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UsersGroup

PRinT SCreen

The Newsletter for the Stanford/Palo Alto PC Users Group

NOVEMBER 1990 VOLUME 8, NUMBER 10

C·O·N·T·E·N·T·S

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CLUB NEWS

Tim Short is our new ASSU affiliate and we have finally raised the 6th student member so we can re-register the club for the next year.

Member of The Month

Congratulations are due to long time member Les Weil. Les, who runs the software library, is the October Member of the Month. Don't forget that we will be honoring all the Members of the Month on November 28th, General Meeting day.

Since the announcement in last month's PRinT SCreen of this event there has been a change. The celebration has been moved to Hobee's at 67 Town & Country Village (on the Embarcadero side) where we have also invited the evening's guest speakers from Microsoft, Word Perfect and Wordstar. Also, to allow a little more time for preparations for the November special - 'Word Processor Wars!', we are now meeting at Hobee's at 5.30pm - see you there.

Disk of the Season?

As there is no meeting in December this means that there will be no Disk-of-the-Month. This seems a pretty sorry state of affairs, particularly as it is approaching the season of goodwill, so Bob (Bulletin Board) Bottini has come up with a special Christmas Offer. Just give him a call (415) 369 2086 and he will send you what is probably the best communications package there is - Procomm.

Disks for All Seasons!

Don't forget that Xidex Precision disks are available to members at the meeting. DSDD are $5 and DSHD are $10 per box.

QUO VADIS SPAUG?

At the October meeting, during the Random Access period, there was a discussion on the status and direction of the club. When founded it was simply concerned with the brand new IBM PC-1. How it worked, how to use it, what you could use it for and what software there was available. All these were pretty fundamental things. Now, of course, things have changed drastically, a poll of members would reveal, I'm sure, that genuine IBM machines were very much in the minority. There was some talk about the posibility that the club club had lost a lot of its original focus because the PC computer world has become so diverse. And the question was posed "Who are we now serving?"

It would be interesting to hear your point of view on this pretty basic subject. In what direction would you like SPAUG to go? Where do you believe the focal point of the club should lie? What should be its primary (and secondary etc.) function? Give this some thought and let your opinions be known (P.O. Box 3738 Stanford, CA 94309). SPAUG is your club so help ensure it fulfils your needs.

NOVEMBER MEETING - The Great WP Face Off

The evening will be organized as follows. Each of the three experts (from Word Perfect, Wordstar and Microsoft), will be given an ASCII file which they will have to turn into a slick, presentation document. They will each be on stage three times, for around ten minutes each period. First they will show the basic elements of their program: controlling and moving text, formatting characters and paragraphs, checking spelling etc.

Secondly they will show their advanced layout capabilities and introduce fancy typefaces, showing the results in their print preview facilities. The final session will display the programs' ability to incorporate graphic elements to complete the final publication. So what you will see is a direct comparison, between the three leading WP programs, in how, in 30 minutes, you can turn your basic document into a DTP wonder.

Can't agree which word processor is the best one?

Then don't miss . . .

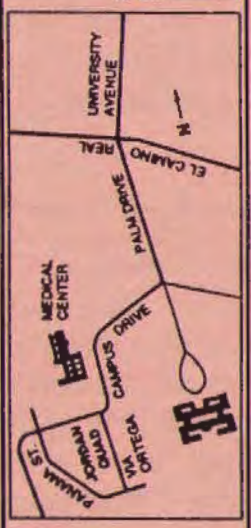
WORD PROCESSOR WARS!

☆ WordPerfect ☆ Wordstar

☆ Microsoft Word

Come witness an expert from each company compete in a live duel between today's three leading word processors. They will match their best (and worst) features, from simple editing to complex publishing. Join that night to be eligible for a drawing of all three programs.

