



Comments

BY BOB WARD, SECRETARY

WELL HERE WE GO AGAIN. A whirl-wind column, lick'm, stick'm and try and get the out the door before the next meeting. If you haven't lost total interest in this column by now, then stop and look at the back side of the fold-over. This is a temporary map of Mr. Toad's wild ride on the campus of Cal Poly. Utilitor is alive and well; sort of like a baby octopus that is growing exponentially. If you are coming in via Grand Avenue, you will have the greatest experience, winding your way up behind the dorms just after turning right past Vista Grande Restaurant. The good thing about this is you will end up right at the H-4 parking lot... the place you would probably be parking at anyway. To leave, just take the perimeter drive to Grand Avenue as you normally would. This road is now one-way heading out from H-4 parking lot. Coming in from Highway 1 is much more boring without much change is direction. Please don't let this discourage you from attending the meetings. We must keep our attendance up to attract outside speakers. Also avoid the DITCH; it eats cars!

Last month our speakers didn't have to travel far as they reside in SLO. MoonValley Software, creators of ICon-Hear-iT gave us a demonstration of much of their software. They are working on a text recognition program that will read any text in a real voice rather than that "robotic" monaural you hear now. This will be a great advantage to the sight impaired having the computer talk to them.

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Computer Networks

BY JERRY MINTZ, SLO BYTES PCUG

COMPUTER NETWORK TECHNOLOGY HAS CHANGED THE WAY WE LIVE in many ways. Our department's computers were always unusually busy at 11:30 each day for unknown reasons. Unknown until I realized that lunch was being ordered by other departments that did not have a fax capability. Our recent Blue Cross claims were handled by fax instead of paper envelopes, stamps and post office. When a salesman makes a proposal he asks for my fax number. I guess he feels the hot sales prospect could cool down in the time regular mail requires. Sales proposals are not the only proposals that are sent from computer to computer. Estimates and contracts for construction and even marriage proposals are sent from computer to computer today. I can order a pick up

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Calendar of Coming Events

JUNE 1—Lynn Boisen, long time SLO Bytes' member will demonstrate software from Lifestyle Software Group. Included will be McClane's New Standard Fishing Encyclopedia and Micro Kitchen Companion. Literature will also be available on many of their other products. Look for special SLO Bytes pricing at the meeting.

Midiscan has scheduled to demonstrate their products to our group twice, only to back out at the last minute. They will not be invited again. We will try and schedule another music company sometime in the near future.

JULY 6—Meeting rescheduled to the Sunday, July 13th due to 3 day weekend.

JULY 13—Come see MicroRim (pending). Microrim, Inc. develops, markets and supports database management systems (DBMS) and other database-related software products for application development and business uses.

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KA's JumpStart—2nd Grade

A 5th Graders Perspective

BY LIZ WARD (AGE 11), SLO BYTES PCUG

ALTHOUGH I'M IN 5TH GRADE, I found this program interesting a fun to play with. After loading the program, I started it to find an opening scene with a school, tree house, and mailbox where Mr. Brewster, the mailbird lives. I was immediately interested in the mailbox (my mom and dad like me to pick up our mail every day). So I clicked on the mailbox, went inside and signed my name.

I went into the classroom. It's similar to the classrooms found in the earlier versions of JumpStart. Click on different parts of the classroom and things happen. I clicked on the chalk board and listened to some neat songs about Nouns, Verbs, and Adjectives. The bookshelf has 3 books you can read. You can choose from Adventures In Adjective, Very Scary Verbs, and Knuckle-head Nouns. There's many things to do in the science book. I also did some painting on the easel.

There is a elevator in the corner of the room. In the elevator you can choose between 9 rooms filled with fun games. The clubhouse has a mailbox you can check to see if your pen pal has left you any mail. The mail they leave helps you solve puzzling questions. They give you clues to guide you on your journey. I found a boiler room under the school house. It has games that teach about recycling. There's a football field where you can determine how many points each team has earned to help the Jumpstart team in the game. I thought the bone vault was strange. By answering eight questions, eight locks open and the insides of the bone vault are revealed. I opened the door and found I could measure and weigh several objects. I found a caterpillar who asked me questions about bugs. If I answered them correctly, I could play the cave writing game. I went to the cricket band and played songs on the piano, electric guitar and other instruments. I tried the musical memory game.

