# SLO Bytes HardCopy

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www.thegrid.net/slobytes/

August, 1998

## Raise your standards with Symantec

by Scott Newland

Symantec Corporation, the worldwide leader in utilities and anti-virus software, will be visiting us on August 2nd to demonstrate their award winning Norton Utilities software.

The presentation will be conducted by Mr. L.D. Louks from Symantec's Eugene Oregon office.

Mr. Louks will be arriving with many goodies in hand. There will be software for door prizes, literature, small gifts for everyone in attendance, and most of all a fantastic presentation by Mr. L.D. Louks.

There also will be discount coupons on all of Symantec's PC products at prices that "cannot" be beat anywhere!!

## **Notes from Jerry**

Note 1: A client called to share her excitement (worry and concern) that a one month old hard drive made some gear clashing noises and refused to open windows 95. After a few tries the drive worked without as much as an error other than Windows 95 opening by default in Safe Mode. Neither defrag nor Scandisk could identify problems other than long file folder names that DOS could not read.

Although Hard Drives are relatively reliable, they are the most common point of failure in computers used on networks commercially. An uncooperative hard drive is similar to having a

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## Do We Need a Library? by Bob Ward

I've been keeping mental notes over the past few months how many people are taking advantage of our shareware library. We are an exception rather than the rule when it comes to a user group maintaining a full shareware library at the meetings. In the past it served a real purpose. Why? There was NO Internet.

Other than national subscription bulletin boards or a variety of shareware disks and CD-ROM's which were outdated before they were duplicated, quality shareware was difficult to come by. As librarian for many years, we obtained most of our software by selectively downloading it from EXEC-PC BBS which we subscribed to for \$60 to \$75 a year. Now EXEC-PC is free with over 1.2 million shareware programs there for the downloading. (http://filepile.com/nc/start) No more long distance phone calls or FTP

## SLOBYTES CALENDAR

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August 2, 1998

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Symantec with Norton Utilities & Norton Anti-Virus

## September 6, 1998

☆ SLO Bytes member Dan Logan
☆ discusses his new book on
☆ Windows '98 and writing. His co☆ author is unable to come

### October 4, 1998

ALPS electric Co. will demo their high end resolution instant dry color laser printer

## November 1, 1998

Aladdin Systems, Inc.

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## **Cheap Network**

by Jerry Mintz

Do you rarely need to access information or pass information from one computer to another computer. Does the word protocol send chills up your spine. Do you want a cheep and dirty way to connect two computers to each other including the laptop that you bring home from the office or school?

If you own MS DOS 6.22 you have a program designed to enable you to connect two computers through the existing serial ports or parallel ports. You can attach a printer cable with an adapter at the printer end to enable one computer to talk to another computer.

Interink and Intersvr are programs that enable you to access the hard drive and floppy drive on a remote computer. After attaching a serial or parallel cable, parallel is faster and you have one (less the adapter to the second parallel port) if you have a printer, you must add device=c:\dos\interlnk.exe and appropriate switches such as /lpt1 to the last line in your config.sys file using any word processor or editor. Reboot and start interink on one computer, type intersvr on the other computer. If you have not made any spelling or syntax errors, you will be told how your drives on the remote computer have been redirected to your local computer.

While interlnk if free, so too is the network program in Win 95. The longest dependable length of parallel cable is about 20 feet. The serial cables can be run up to 50 feet but will transmit data at a slower rate

Continued on lower left,page 8

## Buying a Central Processing Unit (CPU): Getting the Most for Your Money

by Doug Moulter & taken from the Monitor: magazine of the Capital PC User Group, Inc., Rockville, MD June 1998

If you're buying a new computer or building one for yourself, you are consciously or unconsciously making comparisons of price and performance. Should your CPU be made by Intel, AMD, or Cyrix, and how fast should it be? Is spending more money going to pay off with visibly better performance? Are you buying the chip in the "sweet spot," the chip that currently offers the most bang for the buck? These are the questions I'm going to try to help you answer in this article. Because there is the unavoidable lag between writing and publication, the prices that I use in my calculations may be greater than the ones you may pay. With my method, however, you can plug you own prices into my matrix and do your own calculations.

