PRint SCreen

C•O•N•T•E•N•T•S

CAERE CORP

Scanning and OCR

Wednesday, June 29th, 7:30pm at Varian, Bldg. 7 Auditorium

The President's Piece

Open Mike...............

In our last issue, I mentioned that the August General Meeting was planned for presentations by members. A "members entertaining members" evening, so to speak. A Mega-Random Access with members yelling command line instructions. Well, with that CD-ROM drive in the podium, a suggestion was made to "Karaoke with Elvis." Picture Elvis impersonators "air mousing" to a digital sound track. Ho!, it's getting crowded down front. They're clicking on those show tunes!
OK...so your white sequined outfit is in the cleaners. How about Frank Sinatra?? A tuxedo or a tux tee-shirt is quite appropriate. The Baskin-Robbins CD...a virtual ice-cream cone in 31 flavors. A face-down pig-out virtual feast of sweets guaranteed to make your ears wiggle with delight. We could visit the virtual Cleaver family, Warren, June, Beaver, & Wally. A return to the days when life was simple and a hand-held calculator was a slide ruler. For the after 9pm crowd we could, "Time Warp" with the Rocky Horror CD. See Richard & Janet dump their 512kb Fat Mac and learn C++ programming. Cross dressing Assembler modules is allowed! Costumes are optional but amusing. Bring some toast! Yes indeed, it's party time at Varian!

August Presentation Cut-off Date
The July General Meeting, July 27th, is the last day to submit your show outline.

Sidewalk Faire
Historically, the Faire was held preceding the September meeting. A 5pm to 7:30pm display, in front of Varian Bldg 7, of computer related merchandise usually sold at very low prices. This year it could be again. But it's time to vote on "Do you want it" and "Will you participate in it's creation?" What are the alternatives? Think about it and we will have a show of hands at the June General Meeting. You can call your vote into Beverly Altman at (415) 329-8252.

BBS Issues
Have you tried the updated flavor of our Wildcat Board? It has a new #3 bulletin called the "SPAUG BBS Navigator." This has step-by-step instructions which take the mystery out of using our board.

In addition to the Windows CD, I would like to add another 8,000 files on a MS-DOS CD. This entails adding an additional CD-ROM drive.
Our Practical Peripherals Modem has served us well even with it's hang-up problem. I think it's time to hook-up to a U.S. Robotics 14.4 V.42bis Sportster. The SysOp surveys consistently show USR as the leading brand used in EBBS. A vote at the June General Meeting will influence these issues.

Pledge Dinner
Another fun, successful party of merry members who can really cook on a computer and in a kitchen. Thanks to the following members for volunteering to help SPAUG.

Jan Altman	Jim Bailey
Sid & Ester Felix	Cathy Haynes
Nancy Helmy	Jess Kanarek
Larry Mehl	Mildred Kohn

Mail Call
This month a member asks "Why doesn't PrintScreen have any great GIF ads like BABBA?" Answer: Jan keeps sending their checks back. Another writes "Is it true that a Club Mascot brings Good Luck?" Answer: I guess so, the Varian overhead projector worked for the entire Microsoft presentation. Our last one comes from a member who writes "I like PrintScreen but why should I read it every month?" Answer: To see what great jobs your real friends have volunteered you to do. Note, we have Volunteer Gift Certificates available.

See you on the 29th..........Brian

PageKeeper & Personal PageKeeper,
Windows Version 1.1

Caere Corp.
100 Cooper Court
Los Gatos, Ca. 95030
(800) 535-7226
Technical Support & Voice Mail (800) 462-2373

Price: $595   SRP; $299

System Requirements: MS-DOS 3.1 +; MS-Windows 3.1 +/enhanced mode; MS's SMARTDrive 386/33 (486/33 rec.); 4 Mb RAM (8 Mb rec.; if less than 16 Mb RAM, 10 Mb Windows swap file rec.) 7.7++ Mb HD space, mouse, flatbed/sheet-feed scanner (majors supported, others with Widows 3.1 drivers OK-call Caere), network optional.

Reviewer: Butler Crittenden, Ph.D. (415-346-9321)

Pro: Manuals, intuitive GUI, 800 technical support, indexing performance, great data compression of scanned pages/items

Con: Hardware intensive--AKA the shape of the future

PageKeeper is another breakthrough product from Caere. Its purpose is the storing of different types of documents and images from a variety of sources in one or more databases (or by subdirectories or whole drives), organized to suit the user's needs. All the images, docs, faxes, scans of text or graphics, etc. are indexed and located in folders of the user's choice. Several search strategies are provided, so that a graphic, word, topic, or name can be found quickly. Caere includes the latest page recognition and data compression technologies, too, which are significant in themselves. Thus value is added to all the information that the user cares to enter into the computer, whether via network, importing, scans, graphics work, or keystrokes. The difference between the "personal" and original versions of PageKeeper is the lack of networking for the former. The price of both is less than last summer's.

What's going on that's new? How does PageKeeper work? After the Introduction and Getting Started chapters, the manual turns to Building a Database. While in the back of my mind I had always thought of my doc files as data, I was not visualizing them as a database. PageKeeper immediately showed me that, once indexed and grouped in folders (or by drive or subdirectory), my docs become a database. Also, the same item can be part of different folders, without creating multiple copies of the item.

For existing docs imported into PageKeeper there is no scanning involved--they are accessible in Text View only. For scanned items, Caere's page-recognition technology preserves the scanned images as well as turns the text into computer language. The scanned material (including graphics) is super-compressed, yet still viewable in Image View as the scanner saw it--whether a smudged newspaper article or an elegant magazine page. While each page is technically a graphic, graphics as we think of them of them may be Selected and Copied to the
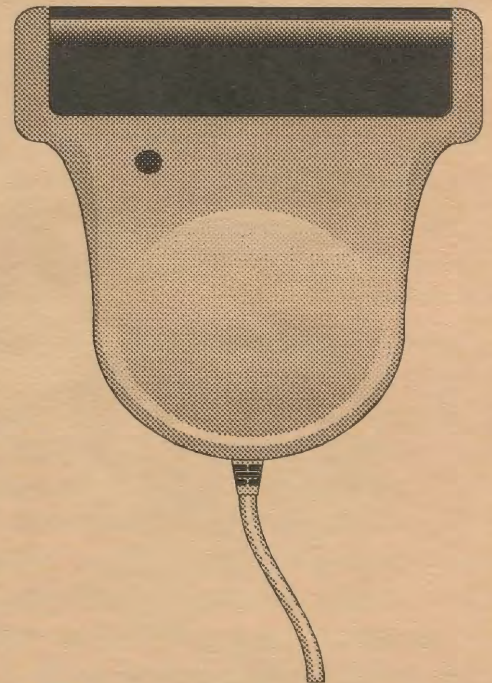
Clipboard, to be Pasted into an art program (and then modified). Similarly, scanned documents can be exported in text mode to other wordprocessors that have more powerful editing tools.

In short, and significantly, scanned material (bitmaps, or fax-like images) may be viewed as if flipping through xeroxes and may be searched/manipulated based on the "recognized" characters that are changed into alphanumeric computerese. Alternately, notes may be attached to any document, in either text or image view, and are automatically indexed. Thus graphics with no words in them can be kept track of.

PageKeeper permits editing documents in Text View as often as needed, but only during the first/original scanning can OCR'd docs, faxes, etc. be cleaned up with Caere's famous verification feature, where the questionable OCR'd text can be double-clicked to see a window of the bitmap "behind" it. After OCRing, Image View is available, however, making possible checking of any part of the original. A minor negative: After editing, PageKeeper reindexes the document, which takes time and often is not needed.

When scanning clean, full-character documents, PageKeeper makes relatively few errors, and either ignoring these or a quick cleanup makes sense. Auto Spelling Assist is a convenient option that highlights corrected words in blue and unknown words in green. Also available are AutoSpell, spellcheck, and search-and-replace.

