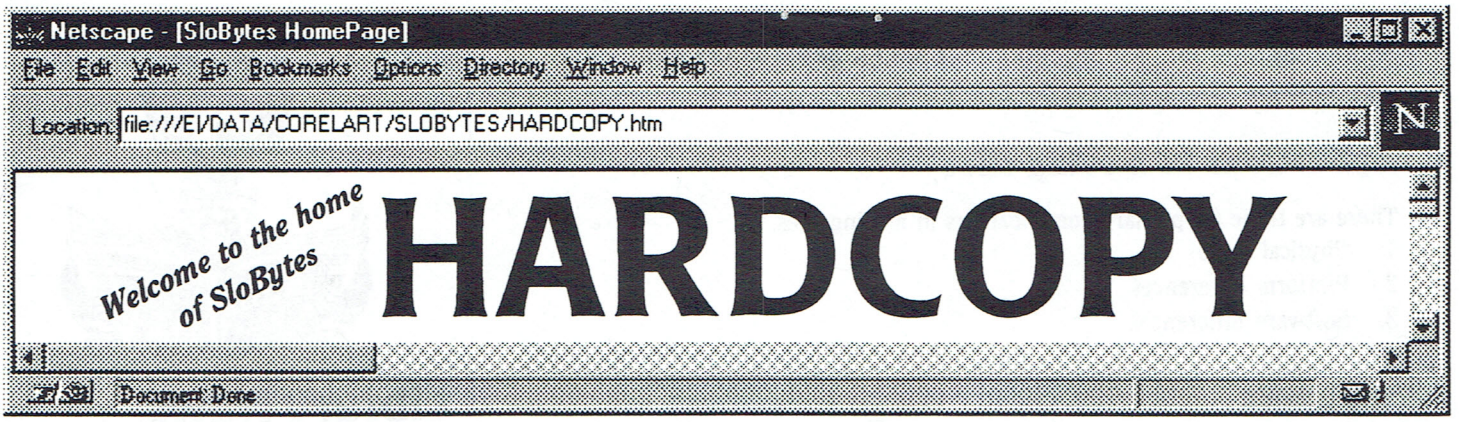

Volume 12, Number 2 **February 1996**

What's New

• ***By Bob Ward, Secretary***
bward@calpoly.edu

VALENTINES DAY IS OVER, the calories are burned or turned into adipose tissue providing you got candy from your Valentine. Guess you could eat flowers also but they probably wouldn't taste as good.

Our thanks to Rene George for flying up from San Diego to present Intuit's Turbo Tax for Win '95. She gave us an indepth look at what it takes to fill out one of those terrible tax forms. I'd prefer a flat tax myself and give Intuit the opportunity to show off some of their other programs. In fact, that's just what we are going to do. Richard Katz, Mr. Qucken, will make his annual pilgrimage to SLO Bytes on Sunday, March 3rd. Hey, even if you don't like the program, Richard is worth the time to come an watch his demo. He's enthusiastic, he's zaney, and a person who would probably buy the company if he had enough money. I'm sure we'll hear about online banking, etc. Richard, if you would like my account number so you can demo on-line transfers from your account to mine, just let me know. I'll be happy to supply it to you.

It pays to advertize over the radio and I guess it pays to listen to commercials, especially when my brain filter removes everything not associated with computers. There is a new Internet provider in town. It's called The Grid and may be reached at 781-6600. They have both North county and South county lines plus SLO of course. They charge a $25 setup fee plus $25 per month UNLIMITED use. If you sign up for 1 year, you'll get 3 months free. They also have an econonmy plan which is only $9.95 per month plus $1.20 per hour (2 cents per minute) over your first 5 free hours per month as a charter member. Both plans give you an e-mail address plus full Netscape access (no emulations here). They have US Robotics modems (28.8 which run at 33.4 with other like US Robotic modems) with a guarantee of no busy signals. Actually they said if you start hearing busy signals, they will add a bank of 16 modems at that time. If you want your own web page, you give them the information and one graphic (for now) and they will design the webpage and put it on the net for you. Enough said... it sounds good, check it out for yourself and bring any addtional information to the meeting.

The librarian asks that you remember to put all library disks back in their proper locations so the next person can find what they are looking for. We have removed all the demo disks for now to see if we hear any complaints. Many of the 5.25" disks are so old, the demo's are pretty much worthless anyway. I will put a Internet site up which has demo's for

Continued on page 4

Club Calendar

Mar. 3

Intuit: Yes, they will be back again, but this time with Richard Katz who will show Intuit's latest Windows '95 Electronic Financing. Be there and you'll be the first to see their new releases, including _t's ___ll_r _ha_ a _re___o_. (Sorry, that's he would tell me). Of course he'll have special deals and give-a-way's for those who attend.

