S·P·A·U·G
Stanford Palo Alto Users Group

PRint SCreen

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C · O · N · T · E · N · T · S

A batch file to print the directory structure of your hard disk. See page 9.

bytes	files	path		bytes	files	path
71,509	3	e:\		43,296	4	f:\
13,398,463	245	└─ corel		3,168,245	13	└─ excel
0	0	└─ autoback		623,312	44	└─ excelcbt
4,234,685	44	└─ pm4		1,298	2	└─ budget91
0	0	└─ template		376,212	26	└─ library
832,053	26	└─ pscript		67,857	13	└─ qe
66,240	4	└─ avery		44,865	9	└─ solverex
1,316	14	└─ caldates		0	0	└─ xlstart
72,576	10	└─ grids		125,485	2	└─ qemacro
956,514	15	└─ usenglsh		202,325	3	└─ solver
325,860	11	└─ filters		1,007,346	43	└─ metz
231,762	7	└─ setup		total files 159	total bytes 5,660,241	

The President's Piece

WHAT'S NEW?

Have you ever had the feeling that you were waiting for something, but you weren't sure just what that something was? Or maybe you felt sure there was something exciting and/or important about to happen, but it was vague and unclear. Well, that's how I've found myself feeling these last few months about the computer world as a whole.

Actually, we've had some fun stuff break recently, what with OS/2 and Win3.1 eating away at our disk space. There have been a whole slew of software updates, especially in the Windows world. Sure, they're fun, but they aren't exciting. And these fantastic price reductions have made me very glad that I've waited to buy a new system(being broke had nothing to do with my foresight!). But all these things don't truly stir my soul with possibilities. I want something real and useful and meaningful for me in my everyday work world. I want to be able to tie together any and every program, any and all data, seamlessly and faultlessly. I want something that makes my temperature rise, my pulse quicken, something that I can use to make my work easier, exciting, and, especially, more profitable.

I would love to be able to pick and choose among the feature sets of all available software for just those features that are truly useful, the ones that I actually use on a daily basis. The rest I would store away for a rainy day. Then I'd put this super program on a lightweight, 486 or better laptop, and put the damn thing to work for me. If it was as easy and sensible enough to use as the telephone, there'd be no end to the possibilities.

As far as I'm concerned, that's the next PC "revolution"(a much over-worked phrase). Customizable programs on small, powerful, multipurpose,rugged machines. Machines that do for us what we do now, the way we do it now and without having to jump through hoops to get it done. I want to be able to tell my machine quickly and easily what I want it to do, period.

Well, that's what I feel I'm waiting for, and I can't wait for it to get here. There are some very promising developments showing up in computerdom, so there's hope yet. This computer stuff really is exciting, it seems to change and improve almost on a daily basis

PAUL STALEY

WHAT'S ALSO NEW

An interesting alternative to local bus (see Page 6) has been incorporated by Epson into their latest systems. This features a video chip design from Chips & Technologies called the Wingine. This sits on the motherboard and allows the video card to use VRAM-based video memory as system memory. The Wingine does away with the need for a special video controller, the system memory controller does it instead. One advantage is that it's cheaper than a video coprocessor chip. Epson say it's very quick.

TONY ALLEN

BOB BOTTINI

We are very glad to hear that Bob is out of Stanford Hospital and on the road to recovery. It will be a long job but we reckon its worth it - so does Bob. He had a rare disease of the blood which put him on the critical list. It was so rare that he became a special treat for the hospital staff, who used to conduct tours round him. Keep on getting better Bob - we've missed you.

GOING MY WAY?

Member Matt Lehman would appreciate a lift to the General Meeting on 24 June. He can meet at the Foothills/280 junction. Anyone who can oblige, please give Matt a call on [415] 968-3655.
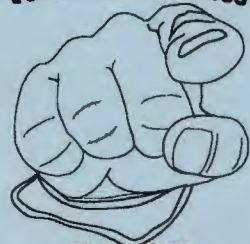
PLANNING MEETING

August 11th (Tuesday) at 7:30pm
The location
1670 Oak Avenue, Menlo Park

Help us to make decisions about the club. All members are welcome. You don't have to be a club officer to get your views heard.

A BIG WELCOME TO THE FOLLOWING NEW MEMBERS

Larry Findley	Mountain View
Philip Harsh	Stanford
(A returning member)	
Dean Senkbeil	San Mateo
Rhea Smith	Mountain View
(A returning member)	

AND THANKS TO RENEWING MEMBERS

Ron Britton	Mountain View
James Strohecker	Menlo Park
Larry Weinberg	Mountain View

THE BBS IN PRINT

A FEW NOTES FROM YOUR SYSOP

This is the first month where I, your new sysop, have been without the help of our previous sysop. Boy, let me tell you I appreciate greatly all the work Bob Bottini has done in the past. This is a big job.

New phone equipment has been received and installed which allows your sysop to better control the bulletin board. This should result in more up time for the board. The voice phone line is open again with an answering machine for any voice messages. To call the answering machine dial [415] 321-4498.

Some of our users are leaving the bulletin board by "dropping the carrier", which means hanging up without first logging off. This can, but does not always, result in problems with the board. It can result in locking other users out of the board. If you are doing this STOP, if it happens to you and you don't know why then please leave a message for me telling what happened. Together we can stop this from happening.

For those of you with questions for random access at the meetings, try leaving a message on the board with your question or problem. Other users would be happy to try to answer your questions. This is a great way for everyone to learn more about our hardware and software.