As always in my hardware articles, I'm going to have to make some assumptions about you and how you use your computer. The whole "bang for the buck" premise of this article is that you want value for your money; if you are willing to pay more to be at the forefront of technology, you'll want the latest and best regardless of the price, and I have nothing to say to you here. I'm going to assume that you are not someone who wants or needs high performance on the games and other applications that make heavy use of the CPU's floating point unit. Rather, I'm going to assume that most of your time on the computer is spent doing the following: surfing the Internet, working with a word processor, using a simple spreadsheet, using a database, using a presentation program, and using a program like Corel Draw. We can measure the performance of your computer with a program like Business Winstone 98, which tests performance on a series of just such applications.

I don't intend this to be a highly technical article, but I will go into some detail about CPUs. Some of you may be interested to know how they differ, but my point in presenting the information is to illustrate the uncertainties of the upgrade path each of the current CPUs offer. It is becoming less and less likely that you will be able to remove one CPU and simply drop a much newer and faster one in its place. Changes in sockets for the CPU on the motherboard, changes in motherboard bus speed, changes in memory, and changes in required chipsets suggest that you will be swapping out motherboards, memory, and CPUs as a package. It may be more likely that even if you've built your own computers in the past, you will find it easier to buy off the shelf and pass along the whole system to someone else rather than upgrade.

After I've discussed the types of CPU, I'll show you how to do a simple decision matrix to find the current sweet spot for buying. If you want more technical information, I suggest you check the Web sites of Intel, AMD, and Cyrix. An excellent independent source is "Thomas Pabst's Tom's Hardware Page" at http://www.sysdoc.pair.com, a source I've relied on heavily for this article.

## TYPES OF CPU

INTEL

Pentium MMX - This is the original Pentium with multimedia extensions (MMX). It fits into a socket on the motherboard called "socket 7." It is available in speeds of 166, 200, and 233 MHz. The circuits in the CPU are etched at 0.35micrometer size. The bus that connects the CPU to the external devices runs at 66

## Do We Need a Library?

Continued from page 1

through my Poly account. It can be obtained by anyone with an internet account. The same holds true with files we presently obtain from SimTel. (http://www.cdrom.com/simtel.net/) Subscribe totheir listserver and you will receive over 500 email messages a year, each cramed with new or updated shareware.

Although the library requires the most labor to physically set up and tear down, the most computer time to create the disks and have them available for sale, and the most money to maintain the computers even with most parts being donated, it is used by a very few people. I'm talking about 3 to 4 individuals each meeting or less. So I ask the question, is this the best way to use our resources? Yes we have declining membership, but I'm not sure the shareware library is a means of attracting new members anyway.

The user groups who do have a library, handle it much differently. Several programs are chosen and published in their newsletter as we do now. But instead of having the disks available at the next meeting or having computers set up for copying the disks, the member requests the specific programs from the librarian (by phone, email or a signup list at the meeting). The librarian then makes disks with the programs requested, and has them available for the member at the next meeting. The cost in nominal, about 50 cents a disk. We make no money on the deal but we also save a bundle of time and effort by creating disks for only those who want them. We no longer have to spend 30 minutes or longer setting up the computers, money maintaining bad floppy disks, etc. nor time tearing everything down and putting it away. Also I duplicate about 45 disks for each meeting with very few of them being purchased or duplicated by members.

Since this is large change from what

Continued lower right on page 6

MHz. The CPU itself has only a level-1 (L-1) cache of 32 Kbytes.

Tillamook - This is a Pentium MMX designed for mobile computers. To reduce heat generated and power consumption, The Pentium MMX circuit architecture was etched on the chip with Intel's newest 0.25-micrometer techniques. Otherwise the chip is the same as the Pentium MMX.

Celeron - This chip is Intel's attempt to compete in the low budget computer market. It uses much of the Pentium II architecture and the newest 0.25 micrometer etching. Unlike the Pentium II, however, it has no level-2 (L-2) cache; and therefore, produces low scores on business-type applications. It fits into a slot-1 socket on the motherboard. It is currently available only in 266-MHz speed.