Mar. 31

DogByte Develop-ment: Stationary Store, Sticker Store, and more.

Apr. 7

Easter Sunday (no meeting)

May 5th

CBS Designs: Tele-magic Contact Management

In This Issue...

Moving files to a different platform

· By Yohanon Emek, Florida DP User's Group

Complications in moving files

There are three (3) primary complications in moving files.

1. Physical move
2. Platform differences
3. Software differences

PHYSICAL MOVE

How is data transported from one machine to another? Options include:

a. Copy to removable media (diskette, tape, removable hard drive, etc.)
b. Transfer using a modem or null modem
c. Transfer using a network (LAN, WAN, Internet)

Copy to removable media

The traditional method, often known as /sneaker-net/ is to copy a file or files to removable media and then deliver the media to the destination system.

If both systems are the same platform type (see PLATFORMS DEFINED) and if both systems have the same installed software (see SOFTWARE FORMATS), the only consideration is if the removable media is able to accommodate the entire file?

If the file is too large for the removable media, the file can be transferred via a modem or over a network. (Check out various compression utilities, such as PKZIP, to squeeze files to sometimes substantially smaller sizes.)

Transfer over wires

A null modem really is a just low cost physical cable between two machines' COM ports. A true modem is used for transfers over telephone lines.

In order to transfer data over a LAN, WAN, or the Internet, network-compliant connections are required. This means hardware (netword card or modem) and connection to the network (LAN, WAN) or to an Internet access point (PPP/SLIP, telephone line-service provider).

PLATFORMS DEFINED

A "platform" is a computer. By extension, a platform is a specific type computer.

For example, a Macintosh is a platform. A Windows-equipped computer is a platform.

There are several major platforms. These are:

- MS-DOS
- Macintosh
- OS/2
- Unix (several flavors)
- Windows (V3.1, Win95, NT)

None of the platforms readily "talks" to a different platform type.

In order to transfer a file between differeing platforms, one of two things is required:

1. a format conversion utility
2. a LAN, WAN, or Internet connection at both ends

Format conversion utility

To its credit, the Mactintosh is sold with a very good Mac<->DOS/Windows disk format conversion utility. The utility reads and writes to diskettes formatted for either Macintosh or DOS/Windows systems. The utility does NOT convert a file's "data" format.

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Library News

· By Bob Ward, Librarian

Disk #672

KOPYIT21- Floppy disk duplicator.
DISKL310 - Disklist 3.10, Produces lists & labels in 30 formats.
GLBSEC34 - Global Security V 3.4, data security program.
GDS31G - Graphic Display System. File viewer, cataloger, converter. Over 30 formats.
WINU10 - Win 95 menu system with timeout & security features.

Disk #673

3DVCP21 - Visual Calendar Planner for Windows.
BARCLK41 - Clock, date, resources in title bar of active window.
ADMAKE40 - Create small display ads for Windows (OsoSoft)

Disk #674

BJ_POK31 - Noisy video poker and BJ for Windows.
BOUT107 - TC-Bout: game of fighting robots.
HERECOME - Fast paced shootem up game.
MARBLE - Pinball logic game.
MICRO15A - action adventure game.

MOVING FILES

Continued from page 3

For example, if you have a Macintosh running MS-Word V5 and a Win95-equipped PC running WinWord V7, the conversion utility will create a diskette that can be read by the Win95 system, but it will NOT convert the MacWord V4 file format to Win95 WinWord V7 format.

You may move a WinWord file from a PC to a Macintosh on a diskette formatted on the PC; the Macintosh utility will read the PC diskette so the file may be copied onto the Macintosh. There are a number of Mac <> PC disk format conversion utilities on the market.

Conversion to/from OS/2

OS/2 is an operating system on the PC. Disk formatting is the same as for DOS/Windows.

Conversion to/from Unix boxes

Many Unix systems include a PC<>Unix conversion utility. If you need to move files between a Unix system and anything else, check the Internet for freeware or shareware to do the job.

Conversion without a utility

If you lack a format conversion utility, transfers can be accomplished using a network. The network may be a simple null modem, an in-house LAN or WAN, or the Internet. (See TRANSFER OVER WIRES, above.)

SOFTWARE DIFFERENCES

If the same general software application is running on both SOURCE/SENDING system and DESTINATION/RECEIVING system, much of the agony is removed.

