



SAN FRANCISCO PERSONAL COMPUTER *eBLUE*  
USERS GROUP *NOTES*

**Volume 22 Nos. 1 - 2**

**January - February 2003**



## Who We Are, What We Do and How You Can Join the Fun!

The San Francisco PC Users Group, founded in 1982, serves as a regional volunteer forum for the exchange of ideas, industry insights and solutions to problems, etc. related to using personal computers having the Intel x86 or compatible processor.

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Annual membership in The San Francisco PC Users Group includes, among other benefits, monthly meetings, a one year subscription to *Blue Notes*, and Internet access. Cost: \$25 for individuals, \$30 for families and \$50 for businesses. E-mail our Membership Registrar, [membership@mail.sfpcug.org](mailto:membership@mail.sfpcug.org), or attend a monthly meeting (see details inside and calendar). An application form can be found on the last page of this issue. Once completed, mail it with your payment to the SFPCUG Membership Director, 3145 Geary Blvd., Box 284, San Francisco, CA 94118-3300

### Internet Services for All Members

Internet access is a major incentive for SFPCUG membership. Visit our web site: <http://www.sfpcug.org> where you will find, information about *Blue Notes*, the club's dial-up Internet services, activities of our various Special Interest Groups. etc. PPP accounts are available - e-mail: [help@mail.sfpcug.org](mailto:help@mail.sfpcug.org) or contact our WebMaster at [webmaster@mail.sfpcug.org](mailto:webmaster@mail.sfpcug.org) or 415-665-3599.

The Internet SIG offers access to a shared account for experimenting with Web technology, including CGI scripting. Contact the WebMaster for details.

### Special Interest Groups (SIGs)

Users gather in SIGs to explore and solve specific problems related to software and/or hardware. The Calendar will list dates and venues. If a SIG addressing your interest(s) does not exist, call 415-665-3599 or 415-346-2644 to organize one.

### Write a Review on New Software and it's Yours, Free!!

Vendors frequently offer new software or books to the SFPCUG so that an interested member can give it a test run and keep the product in exchange for a published review in *Blue Notes*. Our Product Review Coordinator can arrange to obtain software you want to review. Guidelines for reviews appear regularly in *Blue Notes*, or ask the Product Review Coordinator for a copy.

### Steering Committee Meetings

The SFPCUG Steering Committee Meetings are held on the first Tuesday of each month at the upstairs meeting room of Round Table Pizza on Geary Blvd. and 16th Ave.

The SFPCUG Steering Committee discusses issues of immediate importance to the Group and makes plans for future activities. Steering Committee meetings are open to all SFPCUG members. Any Group member having attended two of four preceding Steering Committee meetings is eligible to vote.

### General meetings

General meetings are held on the 3rd Tuesday of each month. Doors open at 6:15 PM for SIGs and the general meeting begins at 7PM and end by 9PM

First time guests are admitted free, repeat guests are asked for a donation of \$4.

Location: Meetings now take place in the auditorium of the Community College District Office, 33 Gough Street, (a half-block south of Market Street) San Francisco, CA There is ample free parking in front of the building. Civic Center BART and MUNI is ½ a block away.

The latest information on programs and location for upcoming general and steering committee meetings is available on our web site <http://www.sfpcug.org>. Always check for late breaking news.

# Publication in Blue Notes

Follow the structure of a previous article in *Blue Notes*.

- \* **Name/version of the subject program/book.** What does the program do and on what operating platform (s)? Does it satisfactorily fill a genuine need, e.g. task, entertainment, utility, etc.?
- \* **Reviewer:** name and email address.  
**Name and reputation of the company distributing the product.** Available mail address and phone number(s)
- \* **At A Glance:** A 1-to 4 rating (worst to best)
- \* **Price:** MSRP, retail or street
- \* **System Requirements:** (self-explanatory)
- \* **Pros:** Ease of use, learning, etc? Documentation: comprehensive, intelligible? Support? Does it deliver as advertised? If a book, is the author's style smooth or challenging? Is the Index useful?
- \* **Cons:** Shortfalls, if any
- \* The body of your review
- \* Graphics welcome and requested if possible

**When addressing technical, complex issues, endeavor to be as comprehensive and street-level clear as possible.**

- \* Use one space between sentences, two carriage returns at the end of each paragraph
- \* Re-read your work carefully, objectively, checking word, sentence and logic flow to ensure you say precisely what you mean to say, clearly
- \* Do not use indents or tabs
- \* Spell-check your work

**Procedure for submitting articles for publication.**

Save your article as a pure ASCII file with line breaks, and a .TXT extension. You may alternately save your files in Rich Text Format (.RTF extension) then send them to [bluenotes@mail.sfpcug.org](mailto:bluenotes@mail.sfpcug.org). Should special formatting be necessary, forward a hard copy to the Editor. Contact *Blue Notes* staff by e-mail, [bluenotes@mail.sfpcug.org](mailto:bluenotes@mail.sfpcug.org).

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## President's Message

Butler Crittenden

### Thank you, VIA Technologies and AMD Where Do We Go From Here?

March 19, 2003

Last night SFpcUG hosted VIA Technologies, <http://www.viavpsd.com/index.jsp>, and learned about a new direction in personal computers. Exactly why I'm not sure, but we had a great turn-out as well, with at least ten people present whom I had not seen before and a few I haven't seen in a long while. Regardless, we all got a bit more of a feeling for "convergence" in the PC world, where computers begin to work their way into our cars, phones, home entertainment centers, and even into our walls to control electronically switched devices. And we got a peek at the beginning of the end of the "beige box" that has played such a major role in the lives of most of us. For those who missed the

meeting, check out John C. Dvorak's column, in PC Magazine, January 9, 2003

<http://www.pcmag.com/article2/0,4149,805949,00.asp> .

During "Random Access," our Q & A session before the presentation, numerous good questions were asked and answered to the best of someone's ability. The questions are getting tougher, however, as the increasing complexity of the PC is leading to more major and minor glitches than ever. Does the newest version of Zone Alarm's firewall conflict with their own Pest Patrol? Which versions of DOS/Windows still include a useful "fdisk /mbr" capability? What's a good way to recover from a damaged FAT on sector 0 after a failure? How can Netscape 7 be cajoled into importing mail from Netscape 4.72? After reinstalling Windows, why does the CD drive appear sometimes but not at other times? In each case, as well as for most of the other questions, the answer requires sophisticated user experience to get at useful suggestions for the questioner to try.

At SFpcUG's February meeting AMD's representative instructed us in ways to evaluate CPU chips – issues of speed, capability at different types of tasks, and design strategies. John Crank, AMD

Athlon Brand Manager, made it clear that in most cases the megahertz race does not benefit the average user, that for most of us there's little difference between a CPU that runs at the 1 gig level vs. one that runs at the 3.x gigahertz level. Other factors – especially RAM (electronic memory), the video card, and the speed of the hard drive – are crucial to the overall computing experience. This is worth mentioning, in light of VIA's 933Mhz capacity, soon to be boosted to a gig. VIA says, however, that their 600Mhz chip works well, and that it's really a matter of what the user wants to do. One guest last night seemed pleased with the mini-computer he had already built with the VIA EPIA M-Series Mini-ITX Mainboard and 933 chip, except he was having trouble with a highly demanding video task. He wanted to be able to keep his screen resolution high while decoding streaming video. This would be a somewhat daunting task for powerful new desktops and apparently is more than VIA mobo can handle well, but no doubt over the next year or two this wrinkle will be worked out. The guest was typical of all pioneers – distinguishable by the arrows in their backs. Meanwhile, if one of us wants a very small computer that handles basic computing very well, VIA and others are now offering us some new alternatives, and at reasonable prices. A large beige box is no longer required.