However, when scanning faxes, newspaper articles, some dot-matrix printed items, etc., PageKeeper (and all other OCR programs I've worked with) is no match for
the human eye/brain and "misreads" many characters and numbers, which would require substantial clean-up. A whole stack of such scans, perhaps handled by an automatic document feeder (ADF), would require a gargantuan effort to conform perfectly to the originals. The user's compulsiveness (the Hobson's choice of scanning, commented upon in prior reviews) would be sorely tried were it not for Caere's inclusion of the feature of editing of the text files. Poor source material can always be perfected later--in total or just the parts needed for pasting into a document being worked on.

Tests on several faxed documents suggest that the OCR engine in PageKeeper is a modest improvement on the excellent one in OmniPage Professional 2.0. I expect OCR will get better yet in the future. A direct comparison of one fax (received by modem and laser-printed) OCR'd better in PageKeeper. However, to make it usable required a major clean-up; well beyond simply running Speller. A second fax came through on a HP plain-paper/laser fax, complete with an errant roller-smudge vertical line pretty much down the middle. I could not make PageKeeper keep the paragraphs together and ignore the line. A third test was of a poor-quality xeroxed page that I expected to OCR as a mass of errors, but instead was remarkably good.

Let me stress, however, that the advantage of easily inputting scans of faxes, magazine/newspaper stories, pages from books, letters, etc. outweighs the imperfection of leaving them relatively uncleaned-up. They can be seen in Image View and searched in Text View; anything that must be perfectly conformed can be done so later.

Switching focus to PageKeeper's use, after playing with the provided SAMPLE.PKP per instructions in the slender 35-page tutorial, I turned to a personal task-- "organizing" a dozen or so large docs in a WinWord subdirectory. Four of the docs were in the 200kb range, one was 418kb, and others averaged 25kb. I guessed that indexing 15Mb's worth of words might take a while, so I X' d the Index in Batch Mode option, one-by-one selected the files, and chose the Finish Unattended OCR/Indexing option. (This title threw me off at first, for I had not OCR'd the docs, but had merely imported them.) A progress bar appeared, and immediately my guess proved correct--indexing a batch of large docs takes time--even on a fast 486. Coffee time--indeed, dinner time!--were it not for indexing (and OCRing) "in the background." The results are amazing.

Another option is to index and access external files--outside a PageKeeper database, perhaps an entire drive or selected directories. Around 10 PM I chose to index several WinWord subdirectories with 681 files, which were done the next morning. The object was to be able to search this random assortment of docs, faxes, letters, etc., which already has come in handy.

Which brings me to the next chapter: Search Made Relevant, an understatement. Once indexed, PageKeeper offers three search options: weighted word, weighted Boolean, and document agent. If selected documents have been put in a folder, this window opens at the left with the option to expand any of all folders. Once a search method and topic is chosen, a window appears at the right with all the files listed in which the topic is found, color coded horizontal bars with the most-frequently-found at the top and least at the bottom (and

proportionately shorter). Or double-click on the doc/item of choice, and it opens. Begin tabbing, and the word or words selected are jumped to one after another.

Caere's search engine is not a simple index based on word/frequency counting. A natural languaging process was invented to discern the focus of a document. Caere encourages use of multiple word searches. For example, if a paragraph (or more) has various search items in it, the whole section or a portion can be "selected" (high-lighted), copied (Ctrl C), and then pasted (Ctrl V) in the search box. PageKeeper then lines up the other docs that resemble the themes in the selected material This points up the unconstrained query metaphor. The weighted document window does not just list cases of words in common. Thus, the search technology takes care of the possibility that a single instance of a key word may be incorrect.

Caere's agent search works on the same principle. Specify a document and index, say OK, and that document is compared to all others in the index. An icon for the original document appears to the left, with a three branch tree with multiple icons in the center, and the bar/color-coded chart to the right, each proceeded by a thumbnail. Click on the various doc icons, the contents to the right change, and the doc title appears at the top.

The three branches of the tree are keyed off Caere's analytical engine. A new "agent document" can be substituted by first selecting it and then choosing Make Agent Document. There is also provision for saving search results.

The PageKeeper Owner's Manual runs 192 smallish, highly graphical pages, including three appendices, glossary, and index. Quality manuals are a Caere hall-mark. This one is excellent, attractive and to the point. In addition to the Tutorial (mentioned above), the final "manual" is the Desk Reference - a 20-page crib booklet. I feel I must mention the piece de resistance - an 800 tech support number, with no 90-day limit!

Caere lists as optional a 200 dpi printer and a scanner. Their reasoning is that PageKeeper works and would be useful without these two devices. However, so much of the power of PageKeeper depends upon a scanner that I would call it a requirement for single users. The convenience of having supercompressed scans available is hard to overstate--the first realistic way to scan in and effectively use lots of divergent material. Go ahead and input some of those news and magazine clippings, journal articles, book chapters or paragraphs, and other printed goodies you want to access and keep track of. In a network situation, the indexing and search capabilities would justify acquisition; presumably most network users would have access to a scanner.

A network was unavailable for this review, but careful reading of the chapter suggests that the overall usefulness of PageKeeper would be multiplied in a network environment. Given the mass migration of the computer industry to the client/server use of PCs--away from mainframes and minis, with all the new power of the Pentium and Windows NT, I'm confident certain types of businesses, especially writing groups, will want Caere's PageKeeper.

PageKeeper requires slightly less than 8Mb HD space. It creates a PK_DATA directory, which looks like an problem in matrix algebra and grows faster than a mushroom. The "dictionary files" reach a million+ bytes quickly, and other files can be large, too, although there are scads of small files as well. I advise having some 10-20Mb HD space mentally reserved for PK_DATA, perhaps more. Larger hard drives are now the norm, and the features of PageKeeper will prove valuable enough to cause many users to add another HD. (Recently I saw a one gig SCSI in the $700 range.)

There really are no "con's" about PageKeeper, unless perhaps that its OCR features are not as full as OmmiPage's. Hardware prices continue to come down, making the platform for PageKeeper and other power programs more affordable. For serious writers and many others, the scanning/indexing combination will prove invaluable. On a network, I can see even greater use for PageKeeper. Add Caere's 800 support, other high-end qualities, and the dozens of features not even mentioned in this review, and the new modest prices wilt be attractive to many users.

The corporate self-restraint at Caere is admirable. Rather than "revolutionary," they say "advanced technology." Hype is out: judicious language is in. Perhaps they know that reviewers will find this standard hard to adhere to.

Chips Ahoy!
And the Jury Comes in on Microsoft   by John Hastings

Novell, Inc. released an application development system in May that could revolutionize the computer industry. Known as AppWare, the system's most vital component is visual AppBuilder. This component gives programmers and non-programmers the ability to create powerful applications very quickly. The resulting applications can be compiled in seconds to run on either a Macintosh or Windows system. Novell has stated it will charge no royalties for the distribution of these applications. Numerous companies will develop extensions to this fifth generation development system. The list of companies includes AT&T, Bell Atlantic, Borland, Gupta, and Oracle. The short development cycle this system allows could result in a deluge of powerful, inexpensive applications.

Advanced Micro Devices was victorious in its court case with Intel. The ruling allows AMD to continue to produce clone 486 CPU chips. This competition will force Intel to produce faster, cheaper 486 and Pentium chips in the near future. Additional competition from the IBM/Motorola Power PC chips could put a substantial strain on Intel. The result to computer users will be cheaper high performance systems. While they have been fairly stable for the last six months, prices of used 386 and 486 computers could fall quickly.

While rumors persist that Intel is behind schedule for its next generation 686-class CPU chip, it hopes to ward off competition by boosting the upper speeds on its existing 486 and Pentium chips, The fastest 486 chips will no longer be referred to as 486, but renamed DX4. These clock-tripled chips will run at 75 Mhz and 100 Mhz. Intel recently announced the newest version of its Pentium CPU chips, The P54C chips can run at 90 Mhz and 100 Mhz, compared to previous versions running at 66 Mhz. The new chips are not only faster, they are also smaller and require less power. The older chips consume 16 watts of power, making them unfeasible for small, portable computer. The new chips need 4 watts of power. This clears the way for Pentium-based notebook computers. Lower power consumption also means less heat. Many experts have feared the high temperatures of current Pentium chips could shorten the life of the chips or the motherboard.

