlich (mike@redlich.net)
908-246-0410.

Wednesday, June 9

7 P.M. - WebDev SIG, Evan Williams (ewilliams@collaboron.com)

Thursday, June 10

8 P.M. - Investing, Jim Cooper (jim@thecoopers.org).

Friday, June 11

6 P.M. to 5 A.M.- NJ Gamers. Gregg McCarthy (greggmc@optonline.net), 732-721-6507. Break 8 to 10 P.M.

Monday, June 14

8 P.M. - Layman's Forum, Matt Skoda (som359@aol.com),
908-359-8842. No meetings in July or August.

Tuesday, June 15

7:30 P.M. - C/C++ Users, Bruce Arnold (barnold@ieee.org),
908-735-7898


Friday, June 18

8 P.M. - Window Pains, John Raff (john@jraff.com).

Monday, June 21

7 P.M. - Firefox Activity, David McRitchie (firefox@acgnj.org)

Thursday, June 24

8 P.M. - Hardware, Mike Reagan (hardware@acgnj.org) 

All meetings, unless otherwise noted, are at Scotch Plains Rescue Squad, 1916 Bartle Ave., Scotch Plains, N.J.
Directions and map inside back cover.