Mark your calendar now! **Admission is free.**



WEDNESDAY NOVEMBER 28, 1990 at 7:30 pm

Stanford/Palo Alto PC Users Group
Stanford University
Turing Auditorium, Polya Hall
follow the signs to Jordan Quad
For more info, call Jan at (408) 243-5955

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DISCOUNTS

Jan Altman has arranged with Schwab Computers of Sunnyvale an extra 5% discount off already reasonable prices for SPAUG members. The contact there is Wayne. They are located at 730 E. El Camino (408) 245-6666. Member Floyd Kessler checked this out and got a system there.

Nancy Helmy passes on the news that John Van Demain is offering members Financial Navigator at $200 off the regular price of $399 through November. This will include a free upgrade to the upcoming version 4.1. Moneycare can be reached on (415) 962-0333. ^Z

MOPP

This is an acronym for Mail-Order Pilot Program, which is a cooperative arrangement between, at the present, the states of California, New York, New Jersey, Pensylvania, Connecticut, Illinois, Ohio, Florida and Texas. Each state checks all mail order transactions within its borders and forwards purchaser's names to their home state. This is why you will frequently see advertisements from out of state vendors asking you to add on CA sales tax to your order. Some companies in the above states will add the required percentage to your bill automatically. It's worth checking, when you order, if the company collects sales tax for California or reports the transaction, either through MOPP, or in some other way.

SOFTWARE SORTS

A note on the differences in the categories of software that are available.

1. Commercial Software

Not much explanation needed here other than to note that there seems to be a slight increase in the use of copy protection, particularly of the 'dongle' variety.

2. Shareware

This is 'try before you buy' commercial software. The main differences from the above are in distribution methods, and price. You are encouraged to copy it and try it out (sometimes for a specified period of time). Then, if you like it and continue to use it, you register with the author. Registration usually brings with it the latest version of the program and frequently more complete documentation. Details of this registration can be found either on the screen when the program is run or in accompanying documentation on the disk.

Occasionally some of the programs are initially restricted in their operation i.e. number of cells in a spreadsheet, or file types in a conversion program. This does not happen often, and even here there is always enough for you to gain an idea of whether or not the program is what you need. Registration will then bring the full version.

Because overheads are low - no advertising, packaging etc. - shareware is considerably less expensive than its

brand name counterparts. But it is often as good as, and sometimes better than, those heavily advertised products it competes with. Shareware has the ultimate in money-back guarantees; if you don't use it then you don't pay for it!

3. Public Domain

These are programs that the authors have put in the public domain. They may be freely copied, used, and altered. They, or code from them, may be incorporated into your own programs and subsequently distributed or sold. In other words they are public property, use them as you like.

4. Freeware

These programs are also free, but, unlike the above, they are the copyright of the original author cannot be modified in any way without the author's permission. This includes their distribution in so far as the all the files on all the disks must be copied and distributed together as an unmodified package. Frequently there is a note to the effect that, other than the cost of the disks plus shipping and handling, no charge shall be made for these programs - hence freeware.

In all the above categories, the initial price of the programs is limited to the cost of the media plus shipping and handling. This is in the range of $2 to $6 per disk depending on the vendor and the quantity of disks ordered at one time. Though 360K disks remain the standard, some vendors are offering the option of high density disks in both 5¼ and 3½ formats. This can be convenient when the programs are of sufficient size and complexity to occupy more than one disk.

For the same reason, size of programs, disks frequently come with the files in compressed form. This means that you can squeeze from a third to two thirds more onto a disk. All the disks I have, came with the required unsqueezing program on them, however, it does no harm to get a disk with the latest crop of archiving/unarchiving programs. They're easy to use and come in very handy for compressing your own files.

As far as sources are concerned, a lot can be found on electronic bulletin boards, and most of the computer magazines carry supplier's ads. There are also a few books that list and comment on the available programs. One of the latest is "Dr File Finder's Guide to Shareware" Dvorak-Osborn/McGraw Hill $29.95, which comes with a 3 floppy disk sampler. ^Z

MEMBER OF THE MONTH CELEBRATION

Don't forget the new time and place for this event

Wednesday 28th November at 5.30pm

HOBEE'S
67 Town & Country Village
Palo Alto

TECHNICAL TOPICS

TONY ALLEN

A SHORT WALK AROUND THE POST

The following brief article was prompted by a member who's computer had lost its CMOS information and who was having trouble re-configuring his system.