I learned addition and subtraction at the Log Ride. By solving the math problems correctly I helped the beavers make a path so they could cross the river. Solving other math problems helped me stop some terrible bugs from reaching the ice cave floor.

This is a very good game for second graders (of course) and since I'm in 5th grade, it's a good game for older kids too. It's filled with a million things to do. And best of all, Mom & Dad will love it because it's educational. The loveable characters, CJ, the adventurous frog, and Edison the firefly, help make your children use their imagination and turn the program not only into a computer program, but into a fun adventurous world.



Library News

BY BOB WARD, SECRETARY

WE HAVE 4 DISKS for your enjoyment this month. Check them out...

#725 (WIN 3.X)

MPD455C—My Personal Diary
Information manager.

TCNWIN40—Constitution Study Aid.

BPMPRO31—Fast & easy business
plan maker.

#726

DOTMAN13 (DOS)—Join-the-dots
educational game for kids.

GDATE10 (DOS)—GDatre v 1.0
Easy to use Datebook.

S16W277S (Win 3.X)—Sweet
Sixteen MIDI Sequencer.

#727 (WIN '95)

ESIG9730—ESig9, the original
E-Mail signature manager.

ICLBLD20—Icon Library Builder v2.0.

POPOPEN2—Animates opening
windows like the MAC & OS/2.

#728

ADDIT12—Editable addition
calculator.

SCMPOO—Screen Mate POO
screen saver. Watch these
adorable sheep fill your screen.
Many antics & sounds.

Favorite Internet Sites

BY BOB WARD

www.slodirect.com Want to find restaurants, pizza, doctors, dentists, lawyers, movie guides, recreation or anything else? San Luis Obispo Counties exclusive online directory.

<http://www.easy-ad.com/> Remember that thick advertiser you pick up every Thursday, spending hours thumbing through it looking for things to buy? Now it's easier. Easy-Ad is now on line.

<http://www.experts-exchange.com/> Expert's Exchange. Ask any computer and have it answered by a group of experts world wide.

<http://yardi.com/sale.htm> Looking for a new house? How about some acreage? Yardi develops real-estate software including software for Multiple Listing Services. Check out the MLS in several California and Oregon counties. Do cost comparison, etc.

The Embassy Suites Massacre

BY DAN LOGAN, SLO BYTES PCUG

AT THE MAY 4TH MEETING I described what had happened that morning when Renaissance Productions of Novato attempted to put on a computer show at the Embassy Suites in San Luis Obispo. Renaissance, which has been putting on the popular Santa Maria Computer Show for over a year, had more than 20 vendors filling the ballroom and hallways at the Embassy Suites. At 10 am, a steady stream of computer users began weaving their way happily through the stacks of computer gear. The party lasted about a half hour; then the SLO police showed up and informed everyone that the show was shut down for lack of the appropriate permits to conduct business in the city. Paying customers were ordered to leave within 15 minutes.

In fact, Renaissance appears not have had a permit in hand when the show began, though even this is hazy. In a May 8th e-mail message to me, Bill Statler, the city of San Luis Obispo's Director of Finance, said "As many of you are aware by now, the computer show promoted by Renaissance Productions on May 4, 1997 at the Embassy Suites was closed by the City because they had not paid their business tax and were operating illegally." Renaissance claims it had a permit, but as we shall see, did not have permits for the vendors.

While on purely technical grounds Renaissance dropped the ball, it's not clear whether the company was trying to skirt the permit process, or whether the city had inadequately communicated its permitting requirements to Renaissance, and then proceeded against the event organizers in a most heavyhanded way.

Statler says Renaissance knew two weeks in advance that it needed permits for itself and for each of the vendors that would be at the show. On the Renaissance side, Jeff Gleason, one of the company's partners, said he had heard on the Tuesday before the event that a city permit would be needed. Talking with a city clerk, he asked to have a permit application faxed to him, but the clerk said she would mail it to him. Gleason filled out the form but said it was his impression after speaking with the clerk that timing was not a critical issue, so he used regular mail rather than overnighting the application and the fee for Renaissance.