*SFpcUG and Where We Go From Here*

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Presiding over SFpcUG is not an odious or “impossible” job. Since 1982 some dozen plus men and women have had the honor of serving as club president. With a one exception, however, they've bolted from office never to be seen again – or at least very rarely and grudgingly. The primary job is to find companies and individuals to make presentations eleven times a year and send out a couple of hundred emails for the Holiday Party and Auction. Fortunately a fair number of vendors and individuals express interest in meeting with our club, which makes the task of planning meetings easier. But, and a fairly big “but,” the club president is not supposed to have this task, which was a task performed by volunteers in the past. Ditto product review, which I've sadly neglected over the past year but used to handle pretty well before becoming president. There are several other jobs, which fortunately have been handled brilliantly over the past decade at least – secretary and treasurer come to mind. The Strucks were marvels in their somewhat shared treasurer role (Darrell was elected if I recall, with Nancy helping a lot), and Harold Charns has been totally competent and calm in his handling of our funds. I recall Kirk Abbot before that, who did a great job as well. Blue Notes has been great over the years, despite a bit of a lapse about six years ago due to a perfectly normal case of burn-out by the editor. Pierre Hahn and Tomas P. McLoughlin

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have done a fantastic job in recent years, with Pierre picking up the bulk of the work over the past year or so. But, that big “but” again, Pierre is growing weary of too much responsibility and too little support from the members. Judy Gaer has served much too long as secretary, which she can no longer do, and we all owe her a heartfelt “thanks” for keeping track of our Steering Committee meetings. Others, including Carol Lee, Yves Barbero, and Ron Feiertag have made contributions as well.

Last night’s meeting was a good example of what the club is all about. There was useful information, the fun of learning about something new, good food and conversation, and a generally cordial atmosphere. But, yes that big “but” again, a couple dozen key members were not present and there seems to be no way to rekindle their interest. A first-time visitor asked, “What are your main SIGs?” (Special Interest Groups) I had to say, “We don’t have any really active SIGS at this time, we’d love for you to start one.” Yes, our informal M-team (Meeting team) was present and worked efficiently to set up the room and set the table; thank-you guys and gals. Yes, as usual David Caldwell was there and arranged the space for us to meet in. Again, thank you David. Others helped out in various ways, as there is a real spirit of helpfulness at meetings.

In short, where do we go from here? I have no intention of walking away from the club but I cannot continue to serve as president. I’m certainly willing to help a new president, especially to help “grow” the club with the help of a few new volunteers. There is a vendor scheduled for our May meeting. At the moment April is open, although I have a couple of potential presenters. However, there’s a good chance I will be in Texas or somewhere between here and there on April 15<sup>th</sup>. To all those who attend and help so much I and my fellow officers express our gratitude. To others who are too busy or have lost interest, I think we all understand. Priorities, jobs, and situations change, and there is no good reason anyone should feel obligated to participate in a volunteer organization that no longer serves their needs. This said, I still must say again, where do we go from here?

## **From The DealsGuy for February 2003,**

by Bob Click, Greater Orlando Computer Users Group

I've added a user group to the distribution page on my Web site. Blair Jones, editor for "National Capitol Tandy Computer Users Group" said he has been using the column from time to time, but wanted to get it direct instead of reprinting it. You'll find them listed with their information on my Web site. Check them out.

### **\*Greetings Folks, Ya'll Soon Have A Virus, If Ya Follow Instructions**

Did you receive one of those eCards? I did, and obviously from a name I knew, but when I found I had to download something to view it, I chose to delete it because I didn't want to be bothered. Little did I know that I did myself a favor. I read in Ed Foster's Gripe Line column (InfoWorld) about the eCard, which is, in reality, a virus that goes into your address book and sends itself out to your friends. According to Ed's column though, antivirus companies didn't treat it as a virus at first because you had to read the EULA (End User License Agreement), then a second EULA to install it and actually get the virus. In other words, the virus would be on your machine with "your" permission if you agreed to the EULA, so it was your own problem. The EULA actually states that it will use your Outlook address book to send the "eCard" to your friends. He writes that the AV companies now have information posted about it and admit that it is a virus in

reality. What's next! Read those EULAs before simply agreeing just so you can do a quick installation.

By the way, the camera I bought at Comdex stopped working when I was trying to install the downloader and I am trying to get an exchange. It won't even stay on now. Since I didn't have a memory board in it yet, I lost all the pictures I took in LV. I hope things go better when I get my replacement. Trying to get a replacement hasn't been easy. I learn everything the hard way.

### **\*Still Good**

The Viralock deal is good until Feb. 28. I noticed they sent out a special to user groups, but my deal is better. However, I just heard from one person who had big problems and he said it took two days, with the help of Earthlink Tech support, to get rid of Viralock and get his machine back to normal, so be aware. I hope I hear from someone who had better luck. [ <http://www.viralock.com/dealsguy> ]. The SpamNet is a beta right now so it is ongoing for the time being. Download at [ <http://www.cloudmark.com> ].

### **\*Tax Time**

I forgot to remind everyone last month about where to obtain free software to do your income tax. If you want to do your own taxes free, go to [ <http://www.2ndstorysoftware.com> ] and download their free standard version of Tax Act. Many use Tax Act and say it works well, but if you want, they have an upgraded version that you pay for. In fact, last year, my own taxman did my taxes with the professional version of Tax Act. I think I'll try doing them myself this year as they are less complicated now. If my next

column asks for somebody to bail me out, you'll know I made a mistake, somehow. Hmmm---can you take your laptop to prison, and get your e-mail there? From the DealsGuy Incorporated, er I mean incarcerated---Hmmm.

#### **\*Can't Afford Acrobat?**

I realize there have been ways published lately to make up a PDF file free, but there is another solution at low cost. Here is the description sent to me:

“Jaws PDF Creator provides an affordable and reliable means of creating PDF documents and it now generates PDF 1.4 files as its standard. Ideal for corporations, graphic artists, print publishers, Web publishers and government organizations. Jaws PDF Creator is widely used in corporate and other markets, and as the core technology for Internet printing services. Jaws PDF Creator works in two modes. It installs as a printer in the Windows or Macintosh Printing System allowing you to print to a PDF file directly from any application, or it appears as an icon on the desktop enabling drag-and-drop conversion of PostScript, or EPS files, directly to PDF. Jaws PDF Editor enables you to view, edit and save PDF files on computers using Windows NT, Windows 2000 and Windows XP.

“Another product, Jaws PDF Editor, has many viewing and navigation features. You can navigate via bookmarks, the page list, thumbnails, or links. Reviewer/mark up tools include comments, highlight, strikethrough, and underline, each with an associated pop-up comment window to add additional information. Search for words or phrases in a PDF. Select text with the text and paragraph-select tools and copy into other

applications. Auto-rotate while printing so files containing both portrait and landscape pages print in the correct orientation. Other page manipulation tools include insert, delete, reorder, and extract pages. Jaws PDF Editor can be a companion application to Jaws PDF Creator, or can be used as a standalone application.”

Until February 15, 2003 (perhaps longer), Jaws PDF Creator V2.11 can be purchased at a 75% discount for just \$25.00 (US funds) by calling 1-800-927-9921 or going to [ <http://www.insight.com/jaws> ]. It is a download (4.8 meg). V2.11 is not the latest version, V3.0 of Jaws PDF Creator is now out and would be available at an additional \$30.00. However the V2.11 does almost as much.