GARY SEATH

PASSWORD PROBLEM?

We encourage all members to use the bulletin board. Our BBS phone no. is [415] 321-4497. If you are calling the BBS for the first time, or if you are not sure if this is your first time, your password probably will be the last four digits of your home phone no.

Your name is listed exactly as you are listed on your PRINTSCREEN mailing label. When you make your first successful contact with the BBS you may change your password yourself, however, when you change it you must remember what it is in order to gain access to the BBS the next time.

We want you to use your BBS. Tell us what you like and dislike about it, and specifically how you think we can make it better for you as well as other members.

Problems accessing the BBS? Call Henry Hollwedel at (415) 591-8509.

HENRY HOLLWEDEL

MODEMS AND THE PHONE LINE

DON BAIRD

If your modem transmissions are unreliable, disconnect everything else but the modem from the phone line. If this clears the problem up, then it will be necessary to select which phone devices can still be connected along with the modem while still maintaining proper modem performance.

[NOTE: A phone company might have a legal limit to the number of devices connected to one line, in which case, such limit should be observed. They sometimes term it as "ringer equivalent", and is measurable at your location by a phone company employee.]

Old rotary phones and old answering devices load the line more than newer ones which means fewer devices the line can support. Things can be done to maximize the number of devices that a particular line can handle. Of course, if one goes to wireless phones, the problem is simplified, but you still have to contend with answering machines and faxes.

In most cases, a 300 ohm (3 watt) resistor, inserted in series with the red or green wire of a phone device's cord (except for the modem's) will permit more devices on a line without affecting their performance. However, where one is located distant from the phone exchange or repeater station, a 300 ohm resistor value might be too high. The 300 ohms is based on a typical 600 to 700 ohm phone line resistance between the phone company and the phone devices. Determining the actual value of the phone line resistance will allow a better determination of the resistor value to insert.

[NOTE: While putting a series resistor in a phone cord merely makes a phone device seem farther from the phone company and serves to decouple it from other devices on the line, FCC requirements exist on the phone devices themselves, therefore changes within such phone devices are to be avoided. The phone system itself is quite complex and replete with equalizations, automatic sound leveling, timing, switching, and sensing circuitry which cope with widely varying lengths of service lines, thus will cope to an added fixed resistor as if coping with a more distant customer.]

Measure the DC voltage between red and green wires of the phone line. The voltage should be about 50 volts with red negative. Any number of devices can be connected to the line during this measurement as long as all are "on hook" (not in use). Call this voltage E1 (ignore polarity).

[WARNING: Even though 50 volts may not produce a shock when touched, it is best to heed what amateur radio hams call "The Theory of Electric Chairs", and treat the voltage as if it were much higher. If someone should call during the measurement, ringing voltages as high as 130 volts AC may occur.]

Now measure the line voltage while momentarily putting a 1000 ohm resistor between the red and green wires. Call the voltage E2 and the resistor RL. EEs will recognize the use of Thevenin's theorem for getting the expression $RP=RL(E1-E2)/E2$ to be used for calculating the phone line resistance RP.

Example: $1000(51-31)/31=645$ ohms, which is a typical value for RP. This will permit inserting (not shunting) 300 ohms in the lines of most phone devices. Calling the inserted resistance RS, I have found that RP + RS = 1100 ohms overall is about the maximum allowable before a phone won't ring, or an answering device won't respond to a call.

M I C R O G R A P H X
WINDOWS DRAW

Graphics, in one form or another, are becoming the norm as the PC has supplanted the typewriter. Whether one uses typographic changes or pictorial images, we now rely on various means of enhancing the ability of our output to please the eye and to focus interest.

In the Windows environment, these capabilities abound. Here's a look at a very affordable (under $100 street price) package to unleash your creative instincts. It's Micrografx' Windows Draw. It comes with 2,600 clip art subjects, a complete set of drawing tools, OLE capability, and over three dozen fonts including TrueType.

The ClipArt collection covers subjects from Animals to Illuminated Type Faces. Selections can be used as is or be manipulated to suit. Included are a number of attractive borders and embellishments. The world map collection allows selecting out individual countries with no loss of fidelity. (You can draw your own borders to match the morning news.)

The distinguishing characteristic of Draw is that it is based on vector graphics, distinguished from the bit-mapped graphics of the older paintbrush style drawing programs. Now, text and drawings both are produced as smooth lines described by behind the scenes formulae. No more jagged images! But you don't need to know the difference between pi and pie to make use of all that math ... it's really as easy as pie!

If you are unfamiliar with vector graphics drawing, here's how it works. One places points on the screen using the mouse. The computer figures out

formulae to describe the curves that fit a line to the chosen points. It is these formulae that are stored to reproduce your work at the highest resolution of your screen or printer ... a considerable saving in storage space.

STANFORD
Shadowed/Outlined

Palo Alto
Gradient fill

PC Users
Edit characters

Is it hard to learn? Not at all. An excellent tutorial is included in the single soft-cover manual. To draw, one drags the cursor and clicks at chosen points. PRESTO! The line changes to the new curves. But you really

wanted it different, eh? No problem. Use the Bézier tool to move the position of a point or to manipulate the curvature to and from a point. Seeing is believing.

Text also can be manipulated in many ways. With a simple menu command it can be fitted to any curve you have drawn. There are many ways to manipulate it with fills, edges, extrusions, etc. Text can even be converted to the same kinds of curves used in drawings; then the same changes can be made to the points and curves of the character.