Pentium II (Klamath) - This chip has the MMX extensions, but differs from Pentium I chips in that it has both a 32-Kbytes L-1 cache and a 512-Kbytes L-2 cache on board. The L-2 cache runs at half the CPU speed, giving much better performance than the old external L-2 caches that ran at the 66-MHz bus speed. The external bus for this chip still runs at 66 MHz, and the CPU itself is available in 233, 266, and 300 MHz. Etching is at the older 0.35-micrometer size, and the chip fits into a slot-I socket.

Pentium II (Deschutes) - This is Intel's most advanced chip, and is available in speeds of 333, 350, and 400 MHz. It is etched at the newer 0.25-micrometer size. It is designed to run with an external bus of 100 MHz. It also fits into a slot-1 socket and requires a BX chipset. Intel supposedly has a Deschutes chip in development for a new socket, slot-2, which will support a larger L-2 cache running at CPU speed rather than half CPU speed.

#### AMD

K-6 - AMD's chip is a socket-7 chip with MMX extensions that has a 64-Kbytes L-1 cache on board. As a result, it provides better performance on business applications than Pentium MMX chips at the same speed. Its FPU performance is less than Intel chips, but you are unlikely to notice this in any of the applications we have mentioned that you use regularly. It is available in speeds of 166, 200, and 233 MHz in 0.35-micrometer etching and in speeds of 266 and 300 MHz at 0.25micrometer etching. It runs with external bus speed of 66 MHz.

Continued on page 5



safe deposit box or office file and the key or combination not working. When that happens, and we give up on the bad key or combination. We call a locksmith.

Fortunately for the computer world, we have a step that computer users can use to unlock files that are stored on their locked-up hard drives. Peter Norton wrote the book(s) on hard drive operation that I have been following for the last 10 years. Symantec owns Norton's Disk Doctor which has saved many long and involved term papers for busy or freightened students.

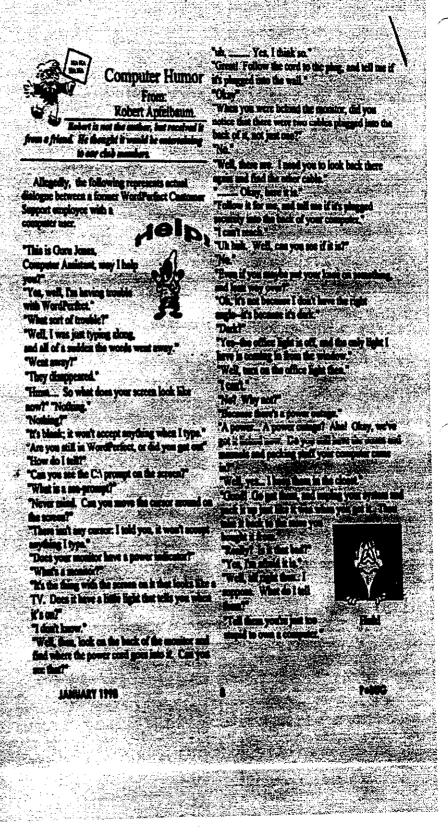
"Norton's DiskEdit" and floppy disk-restore programs allow access to disks that are not readable —"Disk not present" message offered by DOS or Windows. I have had a red face and moist shirt when frantically trying to recover essential documents and data.

After the panicking thought of losing a document forever into the great Hard Drive wasteland, a few stressed brain cells were calmed by my next thought of Norton's tools...

We are privileged to have Symantec come to SLO Bytes Computer User Group to demonstrate their great array of disk tools that help us meet deadlines despite uncooperative disks.

If you save data to your hard drive, this is a must meeting to attend. Circle August 2 on your calendar and bring a pencil and note book.

Note 2: Many Word for Office 97 files can be opened directly from the briefcase on the desktop in Windows 95. Double Click the mouse on the My Briefcase icon.



Submitted by Ed Saur some time ago

#### Continued from page 3

K-6 3D - This chip is unreleased as of this writing, but is AMD's departure from total Intel compatibility. While it also has MMX extensions, AMD is giving the chip an independent graphics extension ability. For gamers, the success of the chip will reflect AMD's ability to provide 3D drivers. For business applications, it will compete with varieties of Pentium II. It will work with a 100-MHz external bus and will initially be available in 250- and 300-MHz speeds.