Intel has increased its production of motherboards. In fact, more than half of all Pentium computer are using Intel motherboards. This has infuriated Compaq, who makes its own motherboards. The situation has allowed Compaq's competitors to reach the market place in record time. This "time to market" is crucial in establishing a dominant brand. To retaliate, Compaq will purchase CPU chips from Intel's competitors and may begin selling its motherboards to other makers. One version may include the IBM/Motorola PowerPC chip. To date, Intel has not sold any notebook motherboards. Consequently, Compaq is expected to be the first to market a DX4 notebook computer.

Dell computer returned to the notebook computer market last month. Its new offerings are manufactured by AST. The redesigned AST Bravo notebooks are expected to be a stopgap measure. Margins in the computer industry are simply too thin for two companies to make a reasonable profit from each sale. Dell is expected to announce its own versions of a new notebook computer this summer.

When a defect is discovered in the automobile industry, a recall is issued. Owners can return their cars to the dealer for a free repair. When a defect is discovered in the computer software industry, the software company issues a new release of the product. By incorporating a few new features, the problems can be masked. The new release can then generate more profits to the software company. Some would say that Windows 3.1 was nothing more than the repair of Windows 3.0. The same claim may be made that MS-DOS 6.2 simply corrected problems in MS-DOS 6.0. Many feel the corrected software should be distributed at no charge to the early adopters of the new technology. While short term profits might suffer, the long term effect would be positive. Under the current policy, many computer users will not purchase Windows 4.0 when it becomes available early next year. Many will wait for version 4.1, expecting that to be a more stable version. Likewise, MS-DOS 7.1 or 7.2 should sell better than MS-DOS 7.0.

A new version of MS-DOS 6 will soon be on the shelves. Version 6.21 may be the first version to have fewer features than its predecessor. DoubleSpace, the utility which compresses data on the hard drive, will be removed. For the first time in its 19 year history, Microsoft lost a major lawsuit. Stac Electronics claimed that DoubleSpace violated two of its patents. The jury agreed with Stac and awarded it $120 million in damages.

Why do so many companies continually upgrade to the newest computers ? A recent survey has shown that more than 90% of businesses feel they recoup the cost of their PC's in one year of less. Almost half feel the cost is covered in less than six months.

Some will argue that handwriting recognition is the best method of input for computers. Others feel voice recognition is faster and more natural. At least one company has another idea Psychic Lab Inc. Had announced the IBVA, Interactive Brainwave Visual Analyzer. While wearing its headband, users may be able to control a computer through their thought process.

Ben & Jerry's company philosophy : If it's not fun, why do it?

Favorites, a Sweet-Heart Deal!
In 50 words or less, tell PrintScreen what is your favorite computer font, application, utility, screen saver, clipart, joke, motherboard, retailer, Q/C algorithm, statistic, writer, publication, hardware, VBasic module, etc......Send to: Favorites, c/o SPAUG, P.O. Box 3738, Stanford, Ca. 94309.....Or....EMail....BBS (415) 321-4497...address message to Sysop.

PRODUCT WATCH

News Briefs: contributed by Denise DeLange

----Dangerous Virus-----

Chinon America Inc. Reported the existence of a virus named "CD-IT" that reportedly surfaced on the Internet. A file identified as CD-IT.ZIP is listed as a shareware PC utility that converts an ordinary CD-ROM drive into a CD-Recordable device (which is technically impossible). Instead, it unleashes a virus that destroys critical system files on a hard drive, immediately crashes the CPU, forces the user to reboot, stays in memory, and has thus far proved undetectable by traditional virus checkers. The program is listed as being copyright by "Chinon Products." Chinon America, Torrance, Ca. has no division with that name.

Seventh Guest A Great CD Game

-By Paul Stackhouse   CKCS Vice-President

Seventh Guest is the best computer game I have ever seen or played. This is not your average "shoot-em-up" game; nor does it require the dexterity of a twelve year old. It is self paced, in pseudo real-time. You can save your game and come right back to where you left. This software does not reveal the object, the rules or the layout of the game. (And I won't in this article) You are plunged into a dark mansion with puzzles to solve which gradually reveal the plot of the mystery. For those who can't seem to figure out the puzzles, a book in the library which does not reveal the answer, but will (after several visits) partially describe how that puzzle is to be played.

The beauty of the game is the graphics and animation. But even these come with a "price tag" eliminating all those without Super VGA, MPC compliant CD-ROM, Sound Card. 386DX 25Mhz or better processor and nearly 600K of free base RAM. This is a tall order which minimally requires the user to have a system valued in excess of $1500.

The memory requirements forced me to prepare a boot disk which loaded only those drivers absolutely necessary to play the game. But even these obstacles seem worth the price once the game begins.

The interface is gorgeous and entirely mouse controlled (including typing file names from an ouija board-like menu). The movement is a le jerky on a 386/40: but a 486 provided smooth, easy wandering through the mansion.

The graphics are very true to life, shadows are cast correctly, and perspective is maintained perfectly. These are not simply cartoon drawings. The quality actually rivals some older television shows, and is certainly better than Wolfenstein or Leisure Suit Larry! Believe it or not, the game comes on two CD-ROMs. The second is used exclusively for installation and the "end game". CD Audio of the sound track, a pretty eclectic collection of eerie music, shares disc two. The kit also contains a case file, which is not crucial to the game but explains the characters and provides background information on the owner of the mansion. Like so move productions, this game includes "The making of the Seventh Guest" video, which offers an interesting look at the state of the art in animation, editing and audio production.

My wife and I spent a dozen evenings last month solving the puzzles and meandering through the mansion. Warning: If you require 8 hours of sleep, wait for a long weekend before attempting this game - you won't want to stop.

Seventh Guest is available from most larger CD-ROM vendors. The street price is in the mid $70 range, but varies widely between retailers. While this is not a game you would want to come back to and play over and over (once you "solve" it), it really does deserve a place on your shelf. Be warned though friends will want to borrow it after you are finished.

Persistence...

"Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent."

Calvin Coolidge

The Dating Game
by Don Rosenfield, NOCCC

I've been into my AUTOEXEC.BAT and CONFIG.SYS files often recently and was having difficulty keeping track of where I was. My prompt said, "Quick! What is your command, master?" But the last time I was in my AUTOEXEC.BAT the prompt said only "What is your command, master?"

Hmmm? It hadn't said that for three months. Where was my up-to-date file? I fixed it by going to my hard-copy backup, but got to thinkin' ....If I hadn't noticed that the prompt differed, how would I have known it was screwed-up before running into problems?

So now I have include the following statement in both AUTOEXEC.BAT AND CONFIG.SYS files:

REM**Latest Update: Jan 29 (or whatever), 1994**

Microsoft News for Northern California-JUNE 1994
Microsoft TechNet

Microsoft TechNet makes it easier than ever to implement and support information systems using Microsoft products. Whether you train and support users, administer databases or networks, or evaluate and recommend technology solutions, a membership in MS TechNet will give you the up-to-date information you need.

Your annual membership in MS TechNet brings a CD-ROM each month with over 100,000 pages of currant, highly-detailed technical information. It's the fastest, easiest way to get accurate information on client-server and workgroup computing solutions, operation systems, and application products. If you need to stay on top of products like the Windows and Windows NT operation systems, MS Access and FoxPro database products, and applications like MS Excel, you nee MS TechNet.

You can quickly find the information you need in the MS TechNet CD using a Windows-based query engine with rich Boolean syntax. Your information is displayed in a scrollable, prioritized list and you can easily place electronic bookmarks, annotate topics of interest, and print directly from the screen.

With your membership, you'll also receive the MS Services Directory and other special benefits, plus, the opportunity to network with other information management professionals through the MS TechNet forum on CompuServe. It's all part of the MS commitment to your success.

