

## Linksys Network Starter Kit

By: Chuck Buchheit, LVPCUG The Bytes of Las Vegas, June 1998

For several years I've considered networking my home computers but always came to the conclusion that it was too expensive or too complicated. Well, several months ago while browsing in the computer section at Best Buy, I noticed a special on the Linksys Network Starter Kit. The kit included two EtherPCI LAN Card II units, a 5-port workgroup hub, two 15' 10BaseT UTP cables, and a 3.5" program disk for \$99 and change.

In setting up a simple network, there is really only one basic decision -coax or twisted pair. Coax is slightly harder to bend around corners, and the cable must go from one computer to another in series. Twisted pair bends a little better so cabling around corners and over door frames is a little easier, and requires a central hub which means there is a cable running from each computer to the hub unit.

Twisted pair is a slight misnomer since the cabling is specially designated for LAN use and contains four twisted pairs. It's not quite as small and easy to route as one might think. The choice between twisted pair and coax is primarily one of how can you get the cables from one place to another. With twisted pair there is also the consideration of hub size - to connect more than four computers to the Linksys starter kit additional hub units or a bigger (more ports) hub is

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# The Year 2K

compiled by Nancy Watts

May 19, 1998 the *Mustang Daily* ran two letters to the editor addressing the issue of the Year 2000 problem on Macintosh computers. George was reassuring in the last meeting, but our own Dan Logan quoted the Mustang in his *Tri-Tip*:

The Year 2,000 problem, Millennium Problem, or Y2K threatens "computer owners everywhere (including PC users), particularly in big corporations relying on aging mainframe computers that contain critical information. Much of the software for these computers wasn't designed to handle dates after 1999—and some weird and potentially damaging situations are going to develop as the computers are called on to use dates in the new millennium."

"According to a letter from student Tai Luxon, Apple gave some forethought to the dating issue and Macs won't have any problems till the year 29,940 at the earliest.

Another student, Brad Roberts, pegged the Mac D-Day as some 4000 years later, but suffice it to say you won't be using your Mac on the day it runs out of dating capability."You might want to compare this info with [www.garynorth.com](http://www.garynorth.com)

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## Cache in on your cache

I am learning the slow painful way why a cache is so important on today's computers. I am restoring Windows 95 on an old 486 ISA bus computer. I used an emergency boot disk to get past the no system on the prompt.

Unfortunately, I did not reload MS DOS and use smartdrive to run the setup. Without a cache, computers move at the speed of the hard drive which is a million times slower milliseconds vs. nano seconds for RAM. A nanosecond is a million times smaller than a millisecond.

If you watch someone who works efficiently, they have the next ingredient or their work at arms length rather than having to go across town or worse wait until Monday for the tool or information necessary for the next step. A cache is similar to putting every book on your term paper's subject temporarily on your library card. You have many books at arms length if you need more information about the same or a similar subject. A computer cache reads a hard drive ahead of what is currently demanded by the microprocessor. Often the next file needed is just ahead of the last file(s) used. Instead of a slow read from the hard drive or worse yet a CD ROM, zip drive or floppy drive, the information is passed through a RAM Cache.

Cache is so important, one third of the silicon real estate on CPUs is devoted to

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Cache. Cache on the CPU runs at the speed of the CPU which is three to ten times faster than the CPU can access information from outside the CPU. Byte for byte, cache on your CPU is the most expensive cache. You will not have too much cache internally due to expense. 8K on a 486 was the first happy experience we had with internal caches. A less expensive cache though more expensive than RAM is the cache on the mother board. 256K to 512K are typical caches. Watch your monitor when you start your program to see the cache announcement on many computers. Slower and more distant than internal cache, the cache on the motherboard is far faster than the RAM cache in your memory bank chip set.

I had to return a motherboard because I paid for 512K cache, the receipt had 512K cache, and the sticker on the motherboard said 512 K cache. But the computer announced that it had a 256K cache. The larger system board (motherboard) cache did speed up the computer.

Running a computer without a cache is similar to going to the library one trip at a time to read a sentence, return to home to write a sentence, then go back to the library to read the next sentence. The time wasted in CPU cycles to perform a read from the hard drive, caused programmers to develop a read ahead program that would save the next sentence and the sentence after that on a temporary scratch pad that you could take home on the same trip as the first sentence you found at the library. Instead of wasting time to travel to the remote library source, you first check your local source of information on your temporary scratch pad.