All these symbols can be moved about the screen, changed in size proportionally or non-proportionally, tilted, copied, etc. The included clip art can be customized the same as your art and text. For instance, with the Blend feature one can produce a transitions from one selected symbol and color to another in as many steps as chosen.

Draw imports and exports to and from about all major programs with which it would be used, including spreadsheets, presentation programs, word processors and publishing programs. An excellent PostScript driver produces EPS files for typesetters or other outputs.

Technical support is available using phone, FAX, BBS and Compuserve. It isn't an 800 number, but it's free and available 24 hours/ day weekdays and 9 hours/day on weekends. You aren't likely to call much, however. On line HELP and the manual are quite clear.

JACK
KAHOUN

Preserve Their Habitat

Why would one want to use Stacker software? You might think that the obvious answer is: to compress files on a hard disk, but I feel that a more cogent answer is: to save money.

Most of you are familiar with Stacker, the number one selling "disk doubler". There are several packages like Stacker on the market, and one has even been incorporated into DR DOS 6. Their purpose is to give you more space on your hard disk by compressing files to about 1/2 size and then continuing to compress any new files you create. It does this "on the fly" as they say. Of course, the files must be decompressed to be used by the computer, but all this ongoing compression and decompression and recompression occur in the background so that you are not aware that it is taking place. All you are aware of is that you have more hard disk space (almost double) and less RAM available. Oh sure, you have to pay a price. This program has to be in memory at all times, so you lose about 41K of RAM. This may not matter to you if you have RAM to spare. For me, it has caused a lot of problems because I cannot load Framework IV, a very large program, without removing my mouse driver and a regularly used TSR every time I load Framework. I am planning to upgrade my mother board from my 80286 AT to a 486, so I will be able to load many of my drivers and TSRs in memory not used by Framework. But until then, Stacker will cause me a lot of grief by using so much of the precious 640K I need for programs.

I have two hard drives, an 80 and a 20 meg. I use the 20 meg to back up, via a batch file, important data files from my main 80 meg drive. Because I ran out of room on the 20 meg I decided to try Stacker. The best solution, I believe, would have been to try to find another 80 meg (or even 40 meg) drive on sale or a tape backup system. That's what I mean when I say that the primary reason a person would use Stacker is to save money. The approximately $80 you'd pay for Stacker is cheaper than buying hardware. Of course, you will also need the space in your computer to put new hardware.

As to the installation of Stacker, I was able to get it working fairly quickly. Although their instruction manual is thick, a lot of the material is for special situations. I was able to follow the menus, referring to the manual only occasionally.
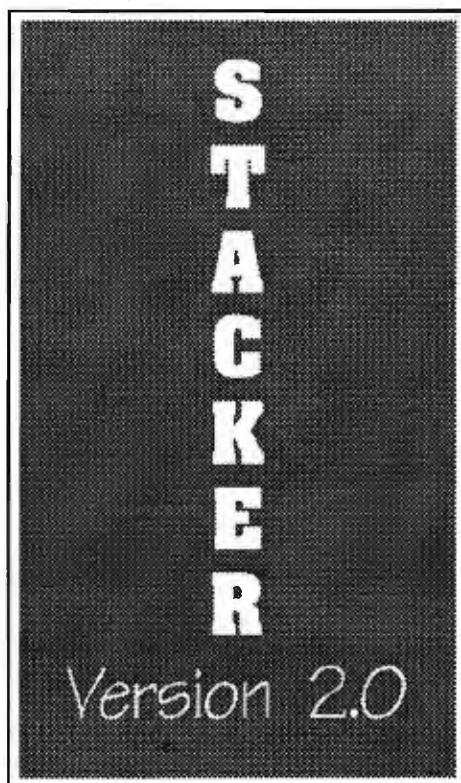
I was pleased to see that installation allowed me to choose whether or not I wanted to modify my CONFIG.SYS and PATH manually or to let the installation program do it. Also admirable is the presence of a glossary for error messages. I was surprised that the manual did not readily tell you how much free disk space one needs to be able to install the program. Obviously, the reason people install Stacker is because their disks are full or nearly full. I installed the files on my 80 meg disk which has plenty of room, but I doubt that I would have been able to install it on the 20 meg disk which is the one I direct it to work on from the other. The manual did not make it at all clear that it is possible to do this, i.e., install the files onto a drive other than the one you intend to compress.

The manual would have been easier to use had it been divided into 2, one for those using a co-processor (optional hardware that PC Magazine says does not really make Stacker faster) and one for those using the Stacker software alone.

Next, I tried to install Stacker on my Sharp/Texas Instruments Travelmate notebook. This is one of the special situations not covered by the manual. How to install to a computer with no floppy. Rather than fool around with Laplink or copying files from my AT, I decided to try tech support (no 800 number). After a 10 minute wait, I was told that there was a Technote (#026) that covered this problem. I was pleased when they faxed it to me. Nice folks. I followed the clear but flawed instructions. Wanting to test out their bulletin board for this review, I left a message describing what I had done and what had happened. The next-day response I received was adequate to get me a little further, but still not enough. I left another message telling where I now stood, and got a next-day suggestion for more corrections. This fixed the problem. I find that Stacker works well on my notebook. It did not double my disk space however. After installation, CHKDSK showed 15,630,336 bytes available. Assuming that the 20 meg notebook disk was full (which it was not) I should have had 20 megs available. A new disk for this computer would be very expensive, so Stacker was a good solution for me even though I had to give up substantial memory and spend about 5 hours getting it installed. There is always the possibility that Stacker will fail and that I will be unable to boot up my system since I can not use a "plain vanilla" floppy version of DOS to boot up in case of emergency. Hopefully the version of DOS in ROM would be accessible.