It's easy to start your membership in MS TechNet.. The annual fee is only $295, plus tax. Additional licenses to share a single CD-ROM over a network can be purchased for $40 per user. Each additional license allows one user to install the MS TechNet CD Viewer software (installed from the CD-ROM) on a single workstation to access the CD-ROM's contents.

To Enroll in MS TechNet, Call (800) 344-2121, ext. 160 with your credit card information. You can call twenty-four hours a day, seven days a week.

Microsoft Download Service
The Microsoft Download Service is the service you need when you're looking for drivers noted in Microsoft's Hardware Compatibility List, tips & tricks for business applications, development tools and other helpful information. 1-206-936-MSDL (6735)

Microsoft FAX Service
It's the fastest, easiest way for you to receive information about Microsoft products, services and technical tips. Simply call 1-800-727-3351

WordPerfect Tip
by Russ Warner, NYPC

Search

1. If you want to use a wildcard character in a -> SEARCH <F2> or <-SEARCH <Shift-F2> or REPLACE <AltF2 >, compose the character by pressing <Ctrl>-V, <Ctrl>-X when typing in the text for which you wish to search. The resulting X character will match any one character. (Note: ^X cannot be the first character in a search string, but it may be preceded by a space. For example, if you search for the characters "d^Xg," you will find words like "dog," "dig," and "dug," in the document.)

2. To search for a soft page [SPg], press <Ctrl>-V, <Ctrl>-K in the search string.

3. To search for a Soft Return [SRt] in a search string, press <Ctrl>-M in the search string.

The Design Studio - What's Your Type?

by Bob Flisser, Graphics Editor, Westchester PC News

You sit down at the computer ready to put together your latest opus: brochure, product sheet, proposal, press release, flyer, dog track report. Thinking of the many hours it took to write the content, you want to ensure the pages are attractive enough to catch and hold your readers interest. But how?

While designers wrestle with this question every day, one of your most important design decisions will be choosing and using type. We will discuss several guidelines, all of which you can break if you know why they exist. The only unbreakable rule is this: content matters more than design. A well designed but poorly written piece isn't worth a Continental.

Serif v. sans-serif

The broadest classifications of type are serif and sans serif. Serifs are the little finishing strokes you see on some letters, such as on the type you are reading now. If you remember your French, you know that sans-serif typefaces lack these strokes. How do you know which one to use?

Generally, sans-serif faces are best for display purposes, such as headlines and attention grabbers. Serif faces are better for body copy since the serifs guide your eyes horizontally across the page. There is now a trend toward using sans-serif faces for body copy, which can work if the face has a light weight, or letter density. For body copy smaller than 9 points, it's a good idea to use a sans-serif face, since serifs at that size will reduce legibility.

Bodoni and Timpany are among several exceptions to this rule. Their high stress (the difference between thin and thick lines) and bold style make them suitable only for sizes of 14 points and larger.

The Players

Probably the most commonly available serif face on computers is Times, which is rather unfortunate, since it is one of the least legible. The main purpose of Times is to squeeze as many words onto a page as possible, making pages look dense and forbidding. My favorite serif faces are Palatino, Caslon and Garamond, which are elegant and clean. You may prefer New Century Schoolbook, which compensates for high stress with expanded letters.

While sans-serif faces tend to look more alike than do serif faces, you can learn to recognize their differences Helvetica is the workhorse of this group, to the extent that it is almost cliché. Universe, Futura and Gil Sans are good alternatives.

Next to serifs, the two most important distinctions between typefaces are their x-heights and letter widths. X-height refers to the height of lower case letters without ascenders or descenders. These include the letters such as a, c, m and x. Faces such as Middleton or Peignot have very low x-heights, and thus are not suitable for long blocks of text. Eurostyle, Lubalm Graph and Glypha, for example have tall x-heights.

Letter width refers to the horizontal measure of letters. Faces such as Copperplate are most common in expanded forms, and Futura is most common in condensed form. Drawing programs such as Corel Draw or Adobe Illustrator let you expand or condense type on the fly, though a greater than 20% change will often look distorted.

With the explosive growth of computer typefaces, many artistic and decorative display types are now available, both from commercial sources such as Bitstream, as well as shareware. Treat these faces with restraint if you use them properly, they can make your pages look distinctive. Otherwise, you might create something hideous.

The most difficult aspect of designing on a computer is that because you have so many great tools and typefaces, it's tempting to use all of them, whether appropriate or not. Discretion is the better part of valor.

Intimate Relationships

There are several spatial relationships you need to keep in mind. Perhaps the most important is letter size, measured in points: there are 12 points to the pica and 6 picas (72 points) to the inch. The point size of a typeface measures from the top of an ascender to the bottom of a descender, such as from the top of the letter "d" to the bottom of the letter "q".

The imaginary line on which a row of type sits is its baseline. We refer to the vertical distance from one baseline to the next as leading, from the days when strips of lead separated blocks of metal type. A common guideline, which you should have no fear of

breaking, is to set leading to 120% of the type size. For example, you would set 10 point type with 12 point leading (written as 10/12 and pronounced as ten-on-twelve)

Some faces may require more leading, and some may let you get away with less. If you are creating a one page document, you might want to expand the leading to make it more inviting to read. There are several proportions to keep in mind here,

If you increase type size while retaining the line length, open up the leading slightly, so people won't reread the same line of text. If you reduce column width, reduce the type size, too. Large type set in narrow columns creates uneven text spacing, making the columns hard to read. The more narrow your columns are, the more you should consider hyphenation, to keep word spacing even. For the most part, the average minimum character count for a line should be about 35 characters.

When dealing with headlines, you have a little more room for adjustment, since you use only a few words. Because of the absence of serifs, you may want to set faces such as Helvetica or Avant Garde when in upper case with negative leading. Negative leading is leading less than the point size.

Right v. Left
How you align type horizontally is another important decision. You have the most discretion when setting display type, with the ability to align justified right, or left, or centered. With body copy, you have two choices: flush left, ragged right, or fully justified. No one wants to read blocks of text set any other way, since it causes too much eye strain.

Generally speaking, justified text looks more serious, and ragged right is easier to read, since the letter and word spacing are more even. You should justify a right margin only if your lines of text are long enough to compensate for unequal word spacing. Otherwise, you will have white rivers of space running through the text.

Do it with Style
You will usually set most copy in Roman, meaning straight upright, normal weight, without a slant. To emphasize a few words or a subhead, you can use boldface. Italic type calls attention to itself by being subtle. Bold italics are a little easier to read than regular italics, but don't overdo it. SMALL CAPS can add emphasis to a few words without competing with headers or proper nouns. Note that not every typeface has every style. Script faces like Park Avenue, for example, do not come in bold weights. One technique you should almost always avoid is underling. Many people are still used to typewriters, where underling is often the only way to add emphasis. In reality, however, underlining is the way to tell a typesetter to italicize words. Needless to say, underlining bold type will scream amateur.

On the Right Track
There are several ways of adjusting the spaces between letters. Tracking refers to how much space is between the letters of words. Sophisticated word processing or page layout software will allow you to tighten or loosen tracking in fractions of an increment called an em, which is (not surprisingly) the width of a Roman "m". While this may seem like an insignificant amount, tracking can have a powerful effect on body copy as well as on display copy, since a small fraction of an em can multiply out to increase or decrease the length of your document by several inches on a page.

Kerning is the method by which you adjust the space between specific letter pairs, such as Yo, WA or Pa. Good software will automatically kern pre-defined pairs for you, or you can do it yourself. Kerning becomes more noticeable as type size increases. Unbalanced spacing in a headline can look terrible.

Next to underlining, probably the biggest mistake computer users make is hitting the space bar twice after a period. Your high school typing teacher taught this because typewriters used monospaced type where each letter has the same width as every other letter. Now that you use proportional type (where the letter i, for example, is narrower than the letter o), hitting the space bar twice creates distracting spaces between sentences. If you can't break yourself of this ingrained habit, you can use your software's search-and-replace feature to fix it when you finish entering text

Conclusion
Following the above guidelines will give you a good, basic understanding of how type does and doesn't look good on paper. The best way to know for certain if your page looks good is to experiment. If you aren't sure whether what you put together is attractive or not, ask someone else for am honest critique. Also pay close attention to books and magazines, which often have innovative ideas. Remember, of course, that they aren't perfect, either.