Caching takes advantage of the superior speed of the RAM compared to

required which increases cost. I had previously  
*Linksys Network Starter Kit continued from page 2*

decided on twisted pair so the Linksys kit was a match.

My home computer set-up includes three towers and a laptop. Two of the towers and the lap top are in one room and the third tower in another about 50' (cablewise) from the other three. I added a Linksys Combo PCMCIA Ethernet-Card and an additional card, a Linksys EtherFast 10/100 LAN Card to complete the system - total cost about \$210. Since I needed two additional cables and wanted custom lengths, I bought a 100' LAN cable (about \$25) complete with connectors, and two RJ45 connectors, from Radio Shack, which could be installed without a special crimping tool. This permitted me to cut the 100' cable into two parts and use the two Radio Shack connectors to make two new cables of the exact lengths I needed. Installing the RJ45 connectors was a little tricky but not too bad.

I should have mentioned previously that I have Windows 95 running on all my systems. This is really the key to the simplicity of setting up the network. To begin with, each of the LAN cards requires the installation of a driver. Since they were all plug-and-play this was easy. The trickier part was making the required changes in the Windows 95 control panel. I followed the printed directions that came with the kit and - no network. Then I read the readme on the Linksys program disk. I simply had to select an additional network protocol and the network came alive. Note that the same changes must be made to each of the computers connected to the network.

Now I was ready to begin sharing files and devices. Again, the devices to be shared must be selected on each of the connected computers but this only re-

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## The Surfboard

• By Dorothy Kirk, IBM/PCUG of Redding, kirk@snowcrest.net, June '98

IF YOU LOOK LONG ENOUGH YOU CAN FIND JUST ABOUT ANYTHING ON THE WEB. The sites this month are not the kind of thing that you would ordinarily be looking for, but are ones that you might not want to miss. They can be classified as "something different." Have you heard of "The Jersey Devil" or the "Hip Hop Alliance" or do you know what some people think when our planets align in the year 2000? If you are curious about these and more, read on and get on the Internet!

**THE JERSEY DEVIL** <http://www.nj.com/features/devil/> The Jersey Devil has been wandering in the Jersey Pine Barrens since 1735. Learn how he/she/it originated and read about tales, sightings, and chasing.

**MIKE McCOOLS DREAMS** <http://people.netscape.com/mlm/dreams/index.html> You think you have weird dreams sometimes. Compare yours to these!

**PLANETARY ALIGNMENT in the YEAR 2000** <http://www.sna.com/hallnson/history.html> The Hallnson Circus Side Show was an actual circus in the 20's and 30's and was typical of the shows in those days. This nostalgic site reviews in text and pictures this particular circus. There is on display an actual to-scale model of this circus on an 8' X 16' table. I had the pleasure of seeing it once; if you ever have the opportunity of viewing it, it is well worth the visit.

**CGFA** <http://sunsite.unc.edu/cgfa/> A huge selection of scanned images by artists through the ages, featuring The Crusaders, A Chronicle in Art. Hundreds of artists and some of their art are portrayed. Look for your favorites.

**THE BALL** <http://sunsite.unc.edu/lou/ball/> A silly/serious discussion of a ball made of aluminum foil – taken from a Hershey bar, yet!

**THE CONTACT PROJECT** <http://sunsite.unc.edu/lunar/alien.html> This site needs help decoding a message from Tau Ceti. Not really, but it illustrates the problems if we ever do receive an alien message.

**DOCTOR FUN CARTOONS** <http://sunsite.unc.edu/Dave/dfun.htm> Cartoons by David Farley that may or may not be to your taste. You'll never know until you try.

**THE UNIVERSAL HIP HOP ALLIANCE** <http://sunsite.unc.edu/hiphop/> I'm a bit confused as to what this is all about, but it is entertaining. Find out what it is, who they are, and what they are doing. Is there really a chat line called Hip Hop?

**WORM WORLD** <http://www.nj.com/yucky/worm/> Welcome to the Yuckiest Site on the Web. Everything you want to know about worms presented in an interesting and entertaining way. What! You don't want to know about worms. Shame on you.

**BANNED BOOKS ON-LINE** <http://www.cs.cmu.edu/People/spok/banned-books.html> Have you ever wondered about books that have been banned. This site has the names of many well-known banned books and a little about each.