On my AT it also works seamlessly without slowing down the performance of the machine. However, my AT continues to lockup on a regular basis. This is intolerable. To be objective, I should report that at about the same time I installed Stacker I also installed the Heritage Dictionary software. While I do not use it as a TSR (or at all for that matter), it is possible that I acquired a virus. In any case, I feel I would have been much better off to have bought another 80 meg drive for $300 or a tape back up for $250. I like to keep my machine as uncluttered as possible. Stacker definitely complicates your system and makes tracing problems more difficult.

My recommendation? If you can afford a new, larger drive, buy it. Stacker is just a stop-gap method of gaining something that is better gained through hardware.

For more information on Stacker you can tap into the ongoing discussions I have seen on the CompuServe IBM Hardware forum.

RICHARD ORSER

LOCAL BUS

THE WHY, THE WHAT, THE WHERE AND THE HOW

The Why

One of the most frustrating things about computers is, that no matter how much RAM you add, or how many MIPS your CPU executes, it is never fast enough - especially when you are operating in a GUI. One solution to this perennial problem may be found in the new motherboard development which features local bus .

There are currently three architectures on the PC platform: ISA, EISA, and the IBM specific MCA. Local bus is an attempt to increase the performance of the ISA variety, particularly where video is concerned. Now that Windows has become the operating platform of choice for many, video speed is of particular concern because of the processing overhead that Windows imposes (OS/2 2.0 imposes even more).

Information travels between the peripheral board and the CPU along the bus. In ISA this bus is a 16-bit-wide one with a speed restriction of 8MHz. This limitation is a major bottleneck, particularly where video is concerned. To get some idea of the amount of information that video generates, remember that a standard 16 color (4 bits per pixel) VGA display in 640x480 resolution is moving 1,228,800 bits of information along the bus line. Make the jump to 256 color (8 bits per pixel) SVGA (1024x768) and you are talking a five fold increase to 6,291,456 bits. When 24 bit color becomes affordable, the amount of information to be transferred will more than triple. This means that complex pages not only take up lots of processing time, but screen redraw time is slowed dramatically by the speed of the bus. This accounts for the proliferation of graphic accelerator boards with on-board memory, and coprocessing chips from S^3 and Texas Instruments. These take a good part of the load off the CPU because they can handle graphics primitives. And fast video memory (VRAM) means less use of system memory, which moves along the bus. But just as the performance increases, along comes the new generation of high definition displays looking for more information to be processed.

The What

Local bus technology describes a means of connecting a motherboard expansion slot directly (or almost directly) to the computer's CPU. Thus it can operate at the same speed as the CPU and its memory. For example, in a 386 25MHz machine, with no memory wait states, the local bus is running at 25 million cycles per second. One unit of data can be transferred every cycle, 32 bits for a 386DX, 16 bits for 386SX (486s are all 32 bit). So, by using the full bandwidth of the local bus, 100 million bytes can be transferred every second (32 bits/8 = 4 bytes). This is an optimal figure and, because of other concurrent CPU processing activities, transfer will rarely take place at full bandwidth. However, it gives some idea of the performance improvement available with local bus. Because of the 32-bit nature of the system the only chips that will support local bus are 80386 and 80486 ones.

The Where

For the Macintosh and for Unix machines local bus is old hat, they've had it for years, but it was NEC who were the first to implement this technology for the PC. They called it Image Video, and first offered it on their PowerMate 386 series, and subsequently on the low-end SX/20c. It was sufficiently impressive, as far as video performance was concerned, to start a trend. Hewlett-Packard have introduced it in their high-end 486 Vectras, and both Dell and Swan are offering local bus in the direct channel (which sort of fits).

Locally I've seen about half a dozen suppliers advertising either complete configurations, or motherboard/graphic card

combinations. The most popular seems to be that from Orchid Technology in Fremont. This is probably because they offer their Superboard 486 in both 33MHz and 50MHz versions and couple it with a 32 bit, "D",

> **G L O S S A R Y**
>
> **CPU** = Central Processing Unit
> **EISA** = Extended Industry Standard Architecture
> **GUI** = Graphical User Interface
> **IDE** = Integrated Drive Electronics
> **ISA** = Industry Standard Architecture
> **MCA** = Micro Channel Architecture
> **MHz** = Million Hertz (cycles per second)
> **MIPS** = Millions of Instructions a Second
> **RAM** = Random Access Memory
> **VESA** = Video Electronics Standards Association
> **VLB** = VESA local bus
> **VRAM** = Video Random Access Memory

version of their popular Fahrenheit 1280°, S^3 based, accelerator card. This combination works extremely well, and I got the impression that video performance in Windows improved by about three times. This a strictly subjective impression (I did no benchmark timing), comparing it to the same card, in its 16 bit version, running in a standard 8 MHz ISA bus.

Another locally designed motherboard that I've examined is Ace Cache, produced by Axik of Sunnyvale. I was impressed with the excellent quality of construction, and with the fact that, by changing jumpers, the **system** bus speed can be varied from 8MHz, through 12MHz, to 16MHz. This, of course, is only useful if the peripheral cards can run at these speed. Axik see this as a hedge against future expendability, as more high bandwidth cards come on the market. Unfortunately Axik do not, as yet, have a graphic card to take advantage of their 32-bit local bus slot, they are hoping to have one in a couple of months.