Most multi-platform software products (e.g. Word, WordPerfect, FrameMaker, Interleaf, and PageMaker) have internal platform and version SAVE AS options. WinWord V6, for example, is able to save a file in MacWord file format. Once the file is on a Macintosh (see PLATFORMS DEFINED, above), the file can be directly opened in MacWord.

Many high-end text editors also include integral filters to convert between the text editor's "native" (own) format and other text editor formats. For Example, WinWord V6 is able to save files in WinWordPerfect V6 format.

Graphics programs typically are single-platform applications. With few exceptions, they lack conversion facilities for other platforms. There are several options.

Text options

Most word processors on most platforms can import RICH TEXT FORMAT (RTF) files. RTF files may be formatted (that is, may contain boldface, italics, different font faces and sizes).

Although a Microsoft format, it is generally accepted across the computer industry.

If formatting is not important or if the source or destination text editor lacks both support for the other text editor and RTF, ASCII is the last resort. ASCII (unformatted) is plain characters – just like this file.

External conversion options also are available. Programs such as Mastersoft's Word for Word convert both text and graphics files. Typically, an external program contains many more filters or translators than the word processor.

Graphics, like text, has a "common" format; indeed, there are several common formats for graphics.

CGM (Computer Graphics Metafile) is a vector-graphics format that most graphics applications can import/load. CGM also can be read by most word processors with the ability to import graphics.

TIF is a bit-mapped (dot-to-dot) format read by most grapics programs on most platforms. TIF also can be read by most word processors with the ability to import graphics.

PC Paintbrush, MacPaint and MacDraw also are popular cross-platform graphics options.

Encapsulated PostScript (EPS, EPSF, EPSI) is excellent, but requires a PostScript printer to print the graphic. Some PostScript formats display a grey box rather than the graphic.

CGM, TIF, and HPGL (Hewlett-Packard GrahpicLanguage) all have numerous "flavors" that may cause grief when trying to load a graphic into an application. Trial and error and error is the only way to find out what goes into what.

There are, in addition to Word for Word (above), a number of utilities that convert graphics formats. Among the most popular are Inset Hijaak and Symsoft HotShot, both of which also are screen capture utilities.

Moving graphics files is the same as moving text files.

Favorite Net Sites - Election '96 by Phil Wagner

http://www.decision96.msn.com
Decision 96

http://www.vote-smart.org
Project vote smart - look at your representatives

http://www.callamer.com/~republic/
SLO County Republican Party

http://www.fix.net/~slodcc
SLO County Democratic Party

http://election.ca.gov
Calif. election server (not active until election day)

http://slonet.org/vv/election
SLO County Election results (active 3am March 27th)

http://www.kids.warnerbros.com/karaoke/
Looney Tunes Karaoke from Warner Bros. (Real Audio) by T. Sorgatz

Tech Tips

· By Mick Jermanovich–From the "Blue Chip News" a publication of the Saginaw Valley Computer Association Saginaw, MI

Deactivate Autorun And Autoplay On Your Aptiva

Deactivating Autorun on audio CD's and CD allows Aptiva users to use AptivaWare's Standby mode.

To deactivate CD Autorun hold down the shift key when you insert the CD-ROM. You can also make the following changes:

1. Open any folder and select View, Options, File Types.
2. Select AudioCD and click Edit.
3. Select Play from the Action listbox, choose Set Default (this actually toggles the default). If Play is bolded, the CD will play when inserted. If it is not bolded, it will not.

For CD Autoplay go to System in Control Panel, then Device Management. Choose the CD-ROM device, Properties, Settings and then uncheck the Auto Insert Notification box.

Special Folders

You can put the contents of the Control Panel, or other 'special' folders, on your Start menu (or in any folder). Create a folder and paste in the appropriate name below. For Control Panel Use This Name: Control Panel.{21EC2020-3AEA-1069-A2DD-08002B30309D}

For Dial Up Network Use This Name:
Dial Up Net.{992CFFA0-F557-101A-88EC-00DD010CCC48}

For Printers Use This Name:
Printers.{2227A280-3AEA-1069-A2DE-08002B30309D}

Quick Methods to Reboot Windows 95

You do not have to reboot. Any time you make a change to the registry just close or minimize all applications, click on the desktop one time and then press the F5 key. This will refresh the registry entries. Every now and then this won't work but there is still an easier way than rebooting. Press CTRL+ALT+DEL, choose Explorer, End Task, answer No to the exit, etc. dialog and wait a second or two. This will restart explorer. It's much faster than rebooting. You can also hold down the SHIFT key while selecting Restart in the Shutdown dialog to restart Windows only.