Jaws PDF Editor (the companion software) is also available for just \$25.00 (1/3 off the list price) (3.9 meg download). They are available separately because not everyone needs both products. For more description, visit [ <http://www.jawspdf.com> ]. You can even sign up for the free on-line WebX tutorials there. They say the advantage of the Jaws product over free ones is the many features and the quality of the PDF. You can also get \$100 off any Jaws PDF server. So far, I have not had the time to try this product. Many of us received it at Comdex.

#### **\*Sort Of A Swiss Army Knife For Your Computer**

A few columns ago I wrote about Power Desk for your file management needs because several readers recommended it. Paul Witheridge from Sarnia PC UG in Sarnia, Ontario, tells me he much prefers a file management program called Total Commander, formerly Windows Commander. He feels it is superior to them all, so you might want to take a look, although it



is shareware, not freeware. It is a Swiss company (hence Paul's Swiss army knife comment) and their ordering procedure is a bit confusing, but I think you'll figure it out. No cost to give it a try and see what you think.

but they declined. I'm passing this one on because some others also say it's a good product.

**Total Commander, version 5.5, and the features are listed below:**

- Two file windows side by side
- Multiple language support
- Enhanced search function
- Compare files / synchronize directories
- Quick View panel with bitmap display
- ZIP, ARJ, LZH, RAR, UC2, TAR, GZ, CAB, ACE archive handling + plugins
- Built-in FTP client with FXP (server to server) and HTTP proxy support
- Parallel port link, multi-rename tool
- New: WinXP support, background transfer manager, TAR+GZ packer
- And many more!

If you like it after your trial, the price is \$28.00 American and they take your CC. You'll find the download at [\[http://www.ghisler.com\]](http://www.ghisler.com). I didn't try it, but I would like something better than Windows Explorer. I checked into a deal,

## From The DealsGuy For March 2003,

by Bob Click, Greater Orlando Computer Users Group.

### **\*Dr. – Dr., Where Art Thou**

I know this is not computer related, but this month I'd like to talk about what I feel is serious and plays on our complacency. Is your doctor really a doctor? Are the initials after his name MD or DO, or are they PA or NP? Most people know what MD means, and even DO, but how about all the rest! When my wife and I relocated to Orlando, we looked for a new family doctor. We selected a doctor from our "approved provider" directory and were seeing another doctor in that office for two years before we discovered he was not really a doctor. Since he was in that doctor's office, we thought he was a doctor. Finally, a nurse working in a lab told us he was not a doctor when we spoke about the "nice doctor." We were shocked and asked why. She explained the difference saying he was actually a Physician's Assistant, and that does not even come close to having the qualifications to be a doctor, but sees you in lieu of the doctor. She said a PA is more or less a nurse with certain experience. I had noticed the letters after his name on the door were PA, but thought nothing about asking what it meant. In other words, I made an assumption I shouldn't have. After being enlightened, we started asking for the Doctor. I was told that the PA clears everything through the doctor when making his evaluations, but afterward, I remembered that sometimes the other guy (the actual doctor) differed with the PAs prognosis, 'when asked.'

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Recently, I saw a cardiologist three times and when they were making the next follow-up appointment, I was told this one would be with a nurse (Nurse Practitioner). At least they didn't hide anything. When I asked if the office call would be cheaper, they said no. I said not to bother. If the doctor didn't have time to see me, I'd find one that did. I realize these people are under a doctor's supervision, but I don't agree with the concept that is designed to make more money for the doctor through our ignorance. When I'm paying for a doctor, that's who I expect to see for the price my insurance, or I, is paying. What are your thoughts, and has this happened to you? I am a volunteer in a retiree walk-in center who helps retirees with insurance problems. Insurance contracts do not pay for a PA or NP (don't know about HMOs), but that is rarely the way it is billed. I could write a book!! [ [bobclick@mindspring.com](mailto:bobclick@mindspring.com) ]

**\*And Now For The Deals.** The Jaws PDF creator products deal ended Feb. 15. [ <http://www.insight.com/jaws> ] Also, you'll find three new groups listed on my Web site's distribution page that now read the DealsGuy column.

### **\*You Could Take This Keyboard Scuba Diving**

Maybe I'm going a bit too far with that statement, but this one is designed for bad environments. I know most of you won't need this kind of keyboard at home unless you spill your coffee a lot. It's designed for the worst conditions. The following is their description:

"The 'CoolOne' is a water-resistant and contaminant proof keyboard. It's sealed and rigid surface is ideal for industrial and medical use, as well as other outdoor environments. It's a rigid

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keyboard with tactile feedback keys. It comes with a USB connector and an available PS/2 adapter. It's perfect for environments where there's a lot of dust (warehouses, outdoor use), where water or moisture is a problem (food processing plants, marine use), and where disinfecting is needed (hospital/medical and school use). It's also great for anyone who eats and drinks near his/her keyboard and has ever accidentally spilled something inside it. Check the specs further at [ <http://www.man-machine.com> ].”

They offered me a sample product, and what a coincidence that the box was mutilated when it arrived. The box had been squashed and punched through, then repaired with plastic tape. The keyboard could also rattle around in the box. When I tried it, it worked just fine and I was impressed (I tried every character multiple times). On close examination, I don't see how anything, dust or liquid, could penetrate it's skin, it certainly is sealed. I plugged it into the USB port and Windows immediately installed drivers for it. It needs a slightly heavier touch, but I quickly got used to that. I do miss having legs on the back though.

The normal price is \$179.00 (US funds) and my readers will get \$20.00 discounted from that price when ordering from their Web site [ <http://store.yahoo.com/man-machine-store/> ], or by calling 301-341-4900. Also by e-mailing them at [ [sales@man-machine.com](mailto:sales@man-machine.com) ]. Shipping is approximately \$8.00 in the USA. Use the coupon code “click” when ordering for your \$20.00 discount. This offer expires April 30, 2003.

If you have a swimming pool you might consider putting one of these keyboards in the pool. That way people could send an e-mail

for help if they are drowning. It is supposed to work in water, right?

#### **\*You'll Come Clean With This One**

I saw this at Comdex and liked it. Mine works great. The LENS PEN is a very efficient and easy-to-use optical lens cleaning system. It's designed for all optics including cameras, camcorders, telescopes, binoculars, riflescopes and spotting scopes. Containing a non-liquid compound that will not spill or dry out, the LensPen system is safe, user-friendly and its compact size fits into almost any pocket.

Then there is the MiniPro for smaller lenses. MiniPro is specially designed for digital and advanced photo system cameras, microscopes, pocket binoculars, and small eyepieces. The same LensPen cleaning system is employed in this great new product: a soft, natural brush to wipe away excess dirt, and a flexible cleaning tip with special cleaning compound.

These products are said to be safe to use on all lenses. Offers flexible cleaning tip, non-liquid cleaning compound that will not spill or dry out, reduces static built-up, prevents corrosion and fits easily into any pocket or bag. Check the product further at [ <http://www.lenspen.com> ]. The DealsGuy price on either the LensPen or MiniPro is \$9.95 in US funds plus S&H, which will be about \$6.00 in the USA. To order at that price, contact Leona Borsa at 1-877-608-0868 and mention the DealsGuy column, or use the magic words ‘Bob Click’ when ordering. This deal is good until April 30, 2003.