## Do I Need a Faster Computer for the Internet?

by Jerry Mintz

The most common web user misconception in computer circles is that a hot computer with the fastest CPU and lots of memory are absolutely necessary for accessing the Internet. Some folks think a graphics accelerator board would help make Internet graphics come through quicker and sharper. How many times have you heard, "You need a bigger engine (CPU or microprocessor) in your computer!" or "You won't be happy unless you have at least a Pentium!" An east coast computer parts manager declared that 64 Megs of memory was necessary to run Windows '98. Last weekend I watched Win'98 run on a 386 with 4 megs of RAM. Slower than a Pentium, but the 386-40 performed far better than "The sky is falling without a 333 Pentium and 128 Megs of RAM!" declarations of the mega status crowd.

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the slower speed of storage drives, hard drives, CD ROM drives and floppy drives.

Now if only I took advantage of

*Cache in on CacheContinued from previous page*

Smartdrv when running setup to repair a corrupted Win 95 installation. The difference in time to run programs off the hard drive is not just noticeable, it may be ten or more times faster than running without any cache.

# Dealing with Troublesome Email

## Spam Email

This is the most common sort of junk mail, and the hardest to get rid of.

Try these tips:

1. Look for instructions to REMOVE yourself from the list. If they're there, follow them exactly.

Don't just reply to the Email...that almost never works. This should get you out of future mailings from the same company.

2. In the case of junk mail advertising several products or companies, contact the company directly and complain about the email.

3. If there's an 800 number given, call it and demand that you be removed from any further mailings.

4. Sign up with an EMail Exclusion Service. URLs given below the table

5. Use your Email software, or a third-party program, to filter and exclude mail from certain domains or addresses. See URLs below.

6. Don't fill out forms on web sites unless you're really interested.

7. Change your email address.

8. Give up and just delete unwanted ads.

## Pornographic Mail

Try to figure out the domain where the mail actually came from, looking in the header. Write to

*majordomo@thataddress.com* or

*webmaster@thataddress.com* and complain. Delete the mail.

## Threats

Do not delete such messages. Print them, then save them to your archives.

If the threat is serious or life-threatening, report it to the local police, including a copy of the original message as printed out. Do not contact the sender in a reply.

## Attachments from Unknown Sources

Delete all such Email without opening the attachment. If you must look at the attachment, choose **Save**, not **Open** in your Email program.

## Chain Letters

These are annoying, to say the least, but may not be illegal at this time, as are chain letters sent through the mail. The best bet is just to delete them out right and ignore them. You can, of course, reply to the person and demand that no more such mail be sent to you. If the chain letter asks for money or contains any sort of threat, then it is illegal and can be reported to the police.

## Make money Fast Mail

If it sounds too good to be true, it's phoney. Virtually all of these Emails are scams. Look inside the message itself for an actual address where you can send a reply to cancel further such mail.

## Hoax Email

These vary widely, but most will be sent by someone you do not know. Often they tell you to contact someone else about a new virus, tax, or weird law, or are a request for things like postcards to be sent to a child with cancer or a similar thing. Just delete these.

## Useful URLs

**Email Exclusion Services:** <http://spam.abuse.net/> (Lots of good info, plus links to many other sites),

<http://dm1.com/Epreference/epref.html> (Let's you sign up to block commercial spams.)

Email Filter Software: <http://www.software.net/PKSN023798/prod.htm/> (Mail Jail Software for Eudora and Outlook...\$24.95)

<http://www.zdnet.com/pcmag/pctech/download/swcol.spam.html> (PC Magazine collection of anti-spam software and utilities.)



# SLO Bytes Raffle

September 6, 1998

- 1st -Prize: 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  
 528-0121 evenings  
 Email: bward@thegrid.net

## Do I Need a Faster.... by Jerry Mintz

You can upgrade CPUs for better graphics performance, for running multiple applications, and to make multiple connections through your ISP (Internet Service Provider). But it does not work to upgrade CPUs, RAM and motherboard to increase the flow of data from the remote Internet site to your monitor. If I had to use the analogy of a garden hose carrying data, your computer would be the fire hose and the telephone line the straw. Increasing the size of the fire hose that is fed by a straw will not process more data each second or minute you are waiting for the download. The straw must be enlarged.