When your computer is switched on, the first thing that happens is that the BIOS (Basic Input Output System) is activated. This consists of two parts: a hardware chip on the motherboard and a software portion that is on the boot disk. The initial function of the BIOS is to perform a Power On Self Test (POST)

The initialization and self testing functions of of the POST fall into two categories:

a. Central system hardware
b. Configuration and non-system Hardware

The testing, and then the initializing. starts from the most central piece of hardware the CPU (Central Processing Unit). It then proceeds in the following order:

ROM BIOS
CMOS RAM (AT only)
DMA (Direct Memory Access) controller
Keyboard controller
Base 64K RAM
Programmable Interrupt Controller
Programmable Interrupt Timer
Cache controller (if present - AT only)

A failure at this stage of the POST test usually results in a fatal error. This is signified by a coded signal of beeps and the system fails to boot.

Once the system has been tested and initialized, POST then checks to see if the system configuration that is stored in CMOS RAM matches the hardware actually present in the system.

TALKING ABOUT CMOS

The AT BIOS uses CMOS RAM (Complementary Metal Oxide Semiconductor) (Random Access Memory) to store real time clock, system configuration, system diagnostic and other information. CMOS technology, as opposed to NMOS, is uses because of its low power requirements. This RAM is located on the Real Time Clock CMOS chip and is refreshed by an onboard battery so that its contentsis kept available, even when the system is powered down.

All this CMOS information is stored in just 64 bytes (20 of which are reserved). The real time clock information and status take up 14 bytes which leaves just 30 bytes for the whole of the rest of the system configuration information. This is where the binary language really comes into its own. For example all the information for all the possible combinations of floppy drives A: & B: is contained in one byte. There

are four possible types of drive (plus no drive), 360K, 1.2MB, 720K, 1.44MB that's four. Double it for both drives, thats eight. There are eight bits in each byte so you set bits 7-4 either high or low for drive A: and do the same with bits 3-0 for drive B: (if they're all zero then there's no drive installed). When new types of drive become available (2.88MB for example) then you will need a new BIOS, which will use some of the presently reserved bytes.

A far as CMOS failure is concerned this can happen if the POST checks and finds that the contents of CMOS memory has been lost or does not agree with the current configuration. Most times if memory has been lost it means that the on-board battery that refreshes it has failed and will need replacing.

Always make sure that you have a record of your computer's configuration. If, one day, you have to re-configure you can have major problems getting it to recognize your hard drive. You will need to know information about the number of cylinders, heads and sectors as well as the write precompensation cylinder and the landing zone of the drive. Actually this sounds worse than it really is, because the BIOS provides a fixed disk drive type table with a number of pre-configured entries, and one or two which are user definable.

The golden rule here is to pick a drive type number for a unit that has the same number, or fewer, cylinders than your drive. Never select one with **more** cylinders because that can ruin the drive.

For example I have an 80MB Conner which the AMI BIOS in my machine recognises as a type 35 - 1024 cylinders and 9 heads with a capacity of 77 MB. Nontheless I still have the full use of the 80MB. When IBM first introduced the AT, they built 15 drive configurations into its BIOS. Later versions have increased this number and other BIOS makers have added their own variations, for instance drive type 35 in an ALR BIOS is a 128MB ESDI drive - totally different from that in the AMI one.

So make sure you have a record of your drive. Naturally with a pre-configured computer this information has already been stored in the CMOS RAM. When you start your machine go into the SETUP option and note the information there. A Shift-Print Scrn here is ideal - I keep mine taped on the computer's case. You never know when this will come in handy.