Give The Mouse A Rest

Despite what you've read elsewhere, you can use keyboard shortcuts for every feature in Windows 95. Press Shift-F10 to bring up the right-click menu on any object. Or press ALT Enter to go directly to the Properties dialog box. If you want to use the arrow keys to move the mouse cursor, go to the Accessibility options in Control Panel, go to the Mouse tab, and turn on MouseKeys.

Favorite Folders in Start Menu

To put your favorite explorer folders on the Start menu, such as folders with zip files you frequently unzip or zip back up:

1. Open the Start menu folder. Create a folder in the Start menu.
2. In the folder create shortcut(s) using the following command:
   C:\windows\explorer.exe c:\zipfolder
   (or whatever folder or folders you want pointed to)

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WHAT'S NEW

Continued from page 1

download. You can usually download demos of your favorite programs by logging on to their net site.

Any America On-line members out there? We have been uploading some of our original reviews to their user group area. It's a great place to share articles and saves one from having to retype the darn things. I hope they continue to support the groups and the newsletter sections grows.

I received a large box of software from 7th Level today and will need individuals to review their products. They are Monty Python's Complete Waste of Time (George showed this one at a meeting someting back), Take Your Best Shot, Tuneland, and Arcade America. There are a couple others that I plan on reviewing in the soon. First come, first serve. Call me at work, home or wait till the meeting to see what's left.

The Internet SIG was standing room only last month. Gus plans on another great demonstration this coming month. Eventually he will get back to a 3 class series. When you finish those 3 consecutive months, you can say, "been there, done that". Perhaps we will alternate the Internet SIG with the New User's SIG. Unfortunately we are limited in both space and volunteers. We could probably start a New User's SIG up on the 4th floor in one of the labs but it would be a chalk board SIG only. Any volunteers???

Remember there will be two meetings in March because of Easter falling on the first Sunday in April. That's March 3rd and March 31st. There will be a push to get the newsletter out on time, but I'm sure we will make the deadline.

New Members

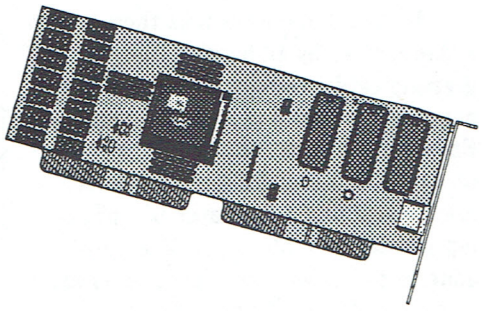
Welcome to our new members. Glad you decided to join us.

Martha Graham	**772-3684**
Harold Muehlenbeck	**481-7342**
Jerry Steffes	**547-0285**

HISTORY

READ-ONLY Memories

• This article first appeared in the Atlanta IBM Employees PC Club newsletter - "Multi Medium"



THESE DEVICES HAD THEIR GENESIS many years ago in the form of relays on the earliest of the unit-record machines. Plugwires were used to enter constants into these accounting machines, such as dates, arithmetic values, and the like. Updating a memory of this kind involved rewiring the control panel by hand, an onerous task.

One of the earliest uses of ceramic cores in IBM was the inclusion of this new memory technology in a later day accounting machine.

True Read Only Memory did not appear in early IBM computers.It remained for the 360 line of machines to bring this powerful tool to it's full potential, as a device for machine self-testing, housekeeping chores, and as a residence for some machine functions which could be protected from those seeking to clone arithmetic and logic units.

Every member of the 360 family had a ROM, and, unfortunately, most were unique to the single model. One unit, however, proved to be a workhorse, and an outstanding technical triumph as well. The TROS-for Transformer Read Only Storage-was a development of the British laboratory, and was used in the Model 20, and 40, and also in all of the Tape Control units and Disk Control units which appeared with the 360 systems. With a 250 nanosecond cycle time, it could have been used in all of the 360 systems. A sizeable NIH factor prevented this, however.

One thing peculiar to the TROS provided some anxious moments to a number of CE's in the field. On purchased machines the customers soon found that they could purchase spare mylar tapes for the TROS modules, and with a punch very similar to that used by train conductors, could devise their own microcode and provide the machines with instructions never envisioned by the designers. This kind of versatility led to some strange situations. Service calls sometimes required the CE to ferret out who it was that had made the changes and what had become of the original tapes-a CE's lot is not an easy one.