How small is the telephone line that feeds your computer? I have seen

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# Security Issues by Jim Tinlin

(submitted by Jerry Mintz)

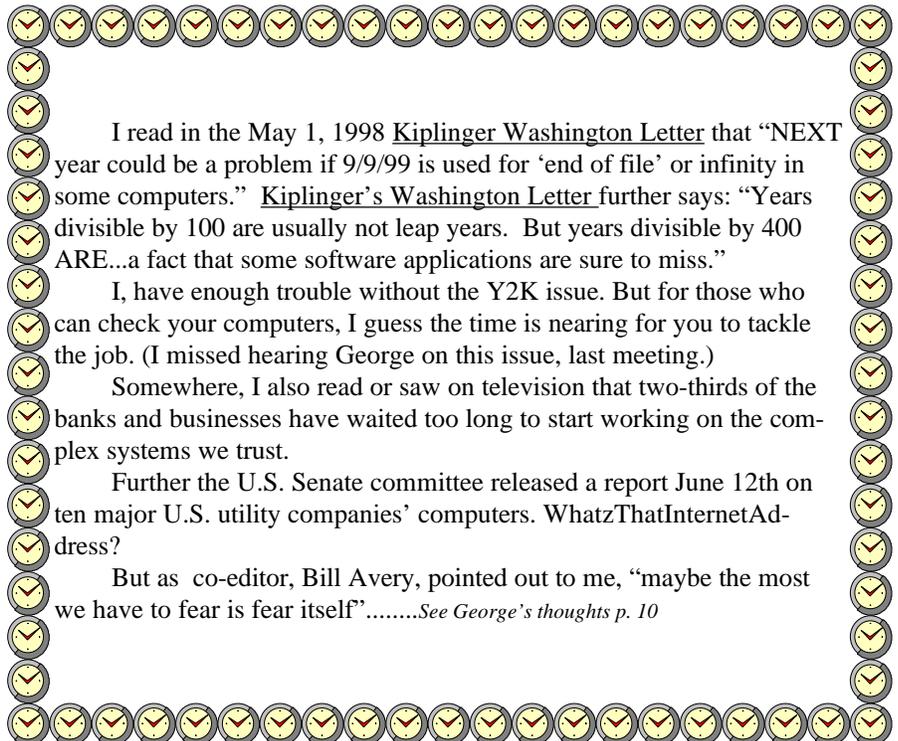
As the system administrator, I deal with security issues on a daily basis. Although we take great pains to prevent people from 'hacking' into our servers, we also take great pains to not leave 'sensitive' and 'personal' information on servers that can be accessed from the internet.

I deal with software security issues daily, as it seems that the 'game' of breaking into an internet server is an on-going and daily fact of life. I am continually updating software to prevent un-authorized access as well as monitoring the system on an minute-by-minute basis to ensure that only authorized access is allowed.

We also deal with the security of transmitting personal data across the internet by the use of a 'Secure Web Server'. This web server encrypts the information presented by the server or sent by the individual to prevent interception along the way by unauthorized individuals.

An additional aspect of system security is the use of our mail servers by unauthorized individuals. E-Mail solicitation is a big dollar business on the internet and we are constantly in the prevention and defense mode for individuals who will attempt to hijack our server to send out their thousands of e-mails, not to mention always on the attack to those that will send Unsolicited Commercial E-Mail (UCE) to our customers through other internet mail

## The Year 2K cont. from page 2



I read in the May 1, 1998 Kiplinger Washington Letter that "NEXT year could be a problem if 9/9/99 is used for 'end of file' or infinity in some computers." Kiplinger's Washington Letter further says: "Years divisible by 100 are usually not leap years. But years divisible by 400 ARE...a fact that some software applications are sure to miss."

I, have enough trouble without the Y2K issue. But for those who can check your computers, I guess the time is nearing for you to tackle the job. (I missed hearing George on this issue, last meeting.)

Somewhere, I also read or saw on television that two-thirds of the banks and businesses have waited too long to start working on the complex systems we trust.

Further the U.S. Senate committee released a report June 12th on ten major U.S. utility companies' computers. WhatzThatInternetAddress?