A MEGABYTE IS USUALLY FOLLOWED BY A BIG-GULP.

Digicom Connection 96+:
Stepping off the Modem Merry-Go-Round?
Bob Reiser, WPCUG

MODEMS PROMISED A THRILL and a half. I saved my pennies so I could link my hot CPM machine with the outside world and listen to those wires hum at 1200 baud. The year was 1984, the Anchor 300/1200 modem (price $299) was hot!! True that sometimes it didn't work. Sometimes I would spend hours trying to establish communications protocols with my friends. True that it would pick up the phone for me and answer my friend's calls with a piercing howl. But, what the heck, I was communicating, and I was happy! My euphoria lasted two years. Prices were dropping and my Anchor was looking hoary with age. Time to upgrade to the 2400 standard. Another $299 But does time stand still? Soon it was time to upgrade to a fax modem, another $299. Recently I noticed that it was taking an hour or more to download new programs from Execnet. The modem was too slow and the programs were too big. Was it time to toss the old and shell out another $299 for one of those hot new 14400 baud babies?! How long was this going to continue?

That is when I heard about a new upgradeable modem by Digicom Systems. One modem and all your troubles were answered. Could the Connection 96+ take me off the modem merry-go
round? For a street price of about $129 it was worth a try.

Going for the Brass Ring
Digicom calls its machine a "soft modem," because, instead of keeping all the code in the modem chip, it places the modulation code and controller algorithms for the modem's signal processor onto the hard disk. You upload all the information to the modem either at boot-up or by executing a short program from the DOS command line. The beauty of the system is that to upgrade the modem to use new speeds or new functions, all you have to do is upgrade the start-up program. This is not unlike the new computers which can have their bios chips updated through software.

The modem arrived in a pretty yellow and purple box, with an auxiliary $39 program to add fax functionality. Total for my magic fax/modem, $179. So far, so good, if it worked as promised. Installation was a snap, literally. Merely a matter of setting the IRQ jumpers on the card and snapping in place. Inexplicably, the card arrived set for comm 4, a useless setting if you are using Windows, which runs into complications when it tries to use a communications port beyond number 2. Now came the software, without which this modem is dead as a post. The install program, copied all the necessary files to the hard drive, set up all of the initialization commands, and even installed a copy of Qmodem. Your first call to the company bulletin board gives you a chance to register and download your first software upgrades. If your call goes through, you

know everything is working. My call went through and I downloaded the files to boost my machine to 14,400 baud. Additional cost—only the phone call.

Now my magic board was perking along at 14,400 baud! Using Zmodem protocol, I could download those megabyte sized Execnet behemoths in 10 to 15 minutes!

Fax & Beyond
Time to install the fax function. A setup program added the proper files, a Windows group and did some weird things to my Windows communication abilities. At first the modem would not work at all under Windows. I called the company. They told me that Windows did not recognize Comm port 4 if I was already using port 2. Time to open the machine and play with the jumpers. OK the modem worked. Now, however, the fax program didn't work. Another call to Digicom. It seemed that Winfax pro used a different communications driver and the Digicom Windows communication manager only worked with the original windows communications driver. I spent the next hour or two installing and reinstalling Winfax and the Digicom software, until I hit the right combination. The trick was to stop at the point when the Winfax setup offered to update the original communications driver, and answer "no."

But now there was a new problem. Although the modem could download files like a bandit under DOS, when I ran it under Windows, the download fell apart. A 500k file showed 39 checksum errors, and only came through thanks to Zmodem's uncanny ability to take a licking and keep on ticking. Another call to the company. "Are you using smartdrive?" "Yes," I answered. "Don't," they replied. "Why?" I wondered. "Just don't." So, I turned off smartdrive. What happened? My machine slowed down by 10 percent and my communications worked like a dream. Maybe one of these days I will find a way to get a disk cache to work. But for now I'll take what I can get.

So, the bottom line—Is the Digicom modem worth it? It is true that for about $50 more, I could have a top Intel speed demon modem. But, if my Connection 96+ continues to be upgradeable to the new 19,000 baud standard and the 28,000 baud standard beyond that, and if all that upgrade takes is a phone call to the company, and if I am able to stay off of the modem merry-go round, then, to me, the modem will be more than worth its price -- It could be the gold prize.
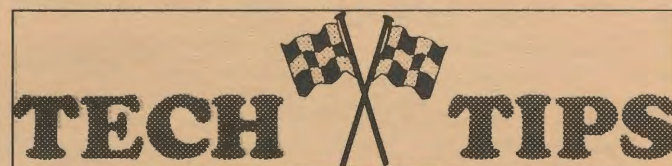
MS Excel 5.0 tip from Microsoft News
Curve Smoothing
To fix the problem of jags and lost detail in line charts, double click on the line chart and select curve smoothing. MS Excel will "smooth" the chart while preserving the overall trends.

High-Speed Communications: A Tale of Two Modems

Lance Whitney, WPCUG

MODEM SPEEDS COME AND go. For many years 2400 baud per second was the standard speed for modems. Then the yardstick jumped to 9600 bps. Now the preferred rate of travel seems to have nestled in at 14,400 bps. And even this number won't last too much longer. Modems designed to run at 28,800 bps have recently been unveiled. For now, though, the standard remains 14,400 bps. That speed is high enough to let you transfer files and messages at a brisk pace.

Most commercial online services such as Genie and Prodigy still don't offer 14,400 bps speed. Only CompuServe has caught up with the technology, now providing 14.4K bps service in several cities around the country. Instead, it's the small, local bulletin boards that are neck and neck with the technology. Many Bulletin Boards now offer speeds of 14.4K bps or higher. All modem manufacturers sell 14.4K bps units. And even better, prices for these highspeed modems have never been cheaper. You can buy many 14.4K modems for around $200 or less. Most of these units offer fax capability as an added bonus. This review will look at two popular high-speed modems.

The Hayes Accura 1 4.4K Fax/Modem

Hayes has long been one of the dominant modem manufacturers. In fact, they invented the standard. Hayes modems have been around since 1981, starting with the first Hayes Smartmodem. And today, most modems are Hayes compatible. Hayes offers a few different high-speed modems. But the Accura 144+FAX144 fax/modem is the company's low-cost, high-speed fax/modem. Like most modems, the Hayes Accura is available as both an internal and external unit. The modem I reviewed was external. Both types have their advantages and disadvantages. An external modem doesn't use up a slot, but it does require one of your serial ports. It also takes up space on your already crowded desk and needs a separate electrical outlet. Plus, external modems often are not as fast as their internal counterparts. But an external unit is easier to configure since you don't have to wrestle with dip switches as you do with most internal modems. External modems also provide display panels with lights that convey information. One light tells you when you're connected online. Another light tells you when your modem is in high speed mode.

The Hayes Accura external model comes with a single phone cable to link your modem and your phone, a serial cable to connect your modem to your PC, and a power supply to connect your modem to an electrical outlet. Installation is simple. Just make the phone connections, plug the modem into your port and the power supply into the outlet, and you're ready to go online. Well, almost. Now you have to set up the software.

The Accura comes with a telecommunications program called Smartcom EZ. You can probably guess what this program is like just from the name. It's a very basic, no-frills communications program, simple to set up but decidedly lacking in features. It offers Xmodem protocol but not the faster and more reliable Zmodem. It offers keyboard macros so you can store often typed commands but has no log-in script capability.

Smartcom EZ did not work very easily, despite its name. While online, I kept getting messages that the Hayes modem was losing data because of hardware overrun. This prevented me from reliably transferring files and messages. I logged onto Hayes's toll-free bulletin board and left a message asking for technical help. They responded with a few different options, none of which solved the problem. Finally I just switched to a different communications program, and the problem went away. So it seems the fault was with the software, not the hardware. My advice: if you buy the Hayes modem, don't bother with Smartcom EZ. Buy a separate communications package such as QModemPro. Or upgrade to one of the better Smartcom programs. Hayes wisely offers upgrades to several of their own communications programs, including Smartcom Exec, Smartcom III, and Smartcom for Windows.