6x86MX - This chip is Cyrix's 6x86 chip with MMX extensions. It has a 64-Kbytes internal L-1 cache, but L-2 cache must be external. FPU performance on Cyrix chips is generally far below that of Intel and AMD chips. Cyrix rates its chips in comparison with Pentium chips rather than with their actual speeds. which are less by about 20 percent. Cyrix lists a PR166, PR200, PR233, and PR266. The chip fits in a socket 7. M II - This is a continuation of the 6x86MX line at higher speeds. A PR300 is currently offered, and a PR333 and PR350 are promised.

To make a comparison between CPUs, I've used Business Winstone 98 scores and current prices. The Winstone scores are those measured by Tom Pabst and displayed on his Web site previously mentioned. These vary from scores manufacturers show for their own chips, but I prefer to use scores measured independently, and Tom is well known for his independence. His testing is done on comparable hardware (exact same hardware for all chips with the exception of the motherboard), and he gives the details of the hardware on which each chip was tested. The manufacturers generally provide none of this information. For prices, I picked the best 10 prices for each chip as published on the Pricewatch Web site (http://www.pricewatch.com) on May 8 and averaged the first and the tenth prices. I did not include shipping. Checking in the Washington Post for the prices local advertisers are asking, I found the Web prices to be substantially less, over \$100 in the case of the Pentium II 400.

It's worth noting that the price of the processor alone doesn't capture the entire price difference because of the other components that are needed to run it. For example, the Deschutes Pentium II needs a motherboard with the BX chipset, and these motherboards cost almost double the price of a regular motherboard. Socket-7 motherboards are cheapest of all. Fans are not included in the CPU price, and Pentium II fans are about \$25 more than socket-7 fans. Finally, the Intel chips I priced are no doubt the original equipment manufacturer (OEM) versions, which come with a warranty substantially reduced from the "Intel boxed" chips, the latter selling at a higher price.

I have considered only those CPUs that are available for sale today. This leaves out the AMD K-6 3D chips and the Cyrix M II chips, which would be expected to score in the vicinity of the Pentium II 300/66. I have also left out the older Pentium (non-MMX) chips because I have no scores for them and they are no longer made, although you may still be able to purchase them. Due to a smaller L-1 cache than the MMX chips, expect them to perform worse than the MMXs at a given speed. Where it seemed appropriate, I listed the chip with its bus speed. Thus the 300/66 is a 300-MHz CPU with an external bus running at 66 MHz and is, therefore, a Klamath.

Table I represents a multiplication decision matrix. The score is determined by multiplying the Winstone score, the reciprocal of the price, and 100, e.g. (Winstone/price\*100). To understand the results, you only need to know that higher numbers in the score column are better.

Table 1. Multiplication Decision Matrix

Processor Name Score	Winstones	Price (\$)
Pentium II 400/100	25.8	779.5
3.31 Pentium II 350/100	24.4	582.5
4.19 Pentium II 333/100	23.4	474
4.94 Pentium II 300/66	22.8	275

Logitech ScanMan EasyTouch Scanner with software and manuals. Parallel port connector and easy to install. \$ 40.00 Bill McNamara 466-9684 or Wmac@jps.net

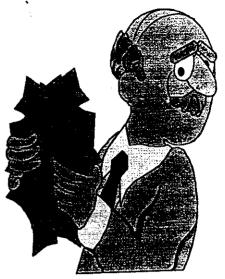
8.29	21.2	237.5
Pentium II 266/66	21.2	207.0
8.93		241
K-6 300/100	19.8	241
8.22		105 5
Pentium II 233/66	19.7	185.5
10.62		100 5
6x86MX PR266	19.4	129.5
14.98		1555
K-6 266/100	19.1	155.5
12.28		01.6
K-6 233/66	18.2	81.5
22.33		.a.
6x86MX PR 233	17.8	68.5
25.99		54.5
K-6 200/66	17.2	74.5
23.09	_	110
Pentium MMX 233	17	118
14.41		164
Celeron 266	17	104
10.37		
Pentium MMX 200	16.2	94.5
17.14	-	

#### CONCLUSIONS

As can be seen from the table, the current chips offering the biggest bang for the buck are the AMD K-6 200 and 233 and the Cyrix PR 233. None of the Pentium IIs scored well, the best being the much older Pentium II 233. For non-gamers, the Celeron is particularly disappointing at its intended clock speed. Serious gamers would be better off paying about \$20 more to get a Pentium II 233 which does as well or better on FPU intensive application.