#### **\*Do You Need A Fix?**

Don Singleton, APCUG Vice-president, alerted me to this one. It is called BigFix and is actually a free download. It analyzes your computer to see what fixes it might need, then guides you through them. It also alerts you of updates you need and does that for you. Here is their description:

“The BigFix solution leverages the reach of the Internet and the power of modern computers to create a mass preventive maintenance system that enables mass identification and elimination of computer problems before they cause failures. The BigFix solution can automatically monitor and detect a problem, proactively alert users or administrators to the problem before a failure occurs, and fix it on one or more machines at once with the click of a mouse. Because the BigFix solution can find and cure thousands, even millions of computers at once, it changes the nature and economics of technical support as well as desktop management. Unlike other available approaches, the BigFix solution simplifies maintenance, reduces support costs, and increases user satisfaction by finding problems before, not after, users experience a failure.”

To download this product, go to [ <http://www.bigfix.com> ]. Don gave me the URL for an in-depth write-up by Richard J. deJongh of Tulsa Computer Society. [<http://tcs.org/ioport/nov02/bigfix.htm> ] I have not tried it so I have no experience using it.

That's it for this month. Meet me here again next month if your editor permits. This column is written to make user group members aware of special offers I have found or arranged, and my comments should not be interpreted to encourage, or discourage, the purchase of products, no matter how enthused I might sound.

Bob (The Cheapskate) Click [[Bobclick@mindspring.com](mailto:Bobclick@mindspring.com)]. Visit my Web site at [<http://www.dealsguy.com>] for past columns. Also, I keep adding interesting articles (taken from user group newsletters) to my “Articles of Interest” page for viewing or downloading.

## Review of a new “partition manager”

by "Dave Gudewicz-  
CARTS LUG Chair"

In my quest to install Linux on my home PC, I needed to find a tool to partition the hard disk. First that came to mind was Partition Magic(PM). Its been around awhile, saw it mentioned here a few times, etc.

Looked around for comments and found about a 50/50 split on using PM. Some said it didn't work well with XP, others said it ruined things, etc. Of course there were comments to the contrary. I then looked to buy it, saw how much it cost and looked around for a similar product.

What I found was 7 Tools Partition Manager 2003. Lots of features, similar to PM and cost was \$29.95 to download. So I took the plunge.

I've since used it to partition my HDD for XP and Linux with no problems. It has a Boot Manager that can take on things as LILO/GRUB does in the LINUX world. It can compress the MFT in the windows environment, which I have used successfully. You can boot Partition Manager or Boot Manager from floppy and perform operations in that or the Windows environment. I have e-mailed their support on a few questions/suggestions and they were answered promptly.

Nice product. Works as advertised. Good support. Good price. I give it a thumbs up.

[www.7tools.com](http://www.7tools.com) for further info. Be patient with this URL. It hasn't work at times.

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## What is Linux



Linux is an operating system that was initially created as a hobby by a young student, Linus Torvalds, at the University of Helsinki in Finland. Linus had an interest in Minix, a small UNIX system, and decided to develop a system that exceeded the Minix standards. He began his work in 1991 when he released version 0.02 and worked steadily until 1994 when version 1.0 of the Linux Kernel was released. The current full-featured version is 2.4 (released January 2001) and development continues.

Linux is developed under the [GNU General Public License](#) and its source code is freely available to everyone. This however, doesn't mean that Linux and its assorted [distributions](#) are free -- companies and developers may charge money for it as long as the source code remains available. Linux may be used for a wide variety of purposes including networking, software development, and as an end-user platform. Linux is often considered an excellent, low-cost alternative to other more expensive operating systems.

Due to the very nature of Linux's functionality and availability, it has become quite popular worldwide and a vast number of software programmers have taken Linux's source code and adapted it to meet their individual needs. At this time, there are dozens of ongoing [projects](#) for porting Linux to various hardware configurations and purposes.

Linux has an official mascot, the [Linux Penguin](#), which was selected by Linus Torvalds to represent the image he [associates](#)

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with the operating system he created.

Although many variations of the word Linux exist, it is most often pronounced with a short " i " and with the first syllable stressed, as in LIH-nucks.

## General Linux Resources on the Web

### [Why Linux is Great](#)

Linux advocacy information -- why Linux is better a better alternative to other operating systems.

### [How to Pronounce "Linux"](#)

Audio clip of Linus Torvalds pronouncing the word "Linux" in Swedish. [English version.](#)

### [The Linux Counter](#)

Over 123,000 Linux users have registered for the Linux Counter, with an estimated total of over [18 million Linux users worldwide.](#)

### [Linux Center](#)

Categorized Linux links. Also available in [French.](#)

### [Linux Links - The Linux Portal Site](#)

Extensive list of categorized Linux links.

### [Linux Newbie](#)

Linux Newbie site complete with Newbieized Help Files.

### [Linux Quotes](#)

Assorted Linux quotes from usenet and signature files.

### <http://www.linuxvalley.com/>

Italian language Linux info.

### [Uk.Linux.Org](#)

Overview of Linux and sources of documentation. Also hosts several ongoing Linux projects.

### [LinuxHQ](#)

What's new in the latest Kernel, patches, and upgrade information.

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**Alienation and the Rise of  
User-Driven Development**

*The Technological Sphere*

**“Organization is highly overrated.”**

**- Linus Torvalds, *LinuxWorld Conference*, 8/29/01**

**The technological revolution that swept the world in the**

**latter half of the 20<sup>th</sup> century has had a decisive impact on the creation of society as we know it today. Information technology's ability to facilitate communication and process data at speeds previously unknown to the world has transformed both the products available to our society and the processes by which societal interaction takes place. In the next pages I will briefly examine three of the key developments in technology in the latter half of the 20<sup>th</sup> century: the development of the personal computer, the creation of the Internet, and the rise of the open-source software movement. In each case I believe we can see the cultural struggle to empower individuals in the process and product of their labor as playing a decisive role in both the way these technologies were developed, and in the final products that have been created.**

**The creation of the personal computer is something that is taken for granted in today's world, however the history that defined its form and creation is full of chance, blunders, and an unorthodox spirit that would surprise the millions of PC users today. In the 1940's and 1950's the world of computational machines was dominated by enormous mainframe systems. Based on the machines that had been developed during the Second World War as deciphering tools, the first**

**general purpose computer was introduced in 1946 and called the ENIAC (Electronic Numerical Integrator And Calculator). It was massive, to say the least, weighing 30 tons, having metal structures nine feet tall, and occupying the space of a gymnasium.<sup>1</sup> Soon afterwards, IBM and the Remington Rand Corporation began selling other similar commercial machines to do what would be seen today as basic computations. These "mainframe" systems, as they were called, functioned on a core-to-terminal relationship. The centralized mainframe computers contained all data storage and information processing power, while the terminals connected to the mainframe could only input or request information. As a result of this structure, the data processing division of organizations (and those that directed them) inevitably had exclusive control over how any information would be developed, organized, or distributed. In many ways these systems perfectly paralleled the central command structures of Soviet style governments. Such structures were seemingly efficient, but they were also centralized, hierarchical, and effectively alienated users from the process and product of the computing experience. Of course the traditional bureaucracies saw this technological structure as natural, for in many ways it modeled the traditional hierarchical social institutions of the time. Thomas Watson, Chairman of IBM in 1943,**

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<sup>1</sup> See Castells (2000 v.1: 42-45).

famously described what he saw as the future of computers – several large centralized super-computers, with terminals to the people of the world. His prediction in 1943: “I believe there is a world market for maybe five computers.”<sup>2</sup>

This centralized system, however, would not stand the test of time, nor the cultural revolution that began in the 1960’s. The invention of the microprocessor in 1971 effectively put an entire computer on one chip, and introduced the possibility of bringing computing power to the people. In 1975 Ed Roberts built a “computer in a box,” and named it the “Altair” after a character in the TV *Star Trek* series. Inspired by this, two school drop-outs built the first commercial computer that was small enough, and manageable enough, to be used by an individual. Their names were Steve Wozniak and Steve Jobs; their computer was the Apple I.