However, in San Luis Obispo, the city demands permits not only for the organizer but for each vendor. The total permit tab was around \$500. The per-vendor permitting fee appears to be, if not unique, at least unusual. Gleason admits it was his responsibility to understand the permit process in advance, but he hadn't encountered a similar situation before. "I've done over 50 shows in 10 California cities," he said, adding that in all those cases he was required to have a license, but the vendors weren't. Since the debacle I've talked to vendors who attend shows throughout the United States, and none had run up against such a policy.

But even if the permits weren't in place, is it standard operating procedure for the city to close down the show? Apparently not. My understanding is that typically in such situations, the organizer is cited and perhaps fined, but the event is allowed to proceed. Since it was a computer show and not an armed march on city hall, there don't appear to have been circumstances that demanded the show be closed.

Apparently some anonymous San Luis computer vendors whipped the city into an enforcement frenzy. Statler wrote, "several local computer businesses were closely monitoring our enforcement of the City's business tax ordinance to assure that outside vendors do not have an unfair competitive advantage over our local computer sellers."

An interesting thread here is that it was known Friday afternoon that the

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Removing Complex from Simplex, Duplex & Multiplex

BY JERRY MINTZ, SLO BYTES PCUG

COMPUTER DATA COMMUNICATIONS use simplex, duplex and multiplex modes of communication. Simplex is the simplest mode. When an emergency vehicle tells you to yield by operation of a siren, you are in simplex mode. The emergency vehicle sends an emergency get out of my way signal. Hopefully you are the receiver of the signal. You are unable and it is unlawful for you to send an emergency signal back to the emergency vehicle. You can only receive, the siren can not receive, but only can send a "Pull to the right to let me pass!" emergency warning signal.

When all communicating devices can both send and receive signals, we have duplex communication. Duplex communication can operate in two modes. In half duplex only one communication device can transmit at a time. It is similar to the CB radio that blanks the receiver when you push the microphone button to talk. Each person who uses the microphone takes turns talking. When a station is finally finished communicating, the person's last word is always, "Over". In full duplex all devices can transmit simultaneously.

How do we transmit many messages through a wire or a single channel at the same time. If the channel has sufficient capacity we multiplex, a technique to make a large enough pipe handle the communication by making the large pipe into several smaller pipes to carry several many signals at one time. Even a small pipe can carry more than one channel in a party line arrangement. Half the time Party A uses the line, half the time Party B uses the line. Party A and B synchronize their watches because the transmitter and receivers synchronize themselves according to channel allocation times.

FCC Approves Higher Fees For Multi-Line Homes & Businesses

THE FEDERAL COMMUNICATIONS COMMISSION TODAY ANNOUNCED that ISPs and information services will continue to be exempted from access fees, preventing a devastating per-minute charge on enhanced service providers.

The FCC also adopted a Universal Service policy that will spend up to \$2.25 billion each year to provide schools, libraries and rural health care facilities with discounts of 20 to 90 percent on the cost of their Internet access.

At the same time, the Commission imposed new fees on residences and businesses that have more than one telephone line. By January 1 of 1998, new fees of \$2.47 per additional line per month for residential lines and \$4.21 per line per month for businesses will be in effect, and will increase further each year thereafter.

Only a small percentage of the increase will be used to fund Universal Service.

The fees mean that an ISP with 200 telephone lines will pay an additional \$10,104 per year in basic line charges for telephone service.

The fees were a substantial improvement over the increases first proposed, but still represent a heavy financial burden that will be felt by on-line and Internet services. The current competitive environment will prevent most of these services from passing the costs on to subscribers.

The result is likely to be a chilling effect on this industry, as the additional costs force some ISPs out of business and limit the ability of others to invest in the necessary upgrades and infrastructure improvements to grow.

The FCC decisions are likely to be appealed, and may not represent the final chapter in the question of fees. However, with this phase of the process completed we would ask AOP members to discontinue e-mail messages to the FCC Commissioners.