The tapes referred to above were very similar to those presently used on the print head of the IBM Proprinter and others. In all likelihood this was the first use of this material. The pattern on the tape was configured much like a ladder, and the tape was personalized for a particular microcode by punching out one side rail at each "step" to create a zero at that location. A one was sensed in those locations which were not punched. Each such location had a square hole punched within the ladder step, and a copper-clad ceramic u-shaped device was inserted through a stack of these tapes to mate with the ceramic transformer poles in the frame to which the tape module was fastened. Sensing was done through a set of four double diodes mounted on a small printed circuit board fastened to the head of the tape module. Eight such modules were mounted on a small gate, and four gates would handle all the function of which the Model 40 was capable.

The CROSS and CCROSS devices were used as read only storage in the other machines of the 360 family, but did not begin to have the usage of the TROS. Additionally, both thes devices had some early problems which the TROS. managed to avoid.

The appearance of the integrated circuit brought on the ROM which we know today, and we can be certain that manufacturers will always try to hide as much of their microcode as they possibly can in these devices.

TECH TIPS

Continued from page 4

Now when you want to quickly go to your favorite directories all you need to do is one click from the Start menu. Internet Explorer For Windows 95 Beta Version 2.0

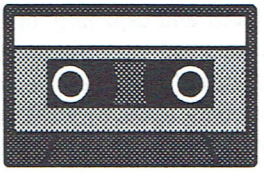
The newest beta of Internet Explorer for Windows 95 beta version 2.0 should be available on most online sites. This will be replaced with the final version of Internet Explorer 2.0 as soon as it's available which should be very soon. File name is: msie20b1.exe

Colorado Software Upgrade Information

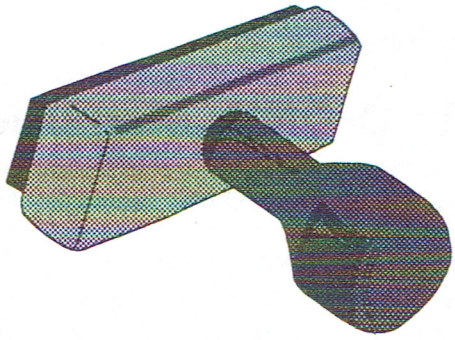
Colorado Backup for DOS (CBD ver 4.05) and/or Windows Lite (CBWLite ver 2.01) can be downloaded from the HP Information Storage BBS at (970) 635-0650 or FTP Site at ftp.hp.com/pub/information_storage/hp-colorado (no manuals).

- Colorado Backup (CB) for DOS for Jumbo tape drives: JUMBO405.EXE
- CB for DOS for Trakker tape drives: TRAK405.EXE
- CB for DOS for PowerTape/Dat tape drives: POWER405.EXE
- CB for Windows Lite for Jumbo drives: CBWLJ201.EXE
- CB for Windows Lite for Trakker tape drives: CBWLT201.EXE
- CB for Windows 95 for Jumbo, Trakker, PowerTape, and PowerDat tape drives: 95CBW150.EXE
- Electronic Manual for CB for Windows 95: 95MANUAL.EXE

Cost: No charge for software downloads from the BBS or the FTP Site.



InkJet Printers and Rubber Stamps



• By Larry Piper, Librarian From the "Blue Chip News" a publication of the Saginaw Valley Computer Association Saginaw, MI

ARE YOU CLEARED FOR TOP SECRET? Do I have one for you. This tip will both amaze and thrill your left-brained craft friends who think your PC is not useful for artistic purposes. But first some background. InkJet-type printers work by spraying tiny drops of liquid ink on to paper. They have bridged the gap between impact and laser printers in cost, quality and convenience so that most home users now own one. Many of us have even figured out how to reload ink cartridges to keep the cost even lower. Also, if you have experimented, you have discovered that an InkJets single sheet feeder will handle a much wider range of paper sizes and thicknesses than most impacts or lasers. About their only drawback is the tendency of the ink to smear when wet. But now folks, we can take advantage of even this problem! Consider for a moment the world of rubber stamps. I am talking about the kind you buy to use with a stamp pad, and then you stamp your return address or a happy face on all your correspondence. Stamps come in only one size in a limited selection of pictures. And at $5 to $10 a pop one can drop a bundle in this craft-hobby.

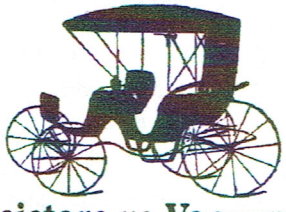
But There's More!