But as co-editor, Bill Avery, pointed out to me, "maybe the most we have to fear is fear itself".....See *George's thoughts p. 10*

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downloads to my computer at the pathetic rate of one to two kilo bits per second. Noise reduces the data rate from the modem specs and ISP. Effective rates of 20 Kbits per second are better than I normally experience.

The new V.90 specification modems are called 56K modems. On a perfect noise free line with no reflections or antenna like behavior of the copper wires, as in the real world, the highest speed that the new modems can produce is 53Kbps.

If you have lots of money and go to the phone company to rent a special high speed digital telephone line, also know as a T-1 line, you can send data and receive data at 1.5 Mbps.

If you are one of the lucky folks who have a TV cable system connection from your computer to your ISP, you can download up to 6 Mbps.

I have seen the speed of a T-1 on a Saturday afternoon when the Internet lines were running at 20 to 30% of capacity, (a relatively slow afternoon). Screen after screen is updated each second. Yet, the T-1 line and the CATV modems are simply larger straws. Hard drives exchange information at the Mega BYTE (not bit) rate per second. In simple math, your hard drive is at least ten times faster than a T-1 digital line. A T-1 digital line is 24 times faster than your 56 K modem. RAM and CPU are a million times faster than Hard Drives.

Your motherboard, CPU and RAM are the fire hose. Your modem and telephone system are smaller than a pin hole compared to the data speed of your computer behind your RS-232 serial port or your network card con-

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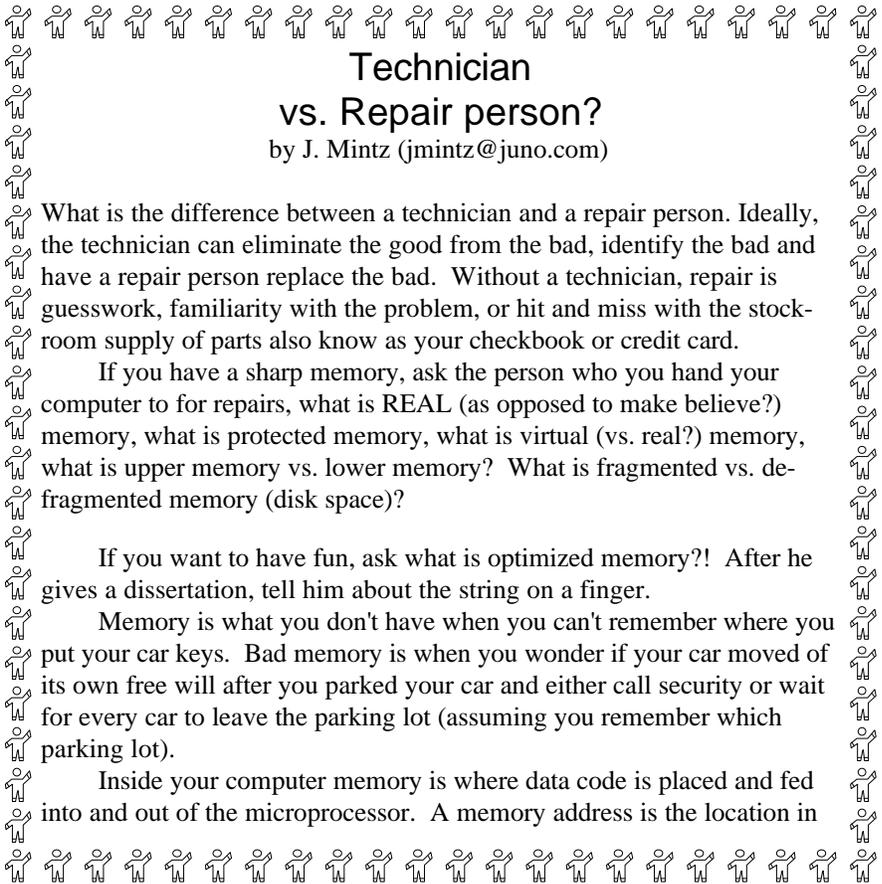
## Library Notes from the Ward

#761 **FMP131** - Convert/enhance video sequences to and from VI, FLI, FLC, BMP, TGA, PCX and other image/movie formats, including animated GIF.

**REGB1** - Registry Backup v1.0 R2 was a program written to help keep your registry saved. Unlike other programs that do the same thing, this was written to run before windows boots, so that you have the previous boot's registry in case of a problem.