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Grid Ad Here

COMMENTS

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Also look for their new line of Internet software. Unfortunately we didn't have the correct communications line for them to demonstrate such. I found that Greg had left ICon-Hear-It on the club computer after the last meeting. I was awakened Monday morning to all kinds of sounds, bells, whistles, etc. Hardly a nice way to treat a State worker on Monday morning before the mandatory cup of coffee.

This coming month MidiScan shined us on again, for the last time I might add. Never have we dealt with a prospective speaker who made so many promises and at the last minute followed them with nothing but excuses. They will not be welcome at any of our future meetings. Instead we will be concentrating on getting their competition to one of our meetings to demonstrate their music software. So what rabbit are we pulling out of the hat, you might ask? Lifestyle Software distributes some great products. Among the selections they are sending us for review at our next meeting is McClane's new Standard Fishing Encyclopedia (just in time for vacation) and International and Micro Kitchen Companion. Check them out at www.lifeware.com.

Here's a couple more items while I have your attention. Our club has been losing membership this past year, dropping from a high of 340 members to about 265. Since those not rejoining the club usually don't input to us why they are leaving we are left to discover the "reasons" ourselves. Coincidentally about the time membership started falling, we made a few subtle changes in the club. Whether they are related, we won't know for awhile. I asked myself, what are the advantages of being a paid member? In the past it was the shareware library, BBS, newsletter and participation in the drawings. General meetings are opened to everyone, members or not. We encourage people to check us out

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NETWORKS

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for my packages and track the package through the Internet faster than if I had to speak to a service person.

How much has the world changed? My last four employers required me to know how to use a network terminal and how to exchange information with other computers. My typewritten words sent to offices in other states are my work. When I misspell the words I send from the office, or make too many implied reference pronouns that are vague, the only hard copy of my work I am ever shown has every stupid error either yellow highlighted or circled in red ink. The supervisor is worse than an English grammar teacher on a crusade; vague ambiguous reference wastes costly corporate time or could cause an accident or catastrophe. Mr. Mintz, if every message had misspelled words, confusing or indefinite reference, we would be a non profit organization and you would be out of your job. "Jerry, you obviously did not read your message before you sent it today." I have to eliminate vague reference of THIS, THAT, and WHICH: reference pronouns must not refer vaguely to earlier word groups or ideas. Ten years ago I worried about the inflammation in my legs when I play tennis. Today, I ignore my leg pain but will stop in the middle of a match if I have even a pinch in my wrist. Winning at tennis is not worth being out of work or a painful week with inflamed wrists or fingers. Until the '90s and the computer network revolution, once I memorized multiplication tables, I forgot I had ten fingers. Today, my wrists and fingers are sacred, my means to earn a paycheck. And watch that handshake; my fingers are my livelihood!

My fingers through the keyboard access many networks each day. Networks are simply two or more computers sending or receiving information to and from each other. Networks are used whenever you call government agencies at almost every level of government. A main computer has a database of information. Each receptionist has a terminal that accesses the information from the database. When you make airline reservations or order entertainment tickets from an agency, you are being helped through a network. Your utilities company has a network that provides your account information wherever it is needed. Your bank branch is networked to its operations center. The local newspaper, part of a nationwide chain of newspapers is networked to its other newspapers through computer network technology. Your chain or franchise grocery, auto parts, drug store and most larger department stores are networked to their warehouse. When you call UPS or Fed Ex customer service to trace or track a package, the customer service representative will track your package or order a pickup sending and receiving your information from a huge database through a computer network. When you send e-mail over the Internet your message goes through the wide area network of computers that transfer messages from your computer to the destination computer. A computer in a warehouse or shipping depot on the east coast sends its inventory to the warehouse or shipping depot on the west coast every night. You want a seat in a theater, plane, cruise ship, lecture seminar series or to registration for a college course. A network will provide the information to any office you go to. Your public library can tell you at any branch when a book is due and enable you to reserve the book you want when the book you want to borrow is returned. We not only have local networks for accounting to access the weekly sales figures from the marketing department, we have special lines that enable computers to rapidly exchange information over great distances to other offices in other states.

Windows '95 gave us the programming to operate a local area network bundled into their operating system. When you upgrade to Win '95 you have the software to run a network. Why would you want to run a network? If you have only one computer your decision is easy: you do not need nor could you

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before giving us a check! So what has changed?