After I switched to a different communications program, the Accura delivered a fine performance. The modem offers V.42 error correction for more reliable file transfers and V.42bis data compression for a higher transfer rate. I connected to several bulletin boards and uploaded and downloaded a variety of files. The modem achieved a transfer speed of about 1600 characters per second on compressed files, a respectable rate for a 14.4K bps unit. Occasionally I received transmission errors due to phone line noise and other factors. But the modem always managed to recover and finish the transfer.

Faxing with the Accura

The Hayes Accura comes with a program called Smartcom Fax for faxing. Smartcom Fax works as a TSR, so you can pop it up whenever you need it. The fax program lets you fax files in several different formats, including ASCII, PCX, TIFF, and WordPerfect 5.1. You can broadcast a fax document, which means you can send the same fax to more than one person. One nice feature is Preview Fax. This utility converts your document into fax format, then previews it so you can see how it will look as a fax before you send it. I also liked the merge utility. Say you have a text file and a graphics file and want to fax them together. You can merge the two files and then send them as one single fax. I used Smartcom Fax to send and receive a couple of faxes and had no problems with the software.

If you do have problems, Hayes offers technical support via phone or fax. The company also has its own toll-free bulletin board where you can get technical support, download files, and communicate with other Hayes users. As for the price of the modem, I've got good news and bad news. The good news? Hayes offers discounts on its modems for members of computer user groups. The bad news? The discount prices are about the same as ordinary street prices. For example, the user group discount price for the external 14.4K Accura modem is $219. But on the street, the modem already sells for about $219 to $229. The Accura series is the company's low-cost line. Hayes also offers the more expensive Optima line which includes advanced features not found in the Accura.

The Hayes Accura modem is a fine piece of hardware. The fax program performs well. The communications software Smartcom EZ is the weak link here. If you buy the Accura, make sure you upgrade to a different communications program, and it should run smoothly.

"Fax It. to Me, Scottie"
Bob Fleiser. WPCUG

A RADIO AD WAS EXTOLLING A new exotic technology: "In ten minutes, I sent the copy and the lay-out to my customer in Paris. In twenty minutes, I had the job." The year was 1987. The ad was for-some $1,000 miracle machine called a "facsimile". I remember laughing. Then, sometime in 1990, I began hearing a motif in my business phone calls- "Just fax it to me. You do have a fax?" Like it or not I would have to deal with this new technology.

Searching the appliance stores, I found fax machines guaranteed to produce shiny nasty looking copies for under $500. Considering that the "Fax me" situation came up at best once or twice a week, I couldn't see popping for what was still an overpriced telephone. Then I heard of Computer faxing. It took another year till prices and technology caught up with my imagination, but by 1991 I had my first fax modem with software (price $84). I was ready to trade faxes with the best of them.

The hardware worked without a hitch. But, alas, the anemic faxing program that came free with my modem was the stuff that nightmares are made of. Several system crashes, hung machines, and garbled communications later, I erased it from my hard disk and began to search for a **real** fax program.

Fax Master

My first serious stop was **Fax Master,** which, with its sister program **Fax Grabber,** promised to automatically download any Fax that came while I was working, subject it to OCR, translate it to Word Perfect, and have it ready for me to read and edit at my leisure. Sine I had no idea what trash might be coming in, I decided to skip the automatic OCR and go manual.

Finally a fax came in. The "grabber" icon switched on and blinked in the background, then went away. I looked, and sure enough, there was the announcement -- "You have a fax waiting." I couldn't wait to read it. Through **Fax Master,** I brought it on my screen, magnified it 100 percent, and there she was -- A menu from my local Chinese restaurant. I tested the OCR option. Big mistake! After struggling to read it for five minutes, the software flipped the picture upside down, I guess assuming that the fax was misaligned. It then tried flipping it sideways. After five minutes it gave up altogether and showed me what I had:

aMuuur smmmp&&&n
pxkiii.....................S~P9 4ir

Hx9996rrr .... *$p.8hh"*
The OCR was useless, but at least the fax looked good. Lets see how it looks on paper. That was my next mistake. "Unrecoverable Application Error." Try printing again. The same. Try again. This time the system hangs completely. Time to call tech support. "Gee we never had that problem before. What kind of printer are you using?... Try reinstalling the software... Try printing another file...Are there any TSR conflicts...blah blah blah..." After three hours, and five system crashes, we never did figure out the problem. But I did shoot an entire afternoon trying to print a Chinese restaurant menu. Another piece of software bites the dust.

Win Fax Pro

Then I discovered **Win Fax Pro** by Delrina, street price about $75. This may or may not be the greatest piece of software since sliced bread, but it did what it was supposed to do -- effortlessly. Having been bitten once, I didn't bother installing the OCR option. To receive a fax, I set the software on automatic and went about my business. Finally a fax arrived in the background. So far, so good. There was my message "You have a fax waiting." With a couple of clicks of the mouse button it was on screen -- A publisher's letter, forwarded by my agent, full of written in marks, notes, and suggestions. Could I print it out for my files? Yes, without a hitch. Could I mark it up with my comments and send it back to her? Yes, two ways! First, I could annotate the document right on the computer -- adding text, drawing lines and circles, even importing graphics, and forward the fax to anyone who cared to see it. Or, I could mark up my paper copy, scan the revised version, and send it on, right from the scanner. To me, the ability to scan a sheet of paper and send it out as a fax, was heaven. It meant that my computer could do anything that a fax machine could do.

Sending a Fax was a snap, involving nowhere near the exasperation of working out communication parameters with another modem. I merely set the fax as my printer and clicked. This activated **Winfax** which let me assign a phone number and cover page. I could even scan in additional pages to add to the fax. When everything was ready, I let her rip. As the fax went out, a tiny animation lit up my screen, showing a little fax machine rolling teeny pieces of paper.

Winfax Pro is loaded with other extra goodies, like cover page designer (a cute, but some-what useless doodad, about as important as a fancy screen blanker), and a utility for saving and cataloging old faxes (essential for heavy duty faxers). The program's only shortcoming is its clumsy way of assembling faxes from many sources. There are times when I want to drag in a graphic, a spreadsheet, or another document and add it to the fax. But with **Winfax** I must individually save each file as an "attachment" before I can add it to my outgoing fax. This is a pain in the neck, but it is a shortcoming that Winfax Pro shares with other similar programs, like the ones by **Eclipse and Intel.** I guess the day of drag and drop faxing is yet to come.

I've made it into the fax age for half the price of one of those expensive telephones. Best of all, my faxes are neatly tucked away on my hard disk, instead of floating around my desk, ready to be lost. Now I can shout with the best of them, "Fax it to me, Scottie."

KingCOM Solves Communication Port Problems

If you think having to close one program before opening another is a dull chore that disappeared with the advent of Windows, try launching several Windows communications packages at once. Begin opening Procomm Plus for Windows, for example, when Winfax Pro is open, and you're rudely confronted by a 'COM port busy' message, forcing you to close the fax program before proceeding. Want to receive a fax in the background? You have to close the comm program before relaunching the fax program.

Enter KingCOM. This utility allows different communications programs to cohabit your Windows desktop by creating nine virtual ports. This neat software sleight of hand lets nine Windows-based comm programs stay open without conflicts. Say your external fax-modem is connected on COM1, and you want to keep both your data and fax programs open. You can correct the actual Com1 port to virtual ports 2 and 3, and then change the fax program setting to COM2 and the data program setting to COM3. KingCOM automatically hands over the real port to whichever communications program you switch to.

KingCOM lets you tailor the way your comm programs control the modem or modems. You can pick which application will answer incoming calls on the modem. If you use more than one modem, you can choose the first- and second-choice modems for each communications program.

OTC says the next version of KingCOM, which will support DOS communications programs, will be available by the time you read this.