#762 **SHDN331** - ShutDown-Automation-Tool for Windows 95/98/NT. Restart without reboot, shutdown + power-off, standard-reboot, standard-relogging, force shutdown/reboot/relog, APM Standby-Mode + PWOFF, MS-DOS Mode, Test-Mode, "Always ask" Mode. **APKCK18X** - APK Cookie Killing Engine v8.0 for IE/Netscape. Program kills cookies for Netscape up to 4.05+ and IE 3.0-4.0+ with extremely intuitive interface and many improvements.

#763 **STKNT45** - StickyNote v4.50 is an intuitive, easy-to-use sticky notes program for Windows 95, 98 and NT. Using StickyNote you can display colorful notes on your desktop; set alarms and expiration dates for your notes; archive your notes in files. **UM210** - Uninstall Manager: Easy-to-use uninstaller. The best way to check all new additions to your system without installation monitoring. Getting files off of your system is a lot harder than installing


  
**Technician**  
**vs. Repair person?**  
 by J. Mintz (jmintz@juno.com)

What is the difference between a technician and a repair person. Ideally, the technician can eliminate the good from the bad, identify the bad and have a repair person replace the bad. Without a technician, repair is guesswork, familiarity with the problem, or hit and miss with the stockroom supply of parts also know as your checkbook or credit card.

If you have a sharp memory, ask the person who you hand your computer to for repairs, what is REAL (as opposed to make believe?) memory, what is protected memory, what is virtual (vs. real?) memory, what is upper memory vs. lower memory? What is fragmented vs. defragmented memory (disk space)?

If you want to have fun, ask what is optimized memory?! After he gives a dissertation, tell him about the string on a finger.

Memory is what you don't have when you can't remember where you put your car keys. Bad memory is when you wonder if your car moved of its own free will after you parked your car and either call security or wait for every car to leave the parking lot (assuming you remember which parking lot).

Inside your computer memory is where data code is placed and fed into and out of the microprocessor. A memory address is the location in

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## Do I Need a Faster... by Jerry Mintz

nection to the transmission media (typically the telephone line) of the data to your computer.

While a CPU and faster memory upgrade will not increase the speed of your downloads, the cost of upgrading CPU system board and memory has never been less. \$200 can purchase an MMX CPU in the 166 to 200 MHz speed and 32 Megs of RAM.

A T-1 line cost more per month to rent from the telephone company!

Regardless of what computer equipment you have, there are data transmission operations that slow down your downloads. If one route to your ISP is overloaded, the remaining data packets may take a more efficient route and then be reassembled. Errors drastically slow down data transmission.

Old timers remember setting up parity checks on their modems. If the sum of all the bits were odd, we added one parity bit to make the sum even—if we were using even parity. Today we don't use parity checks; we use a more complex summation of the bits, sent with the data. The summation at the receive station is compared to the summation at the send station. If there are differences, the data is retransmitted. If there are frequent errors, the size of the data between each data error check is drastically reduced increasing the management or overhead of the data transmission, slowing down the data to your computer regardless of how much muscle (CPU) is sitting on your super hot system (mother) board.

If you are not satisfied with download speeds or are soon going to use the Internet, upgrade your modem first before you change an ok computer, in a search for better Internet/computer performance. Adding more speed to the fastest runner on a team will not

*Repair vs Technician, continued from page 8*

memory where a particular data item such as an application program line of instruction is stored. A memory cache is a high speed memory on the processor that stores the most commonly used code that was loaded from slower speed memory to save time fetching the same instruction repeatedly. Pentiums have two caches: one for data, one for instructions.

The technician will understand the term memory as applied to the computerworld. The repair person does not have to understand the terminology other than being able to install an appropriate memory chip in the correct memory bank.

On a serious note, the difference between a technician and a repair person is that the technician studies the theory of operation as well as the remove and replace defective item with known good like item. L1, L2 caches have been part of the 486 technology since 1991. If you ask a technician what is the difference between an L1 and an L2 cache, the technician should be able to distinguish the difference between a primary and a secondary cache (see caching in on your cache). A repair person may not know and may not care why or how a system such as a computer works. An extreme example were the soldering specialists to whom we brought a board for soldering. The soldering specialist did not know how a battery and a transistor they soldered work together. They knew that the part had to be in the correct position and did excellent soldering work. The soldering specialist could not troubleshoot. The technician could solder but not as well as the soldering specialist.