Advanced stampers take their hobby a step farther by embossing things; greeting cards, napkins, letters—anything paper or cardboard that can be stamped. Embossing involves stamping something on paper, and then before the ink has dried, spreading a fine layer of embossing powder over the paper. The powder adheres to the wet ink. Next the powder is melted with a heat gun and viola! a raised (embossed) surface appears on the paper. You have perhaps seen such embossing on fancy invitations or customized dates on birthday napkins. Embossing powders and inks come in many colors, and the advanced stampers are limited only by their creativity and the stamps available. But this is where you and your InkJet printer come in.

A Marriage Made In Heaven

Anything you print on your InkJet will cause embossing powder to stick to the wet ink. Then a touch of heat and you have embossed it! Consider for a moment the vast store of clip art and fonts you already possess. Next consider the software that allows you to size and rotate anything printed. You may never have to buy another stamp! More important, you can customize your creations with specific lettering in appropriate fonts of any size. Since your InkJet will handle card stock, you have the makings of your own embossing business. I own a Hewlett-Packard DeskJet 550C and have tested the ideas presented above. They work! You do not need color capability because the black ink will be covered by the color of the embossing powder you use. You can't dawdle around after printing or the ink will dry too much for the powder to stick. And embossing powders are not cheap, so this technique should be reserved for special occasions. Still, you will be able to turn out professional quality work that is unique. Just think how envious your artistic friends will be when you show them your customized embossing!

Happy 'Stamp-Jetting'



THE SECOND GENERATION

Early Electronic Computers

• By Hu Filleul, Greater Victoria Personal Computer Users' Association, June, 1995

Transistors vs Vacuum Tubes

ALMOST FROM THE TIME IT WAS INVENTED in 1948, the transistor was expected to become the key to revolutionary advances in computer technology. A major factor in the development of stored program computers was the ability to use large numbers of germanium diodes with relatively few vacuum tubes. A typical computer might have 1000 vacuum tubes and 50,000 diodes. The tubes, the active elements that determined the speed and capability of the computer were expensive as they consumed large amounts of power and generated large amounts of heat. The transistor would make it possible to replace vacuum tubes by semiconductor devices similar to diodes, which would be small and produce very little heat. This would make it possible to think in terms of computer sizes orders of magnitude greater than the largest vacuum tube computers.

With almost any new component there is a period of what appears to be stagnation, a period in which the component seems to be available and yet is hardly being used. Many promising ideas and components never emerge from this period as practical considerations keep delaying their use. A breakthrough in the use of transistors for very high speed computing appeared from a quite unexpected source with the 1954 development of the surface barrier transistor by the Philco Corporation. Within four years of the development of the surface barrier transistor the vacuum tube was obsolete as a computer component.

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Continued from page 6

Business-Oriented Computers

National Cash Register was one of the first major companies to withdraw from the vacuum tube market with the announced intention of returning with a transistorized model. Its 304 was a joint effort, designed by NCR and built by General Electric. It was the first all transistorized computer, but it was quite slow and of very limited capacity. Very few were sold.

RCA also tried to re-establish itself in the computer field with its transistorized 501. It too was quite slow but achieved some success as it had one of the earliest COBOL compilers.

IBM's announced successor to the 650 and the 705 was the 7070 which came out a bit later, but was more powerful than its competitors. The 705 was supposed to die but owing to customer resistance to expensive system changes they were obliged to bring out a transistorized version of the 705 called the 7080 which could run 705 programs.

The Honeywell 800 created quite a stir as it was moderately priced and promised performance beyond that of other computers in its class. Their FACT business compiler, although not completely successful, did help sell a fair number of these systems.

Burroughs came out a bit later with the 5000 computer. It was late in delivery and disappointingly slow when finally delivered in 1963. They came out with a faster version, the 5500 which was being installed in 1969.

Philco: Under government contract, Philco developed a small transistorized computer called the Transac S-1000. It was patterned after the Univac 1130 series. They then tried to market the Transac 2000 as a replacement for the IBM 704 and 709 systems. Although they had a head start and some initial success, they were not able to undertake the expansion necessary for a large penetration of the computer market. By 1963 they were absorbed by the Ford Motor Company which decided against a large investment in the computer business. CDC: Control Data Corporation was one of the many Cinderella stories in the computer industry. CDC was formed by a break-away group of Univac employees who had worked on the design of military transistorized computers. Their first 1604 was delivered early in 1960. It was a basic 48-bit binary computer, not as powerful as the 7090 or 2000 but much lower priced. The company thrived. Its 3600 which began deliveries in 1963 made CDC a major factor in the whole range of the computer market. IBM 7090 Series (sic)

Early in 1958 the Ballistic Missile Early Warning System (BMEWS) project requested bids from computer manufacturers to supply a number of very large, fast computers for data analysis and general computation. They made it clear that they would not accept vacuum tube computers. IBM won the contract by offering to deliver the 709, a vacuum tube computer, almost immediately to check out design and programs. It then undertook to deliver in a little over a year a completely (sic) puter the 709TX. The 709TX was to be five times as fast as the 709. Soon after obtaining the defense contract, IBM renamed the 709TX the 7090 and offered it to the commercial market.