A reasonable question to ask concerns the reliability of the non-Intel CPUs. To the best of my knowledge, any statistical information on this would be highly proprietary. We must, therefore, rely on anecdotal reports on various Internet newsgroups. Intel and AMD chips seem highly reliable, while Cyrix chips have been the subject of problem reports. In my opinion, the CPU is one of the least likely parts of the computer to fail if not allowed to overheat. Having built two Intel and three AMD systems, I can say that I have seen no failures with either brand. A second question about the reliability of non-Intel is how they work with various operating systems. Both Cyrix and AMD state that their chips are compatible with all the major operating systems. I have found AMD chips to work well with Windows 95 and OS/2.

If you buy a brand name computer, it will, of course, be the manufacturer's responsibility to insure that it works. If you are building your own, you'll have to select hardware that works together. As I mentioned earlier, CPUs must now be matched to motherboards and memory. You can't just buy parts and assume that they will work together. If you are not an experienced builder, the Capital PC User Group "Build Your Own PC" program is a good place to start. Otherwise, plan on doing lots of research on the Web and in newsgroups.



## Time is Running Out

SLO Bytes Raffle September 6, 1998

1st - HP Deskjet 672 2nd - Flatbed Scanner 3rd - Win '95 Keyboard 4th - Win '95 Keyboard

Tickets \$5.00 each
Books of 6 - \$25.00
(6th ticket free)

Proceeds to benefit our overhead projection fund

Bob Ward 2100 Andre Ave. Los Osos, CA. 93402 Email: bward@thegrid.net 528-0121 home

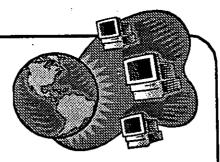
Library?? by Bob Ward cont from page 3

we do now in the library, any feedback will be appreciated. Yes there are a few people who will be inconvenienced, but considering the time and money saved, I believe it's a practical tradeoff.

Those who still want shareware will get it but their will be a lag of one month. And yes, you will have to show up to the next meeting to pick up your disks.

## The Surfboard

· by Dorothy Kirk, IBM/PCUG Redding. kirk@snowcrest.net



THE INTERNET PROVIDES SITES OF NEWSPAPERS FROM ALL OVER. Maybe you don't want to read a Chinese newspaper in Chinese, yet, but maybe you are interested what an Israeli newspaper writes about the USA, or an Australian newspaper. Maybe just reading other newspapers in the USA will broaden your perspective on urban problems, politics, sports, or the woman's page (?). This month is a selection of news and newspaper sites on the Web.

CNN http://www.cnn.com/ - Probably the most read news site on the Web. USA TODAY http://www.usatodav.com/

STRAITS TIMES INTEREACTIVE http://www.straitstimes.asia1.com/-

NEW YORK TIMES on the WEB http://www.nytimes.com/

TIMES MIRROR HOME PAGE http://www.tm.com/home.html - LosAngeles

WALL STREET JOURNAL INTERACTIVE PAGE http://www.wsj.com/

WASHINGTON POST http://www.wsi.com/

PHILADELPHIA ONLINE http://www.phillynews.com/

THE CHRISTAIN SCIENCE MONITOR http://www.csmonitor.com/

THE AGE http://melbourne.citysearch.com.au/ - Melbourne, Australia

THE SYDNEY MORNING HERALD http://www.smh.com.au/

FINANCIAL TIMES HOME PAGE http://www.ft.com/ Business news

INDIAN EXPRESS PUBLICATIONS http://www.expressindia.com/

THE JERUSALEM POST http://www.ipcst.com/

THE IRISH TIMES http://www.irish-times.com/

ABC NEWS http://www.abcnews.com/

THE TIMES OF INDIA http://www.timesofindia.com/

AFRICA NEWS http://www.africanews.org/

SOUTH CHINA MORNING POST http://www.scmp.com/

THE TORONTO STAR http://www.thestar.com/

BBC ONLINE http://www.bbc.co.uk/home/today/index.shtml

FILIPINO INTERNET BUSINESS CENTER http://www.mabuhay.com/

ITARTASS http://www.itar-tass.com/news.htm -Russia

If these sites are not enough for you try http://www.100hot.com/newspaper/ for more listings.