The How

Here we have one of the problems of local bus. As yet, there are no standards, each manufacturer implementing its own design. This means that both the motherboard and the video card need to be from the same source. As is the case with the Orchid Superboard/Fahrenheit 1280° D combination mentioned above (one, by the way, that is currently on offer at $999 for the 33MHz version). This uses the OPTi local bus chip set which is the nearest thing to a standard at the moment. VESA are presently finalizing an industry standard, the VESA local bus (VLB), which they hope to have ready shortly. This will allow bus mastering (à la EISA) and bus speeds between 16MHz and 66MHz. It takes the form of a connector specification that lets manufacturers design local bus cards that will work with any motherboard that has a VLB connector.

The three peripherals that will benefit most from local bus access to the CPU are those that demand high bandwidth or bus mastering for their best performance. As well as video, this means hard disk controller cards, memory expansion boards, and network adapters. One interesting development that has been announced is the combining, on one local bus peripheral card, of video graphics and IDE disk controller. This is an excellent idea and one that will be seen more frequently. Next to video performance, it is the transfer of data to and from the hard disk that will benefit most from local bus technology. Electronically all that an IDE card does, is link the drive signals to the bus. Making this a local bus will mean a considerable performance boost. The next stage would be to add a cache.

An interesting development, that's in the works, comes from Intel. They are currently developing another bus specification which they hope will have a major long term advantage. That of being able to accommodate future advances in CPU architecture without having to continually redesign the motherboard. They hope to accomplish this by decoupling the CPU from the system bus. Though a long term goal, which will not affect current development of local bus technology, Intel are working closely with VESA so that the two specifications will not conflict.

TONY ALLEN

HAS IT REALLY BEEN TEN YEARS?

I was browsing through a box of junk at a computer swap meet last month and came across a copy of IBM DOS 1.1. It was in the traditional pale gray slip cover and contained the original disk. I thought you may be interested in the contents of the disk:

```
Volume in drive A does not have a label
Directory of  A:\
COMMAND  COM   4959  5-07-82 12:00p
IBMBIO   COM   1920  5/07/82 12:00p hsr
IBMDOS   COM   6400  5/07/82 12:00p hsr
FORMAT   COM   3816  5-07-82 12:00p
CHKDSK   COM   1720  5-07-82 12:00p
SYS      COM    605  5-07-82 12:00p
DISKCOPY COM   2008  5-07-82 12:00p
DISKCOMP COM   1640  5-07-82 12:00p
COMP     COM   1649  5-07-82 12:00p
EXE2BIN  EXE   1280  5-07-82 12:00p
MODE     COM   2509  5-07-82 12:00p
EDLIN    COM   2392  5-07-82 12:00p
DEBUG    COM   5999  5-07-82 12:00p
LINK     EXE  41856  5-07-82 12:00p
BASIC    COM  11392  5-07-82 12:00p
BASICA   COM  16768  5-07-82 12:00p
ART      BAS   1920  5-07-82 12:00p
SAMPLES  BAS   2432  5-07-82 12:00p
MORTGAGE BAS   6272  5-07-82 12:00p
COLORBAR BAS   1536  5-07-82 12:00p
CALENDAR BAS   3840  5-07-82 12:00p
MUSIC    BAS   8704  5-07-82 12:00p
DONKEY   BAS   3584  5-07-82 12:00p
CIRCLE   BAS   1664  5-07-82 12:00p
PIECHART BAS   2304  5-07-82 12:00p
SPACE    BAS   1920  5-07-82 12:00p
BALL     BAS   2048  5-07-82 12:00p
COMM     BAS   4352  5-07-82 12:00p
       26  File(s)  7168  bytes  free
```

That's it. One disk containing the full operating system plus Debug, Exe2bin and Link, two versions of BASIC, complete with demo files, and Edlin. (In case you were wondering what happened to COPY or DEL, they're among the ten internal commands integrated into Command.Com, as they are still.) The disk, by the way, is a single-sided, 160K type. In contrast the full version of MSDOS 5.0 comes on 5 360K disks. There are 101 files of which 80 are in compressed form and, if you install them all, they fill 2.4Mb of hard disk space. Not a problem with with DOS 1.1, it didn't recognise hard disks - those were the days!!

Skimming through the manual one comes across phrases such as:

It is assumed that the reader is familiar with the 8088 architecture, interrupt mechanism, and instruction set.

and

The whole part of the product is an offset into the FAT, pointing to the entry that maps the cluster just used. That entry contains the cluster number of the next cluster of the file.

There are section headings on "How to Use the File Allocation Table", "The Disk Transfer Area (DTA)", and eleven pages of tables of values (in HEX of course) for a floppy diskette map. No wimpy, hand holding, tech. support 800 numbers here. Real men rewrite the FAT themselves - while not eating quiche.

TONY ALLEN

Affordable Desktop Publishing Power

A BEGINNER'S STORY

SOL LEDERMAN

Just a week ago I decided that I needed a laser printer to support my mathematics and computer business activities. The needs were pretty straight-forward; nice typeset resumes, business letters, flyers, and simple diagrams. No need for merging graphics into documents for now. Also, no immediate need for postscript printing capability. Printing speed was no big concern. I did want to have access to lots of fonts.

It did not take me too much looking around to decide on an HP LaserJet IIP Plus. The price was right - CompUSA sells the IIP Plus for $747 plus tax. Fry's sells it for $30 more. I walked into Fry's and asked them to match the CompUSA price, and they did. I picked HP for the obvious reasons - good reputation, solid printer, and well supported. I did notice that Fry's does have some cheaper laser printers which you may want to investigate.