The first two 7090's, delivered on schedule, ran into a number of problems. IBM assigned a large number of engineers to fix the problems on site and the 7090 eventually became an extremely reliable and successful computer. Hundreds were sold at about $3,000,000 per installation. In 1962-1963 IBM introduced the very popular 7040 and 7044 computers. These did not provide quite the performance of the 7090 series but were considerably less expensive. In 1960-1961 there were rumors of a completely new large scale series of computer the 8000 series. It was decided, however, to abandon this series in favor of the System/360 which belongs to the "third generation."

Univac

Univac introduced the Univac III in the early 1960's. It was a quite sophisticated computer but never became very popular, probably because it was too expensive compared to the competition. Univac also produced one of the earliest large scale transistorized computers but was beat out in competition with CDC machines. Finally, Univac produced the 1108 which gave it the opportunity to become a leader in large scale scientific computers in the late 60's.

Super Computers

Early commercial computers were so expensive there had to be a compromise between cost and capability. The industry has, nevertheless, been willing to build super computers if someone was willing to pay the cost and take the risk of failure. There were several such projects. The Naval Ordnance Research Calculator was built by IBM and accepted by the navy in 1955. It was one-of-a-kind as IBM refused to devote resources into building more of them, concentrating instead on their commercial 704 machine.

Larc and Stretch

The computer industry was investing some of its own money in the development of big transistorized computers, but the real venture capital in this area came from the United States Government through the laboratories of the Atomic Energy Commission (AEC). Remington Rand received a contract for development of the Larc (Livermore Atomic Energy Computer) and Los Alamos contracted with IBM for a computer originally called the Stretch. The design objective of these projects was to exceed speeds of the IBM 704 and Remington Rand 1030's by 100 times. An unusual feature of the Larc was that it was basically a binary-coded, decimal, floating-point computer. Only two Larcs were built, the first being installed in 1960. The first Stretch was delivered in 1961. It had a combined character-oriented and binary arithmetic processor.

Neither of these machines met their expectations and have to be considered as failures. Yet both were successful in providing a major stimulus to the computer industry in the latter half of the 1950's. Competition from Philco, Control Data and others caused IBM to

Continued on page 9

NOVICE NOVELTIES:

This, That & Stuff

• *By Lee Myers – lee.meyers@icsbbs.org (from Indy PC News, June 1995)*

Second time around

In the latter part of 1994 I had no idea where my second venture into the purchase of a new PC would take me. (It had been four years since I used a computer and the system was 10 years old.) The first time I went into a mega computer store it was as if I were lost and had landed on another planet. I was astonished: a daunting experience. I left the store in a fog. I felt disoriented. Where am I? How will I cope with this strange new world?

When I was considering what topic to write about for this issue, I remembered those experiences. They are vividly imprinted in my psyche. Also, I had kept a file folder where I had collected, over several months, various things about computers and questions I had after the purchase. Those notes are a source for this piece.

You lost your what?

Recently, after my guru, a very nice guy, really, and competent, had installed a hard drive and a tape backup in my computer, he kindly placed a clock down in the lower left hand corner of my monitor screen. Neat. I could tell the time and date at just a glance. Then, one day I couldn't find it. Gone. I called Hal and said, "I lost my clock." His reply was an octave higher than his normal voice, "You lost your what!!?" Stopped him dead. He suggested several places for me to look. No luck.

Then, one happy, spring day I was doing something and lo and behold in the extreme upper right-hand corner of my screen, I saw a little piece of something that looked familiar. Very carefully, I reached over with my mouse pointer and grabbed it. Eureka! I had found my lost clock. How it got there is a mystery to me. The only thing I can think of, was that I had been rearranging my icons and one got away from me. Since then I've been told it is a bad thing to inadvertently click the right mouse button.

When things like that happen I have the same feeling as when I drop an egg. Do I clean up the mess and throw it away or make a scrambled egg after picking out the shells and stuff?

Gals and guys: Remember when you got your first real car?