I believe the Internet has definitely made an impact on our club membership. No longer does one have to wait for the club meeting to get the biggest and best shareware; we get most of it off the Internet ourselves. Several sites have thousands of programs, all available with the click of a mouse button. Our newsletter, for better or worse, is now available on the Internet, free of charge to anyone who wants to download it. Sure, you still have to be a member to win the "Challenge" or to enter the drawings. Other than that, all is available without a membership fee. Knowing this, we are going to change policy slightly on the Internet, making only the first page of the newsletter available for download. This will give non-members the flavor of our newsletter without actually giving it away. You want the whole newsletter, join the club, will be the policy for now. Very few other user groups publish their newsletter on the Net. Perhaps we have found out why.

Our many thanks to both Doug Depue and George Campbell for donating computers and/or parts for our library. George retired his BBS last month, letting the Internet do the same job. So we have his Windows machine with a color monitor, both of which can be used in the library. Doug donated a 386 motherboard with 4 megs of RAM and a 3.5" floppy. It will replace one of our older library machines that works only when it feels like it. Thanks to both for their generous donations.

This coming month I will be in the library at ~1pm sitting in front of our Win '95 machine where I will offer to tutor only very beginners in Win '95 (I'm only a mouse click ahead of them). I figure two individuals will be about max, perhaps 3 if we can place the monitor where everyone can see it. If you have been attending Bob Hunt's class across the hall,

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run a network! You may want to read the rest of this article if you use a modem or exchange information from your laptops to your desk computer.

If you have two or more computers that you would like to share either data, programs, disk drives, CDs, tape backup, color laser printers, the hundred dollars to set up a network can be cost effective. Even if you share a dot matrix printer through a network, you will likely save a hundred dollars by not having to add a printer to each computer. If you don't have enough room in your office or computer area to add a printer, it is easier to run a cable to another computer than to rearrange your office or make more space available. Do you want to locate a printer more than thirty feet of cable distance from your computer? If your printer only has a parallel interface, you can not send data reliably via parallel cable more than thirty feet. A network will allow you to send data up to 600 feet through thin ethernet coaxial cable. Not far enough? Thick ethernet coaxial cable allow you to send data 1500 feet, almost a third of a mile, without any amplifiers (repeaters)! Do you have a reliable computer with a full or nearly full hard drive that does not have the program that is on another computer in your home or office? A network allows you to use the program on the remote computer's hard drive. You don't have a CD ROM drive to load your favorite game on your full hard drive, you can play from the remote computers CD ROM drive. You don't have a disk back up drive to save yourself if Windows '95 automatic installation is not as automatic as promised. If your remote computer has a network and if you have Windows 3.11 (Workgroups) on your computer you can network the backup drive on the remote computer to your backup drive less computer.

Network printing was slow on Windows 3.11. Windows '95 will start typing data and text before you can walk to the remote computer. Graphics take considerably longer to start printing than text. Instead of retiring the faithful 486 and cannibalizing its slower memory and slower smaller hard drive for data files, network your old faithful 486 to your hotrod Pentium with all the whistles and bells in it. You will be able to run compatible programs on your old 486 computer. I still have one computer on our network using Windows 3.11 (Windows for Workgroups) while the other networked computers use Windows '95. There are some programs that do not get along with different versions of Windows, but 99% of the programs and data can be exchanged between the different operating systems.

The Internet is bringing the technical jargon into our lives. What exactly is a T-1 line? What is an ISDN line? Are you aware you can lease digital data lines and fractional T-1 lines? A service called T-1 supports a data link of 1.544 Mbps. A T-1 line can be split into a total of 25 64Kbps channels. Fractional T-1 can be leased in 64Kbps increments. The telephone company uses a T-1 line between central offices.

ISDN -Integrated Services Digital Network uses the same digital lines the phone company uses to send your voice via digitized lines from central office to central office. You would need a digital telephone or a converter to change your voice telephone from non digital analog to digital at you home if you use a conventional telephone on an ISDN line.