My $747 printer came with 1/2 meg of RAM, which I'm sure I'll want to augment some day. I can add 4 more megs of RAM to the printer. Check Fry's, CompUSA and mail order houses for memory price *[I've found the best prices for SIMMS, both printer and computer, at CMC in Milpitas, Ed.]*. When you see an ad for computer memory or anything else computer-related do call and ask for the current price. Prices do often go down between the time the ad is prepared and the time it is published.

I have been very happy with my printer except for one, not so little, surprise. HP advertises the printer as coming with 14 fonts. I am aware that font manufacturers count the bold version of a font as a new font, and italic also, and etc. I do, however, believe that HP goes out of its way to deceive the consumer on the font count issue. HP gives you "lineprinter", a very bland font suitable for file listings and not much else, in one point size. And they give you "Courier" (the font that traditional typewriters use) in two different point sizes, with regular, bold and italic versions in each size. Do the addition and you get 1 ("lineprinter") plus 2 ("courier point sizes") times 3 (regular, bold and italic) = 1+2x3 = 7. That's half of the 14 HP promises. A careful study of the manual reveals that each font also comes in a landscape mode version which doubles the count from 7 to 14. (Landscape mode is what you get when you turn a sheet of paper on its side and print along the long dimension of the page.) So, the LaserJet IIP comes with lineprinter plus a couple of sizes of Courier. Not good enough for my needs.

Tony Allen, who had been guiding me in the printer purchase process (can you say "printer purchase process" three times fast?) came to the rescue. He recommended that I upgrade my version of Windows from 3.0 to 3.1. (Fry's provides the upgrade for $45, a good price given the new features in 3.1.) In particular, Windows 3.1 comes with Microsoft's True Type font manager and a number of nice fonts. Microsoft's TrueType font management system gives you the ability to see type on the screen in the same way that they come out on the printer. While other font management systems do exist (e.g. Adobe's Type Manager system), it's nice that Windows provides one as a part of 3.1 and that quite a number of fonts exist that work with TrueType.

For an additional $40 I purchased Microsoft's TrueType Font Pack which provided me with a bunch more fonts. In fact, Microsoft claims that if you have the fonts from Windows 3.1 and the fonts in their Font Pack that you have the ability to print the text that an Apple LaserWriter can print. I'm "font-satisfied" for now. Also, I should mention that many of the TrueType fonts are scalable. This means that you can display and print text in any point size that you select. This is very freeing.

I have been using JustWrite, a Windows Word Processor from Symantec for composing the text that I print. That works fine but I'm about to move up to Microsoft Word for Windows Version 2.0 for the tremendous firepower of that program. Fry's sells the competitive upgrade to Word for Windows for $119, which is an excellent price for an outstanding program. (CompUSA's price is $113.99!) To qualify for the competitive upgrade you need to own either an older version of Word for Windows or any version of certain other word processors, (e.g. WordStar.) You can purchase old versions of word processors from places like "Weird Stuff" in Sunnyvale. Then bring in the original manual or disk #1 of your software and you're eligible for the upgrade price. Before you go and do this do call Fry's or CompUSA or where-ever you might be getting your upgrade and verify that the upgrade offer is still in effect, and have the salesperson tell you which word processors are eligible for the upgrade price.
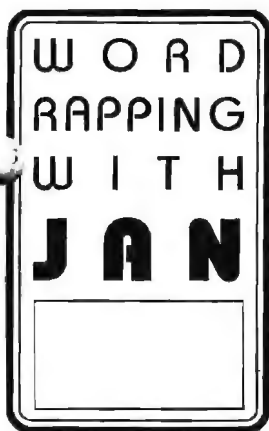
Now for some details about my system. I have a "noname" 386 25MHz machine which I bought at Fry's two years ago. It has an 80 megabyte hard disk, 8 Mb of RAM, VGA card and display, 2 parallel ports and 2 serial ports. The system has run trouble-free and meets my desktop publishing needs for now. In the future I may want to add RAM to my printer and purchase PageMaker or some other heavy firepower desktop publishing program. And I might want to get a scanner.

How much might it cost to purchase a PC that fits the bill? Well, I don't want to touch that question in print. There are too many variables. People have different wants, needs, and budget sizes. Hardware and software prices change. There are too many choices out there for me to make specific recommendations. If you want to learn more about PCs, how to choose the right equipment, or what the jargon means, I recommend that you spend time at SPAUG functions, get involved in organizational activities, read the literature, ask lots of questions and get to know knowledgeable people.

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W O R D
RAPPING
W I T H
J A N
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JAN ALTMAN

Jan is the Vice-President of SPAUG and a Microsoft Certified Trainer. Send your comments on Windows applications to:

3655 Pruneridge Avenue, No. 135
Santa Clara, CA 95051, [408] 243-5955.

Q: I created a flyer in Word for Windows that includes a bit-mapped graphic. As to be expected, printing it is pretty slow. This flyer will be going out to a quite a few people, and I had hoped to save money by printing it myself. Does Word recreate the graphic for each copy it prints? That is, if I print 100 copies, will my printing delay increase 100-fold?

A: If you use Word's File Print command to specify 100 copies, the answer is yes, you'll experience the same delay 100 times. The trick is to get Word to create the graphic just once, and then print 100 copies.