OTC Corp.
800/769-6344,
714/832-4833
List price: $49.95
Reprinted by permission of PC World from Volume 11, Number 9,   Copyright @1993

MS Word 6.0 tip
Displaying, hiding, or printing hidden text

You can use the hidden text format to hide notes, comments, or other information you don't want to print. Word also uses hidden text to hide table of contents entries, index entries, and annotations. Word displays hidden text on the screen with a dotted underline, but it does not print the underline.

To display or hide hidden text.

On the Formatting toolbar, click the Show/Hide button.

When you click the Show/Hide button, Word displays all nonprinting characters, including paragraph marks and space marks. You can display hidden text without printing it in normal view, outline view, and page layout view only if you've chosen to display hidden text. You see hidden text in print preview only if you've chosen to print hidden text.

Using the Options command   You can display hidden text without showing other nonprinting characters by clearing the All check box and then selecting the Hidden Text check box on the View tab in the Options dialog box (Tools menu). See Options command.

To print hidden text

1.   From the File menu, choose Print.
2.   Choose the Options button.
3.   Under Include With Document, select the Hidden Text check box, and then choose the OK button.

Tip

If you print hidden text, page breaks may be different from what you see on the screen. To view the document as it will be printed, make sure to display hidden text. Before compiling an index, or a table of contents that you create from table entry fields, make sure to hide hidden text and specify that you don't want hidden text to be printed.

---
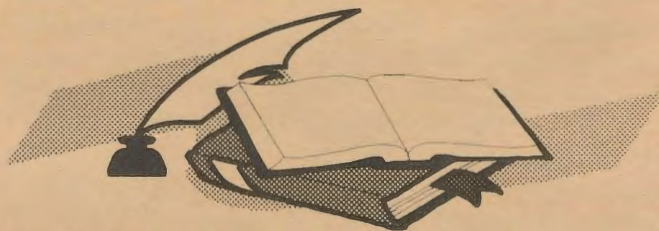
101 Essential Tips for Excel by Jan Altman
Enter a formula into a whole range as quickly as into a single cell

You know ahead of time that a whole range of cells will contain the same formula. Entering the formula into the first cell and doing an Edit Fill takes two steps. This trick takes one.
Press Ctrl-Enter instead of Enter.

1. Select the range to be filled. Make a multiple selection if necessary.
2. Type the formula. Complete it with Ctrl-Enter (not Enter). The entire selection is filled.

Ctrl-Enter and Edit fill are not identical. Ctrl-Enter is normally used before you've even entered the original cell. When you use it, the data (not the formatting) is filled throughout the selection. Edit Fill is used more as an afterthought. The original cell has already been entered, and you want to copy both data and formatting to a selection.

Windows Tip
If you keep the Print Manager iconized you can easily drag a file from the File Manager and have it printed without having to load the application.

MS-DOS Batch Files
Advanced Concepts.
By Kris Jamsa

If you are using DOS v.3.3 or later, the CALL command lets a batch file correctly execute the commands in a second batch file and then return to the next command in the first batch file. The format of the DOS command CALL is:

CALL Batchfile [parameters]

The parameters are the optional batch parameters that DOS assigns to the variables %1 through %9.

DOS for Real Life
by Dave Rose
TYPE

TYPE shows the contents of a file on the display. Use this to display text files. Although, if you want some real fun, try TYPEing COMMAND.COM, or some other COM or EXE program. You'll get all sorts of weird character and interesting pops and beeps from your speaker...
DOS versions: 1,2,3,4,5,6
Internal
To display file FileOne.Txt:
    TYPE FILEONE.TXT
(Note: wildcards don't work with this one...)
To get help with TYPE:
    HELP TYPE
Hint: If you ever find an unremembered program on your hard disk (say, "QSJC.COM"), try TYPEing the program. Most programs have text imbedded in them that can give you an idea what it is.

COMMAND

When you power up, DOS invokes the COMMAND command (cute,eh?). That gives you the C:> prompt. COMMAND is the "Command Processor", the program that actually translates all DOS commands. You can fire up your own DOS session from within the current DOS (or any program) by invoking COMMAND. This is the way some program can allow you to hop to DOS, do a directory or run another program or whatever, and then jump right back into the original program by typing EXIT. EXIT backs you out of a DOS subsession.
DOS versions 2,3,4,5,6
External
To start a new DOS session, command processor:
    COMMAND
Start a DOS session, specifying Command.Com's location:
    COMMAND C:\DOS
To start a DOS session with a 2000 byte Environment Space:
    COMMAND /E:2000
Start a session with no return (EXIT disabled - be careful):
    COMMAND /P
Start a session, run QBASIC, then do an automatic EXIT:

COMMAND /C QBASIC
v.6 Start a session, run QBASIC, then present a C: prompt:
    COMMAND /K QBASIC
Get help on COMMAND:
    HELP COMMAND

Batch Files versus DOSKEY Macros

by Kenneth Johnson. Chicago Computer Society

Many things you can do with batch files can also be done with DOSKEY macros. DOSKEY macros allow you to in essence create your own, customized DOS commands that are executed by simply entering the macro name and pressing [ENTER; Macros are created with the command:

DOSKEY macroname=[commands]

"Macroname" is the name of the macro; "commands" are the DOS commands you want to execute when you enter the macro name at the DOS prompt. If you enter "macroname=" by itself (with nothing following the equal sign), the macro is deleted.

When loaded, DOSKEY examines everything you enter at the command line looking for a macro. When you enter a macro name, DOSKEY intercepts it, "translates" the macro into its DOS commands, and reenters those commands for COMMAND.COM just as if you had typed them in directly. Because DOSKEY intercepts and translates macros for COMMAND.COM, they are always executed first - before DOS internal commands, executable programs, or batch files.

DOSKEY macros use several special symbols, which are easy to recognize since they contain the dollar sign. You can have nine parameters, $1 through $9, which are passed to the macro for execution (much like %1 - %09 in batch files). The first thing you type after the macro name is assigned to $1 the second to $2 and so on. You can also use the special symbol $* to refer to all parameters - everything you've typed after the macro name.

A DOSKEY macro can contain multiple DOS commands and can redirect DOS input and output. In a multiple command macro the individual commands are separated by the $T symbol. In redirecting output, $G represents the greater than sign (">"). $L the less than sign ("<") and $B the pipe operator ("|")

DOSKEY macros have some advantages and some drawbacks when compared with batch files. These include:

/ DOSKEY macros have execution priority over batch files, DOS commands, and programs with the same name. Macros can redefine DOS commands; batch files cannot.

/ Macros can be executed from any drive and directory since they are defined in RAM. To execute a batch file, it must be in the current directory or in a directory defined on your PATH.

/ Macros are limited to a maximum of 127 characters. The limit of the DOS command line. There is no real restriction on the size of a batch file.

/ DOSKEY macros run much faster than batch files since they execute from memory batch files require a disk access to read the file.

/ Macros take much less disk space than, batch files. Even a small batch file requires at least one disk cluster (usually 2K to 4K). Many batch files can take up a good deal of space on your hard disk. By contrast, a single macro definition file can contain hundreds of DOSKEY macros.

/ There is no batch equivalent of DOSKEY's "$*" symbol, which represents everything entered on the command line with the macro name.

/ DOSKEY macros cannot access and use DOS environmental variables as batch files can.

/ Batch files are more versatile since they allow for conditional branching there are no GOTOs in DOSKEY macros.

/ Macros can't call other macros; batch files can be nested with the CALL command.

Since DOSKEY translates the macro for COMMAND.COM, the macro's commands are always displayed. In batch files you can prevent commands from displaying by using ECHO OFF or the "@" symbol before a command.