The introduction of the Apple to the computing scene was revolutionary. Instantly small businesses and individuals could have computing power that formerly was the exclusive domain of governments and corporations. The ideological foundations of those involved in this shift were explicit – they believed that

the power of computing needed to be returned to individuals. The San Francisco Bay Area proved the perfect place for such innovation in that it combined a highly technically educated group with a socially progressive cultural milieu. Microcomputer industry pioneer Jim Warren said of the time, “It had its genetic coding in the ‘60s . . . [and its] antiestablishment, antiwar, pro-freedom, antidiscipline attitudes.”<sup>3</sup> Freiberger summarizes in his excellent history of the era:

That movement was developing in the San Francisco Bay Area out of the spirit of the times and the frustration of those who . . . knew something of the power of computers. Resenting that such immense power resided in the hands of a few and was so jealously guarded, those technical revolutionaries were actively working to overthrow the computer industry hegemony of IBM and other companies, and to defrock the “computer priesthood” of programmers, engineers, and computer operators who controlled access to these machines.<sup>4</sup>

The most influential written work of the time was Ted Nelson’s *Computer Lib*, a pamphlet that called for

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<sup>2</sup> Freiberger (2000: 1).

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<sup>3</sup> Freiberger (2000: 111).

<sup>4</sup> Freiberger (2000: 113).



**“Computer power to the people!”<sup>5</sup> This work quickly became the manifesto of this young group of innovative computer fanatics. In the words of Lee Felsenstein: “Ted succeeded with *Computer Lib* to rally a rabble of latent crackpots into an anarchistic army which breached the sanctum of Official Computerdom and brought computers to everyone.”<sup>6</sup> Groups such as the famous Homebrew Computer Club (with members such as Steve Wozniak, Steve Jobs, and the young Bill Gates) met to informally share ideas and work together to expand this personal computing revolution. One of the early flyers for the group expresses their informal, cooperative attitude well:**

*Are you building your own computer? Terminal? TV Typewriter? I/O device? Or some other digital black box? . . . If so, you might like to come to a gathering of people with like-minded interests. Exchange information, swap ideas, talk shop, help work on a project, whatever.<sup>7</sup>*

**In short time Wozniak and Jobs had refined their first computer by adding a built-in keyboard, color monitor, and operating system. The Apple II, as it was**

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<sup>5</sup> Freiberger (2000: 442).

<sup>6</sup> Freiberger (2000: 442).

<sup>7</sup> Freiberger (2000: 109).

**called, was enormously successful. Having begun by selling their Volkswagen bus and two scientific calculators for capital, within ten years Wozniak and Jobs were doing \$583 million dollars in sales per year.<sup>8</sup> IBM, which had earlier ignored the innovations by these reckless upstarts, now found itself almost hopelessly behind in technology. They recruited the Harvard drop-outs Bill Gates and Paul Allen, along with their fledgling software company “Micro-soft,” to develop a BASIC language and operating system for the “PC” – their version of Apple’s personal computer.**

**Though IBM’s actions may seem minor today, at the time it was nothing less than a total upheaval in the traditional business outlook of this corporate giant. IBM had forever relied on the tightest secrecy for their mainframe parts and programming languages. With their PC endeavor, however, IBM agreed to set up both the hardware and the software on an “open-architecture.” This basically meant that the technical data on the parts and programming language of the computer would be available to anyone. On one hand this introduced the possibility of cloning, which ultimately lead to the IBM PC’s demise. On the other hand, however, it enabled individual software developers and computer makers to take the designs of IBM and**

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<sup>8</sup> See Shurkin (1984: 310) and Castells (2000 v.1: 43).

improve on them. The PC, with its Intel-type processor and the basic MS-DOS operating system, flourished and soon became a dominant standard. Apple, meanwhile, had begun to tighten the secrecy around their standards in order to keep total control over the quality of their products. Though the Macintosh was revolutionary in 1984 with its desktop-icon system and mouse, the difficulty for average computer developers to gain access to and develop these products was prohibitive. Apple's products may have been superior, but soon PC's became the global standard because of the easy access companies had to developing new and innovative hard and software for them.

Thus we have the birth of the personal computer. It can be seen quite clearly that these early entrepreneurs were reacting against the alienating systems of corporate computer design and culture, hoping to empower people in the process and product of their interaction with this new technology. Interesting to note is the fact that when companies began to clamp down on their technological information, the rate of diffusion and improvement of that technology waned. This is an important aspect of de-alienation in the informational paradigm. Since information is the key building block for developing new information technological tools, free access to it

allows others to create their own additions while encouraging cooperation and rapid innovation. The secretive culture of the early IBM and the late Apple doomed them to failure because this centralization of information disempowered those that might have been able to add in meaningful ways to the project. One again, we see how alienating systems in the 20<sup>th</sup> century have lead to stagnancy, while de-alienating systems have garnered much public support and lead to prodigious increases in creativity and innovation. We will now turn to the Internet and the history of its development as another perfect example of how in the later half of the 20<sup>th</sup> century this cultural endeavor for de-alienation lead to a world transforming technology.

The development of the personal computer had effectively given individuals the power to process their own information and develop their own products, however this atomization of individual computer users would not last for long. Initially set up as a research program for the US Defense Department's Advanced Research Projects Agency (DARPA) a group of computer scientists were developing a system of computer networks that would be able to survive any type of war-time attack. Such a system would have to be independent of any central controls: the messages sent into the system would need to independently find their

own way through the network, re-route if necessary, and be re-assembled at their destination. In 1969 the ARPANET was finally constructed with nodes at several large universities that were collaborating with DARPA. As years went by, more and more institutions were added to the network and professors at the universities began using the system to not only share information, but to do personal chatting. In 1983 the military split off their own network from ARPANET, and soon the ARPANET backbone was given over to the National Science foundation and eventually renamed the INTERNET. In 1995 this backbone of what would be the Internet we know today was fully privatized in agreements between corporate networks and cooperative, nonprofit networks.

Key in this whole process of creation, however, was the culture of the computer scientists involved. In her excellent work *Inventing the Internet*, Janet Abbate provides us with a systematic analysis of how the designers of the ARPANET, “incorporated their own values of collegiality, decentralization of authority, and open exchange of information into the system.”<sup>9</sup> The U.S. military had funded the project with practically no strings attached, believing that the scientists would need complete intellectual freedom to develop such an

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<sup>9</sup> Abbate (1999: 5).

innovative system. The scientists and graduate students involved were products of the 1960's, and as such believed that any organization imposing its dictates would hamper the creative process. Thus a system of decision making was developed that that was decentralized, networked, and mutually empowering. Any user of the APRPANET was invited to send Requests for Comment (RFC) to an online bulletin board where members of the Network Working Group (the collaborative group that managed the ARPANET) and others would then respond with comments and suggestions. These RFC were encouraged to be daring, in order to fully empower each individual's creative thought. According to their early documentation, the RFC's could be “any thought suggestion, etc. related to the HOST software or other aspect of the network . . . Philosophical positions without examples or other specifics, specific suggestions or implementation techniques without introductory or background explication, and explicit questions without attempted answers are all acceptable.”<sup>10</sup> Through these RFC's and NWG meetings a consensus would usually arise regarding the best course for further development of the network. Notable is the fact that the people contributing to these discussions were invariably other students and professors who were using the network. Thus, in

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<sup>10</sup> Abbate (1999: 74).