To do this, specify copies with the File Print Setup command instead. Go to Setup, and you'll find a Copies box. (You can also get here through the Printers option in the Control Panel.) Enter 100 and OK your way out. Now do a normal File Print in Word (make sure to say just one copy here). Windows holds the graphic image in mind while Word prints the copies.

A word of warning: Make sure to change copies back to one before you print again!

Q: Is there a way to set up a program icon in Program Manager to always launch minimized? I don't run my screen capture every day, but when I do, I don't want it taking up screen space.

A: Hold down Shift while you double-click the icon. Not only does the program launch minimized, but you can quickly launch several programs this way. (By the way, this tip overrides the "Minimize on Use" option in Program Manager.)

Q: I created an automatically-executing macro in Excel that appears to have a few bugs. But now I can't open the file without the macro running. I tried pressing Escape, but I can't seem to catch it fast enough. Help!

A: Automatic macros wouldn't be very helpful if you had to create them perfectly the first time. Fortunately, there's another way. In the File Open box, hold down Shift when you choose OK. The file opens without running any automatic macros.

Q: I heard that Windows 3.1 comes with a whole bunch of new icons. Where can I find them?

A: You'll find them in PROGMAN.EXE. First, select the icon in Program Manager that you'd like to change. Choose File Properties (shortcut: Alt/Enter). Choose Change Icon, and under File Name, enter C:\WIN31\PROGMAN.EXE (substitute the correct path for your Windows directory). A whole new array of fun icons will appear under Current Icon. Scroll through, and when you've selected the one you want, OK your way out of the dialog boxes.

SPECIAL: ALL OF MY FAVORITE TIPS & TRICKS FOR EXCEL AND WINWORD HAVE BEEN COMPILED INTO TWO SEPARATE COLLECTIONS, AND ARE NOW AVAILABLE. IF YOU WOULD LIKE TO RECEIVE ONE, PLEASE SEND $5 TO ME AT THE ADDRESS ABOVE. SPECIFY IF YOU WOULD LIKE EXCEL 3 OR WINWORD 2.

A BATCH FILE

Like everyone I tailor my personal computer to suit my preferences. I like small utilities that work together to access drives and directories and then examine files. Where someone else will use XTree, or the DOS shell, I prefer DOS commands and utilities like RN, DR and CO for cruising the hard disk and checking on files. I also use a lot of batch files, both for starting programs and for running combinations of utilities.

This has the advantage of keeping you in touch with the operating system. Normally, if I know in advance that I'm going to be working on a strange computer, I'll carry a disk of my favorite utilities to make life easier. But sometimes I find myself without this luxury and the thing I miss the most is a file finder.

On my computer I've three different file find utilities. The one that I use depends on what drives I want to search and what screen output I want. If I'm on someone else's machine, and without the utilities disk that I normally carry, then I'm dependent on their utilities, if they exist, or on DOS. Originally I would use the command **CHKDSK /V | FIND "XXX"**, which worked fine, with the limitations that you couldn't use wild cards, and

you had to remember to use all capitals for the file name. When I switched to DR DOS I found they offered a super DIR called XDIR. This had a switch [/s] that would search through all subdirectories. DOS 5.0 has now added this to DIR. You don't really need a batch file to use this but I find it best to automate as much as possible and it's nice to have help on tap.

```
FFILE.BAT
@echo off
IF "%1"=="" GOTO HELP
DIR \%1 /S
GOTO END
:HELP
echo.
echo  Format:   Ffile Filename
echo  Example:  Ffile n*.txt
echo            finds all .TXT files starting with N
echo            on the logged drive.
echo  All wild cards accepted
echo.
:END
```

One thing I find of particular use, that lends itself to a batch file format, is a printed output of the directory structure of all the drives on my hard disk. The following batch file does just that by adding the TREE structure of each drive to that of the previous

one. It then directs the file to the printer.

If you prefer, you can send the file TREE.DOC to your word processor and format it there into columns, using a condensed typeface, and save paper. To do this in Microsoft Word, for example, change the last line of the batch file to read **d:\msword\word g:\doc\tree** (substitute the correct commands for your setup).

```
SUBD.BAT
@echo off
echo Creating a directory tree structure of all drives
tree c:\ >g:\doc\tree.doc
tree d:\ >>g:\doc\tree.doc
tree e:\ >>g:\doc\tree.doc
tree f:\ >>g:\doc\tree.doc
tree g:\ >>g:\doc\tree.doc
copy g:\doc\tree.doc prn
```

The only time I operate under MSDOS 5.0 is when I need it for checking batch files such as these. My operating system of choice is DR DOS 6.0. So for those of like persuasion the equivalent command on line three of FFILE.BAT is XDIR \%1/s. For SUBD.BAT, **TREE d:\ /g** works well, giving a graphic display of the tree as well as adding the amount of disk space used by the files in the directory.

TONY ALLEN

THE SPAUG FUNDRAISER CONTINUES

*T*hanks to the generosity of Symantec, we have a number of new items this month. You may purchase any item by calling Beverly Altman (415 329-8252) and it will be brought to the meeting or, if you want it sooner, you can arrange to pick it up.

Are there any items that you would like to donate to this fine cause? Again call Beverly.