## Defrag, defrag, defrag! by Jerry Mintz

While we have heard that Windows operates faster when defraged, most are not aware that Windows needs mucho continuous unused disk space to write its famous or infamous swap file or virtual memory file to when your sunset at Montano de Oro graphic exceeds the RAM in your computer.

Windows will attempt to put the extra bits and bytes on your hard drive if there is continuous space large enough to store your sunset. picture. Ignore the percentage; defrag even if your hard drive is 0% fragmented. One byte in the middle of the free hard disk space reduces my continuous hard drive free space by 50%.

Recall that you can drown in a river that is three feet deep on the average. Ignore the numbers and defrag anyway. If the percentage is very low, the defrag will be momentary or faster.

If your hard drive has any errors or fragments, it will take a few minutes to make a larger block of continuous free space for Windows 95 Virtual Memory.

## People Helping People

NAME	PROGRAM(S)	PHONE NO.	HOURS TO CALL
Jeffrey Mintz Jerry Mintz Bill Roch Don Morgan Dan Logan Bob Ward Bob Hunt	Computer Networks, Win95, Netscape 3.0, Internet Word 6 Ami Pro Word 6.0, Equation 3.1 Internet MS Publisher Netscape, Win '95, 3.11 Win '95, 3.11	547-9668 547-0774 466-8440 543-6241 927-0515 528-0121 461-1444	Sat 12-6, Sun 12-6 Sat 12-6, Sun 12-6 anytime anytime M-Sat 8-6, Sun 12-6 evenings days

## Buying a CPU Continued from page 6

A second thing that jumped out at me while doing the research for this article was the problematic nature of an upgrade path. Even if you buy a Pentium II 400, the chip and its slot-1 motherboard will be a dead end when Intel's slot-2 CPUs appear requiring the NX chipset. It seems to me to make little sense to reach for speed unless you are planning to keep the computer for a long time. Given the vast changes in technology these days, I would suspect that two years would be a long life for a computer. You have to ask yourself how current you'll want to stay.

Finally, I question how much improvement you will see in the speed your applications run as you reach up the price ladder for performance. A Pentium II running at 400 MHz implies a 72 percent increase over a Pentium II running at 233 MHz, but the actual improvement in performance is only 31 percent as measured by these Winstone scores. In fact, the difference in real performance from the lowest chip to the highest is only 59 percent. I challenge any user running a word processor or completing a simple spreadsheet to notice a speed increase of 25 percent or less. When I upgraded from a Pentium 133 to a K-6 233, I found the speed difference to be only barely noticeable. You can easily measure it with bench-marking programs, but you can't detect it while doing your day-to-day work.

Given these results, what would produce visible increases in your computer's speed? Certainly buy more memory: 64 Mbytes will give you a noticeable boost if you have only 16 or 32 Mbytes now, as reading from memory is much faster than reading from the hard drive. Some people believe the increase from 32 Mbytes gives you added stability as well. Increasing your hard-drive performance is possible by purchasing as ultrawide SCSI system or getting a UDMA IDE drive (assuming your motherboard/operating system has drivers for UDMA). Buy a modem at the fastest speed your Internet service provider supports. Buy a better video card.

If you've been buying computers since the old 8086 or 286 days, however, you need to realize that the \$2000 price point for a computer has changed. You can now buy a very good system for half that. However, if money is no object, if you must live on the technological edge, or if you love games, please disregard all I've just said.

NOTE: Doug Boulter is a Contributing Editor of the Monitor who would like to live at the bleeding edge, but who whenever new-computer fever strikes, takes a nap until it goes away. He built himself a K-6 233 system last fall and is in no hurry to change it.

### Cheap Networkcont inue from page 2

than parallel cable. If you own Windows for Workgroups or Win 95, Coaxial cable and a network card is much faster and does not cost much more. Despite plug and play, some manual changing of IRQ and addresses may be required for the network card. Interlnk and Intersyr do not require IRQ and address research to avoid conflicts with other devices.