The repair may or may not be easy to accomplish. But replacing one goodpart with another good part only makes your checkbook and your morale sink lower. The joke about the surgeon who removed the wrong foot in the operating room goes back to the importance of identification and isolating the problem. Put a large X with a magic marker on the offending part, foot, etc.

Making the task for a computer technician more challenging is the intermittent inconsistent fault. Cold air and warm air are used to check for expansion and contraction on the system and adapter boards.

There are times when we would all appreciate an honest I don't know what is causing this problem. Would you like to check other sources to see if they have had a similar experience before.

Don't forget to check other members of the user group. There is a diversity of users who have experienced the problems you have or are having. Feel free to take advantage of others experience with your computer's problem.

Don't take it personally that your computer spit in your eye just when you had to file your taxes. Share the experience and let us all learn something. The best revenge against a non cooperative system, program, or application is to let as many others know so the beastly computer system, application are quarantined and isolated unable to reproduce, multiply, and sustain themselves. Every time you bring out the computer problems you are having in the user group, you are moving towards making that problem solvable, avoidable and hopefully one day extinct! See you at the July 5

quires the simple marking of a check box under the properties menu for each device once the network is established. Now the fun began.

*Linksys Network Starter Kit cont from page 3*

Devices I share include hard drives on each of the computers, a Zip drive on one machine, and a laser printer on another. This is when the network really begins to make sense. My wife and I work on files too large to fit on a floppy so we were using tape drives on each machine. Works, but is very slow and inconvenient. The tapes were installed before Zip drives became available, and it seemed too expensive to replace the tapes with four Zip drives and too much trouble to move a Zip from machine to machine.

So, for about \$200 we can share a single Zip for compatibility with others AND share and move files almost as fast as if they were on the machine's hard drive without the use of external media.

The Linksys kit is a 10mb system. 100mb systems are also available but the components are more expensive. In using the Linksys kit, I notice no difference in opening a 4mb Works document from my hard drive or from a remote hard drive. Moving files from one computer to another takes less than two seconds per megabyte of file size. So, for a small network, even with large files to move, it's hard to envision the need for additional speed.

An additional benefit is the capability to back up files from one system to another. It's a simple drag and drop operation. Also, since I try to keep many of my files synchronized between my laptop and tower, backup occurs more or less automatically.

All in all, the cost of the Linksys network is probably one of the best computer

**Oops, Here is the Missing Disk**  
**from Last Month's "Library News from the Ward**  
**#760 WLDWCH31 - WorldWatch v3.1: Check time worldwide. AISS280—**  
**Amazing Images: Displays Images with MIDI-Screen Saver. DPSETUP -**

*Alps is coming, Alps is coming!*  
*Alps is Coming, Alps...Continued from page 1*

rate cartridges, so when you run out of a color, all you have to do is replace that one cartridge rather than replace an entire multi-color cartridge, which can be costly.

Using a Micro Dry printer is simple. To install a new Micro Dry ink or add a metallic color, simply snap the cartridge into any slot. Each ribbon is bar-coded so the printer instantly recognizes the cartridge you've installed. Close the lid, and you're ready to go.

Our presenter can be reached at



seems to

*Continued from page one*  
*E-Mail Spam and Your Future, Continued*  
*by Lach MacDonald*

be falling off. The programs were targeted at E-mail concerns, so if you are not yet on-line, perhaps you stayed home. Luckily, as members, you will get the newsletter and the topics will be of greater interest to you once you make the on-line decision.

President George Campbell furnished a handout that appears elsewhere in this newsletter and covers the highlights of his presentation, but not the offhand humor and advice. George compared unwanted E-mail (SPAM) to the pesky racoons we suffer. He advised calling the company being advertised, or the 800 numbers that appear in the text of some unwanted E-mail. Investment offers may be receptive to complaints, as they are seeking investors, not enemies. Porno spammers could care less; never give them a credit card number or expect responsible behavior if you complain.

George reminded us that U.S. Postal Service laws do not apply to chain letters, and that the services of the Direct Mail Association in dropping your name from lists is not used by the internet.

Outlook and Explorer are among programs that filter out spam; hot-mail.com is a source of junk mail. You will get more if you fill out forms when surfing the net. Don't give up your privacy; don't join newsgroups. If you can't stand the flood of spam, change your E-mail address. If you get threats, report them to the police. Look at George's handout for two important URLs to help you deal with spam.