If you are paying for two or more lines at your business or home, and can connect to other computers via their ISDN line, ISDN may be cost effective for you. ISDN uses two 64Kbps digital channels. It is possible to use both channels to send and receive data at 128 Kbps without compression. Before you pay for the ISDN line from your home to the nearest Pacific Bell Central Office where the customer circuits stop, ask yourself if the receiving end of your data will be able to process your high speed data at 128Kbps.

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you don't need to be sitting with me. You are beyond what we will be discussing. It will be a very basic information only... how to create folders, drag and drop icons, etc. No tricks, nothing fancy, just the very basics. If you are a beginner in Win '95... perhaps you just bought a computer with Win '95 preloaded, and you are totally lost, then these sessions should get you up and running. Bring note pad and paper.

WHATHAMACALLIT

A poll conducted among *INFOCUS* readers had established "waka" as the proper pronunciation for the angle-bracket characters < and >, though some readers held out resolutely for "norkies." The text of the poem follows:

```
<>!*' '#  
^" `$$-  
!*=$_  
%*<>~#4  
&[ ] . /  
| { , , SYSTEM HALTED
```

The poem can only be appreciated by reading it aloud, to wit:

Waka waka bang splat tick
tick hash,
Caret quote back-tick dollar
dollar dash,
Bang splat equal at dollar
under-score,
Percent splat waka waka
tilde number four,
Ampersand bracket bracket
dot dot slash,
Vertical-bar curly-bracket
comma comma CRASH.

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Cost for ISDN is \$29.50 per month after the added \$125 ISDN installation fee which is added to the basic \$34.50 installation fee for new service. Between the hours of 8 a.m. and 5 p.m. for residential service and at all times for business service, a one cent a minute for local call charge is made in addition to a three cent fee for the first minute. There is presently a cap of two-hundred hours of free local service during off hours. After 200 hours per month of free local outgoing call service, the 3 cent first minute, one cent each additional minute for outgoing calls applies. Incoming calls are not metered.

Terminology that is used to confuse include BANDWIDTH the cumulative waist size of the local rock group musicians. Bandwidth is the difference between the highest and lowest frequency of a channel. The plain old telephone service line to your house has a range from 0 to 4000 Hz. In digital signals we are not excited by the 0 end of the bandwidth. Instead of saying the highest speed is 4000 Hz they say the bandwidth is 4000 Hz. Bandwidth is a measure of the the data-carrying capacity of the transmission line usually expressed in bits per second. To digitize our voice or other audio, we can sample (measure the strength and pitch of our voice) at twice the 4000 cycle (Hz) rate or 8000 samples per second.

Each sample is given an eight bit pattern when your audio is digitized by the telephone company. 8 bits times 8000 samples is 64,000 bits per second or 64Kbps to digitally reproduce the voice or other sound signal. The line from your phone to the central office at Pacific Bell is an analog sound line that is rated at 4000 Hz. The line from central office to central office is a digital line. You can lease digital channels at 64 Kbps known as DS-0 Digital Service 0 line or a sub rate at lower speeds. You can also lease digital circuits faster than 64Kbps. DS-0 uses digital link between your home or office and the Pac Bell central office. You send digital information rather than sound through a DS-0 line. Analog is sound; digital is pulses.

Terminology to further confuse you: every signal event change is called a BAUD. Analog telephone lines can only run at 2400 baud. Therefore the fastest telephone line modems can run is at 2400 baud per second. To send more than 2400 bits per second, modems must encode more BITS (the smallest unit of information in a digital system usually a one or a zero), for every baud that occurs. High speed modems divide the carrier sine wave (squiggly lines on the O'scope) into smaller pieces (degrees of a sine wave) to be able to represent more bits per baud. V.32 modems are 2400 baud with 4 bits per baud encoding to produce 9,600 bits per second. V.32bis (bis = the second version of a CCITT - worldwide communication standard) modems are 2400 baud and 6 bits per baud to produce 14,400 bits per second. V.34 running at 2400 baud use three dimensional Trellis coding and precoding equalization to produce lower error rates at 28,000 bps.