Abbate's terms, "the distinction between the producers and the users did not even exist."<sup>11</sup> "User-driven development" became the key phrase to describe such a dynamic atmosphere where those using the technology were also those determining the process and product of its creation. This tradition of user-driven development had already been firmly established in the culture of the early personal computer creators, but found exponential power when the contributions of thousands were now brought together in a collaborative setting to create what would be one of the largest systems of information sharing the world has ever seen.

With the backbone of the Internet established there was little time before it began to resemble the Internet we know today. Two young students in Chicago developed a system for sharing computer files over a telephone line in order to avoid going outside in the snowy winters. This technology was openly shared, improved on by their friends and colleagues, and ultimately became the personal computer modem we know today. Groups began to connect over these telephone lines to form grassroots on-line discussion groups amongst those who were excluded from the

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<sup>11</sup> Abbate (1999: 5).

Internet backbone. Eventually these informal networks would be incorporated into the Internet, furthering its reach to those outside of the former APRANET system. Tim Berners Lee, drawing on some of Ted Nelson's ideas in *Computer Lib*, created a series of protocols that would allow different users on the Internet to share text, images, and sound, while leaving hypertext links to other sources of information. The use of these protocols would define forevermore what he called the "World-Wide Web." Marc Andreessen, a college student working part-time for \$6.85 per hour and "bored off his ass" decided it would be fun to develop a piece of software that would integrate the sound, video and text in a visually appealing way. His creation, Mosaic, was the first Web browser, and the predecessor of Netscape Navigator.<sup>12</sup>

Thus the Internet of today was created, with its development and structure profoundly influenced by the ethics of its creators. The Internet was formed in a process that empowered its innovators to literally own the process and product of their labor, while the product of their creation is a system that gives the end user an essential role in the development of the network. It is almost unthinkable that such a system would have come into being without this cultural influence that placed such a large emphasis on de-alienating labor. We will

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<sup>12</sup> Castells (2000 v.1: 49-51).

now turn to see how this same dynamic has permeated “hacker culture,” the “Open-Source” movement, and the development of one of the most sophisticated operating systems of today, Linux.

As we have already mentioned, the earliest days of computer programming were dominated by a select, secretive groups of programmers who were employed (and directed) by companies to give functionality to their large mainframe hardware systems. In the early 1960’s, however, a new culture was beginning to form in the computer departments of MIT, Stanford, Berkeley, and Carnegie Mellon. They called themselves “hackers” and were the best, brightest, and most innovative of software programming students.<sup>13</sup> These students were directly inspired by the social upheaval of the 1960’s and had as core values voluntary cooperation and the free and open access of information. By the 1970’s the budding ARPANET had provided these students with a forum to discuss ideas and share innovations. In the late 70’s and early 80’s AT+T labs began to develop an operating system called “Unix” that was much more flexible than any of

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<sup>13</sup> Here we should make a correction to the common understanding of the term “hacker.” In programming culture a “hacker” refers to anyone who programs software, also referred to as “hacking,” or “writing code.” A person who uses his or her hacking talents to break into encoded computer systems is called a “cracker.” Someone who breaks into computer systems to steal money or goods is referred to as a “thief.” Castells (2001).

the past, utilized networked resources unlike any other, and could easily file-share though a telephone line. A free, even more versatile Unix was soon developed by famous hacker Richard Stallman, and quickly became the standard programming environment for hackers as they continued to cross fertilize their ideas while utilizing the growing ARPANET and early Internet. Because they insisted on the importance of keeping this valuable information in the public domain, these hackers became the earliest members of what would eventually be called the “Open-Source” movement.

In the meantime, however, the personal computer revolution had taken place. Suddenly there were microcomputers using the Intel 386 chip (such the early IBM PC) that were dramatically smaller and less expensive, but almost as powerful as the “minicomputers” that were running Unix and ARPANET systems at the universities. While different Unix protocols for the larger computer systems were being decided, the dramatically inferior Windows operating system had gained almost complete dominance in the PC world. It seemed that the ingenious, network-based logic of the Unix operating system (and the mainstay of hacker/open-source culture), might have been lost to the sheer market dominance of Windows, had it not been for a young Helsinki University student

and what has been called “one of the greatest volunteer movements in history.”<sup>14</sup>

From his closet space at the University of Helsinki, Linus Torvalds set out in 1991 to develop a version of Unix that would work on a standard Intel processor. While several others had already begun this process, Linus’s method was distinct. In true open-source fashion, Linus posted all of the information regarding his creation on the Internet and asked for any input. Soon there were thousands of hackers throughout the world collaborating by giving their criticisms, insights, and additions to the operating system that had become known as “Linux.” There was no single decision maker in the system, rather the options would be discussed online until an obvious choice would present itself. The online community that had formed would then freely distribute the current version of Linux, more critiques would be received, a next version would be released, and so on. The only regulation in the process (later legalized as the General Public License) was that any piece of software using the code would also have to be “free” (i.e., not-copyrighted) and “open” (the source code could not be encrypted). The popularity of Linux with the hacker culture swelled as Internet service grew in availability during the early 1990’s, and the

Linux developing community extended to the most talented programmers in the farthest corners of the earth. Large corporations began to adopt Linux, for not only was it free, but it was also easily modified to fit the specific needs of each corporation. Each corporation’s additions to the system would then be posted online by their IT department, only continuing this virtuous cycle of product improvement. In only a few years, a free and voluntary software movement had created an operating system that could challenge the billion-dollar market dominator, Microsoft.

Millions of users worldwide embraced Linux, especially among Internet Service Providers and other Web-related companies because of the Unix/Linux system’s superiority in managing networked resources. The growth of network-based technologies in recent years has only continued this explosion of interest in the operating system. In March 2001 an IDC survey found Linux to be used within 25% of corporations in Western Europe and the United States.<sup>15</sup> IBM, still the largest factor in the computer market, has completely embraced Linux, putting out a dramatic advertising campaign proclaiming “Peace, Love, and Linux,” while integrating practically all of their hardware and software with the Linux system. Another leader in the business computer

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<sup>14</sup> *USA Today*, 1/4/2002.

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<sup>15</sup> Gillen (2001: 1).

market, Oracle Corporation, has recently declared that they will be restructuring to run their “whole business” on Linux.<sup>16</sup> HP, Compaq, and Intel have similarly devoted millions to ensuring that they will be active players in the exponentially growing open-source world. Developing countries are turning to Linux as well, seeing it as a reliable and inexpensive alternative to proprietary operating systems for their countries’ infrastructure. The Chinese government has already begun to promote Linux as the operating-system-of-choice in their massive technological plans, for it is at once inexpensive, flexible, high-quality, and frees them from any dependence on a certain company in Redmond, Washington.<sup>17</sup> It is predicted that similar trends will become the norm in other developing nations, for in a very real way Linux empowers them to control the process and product of development in their country’s technological infrastructure.<sup>18</sup> Even the financial center of the first world, the New York Stock Exchange, has begun to run several of its computer systems with the Linux operating system.<sup>19</sup>

The advantage that Linux has, of course, is not technical but sociological. That is to say, the great

technology that makes Linux so attractive to users is a direct result of the way in which Linux has been developed. First, Linux was the first computer project to use the entire world as the source for its talent pool. Second, and just as important, is the fact that Linux develops not according to a strict plan sent from the corporation on high, but directly from needs, wants, and experiences of its users. In this way Linux constantly evolves, benefiting from the innovation of millions of users as they find solutions to their own particular problems and contexts. Individuals are empowered to become owners of their own labor, and then are fed into a system to collectively work on developing the future of the software. Linus Torvalds describes this organizational style (or dis-organizational style, as he would call it<sup>20</sup>) by alluding to the official Linux mascot:

Think of penguins in Antarctica and you’ll get the idea. You’ll have these people at the edges that want to go in one direction, but at the same time they want to have the other penguins with them to keep warm, so that they’re not standing out there freezing to death. So they’re pushing in different ways, and I’m in the middle with a big red flag

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<sup>16</sup> Niccolai (2002).