TIP If, before CMOS fails, you suspect that the battery needs replacing (symptoms can be irregular timekeeping, occasional inconsistant SETUP messages, where it prompts you to press F1, even though nothing has been changed), do the replacement with the computer **switched on**. As CMOS memory refreshes itself from the power supply, this way you will retain its setup information.

AUTOMATIC HELP AT HAND

At last month's meeting the October disk-of-the-month was supplied by Mike Van Waas. It was packed with useful utilities, and amongst its 39 files were two programs that allowed you to save the CMOS setup configuration to a data file and then read it back to the computer. By putting this information onto a bootable floppy you not only save it in permanent form, but have the means of restarting in case of CMOS failure.

The information stored in your CMOS RAM is copied by the program CMOSGET.COM to a file called, for example, CMOS.DAT. The program CMOSPUT.COM can then write the data back to the CMOS memory. On the floppy disk, which must be a bootable one (formatted with the /S option) are the files CMOSPUT.COM, the data file CMOS.DAT and an AUTOEXEC.BAT file that looks like this (I've added the REM statements because my memory, though not battery backed, can also fail):

```
REM Use this to boot after the AT
REM battery is replaced. Ignore error
REM messages, and reset DOS time
REM and date when prompted. The file
REM CMOSPUT.COM, which must be on
REM the diskette, will reload the setup
REM information from CMOS386.DAT.
REM This contains what was REM
REM previously stored in the 386's
REM CMOS memory.
DATE
TIME
CMOSPUT < CMOS386.DAT
REM This is the CMOS information for
REM the 386 machine.
```

I've labeled this disk '386 AT - CMOS BOOT DISK'. I also have another one for my 286 where the file CMOS286.DAT holds the data for that machine.

IMPORTANT: Don't forget to use the program CMOSGET to create a new CMOS.DAT file if you subsequently change the computer's configuration, by adding extra memory for instance.

BIOS FOR SALE

Just in passing, if you are considering upgrading your computer's BIOS, the latest Phoenix & AMI versions for both the AT and the XT are available. They cost around $50 for the XT and $60 for the AT.

The benefits lie in their support of floppy drives - older versions of the BIOS may not allow the use of 1.44 3½" drives for example. They also provide support for EGA and VGA displays, and enhanced 101/102 keyboards. You also get the built in diagostics and setup routines plus support for the different hard drive types. One source of supply that I've noted is:

Upgrades, Etc. 15822 NE 165th St. Woodinville WA 98072. (800) 541-1943.

One word of warning; if your BIOS chips are soldered to the motherboard, and if you're not particularly adept with the soldering iron, then forget it. On the other hand if the chips are socketed then it's no more difficult to replace them than it is to add new memory chips. ^Z

JUST WHEN YOU THOUGHT IT WAS SAFE...

DOS Hits Back

You never know when it will strike, when it will creep in and ruin your morning. I'm talking about the 'invisible error bug', the one that sneaks up on you when you think you've got the system down pat.

You are confident that DOS holds no terrors for you. You've debugged COMMAND.COM so that DELete doesn't work. You've made CONFIG.SYS configurable on boot-up to give you a choice of memory management systems. You know you're in command - then it hits.

It's not the sort of mistake that happens when you press the wrong key and format A: instead of B: - that's easy to spot. I'm talking about the simple damn thing that drives you crazy because you've never done it before, and can't fathom out the reason why it's happening now.

My problem was, I couldn't create a directory. Well not just any directory, it was a particular one. Whenever I want to try out some new utilities or unarc from a floppy, that sort of thing, I create a directory \TMP on my hard drive. I work in that and then, when I've finished, any files that I want to keep I move to their specific directories and \TMP gets deleted. This is habit. It's an easy method, doesn't leave the disk cluttered up, and it works fine. But this time I couldn't create it. MD\TMP came up with the message "Unable to create directory". OK so I'd forgotten to delete it from the last time (DOS will not let you create a directory if it already exists - in the same place on the tree). A quick check showed no \TMP. A long check, using various directory listing utilities, yielded nothing either. I created other directories \TEMP, \TEST - no problem. But I couldn't get DOS to carry out the command MD\TMP (I even tried MKDIR), all I got was "Unable to create directory". In desperation I did a virus check - nothing. I felt an attack of frustration coming on, mingled with a touch of anger. So I did what I should have done in the first place. I went and made a cup of tea. This meant that I stopped thrashing about on the keyboard, cooled off, and had a think. It ended up as a secondary think, not a primary one, but it worked.