Despite the hype and advertising going into 56Kbps modems, there is no standard yet for 56Kbps. These are 14.4Kbps transmit and up to 56Kbps receive. Your modem if not the standard in a year could be extinct. Today look for V.42bis sometimes called CCITT V.42bis. This standard adds data compression to transmissions. Ignore the throughput claims of manufacturers. Throughput is dependent on data susceptibility to compression. Your serial port must be set to a higher data rate than the operating rate to compress data.

In compressed mode, one error bit is equal to four error bits in uncompressed mode. If a pattern is repeated compression may use a short hand version to send the bit. Example: sending a space character 100 spaces long may be shortened 95% by sending the ASCII 032 HEX 20 0100000 for space plus a short hand to repeat one hundred times. If we flip one bit we have 100 errors! Error correction becomes hypercritical. Data correction and

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MASSACRE

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show would be shut down, but only lame attempts were made to warn Renaissance. John Conner, general manager of the Embassy Suites, said the hotel received a call from the city finance office at 4 pm that Friday, informing the hotel that Renaissance didn't have the necessary permits for the show. Conner said the hotel left a message for Renaissance. Jeff Gleason said he received a message at his hotel in Santa Maria, where he had just finished the Santa Maria computer show. The message simply asked him to contact the Embassy Suites; when he did, no one was around to talk to him.

So, everyone except Renaissance seemed to know the score on Sunday morning. However, no one from Embassy Suites informed Renaissance on Sunday before the show, when everyone involved could have been saved a lot of hassle. Why didn't Embassy Suites adequately warn its customer of the impending closure; was leaving a message on a tape a satisfactory effort, when they could have done more the first thing Sunday morning?

And I heard that at least one police officer was in front of the hotel well before the event got under way, but vendors were allowed to go through the ultimately futile effort of hauling in and setting up tons of equipment before they were told to stop. From a third hand source, I understand that Renaissance actually had to be engaging in the unpermitted business before they could be shut down. But if the police knew they were going to shut down the show, why didn't they warn Renaissance much earlier in the day, which would have been a bit of common courtesy to everyone involved?

In fact, Statler acknowledged in his e-mail message that the city's response was overkill for the situation. "While there were a number of factors that led to this

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compression go with each other! When compression is on error correction must be on. CCITT V.42 is the standard for error correction. Error correction makes digital communication more reliable. If both modems have error correction, there is no need for parity due to the modem's built in error correction.

To make sense of this technobabble, the load time for a 640Kb application is 9.1 minutes using a 9600 bps modem, 2.3 minutes using a 38.4 Kbps modem, at 56 Kbps the 640 K file takes 1.6 minutes, at 112 Kbps the file takes 47 seconds. A T-1 line 1.544 Mbps requires 3.5 seconds to load a 640 Kbyte application. Truly impressive for business users who do not have enough hours in a day to send and receive vital data at 28.8Kbps, but of no value to me when I send e-mail that requires an average of 30 seconds to send or receive using a 14.4 modem on plain old telephone system wire.

Fantastic data rates and times are possible only if there is digital line capability from computer terminal to computer terminal. If one computer terminal is using a conventional modem and the other computer terminal is using ISDN or T-1 or whatever digital line from the terminal to the central office, the data speed will go to the lowest common denominator. In other words, if there is a weak link in the

chain, the speed will slow to the speed that does not cause the chain to break or data errors to be generated. I don't see the need for a high speed digital line to an Internet provider for recreational users. If you must send business data from place to place, a digital line may be cost effective. If you are sending e-mail a slow everything will work possibly testing your patience. I correspond with family in New Jersey who use a 286 and dos software to send e-mail. If you are sending video, the high speed line is a definite asset.

If you are not already involved in networks please get involved and follow the network corner. Next month, I will discuss cabling and wire. With the growth of new high speed communication technologies, cabling has grown too. I will start with our telephone line and go through coax, twisted pair, optical fiber technology, and SONET.

I would encourage the reader to focus on the lower end of the wire and cabling technology discussion unless you have a bottomless bank account. The focus will be on our plain old telephone wire through thinnest or the skinny coax wire used to make Local area networks. Why discuss plain old telephone wire? The building telephone wiring systems have been moved into the world of Data Communications. Its already there! After learning about wire, I will also compare and contrast Asynchronous and Synchronous timing to send data through a wire. How computers transfer information from point a to point b anywhere in the world without error is nothing short of a miracle will be explained as we study Networks: the interconnection of computers. The emphasis will be to oversimplify yet cover all of the essentials to understand how computer talk to each other through Wide and Local Area Networks.