TYPE	ITEM	DESCRIPTION	SPAUG PRICE	STREET PRICE*
Software	NORTON BACKUP v1.2 For DOS	Simultaneous Backup of Multiple Drives Flexible and fast; Award winner	40.00	**
Software	NORTON BACKUP v1.2 For DOS and Windows	Automatic schedule for Windows backups. Restores from damaged diskettes.	52.00	**
Software	NORTON DESKTOP For Windows v1.0	Integrates Program Mgr, File Mgr. . Backup, data recovery, and many utilities	38.00	**
Software	THE NORTON EDITOR Version 2.0	Simple, Easy-to-Use Text Editor Pull-Down Menus; Search and Replace	50.00	90.00
Software	THE NORTON EDITOR Version1.0	Created to meet the needs of programmers Written entirely in Assembly language; fast	.25.00	**
Software	JUST WRITE 1.0 by Symantec	Fast & Easy Windows Word Processing WYSIWYG, Spell Check, Thesaurus etc.	80.00	**
Software	THE BUDGET EXPRESS 1.1 by Symantec	Goal Tracking, "what if", Instant Summary Views, etc. for Lotus 1-2-3	35.00	**
Software	SQZ! PLUS by Symantec, for Lotus	Spreadsheet File Utility System; compress spreadsheet files by up to 95%. Load and unload in RAM without leaving Lotus	25.00	**
Software	DESIGNER v2.0 by Micrografx	A top rated drawing and technical illustration program for Windows.	120.00	309.00
Software	ALLSAFE by XTree	An integrated security program, including password protection, keyboard locking, etc	40.00	89.95
Software	RESOURCE WORKSHOP	A designing and compiling resource for applications running under Windows 3.0	18.00	99.00
Software	VENTURA CONTROL!	Utilities for Ventura Publisher	15.00	—
Software	MAGELLAN v2.0 by Lotus	Lets you find and see all the text in every file on disk, including graphics files.	35.00	79.95
Software	TRADING POST by LaserTools	A PostScript printer manager (PCWorld Best Buy)	15.00	—
Software	FORMWORX for Windows by Power Up!	An excellent forms processing program.	54.00	199.99
Software	MORE WINDOWS v3.0 by Aristoft	A Windows untility that adds 300% more. Transforms your monitor into a giant screen.	20.00	59.99
Game	PIPE DREAM by LucasFilm	"A perfect desktop stress-buster — and a serious spatial strategy puzzle".	10.00	25.00
Book	HANDS-ON VENTURA 2.0 C. J. Wallia (1989)	A Self-Teaching Guide and Reference	5.00	26.00
Book	CLIPPER 5	A developer's guide to "The ultimate dBase compiler" (1300 pages! with disk)	10.00	44.95
Book	HOW TO BACK UP YOUR PC Murach Press (1992)	Basic techniques, tape backups, network commands etc.	8.00	25.00

* *The current discount price – where available.*

** *These items are not latest versions. They're marked at 60% below the current version price.*

THE SPAUG RESOURCE CENTER

OFFICERS

President	Paul Staley	[415] 493-1864
Vice President	Jan Altman	[408] 243-5955
Treasurer & ASSU Representative	Alex McMillan	[415] 322-4543

MANAGERS

Bulletin Board (SPARC) Sysop	Bob Bottini	[415] 369-2086
Financial Manager	Bev Altman	[415] 329-8252
Librarian - Public Domain Software	Les Weil	[415] 321-5541
Newsletter Editor (PRinT SCreen)	Tony Allen	[408] 739-2953
Resource Center Manager	Rich Madden	[408] 253 2075

SPAUG members are encouraged to make themselves available to other members to answer questions about hardware or software. Your area may be general or specialized. If you are willing to have your name added to this list, please contact the Resource Center Manager, Rich Madden at [408] 253-2075.

SOFTWARE

Accounting	Larry Mehl	[415] 329-6037
Lotus 1-2-3	Larry Mehl	[415] 329-6037
Quicken	Floyd Kessler	[415] 493-7780
Windows Products	Jan Altman	[408] 243-5955
R:Base	Larry Mehl	[415] 326-6037

LANGUAGES

C	John Watson	[415] 325-7632
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 EVENTS IN AUGUST

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31					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

August 11 First Wednesday - **PLANNING MEETING**
7:30pm Beverly Altman, [415] 329-8252 or
Paul Staley, [415] 493-1864

WORD FOR WINDOWS
There will be no meeting of the SIG this month as Jan is on vacation. See you in September on Tuesday the 8th For more information, please call Jan at [408] 243-5955.

August 18 Third Tuesday - **QUICKEN SIG**
7:30pm Floyd Kessler, [415] 493-7780
Greg Marek will be demonstrating some more features of Quicken 5 for DOS. After the demonstration there will be a general Quicken (both DOS and Windows versions) question and answer session, so bring along your Qs and get some As.
For the latest information see the notice on the Bulletin Board.
Location - Intuit, 66 Willow Way, Menlo Park

August 26 Last Wednesday - **GENERAL MEETING**
7:30pm Turing Auditorium, Polya Hall, Stanford University

THE JULY PRESENTATION
Last Wednesday: July 29th, 7:30pm at Turing Auditorium

MYSTERY NIGHT

Because even the best laid schemes of SPAUG committees can 'gang aft a-gley', the original idea for this months meeting had to be shelved at the last moment. New plans had not been finalized at press time - hence this notice! However, directly the agenda is decided it will be posted on the bulletin board. Be assured that it'll be something well worth being there for.
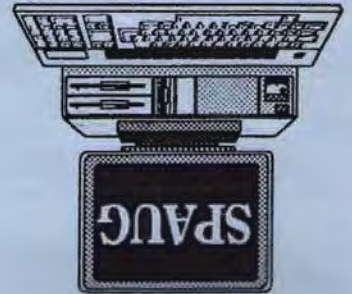
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29 USA

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