In my root directory I keep a Log file that records all commands issued from the command line (DOS prompt) together with date, time, and duration. This is a cumulative file, so every three to four weeks I archive it off to a floppy (I find that Yoshizaki's LHARC does the best compression ratio - though I've not tried Phil Katz's PKZIP 1.1 yet). I unarchived last month's log (to the \TEMP directory) and went through it. There it was, clear as day, how could I have been so stupid?

About a week previously I'd been working out a batch file that would let one of my utilities do its work over all my drives (A: through F:). In testing it I'd created a small temporary file in

the root directory. It had been called TMP no extension. Now DOS has no way of knowing if a file with no extension is just that, a file, or a directory. TMP existed as a file so it wouldn't let me create it again even though I wanted it as a directory.

Every so often I do the hard disk housekeeping, one of the chores being to search and destroy all the *.TMP files. But I had never thought of doing the same thing for TMP.* files. It didn't show up on any of the directory listing programs I tried because it wasn't a directory.

Just when you think you've got it licked, DOS strikes back. There is an old Chinese saying "May you live in interesting times." - they use it as a curse.

DOS version 5 is out there in beta form and is due in the new year. That will keep things interesting.

THE SPAUG RESOURCE CENTER

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Vice President	Jan Altman	(408) 243-5955
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Fortran	John Watson	(415) 325-7632
Pascal	John Watson	(415) 325-7632
Smalltalk	John Watson	(415) 325-7632
QuickBasic	Don Baird	(415) 365-6822

CLUB CALENDAR
December 1990

There is only the one meeting in December and that is:

December 12 Second Wednesday - Word for Windows/Windows SIG
7:30 PM **"Memory Management"**
TechMart, 5201 Great America Parkway, Suite 254, Santa Clara
Jan Altman, (408) 243-5955

January 1991

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

January 9 Second Wednesday - Novice SIG
7:30 PM **"ABCD - CMOS? S'more for Setting Up"**
Floyd Kessler, 4272 Los Palos Avenue, Palo Alto (415) 495-7780

January 9 Second Wednesday - Word for Windows/Windows SIG at
7:30 PM TechMart, 5201 Great America Parkway, Suite 254, Santa Clara
Jan Altman, (408) 243-5955

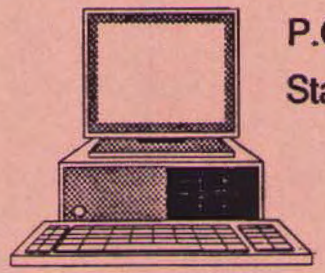
January 14 Second Monday - Planning Meeting
7:30 PM Beverly Altman, (415) 329-8252/Don Baird, (415) 365-6822

January 15 Third Tuesday - Investment Software SIG
7:30 PM **"Non-Taxing Income Tax with Turbo Tax"**
Bob Mitchell, 1516 Whipple Road, Redwood City (415) 368-9530

January 28 Fourth Monday - Word 5 SIG at
7:30 PM TechMart, 5201 Great America Parkway, Suite 254, Santa Clara
Jan Altman, (408) 243-5955

January 30 Last Wednesday - GENERAL MEETING at
7:30 PM Turing Auditorium, Polya Hall, Stanford U

The Stanford/Palo Alto PC Users Group



P.O. Box 3738,
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Club Information

Meetings	Don Baird
	(415) 365-6822
Membership	Beverly Altman
	(415) 329-8252
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