## Help!



## Missing MsOffice Disks

Taken from a table in library or snack room. Please Return to Bob Ward 528-0121 or Nancy Watts 543 3107

Notes from Jerry, continued from page four

A c:\windows\desktop\mybriefcase folder will be opened and display all files that have been saved in your briefcase. If the file was a Word 97 file, the icon for Word will be to the left of the name of the file. Double clicking your mouse pointer on the name of the file will launch the application in Word without previously opening Word 97.

You can make your own folder on a hard drive or floppy disk and launch from the desktop. Double click on My Computer. Holding down the control <Ctrl> key, Drag (Hold down the left mouse button) the A: icon to the desk top. If you don't trust hard drives will last forever or use floppies to carry files from your 8 to 5 office work site to your after hours home office work site, you can launch your floppy files from the floppy disk shortcut icon that you copied from the My Computer folder to the desktop.

Note 3: After being a witness in a small claims court, I am attempting to get the court and mediation service to write a news article for us.



What do we do when a judge dislikes technical cases and doesn't know what a CPU is? Any suggestions? In themeantime, avoid local courts—or all courts?

imintz@juno.com

## Club Information

AARD COPY is a monthly publication of SLO BYTES PC User's Group located in San Luis Obispo, California. Information in this Newsletter is derived from both our own membership and other PC User Group Newsletters. The purpose of this publication is to inform our members of meetings and provide information related to the use of IBM PC's and compatible computers.

Membership: Dues are \$25 per year. Full membership entitles you to our monthly newsletter, full use of the public domain software library, and drawings at the end of meetings.

Article Submission: Deadline for submission of articles is the 15th of each month. Articles should be provided in ASCII format without any type of for matting from your wordprocessor including tabs, indents, extra spaces, or highlighting. We prefer articles on disk but will accept hardcopies if necessary.

Disclaimer: Neither SLO BYTES C User's Group, its officers, editors, or contributors to this newsletter assume liability for damages arising out of this publication of any article, including but not limited to the listing of programming code, batch files and other helpful hints.

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Advertising: Commercial advertisers, request ad packet from Nancy Watts. Members may advertise personal computer equipment or software for free. Direct all correspondence and newsletter submissions to:

> Nancy Watts 1805 San Luis Drive San Luis Obispo, CA. 93401 543-3107 nwatts@jps.net

## **Meeting Times**

GENERAL MEETINGS are held the Treasurer's Report 1st Sunday of each month. Meeting location is the San Luis Obispo I.O.O.F. Hall on Dana Street.

The general meeting starts promptly at 2:30pm.

Special Interest Groups (SIGS) meet at 1:00pm - 2:15pm

## Treasurer's Report

July, 1998

Checking:

Beginning Balance: +\$1803.60 Newsletter 7/98 -\$106.18 Room Rent 7/98 -\$75.00 Deposit 7/5: +\$338.00

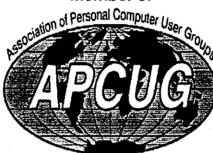
Ending Balance: +\$1960.42

Projector Fund:

Beginning Balance: +\$1936.37 Deposit 7/5: +\$105.00

Ending Balance: +\$2041.37





Want to renew by mail? Send your check to:

**Bob Ward** 2100 Andre Ave. Los Osos CA 93402 528-0121

Make checks payable to SLO Bytes

## **Officers**

President George Campbell

Vice President Gus Thomasson

**Acting Treasurer** Ray Miklas

Secretary/Program Chair Bill Avery Jerry Mintz

> **Editors** Nancy Watts Bill Avery

**SLO Bytes Home Page** www.thegrid.net/slobytes

## Floppy Disks 4-Sale at the Meeting

DSDD 360K Formatted Floppy Disks with labels, tabs, & sleeves.55 Each DSDD 360K Formatted Label Over Floppy Disks Generic High Density Formatted Floppy Disks (5.25" X 1.2 Mb) .70 Each Generic 3.5" X 720K Formatted Floppy Disks .70 Each .70 Each Generic 3.5" X 1.44 Mb Formatted Floppy Disks 1.00 Each New Library Disks

All Disks fully guaranteed against defects.

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