Last November I relived that day when I got my 486 computer with an internal modem with DOS 6.2 and Windows for Work Groups 3.11. I soon found out, however, I didn't know near as much about this computer as I did my first real car.

There were things and programs in my new system I didn't have a clue about. My notes show that on Nov. 20 I opened the Application Box in Windows. Whoops! There appeared such things as: MWBACKUP; Microsoft Qbasic; SmartMon; MWUNDEL and MWAV. What are these things? Do I want or need these things? When I finally found my computer person, those were the questions I asked. (I have since changed to a bona fide computer guru. That will be a topic for another article. Yeah, I learned the hard way.)

Other items of interest that my notes reminded me of:

- "How often do I need to backup? How many disks do I need to get?"
- "50. Backup every now and then."
- "50?"
- "How much RAM do I have?"
- "4 MEG."
- "Only 4 Meg? I've read that I need at least 8 MEG. No wonder my system runs slower than slow."
- "Oh yes I can put in another 4 MEG if you really want it."
- "How much?"
- "Just another 200 and change."

Help!

I leave a message on this guy's answering machine to call me because I can't get my modem to work. He calls me back and tries to help me make my first modem hookup from the built in Windows communications software. He tries to talk me through it over the phone. Never did get connected. I wondered why? Guess what? I only had one phone line at that time. What a joke - no?

Some more questions I had early on:

- How is the Modem going to affect my answering machine? How do I get a fax sent to me? What port is the Modem hooked up to? The mouse?

Dec. 2 my notes read:

- I lost my icons? What do I do? (No answer returned.)

Jan. 5.

- "When will I need to get a tape backup?"
- "When you get tired of using floppies."
- "How much for tape backup?"
- "Just another 250."
- "My hard drive seems to be filling up awfully fast. What should I do?"
- "Get a larger one."

Grateful for the ICS

The real answer as to why my hard drive was filling up so fast was because there was a gremlin in the WordPerfect program that was messing up the temporary file. My most respected new guru, an ICS member, found it. When he checked it out there were 48 MB accumulated in my temp files.

One major reason I'm committed to making the ICS the best organization we can make it is because I have learned more about computers and their uses in the past several months than in all the years before I joined. The spirit of cooperation of fellow members is something I find truly rewarding and that is missing in other clubs and organizations to which I belong. Additionally, there are thousands of PC users in our market area that could greatly benefit from the services ICS provides.

Begin to think: Vision 2000. I'll be writing and discussing more about this and asking for your input. I perceive this as a planning concept that will direct us where we want the ICS to be in the year 2000. As a new board member I hope to contribute in this special way. So add some of this and some of that and we got the right stuff. YES! GO ICS!

EARLY COMPUTERS

Continued from page 7

stretch the Stretch technology to speed up the development of the 7090 series. In dealing with citizens of the USA I always found it fascinating when they complained of industrial subsidies by foreign governments but didn't think that they were doing it themselves.

CDC 6600

In addition to the Larc project the AEC also contracted with CDC to produce a computer specified to be three times faster than Stretch. The machine was delivered in 1964 and proved even faster. By the end of 1965 most large AEC installations had a 6600 or had one on order.

IBM Series 90

In reaction to the CDC 6600 and 6800, IBM settled upon a single product line the 91 series which revived the look-ahead features of Stretch. The model 91 had a 60-nanosecond basic cycle and used a memory rated at 750-nanoseconds though its actual speed was less because of its large size.

CDC 7600

Control Data withdrew its 6800 computer from the market and in 1968 started to deliver the 7600 extended core storage computer. It had larger and more powerful peripheral processors than the 6600 and more and faster input/output channels. By 1969 it was reported to be able to execute instructions at the rate of 20-25 million per second.

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: Fisher Hall 286
Internet SIG: Fisher Hall 289
Windows SIG: Fisher Hall 287

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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.

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GRAND AVE. - Enter campus via Grand Avenue. Proceed until the street dead-ends on campus. Turn right. Continue past the Administration building, and Fisher Science located to your left. Turn right just beyond Fisher Hall into the H-4 Faculty-staff parking lot. Walk across the street through Fisher Science. The meeting is on the opposite end of the building. Refer to the map for meeting locations.

Hwy 1 / Highland Ave. - Enter campus via Highland Ave. Proceed under the railroad bridge and bear to the right at the fork in the road. Drive past the Library which should be on your right. Continue on North Perimeter road through 2 stop signs. Take the 2nd left turn beyond the Fire Station into the H-4 Faculty/Staff parking lot. Walk across the street through Fisher Science. The meeting is on the opposite end of the building. Refer to the map for meeting locations.