MASSACRE

Continued from page 7

decision which support it from a purely technical perspective, in hindsight it is clear that we should have handled this differently. This is not the approach we have taken to enforcing the City's business tax ordinance in the past, and it is not the approach we will want to take in the future," he wrote. "On behalf of the City, I want to apologize to any customers or dealers who were inconvenienced by the approach we took, and offer my assurance that we will work to handle these types of enforcement problems differently in the future while still maintaining a "level playing field" for our local businesses."

What does this all mean to the area? Closing the show was a big step backwards for computer users and for the city and county. First, there were vendors who had driven many hours to attend the show, who put up in area hotels on Saturday night, and who spent their money in expectation of a show. If they planned to leave with some of the locals' discretionary income, well they were leaving some, too. And these all weren't out-of-town vendors, there were locals who put their money, effort and time into setting up. Not to mention hundreds of computer users who were jazzed that such an event was happening here. By my own estimate, over a hundred computer users were already in the show by the time it was shut down, and the Embassy Suites manager told KSBY that people were streaming in all afternoon, looking for the show. Computer users here thought they would finally get a taste of what their big city counterparts had been sampling for years.

Renaissance has no plans to make another stab at a show in San Luis Obispo County. Instead they intend to offer incentives to draw more SLO users to the Santa Maria show. Let's have a big round of applause for the city of San Luis Obispo.

New Members

WELCOME to the following people who joined our club this past month.

Wallace Elliott

543-1835

Harvey Peterson

772-2604

Jack Vowell

209-841-3490

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. Newsletter only is \$16 per year. Full membership entitles you to our monthly newsletter, full use of the public domain software library and discounts at local computer stores.

Article Submission: Deadline for submission of articles is the 15th of each month. Articles should be provided in ASCII format without any type of formatting 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 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.

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Direct all correspondence and newsletter submissions to:

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Los Osos, CA. 93402
(805) 756-2164

Meeting Times

GENERAL MEETINGS are held the 1st Sunday of every month, unless noted otherwise in the newsletter calendar, at 2:45 pm in the Cal Poly University Biology Department, Fisher Hall 286.

SPECIAL INTEREST GROUPS (SIGs) meet at 1:00 to 2:30 pm.

General Info SIG / Internet SIG:
Fisher Hall 286

Win95 SIG / Beginners SIG:
Fisher Hall 287



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Treasurer's Report

SLO BYTES PCUG EXPENDITURES APRIL, 1997

Beg. Chk. Bal.	+ 1466.80
Expenses:	
Newsletter 04/97	- 184.04
BBS Phone	- 10.70
Long Dist. Cgs.	- 23.70
Bulk Mail	- 210.67
Stamps	- 32.00
	461.11
Deposit 04/06/97	+ 444.00
	444.00
New Balance	+ 1449.69
PROJECTOR FUND—GOAL: \$4,000	
Opening Balance	+ 819.18
Donations (Apr)	+ 26.00
New Balance	+ 845.18

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President	Geo. Campbell
Treasurer	Bill McNamara
Secretary	Bob Ward
Editors	B. Ward & T. Sorgatz

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Next time you're out & about the Web stop in and see a fellow SLOBYTES MEMBER!

Dan Logan: THE TRI-TIP COMPUTER NEWS at www.thegrid.net/dlogan

Andy Black: LOCAL 132 UNION—Representing Employees of the Southern California Gas Company at www.local132.com

Vern Moore: PASO ROBLES AMATEUR RADIO CLUB at www.fix.net/~jparker/prarc.htm

Joyce Segor: MEGAN'S FRIENDS BED AND BREAKFAST RESERVATION SERVICE:
<http://www.ErnestAllen.com/tr/ca/Megan'sFriends/> & <http://members.aol.com/royalway/index.html>

If you would like your WebSite URL to be listed here please e-mail
Bob Ward at bward@thegrid.net *Members only please!*

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