<sup>17</sup> BBC News, 1/8/2002, <http://news.bbc.uk>, and CNET, 3/21/2001, <http://news.com.com>.

<sup>18</sup> Dembeck (1999).

<sup>19</sup> Berger (2001).

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<sup>20</sup> At the 2001 LinuxWorld convention Linus Torvalds responded to a question regarding the open-source movement’s organizational structure by saying, “People think that Linux is organized. I’ll tell them this is a big, fat lie.”

where people can use me as a way to see  
where the community is going.<sup>21</sup>

This system's similarity to the anarchist ideals of free and voluntary cooperation is not lost to those who study it. In his classic *The Psychology of Computer Programming*, Gerald Weinberg identifies the differences between corporate-proprietary software development and the open-source movement by quoting what 19<sup>th</sup>-century anarchist Pyotr Alexeyvich Kropotkin called the difference between "acting on the principle of command and discipline" versus "acting on the principle of shared understanding."<sup>22</sup> Eric Raymond famously distinguished the differences between proprietary software development and the open-source model as the difference between "The Cathedral and the Bazaar."<sup>23</sup> No matter what the analogy, the open-source movement has clearly embraced a format that has grown out of its conviction regarding both the importance of individuals to freely own their own labor, and the belief that such de-alienating work naturally lends itself to collaborative effort. Raymond summarizes his findings in a way that once again epitomizes the open source belief in the true value of empowering individuals to be free agents in

their labor:

Relating to your own work process with fear and loathing . . . should therefore be regarded in itself as a sign that the process has failed . . . Our creative play has been racking up technical, market-share, and mind-share success at an astounding rate. We're proving not only that we can do better software, but that *joy is an asset* . . . *Enjoyment predicts efficiency.*<sup>24</sup>

Thus we can see the development of the Personal Computer, the Internet, and the Open-Source Movement as all having been dramatically influenced by the cultural ethos that came out of the liberation movements of the 1960's and their value put on individual freedom and free cooperation. This process in the technological world came to be known as "User-driven development," a term that changed forever the course of the high-tech industry, and is perhaps the perfect phrase for defining this shift to a system of de-alienating labor. As in the New Social Movements, the participants in this new paradigm have been empowered with control over the process and product of their labor, and are actively expressing their labor in a decentralized, cooperative, networked environment. To the surprise of many coming from the traditional models of organization, this system

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<sup>21</sup> McMillan (2000).

<sup>22</sup> Raymond (1999: 63).

<sup>23</sup> Raymond (1999), emphasis in original.

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<sup>24</sup> Raymond (1999: 75,74).



has been incredibly effective. In this system the full expression of each individual's creativity is unleashed, and then the work of these individuals is brought together to create a whole that is greater than the sum of its parts. The participants' attitudes toward this process are telling: They have fun. In Raymond's words: "It may well turn out that one of the most important effects of open source's success will be to teach us that play is the most economically efficient mode of creative work."<sup>25</sup> Though it may seem trite, Linus Torvalds ends his autobiography with a statement that speaks to the joy and ultimate effectiveness that comes with a de-alienating system of free and collaborative labor: "This probably means that if and when we ever meet another intelligent life form in this universe, their first words are *not* likely to be 'Take me to your leader.' They're more likely to say 'Party on, dude!'"<sup>26</sup>

EDITOR: The above was extracted with permission from a Master's Thesis by **Anthony Vinciguerra** at the Graduate Theological Union in Berkeley, California, April 2002

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<sup>25</sup> Raymond (1999: 63).

<sup>26</sup> Torvalds (2001: 249).

## "The Cathedral and the Bazaar"

by Eric Steven Raymond

a book review by Richard Seltzer

[seltzer@samizdat.com](mailto:seltzer@samizdat.com),

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

I had read the title essay "The Cathedral and the Bazaar" on the Web about a year ago. In fact, I held a series of chats on the subject (which I considered to be "the Linux development model" [www.samizdat.com/chat100.html](http://www.samizdat.com/chat100.html), [/chat101.html](http://www.samizdat.com/chat101.html), and [/chat102.html](http://www.samizdat.com/chat102.html)). So when the book came out, I presumed that I knew what it was all about. I just figured the author had expanded on that single brilliant idea and blown it up to book size. Little did I expect a book with such a broad scope and such far-reaching implications.

The title essay examines the question of how to make "open source" software projects work. In the background is the incredible success of Linux. In the foreground is the development of a mail utility with the author as the leader. Based on his experience, he tries to explain how it is possible to manage such a project -- with self-selected volunteers all over the world identifying and fixing bugs and contributing new code. The contrast is between software which is developed like a cathedral by a group working in isolation and only releasing the code when it is "totally finished"; vs. the open "great babbling

bazaar" which is how open source development is described. He tries to understand what makes an effective manager in such an environment, and how to keep the volunteer team motivated and on target.

In the additional essays that appear in this book, Raymond takes a closer look at motivation, and comes to the conclusion that open source coders operate as in "gift economy" as opposed to an "exchange economy." The classic anthropological case of a gift economy was the Kwakuitl from the vicinity of what is now Vancouver. Their social status was determined not by what you possessed but by what you could give away or deliberately sacrifice/destroy. This type of behavior/motivation is characteristic in cases of abundance -- whether for an entire society or a class within a society. The conspicuous consumption of Veblen's "leisure class" is an instance of this general phenomenon. It is easy to see it in operation in the exorbitant expenditures of Hollywood celebrities on parties and weddings, and the public charitable contributions of the wealthy. Raymond's application of this concept to the realm of open source coders is both unexpected and convincing.

He examines the behavior patterns of this set of people with the eye of an anthropologist, presuming that the truth lies in what they do rather than in the reasons they publicly state for their actions. He uncovers interesting contradictions between public statements and actual motivation, and makes a strong case for their close adherence to a rigid set of unwritten rules. As a key player in the very society that he is describing, he proudly takes on the very unanthropological role of helping these people better understand what makes them tick, as well as helping would-be leaders better understand how to lead in such an environment.

In other words, enabled by the Internet, a self-selecting group of people has evolved which operates with the motivations of a gift

culture/economy. This culture crosses all geographic barriers and all social barriers, where membership has nothing to do with wealth or class in the traditional sense. Marx would have been dumbfounded.

As if that were not enough, Raymond goes on to make convincing arguments that two well-established "laws" of human behavior do not apply in this case.

According to Garrett Hardin's "tragedy of the commons," without law and supervision, a village of peasants will turn their common -- where all are free to graze their livestock -- into a mudhole. While they all might be aware that cooperation is necessary, without enforcement they each greedily try to grab as much as they can for their own livestock, which destroys the resource for all of them. Following such a model, one would expect that a team of software engineers could not stay together voluntarily for any extended period of time, that greed would lead to its inevitable and rapid collapse. But, as Raymond points out, "using software does not decrease its value. Indeed, widespread use of open-source software tends to increase its value, as users fold in their own fixes and features (code patches). In this inverse commons, the grass grows taller when it's grazed on." (p. 151)

Likewise, "Brook's Law" from the book *The Mythical Man-Month* by Fred Brooks, predicts that "as your number of programmers ( $N$ ) rises, work performed scales as  $N$  but complexity and vulnerability to bugs rises as  $N$  squared, which tracks the number of communications paths (and potential code interfaces) between developers' code bases. Brooks's Law predicts that a project with thousands of contributors ought to be a flaky, unstable mess. Somehow the Linux community had beaten the  $N$ -squared effect and produced an operating system

of astonishingly high quality." (p. 199)

Raymond's examination of what makes that possible leads to the inevitable conclusion that not only is open source development possible, but rather that it seems to be the only economically viable way to develop a large and important piece of software that will affect many people.