#### FASTER MODEMS

Gary Peterson of Fixnet explained how physical phone lines can carry increased data traffic through digital multiplexing. You can have two phone lines and two computers

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with the same passwords and address, if you have a cooperating Internet Service Provider who allows multiple connections. You can install two

*E-Mail Spam and Your Future Continued from page one by Lach MacDonald*

modems in a single computer and get double the connection. He mentioned Colt software and Diamond Multimedia.

Gary is enthusiastic about ISDN, which is available in the city of SLO, but not out in the country where he lives (as do I). Centrex running at 128K unlimited usage for \$40/month from the same Central Office, is another service some members may wish to investigate. If the high-speed approach interests you, ask the key question of your ISP: "Do you have multi-link logons?"

A related site to check out is [www.sloweb.com/speed](http://www.sloweb.com/speed). That's Gary.

#### DO YOU Y2K?

The phrase was bandied about when Bill Avery asked about the Doomsday scenarios of power outages, bank collapses, airplane midair crashes and whatnot that have been predicted when computers that are not compliant with the dating system malfunction in the year 2,000. George reassured us that the problems wouldn't necessarily be so grim, and certainly not in December, 1999 or the year 2000, since most computers can handle the 00 digits okay. On the other hand 2001 A.D. could be a problem. George says it might be wise to have a couple thousand dollars cash on hand when the dials turn, just in case your bank is one that has a software crash.

A comment from the audience indicated businesses are paying already for expensive liability insurance, just in case Y2K brings on a rash of class action suits.

#### FUND RAISER

The \$5 tickets are still available for a drawing to be held Sept. 6 as a fund-raiser for the meeting presentation projector. If you get a pad of six and sell five, you get the sixth free for yourself. Prizes include an HP DJ672 (\$200 value); an Astra flat-bed color scanner (\$100 value), and two keyboards.

#### LUCKY LES AND OTHERS

Members taking home prizes included: Les Stephenson, for the 5th consecutive meeting! (Diversity USA); W. Carl Wallace (Netscape Communicator); Keith Murray (Prosper); David Harris (Micrographics Draw); Gaylord Chisek (Anytime DeLuxe); G.W. Berger (Software Remove Plus); Harvey Hafer (Parsons Technology program); Jerry Mintz (Atomic Clock), and a couple others lost in the shuffle when some members turned back prizes and others won them. That screen goes by so fast...

#### MEMBERSHIP

### People Helping People

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

## Club Information

**HARD 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 10th of each month. Articles should be provided in ASCII format without any type of for matting from your word-processor including tabs, indents, extra spaces, or highlighting. We prefer articles on disk but will accept hardcopies if necessary.

**Disclaimer:** Neither SLO BYTES PC 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.

**Reprinting of this Newsletter:** Articles from this newsletter may be reprinted by other user groups if credit is given to both the author and newsletter from which it was taken. Reproduction of articles with a specific Copyright notice is prohibited without prior permission from the original author.

**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 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



SLO Bytes Home Page  
[www.thegrid.net/slobytes](http://www.thegrid.net/slobytes)

Want to renew by mail?  
Send your \$25 check to:

**Bob Ward**  
**2100 Andre Ave.**  
**Los Osos CA.93402**  
**528-0121**  
**Make checks payable to**  
**SLO Bytes.**

## Treasurer's Report June, 1998

Beginning Balance..... \$1664.94

Expenses:

Newslette ..... \$86.34

Bulk Mail..... \$100.00

Room Rent 6/98 ..... \$75.00

Total Expenses..... \$261.34

Deposit 6/8/98..... \$400.00

Balance..... **\$1803.60**

Projector Fund

Beginning Balance..... 1801.37

Deposit 6/8/98..... \$135.00

Balance` ..... **\$1936.37**

### Officers

**President**

George Campbell

**Vice President**

Gus Thomasson

**Treasurer**

Bob Ward

**Secretary/Program Chair**

Bill Avery

Jerry Mintz

**Editors**

Nancy Watts

## 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	.45
Each	
Generic High Density Formatted Floppy Disks (5.25" X 1.2 Mb)	.70 Each
Generic 3.5" X 720K Formatted Floppy Disks	.70 Each