At the beginning of the book, it seemed like Linux was the anomaly -- a special case that might never reoccur. By the end, it appears that Microsoft is the anomaly -- that it is extremely difficult, extremely expensive, and almost impossible to build a program as immense as the Windows operating system without the help of a vast community of volunteers. With the Internet as an enabler, with Linux, Apache, and other projects as clear examples, and with Raymond's analysis of how it all works, open source seems to be the only logical way to go. The cathedral is not an alternative to the bazaar. Rather it is an historical artifact, an outmoded method of operation, left over from pre-Internet days.

Then with clear-headed balance, Raymond, rather than simply proclaiming victory, considers the limitations of open source, and when and how a balance of proprietary and open approaches is necessary.

All in all, this book helps open our eyes to an important new force that is changing the high-tech business world today. And at the same time, it leads us to re-evaluate what had seemed like fundamental concepts of human nature and destiny. He starts by asking intriguing questions about how software is developed, and winds up providing valuable insight into the question of "what is man?"

## MINUTES Steering Committee meetings

**The San Francisco PC Users Group Steering Committee meeting of January 7, 2003, was held at Round Table Pizza.**

**Present were Butler Crittenden, Judy Gaer, David Ross, Pierre Hahn, Don Oclassen, David Caldwell, and Chuck Dall**

**The meeting was called to order at 19:00, chaired by club president Butler Crittenden. The minutes of the December 2002 meeting were distributed. A motion was made, seconded and passed that the minutes be approved as corrected.**

**The Treasurer's report – The treasurer was not present but had submitted his report via Butler. The report again showed a healthy balance with one membership renewal and a nice sum from the auction.**

**The Vice-President's report was that he has a couple of 133 MHz computers to donate if the club needs them to donate to a worthy person or cause.**

**The President's report – The club donated a**

**computer to a college student with speakers donated from the club, a modem and printer donated by Pierre and with 5 hours of work from our esteemed president to put it all together. Butler will send out a request to see what people have to donate and see if we can put together some computers to donate to worthy people or causes. The wonderful secretary suggested the club make putting these together a learning experience so the esteemed president doesn't have to do it all himself.**

**The Webmaster's report – The webmaster was not present. Butler gave a report on progress on the server. The RAM was increased b7 256 MB to 384 MB. A motion to appropriate \$110 dollars for this was approved unanimously.**

**The Membership Committee – We had one renewal membership this month.**

**The Blue Notes Editors' report – The next issue will be out in a week or so.**

**The Product Review report is that there is no change.**

**The Program Chair report is that we have Aladdin Systems in January, AMD in February, a Linux training company in March and possibly a past presidents panel in April.**

**Old Business – The auction did very well.**

**New Business – It was proposed that we poll the membership to see if anyone has spare old operating systems to put on the donated computers.**

**A motion was made that the meeting be adjourned. After seconding, the motion passed with no abstentions. Butler adjourned the meeting at 19:34 hours.**

**Respectfully submitted, Judy Gaer, Secretary**

**The San Francisco PC Users Group Steering Committee meeting of February 4, 2003, was held at Round Table Pizza.**

**Present were Butler Crittenden, Judy Gaer, David Ross, Pierre Hahn, David Caldwell, Harold Charns, and Joseph Puig.**

**The meeting was called to order at 19:04, chaired by club president Butler Crittenden. The minutes of the January 2003 meeting were distributed. A motion was made, seconded, and passed that the minutes be approved as submitted.**

**The Treasurer's report – The treasurer's report again showed a healthy balance. The treasurer also handed out revised reports from December and January, which showed minor adjustments for membership and the holiday auction.**

**The Vice-President's report – Don Oclassen was at another meeting, which he notified Butler about in advance.**

**The President's report – The president is clearing his decks in preparation for a new president (he hopes) to take over in May. He also promised to put a list of software available for review at SFpcUG.org as soon as possible.**

**The Webmaster's report – The new server is not yet hooked up; David Caldwell is helping with new shelving and Joseph Puig anticipates progress during the coming month.**

**The Membership Committee – We had two renewals – one family renewal and one new member.**

**The Blue Notes Editors' report – It is out. The next issue will focus on Linux.**

**The Product Review report is that Butler will have a list soon.**

**The Program Chair report is that we have AMD in February, a Linux training**

**company in March and possibly a past-presidents panel in April.**

**Old Business – Butler will poll the membership regarding available parts to contribute and for suggested recipients for a computer we build.**

**New Business – None**

**A motion was made that the meeting be adjourned. After seconding, the motion passed with no abstentions. Butler adjourned the meeting at 19:38 hours.**

**Respectfully submitted, Judy Gaer,  
Secretary**

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**PRESIDENT** [president@mail.sfpcug.org](mailto:president@mail.sfpcug.org)  
Butler Crittenden 415-346-9321

**VICE-PRESIDENT** [vice-president@mail.sfpcug.org](mailto:vice-president@mail.sfpcug.org)  
Donald Oclassen

**SECRETARY** [secretary@mail.sfpcug.org](mailto:secretary@mail.sfpcug.org)  
Judy Gaer

**TREASURER** [treasurer@mail.sfpcug.org](mailto:treasurer@mail.sfpcug.org)  
Harold Charns 415-861-6043

**Assistant TREASURER** [treasurer@mail.sfpcug.org](mailto:treasurer@mail.sfpcug.org)  
David Caldwell 415-777-1935

**WEBMASTER** [WebMaster@mail.sfpcug.org](mailto:WebMaster@mail.sfpcug.org)  
Joseph Puig 415-564-7730

**PRODUCT REVIEW COORDINATOR**  
Carol Lee [Productreview@mail.sfpcug.org](mailto:Productreview@mail.sfpcug.org)

*Blue Notes* - [bluenotes@mail.sfpcug.org](mailto:bluenotes@mail.sfpcug.org)

**Co-Editors**  
Pierre M. Hahn 415-474-1587  
Tom McLoughlin 510-654-4027

*Blue Notes* **FOR THE VISUALLY IMPAIRED**  
Tom Karnes 415-431-0241

**MEMBERSHIP DIRECTOR** [jbpuig@mail.sfpcug.org](mailto:jbpuig@mail.sfpcug.org)  
Joseph Puig 415-564-7730

**24 hour recording for meeting information** 415-346-2644

**San Francisco PC Users Group  
Application/Renewal/Address Change**

Name: \_\_\_\_\_  
(Please type or print legibly.)

Date: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Home phone: (\_\_\_\_) \_\_\_\_\_

Work phone: (\_\_\_\_) \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

FAX phone: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Please check: \_\_ Renewal member # \_\_\_\_\_      \_\_ New Member

Check type of membership:

- Individual      \$25
- Family          \$30
- Business        \$50
- Outside US      \$25

please send your check to:

SF PC Users Group  
Attn: Membership Director  
3145 Geary Blvd, Box 284  
San Francisco, CA 94118-3300

Please be patient it may take up to 3 weeks to enable the account

Amount enclosed: \$ \_\_\_\_\_ (Please do not mail cash.)