HARD DRIVE HOMICIDE
Dennis Kessinger
WordPerfect Magazine

It's a dangerous job working in crime analysis. Sure, the glory-boy detectives make the bust, but I'm the one who could get carpal tunnel syndrome. They chase robbers down grimy city streetsand dust for prints in seedy motels. I'm forced to work under fluorescent lights and find the lost tilde in a botched macro. But we re a team. Techno-nerd and Hutch, Adam 12 with a modem. Lethal WordPerfect 5.1. When it comes to crime we work together--as long as they get the credit. The call came in at 8:01 pm. "Crime analysis: we take a byte out of crime," I barked into the phone. "Detective Kessinger here." the caller grunted. "We've got a problem with computer. Our case file on the 664/211 that went Code 20 is O.O.S. Can ya fix it?"

I countered with some jargon of my own. "Did you run a CHKDSK and RAM your BIOS down your motherboard?"
"Uh . . . I don't think so. Can you come over?"
"On my way."
There are two breeds of cops: the gravel-voiced old-timers who think a VDT is a social problem and the new generation of Nintendo-trained cops who think police computers should be thoroughly examined and field strippedlike a gun. If the computer doesn't respond, the older officers simply whack it with a baton or dump their coffee down the keyboard. The younger cops are the dangerous ones. If they get past the keyboard password, the data figuratively surrenders and puts its hands up: homicide on the hard drive can be the result.

I arrived at the detective division at 8:03 p m. The detectives stood around the PC as if they expected it to cough up a confession: "OK, OK, I did it! I hid your file, but I'll never tell you where! Go ahead, unplug me. I'll never squeal!" I sat down. "Give me the facts, sergeant."
"Well, I wrote my report on the attempted robbery and saved it. This morning when I went into WordPerfect, it took a real long time to list files, and then the files looked funny. I think it has a cold."
"A virus?"
"Uh, yeah. Anyway, I backed out and called you."
"Hmm. I might have to COMMAND.COM my Num Lock, but let'ssee." I accessed WordPerfect and pressed F5. It did take a while to list files, and the left side of the screen was blank. The problem was clear, but I couldn't resist showing off.
I pressed F6 to look at the files. I quickly pressed the N key, and documents flashed across the screen. I stopped and retrieved a file, then viewed it by pressing Shift-F7 and View. I hit F7 with a flourish and then brought up the on-screen calculator with Alt-C. "That's iter I said. "Someone went into Setup (Shift-Fl) and changed the default of List Files from short display to long display. There's nothing wrong. It just takes a little longer to list files when you use the long display.
"Whatzit for?"
"Long display allows you to view a 30-character description of your file along with a shorter document type."
"Is that good?"
'Sure. In fact, I recommend you use it. Since you all share this PC, you can use the description to identify your case in plain text. such as 'robbery at Bill's Bar.' Next, use the document type to describe your entry, such as 'suspects,' 'alibis,' or whatever. Then name your file the case number, with the extension simply the number of your entry, such as 9344554.one, 9344554.two, and so on. "Then. when you press F5 to list files, the entries will be sorted in case number order, so you merely page down to the right case number, then read the description and document type and select your file." I showed them how to save their files and returned to my computer. It was 8:55 pm. The next call came in eight minutes later.
"Crime analysis, we ...... " "Help me! This is field opts. I made a macro for font changing on the F.I./INTEL form and now the keyboard's locked up."
"Hmm. Sounds like you've committed macro murder. I might have to giga your bytes and firm your floppy. I'll be right down."

Adding a Second Hard Drive

John Roy, Fairfield County Computer Users Group

THE TIME HAS COME. You're out of disk space again and you have pruned everything you dare off the hard drive. Does this sound like you? Well, we all get into this predicament at some time. So what can we do now? Probably the easiest approach to increasing drive space is to add some data compression software to your system, like Stacker or SuperStor. If you would rather not use compression software, or already have done that, then it's time to add another hard drive.

Since there are different hard drive interfaces (IDE, MFM, RLL, ESDI, SCSI) I will limit my article to the popular IDE drive. Please also be aware that with the proliferation of computers and peripherals there are always some that do not conform to a typical installation procedure. So, if you're not afraid to open your computer, and have the desire to, then you should be able to follow these directions and successfully add your second drive.

Before you role up your sleeves and take out your screwdriver, review the following considerations and items needed.

Considerations

· You have an available drive slot in your chassis
· The second drive will be reasonably close to your existing drive
· You computer power supply has an extra power plug
· You know the type and jumper settings of your existing drive
· You have the specifications for your new drive
NOTE: If you are missing drive specifications, you can usually obtain them from the manufacturer, or ask for information via Bulletin Boards or Prodigy. There
is also some useful shareware software available that can
provide this information.

Items Needed

· Screw driver
· Mounting screws (must be short screws to prevent damage to drive)
· Dual IDE cable ($3-$10) (your system may already have one)
· Mounting kit ($4-$10) (only required if using 5 1/2 inch slot)
· Drive jumper plug (may not be required)
· Drive Specifications (Cylinders, Heads, Sectors, jumpers)
· System boot disk (precautionary only)
 If you have reviewed the above
and are ready to start, then the
following procedure should guide
you through the process. Before you open your computer make sure you have a bootable floppy with all key system files. You can create an Emergency Disk with a PC Tools utility. It would also be wise to record or print a listing of your existing CMOS set up.

Hardware installation

· Disconnect the computer power plug
· Remove computer chassis cover (slide off after removing screws)
· Unplug the existing drive cable from the drive and controller. If your drive cable has an extra plug for the second drive you can skip this step.
NOTE: Observe the connector orientation and the position of the cable red stripe. When you reinstall a dual drive cable, plug the cables back in the same way.

Change the jumper setting on your existing drive to conform with the specifications to configure it as the Master. Record the present jumper setting in case you ever need to return to your original single drive configuration. Typically a drive has three jumper positions and moving, adding, or deleting a jumper changes its role. Depending upon the jumper requirements you may need an extra jumper for this. (If you don't have a jumper then you can use wire wrap or maybe your new drive no longer needs a jumper). If the existing drive jumpers are not accessible from its mounting position, you may have to remove the drive to change the jumpers.

Change the jumper settings on your new drive to perform as a slave. Your new drive will be typically configured for single drive operation.

Install your new drive into an available slot. While orientation is generally not a problem for drive operation it will affect the ease of drive cable installation. Make certain the mounting screws you use are short enough so they do not penetrate into the new drive circuit board.

NOTE: Select a location for this new drive that will allow the dual drive cable to reach between the two drives. In some eases you may have to change the location of one of your floppy drives. Also, if you must use a 5 1/2 inch slot and your drive is a 3 1/2 inch size then you may need to use a special mounting kit.

Install your dual drive cable in the same orientation as the single drive cable that was removed either plug can go to either drive.

The master/slave jumpers you setup determines which drive is C and D.

NOTE: It is possible to plug the drive cable in backwards, so double check that the cable red stripe is on the same side as pin one of the connector. If you reverse the cable your drive will not work, but typically no damage will occur.

Plug your new drive into a power plug from your power supply. The plug is keyed so it will plug in only in one direction.

You are now ready for the acid test and are ready to power your system back on. You can leave your system cover off just in ease you need to troubleshoot a problem. If you are confident, you can close everything up and plug the power cord back in.

Applying Power

Turn your computer power on and during power up enter your CMOS set up. Most computers give you the option to enter your set up by pressing the DELETE key upon boot up.

When into your CMOS set up, configure your second drive (Hard Disk D:) to the required specifications. Be careful not to change any of your existing set up parameters.

NOTE: Your drive specifications will define the parameters required. When you select the drive type, first try to find an existing CMOS configuration that matches your drive. If none match then select TYPE 47 (USER TYPE) [Some BIOSs may list user types as 98 & 99, or possibly something else] and enter the parameters from your specifications. If you don't have a particular parameter such as Write Precompensation (WPcom) or Landing Zone (LZone) then just leave them as zeros. Make sure you enter, at a minimum, the Cylinders, Heads, and Sectors

The drive size is automatically calculated and should reflect your drive size after entering the required parameters.

After adding the new drive to your CMOS, save and exit the set up.

Your computer will reboot with this new configuration and, if all is well, your original drive should still be operational. At this point your are ready to partition and high level format the new drive. Your DOS utilities FDISK and FORMAT will accomplish this set up phase.

Partition and Format

Your New Drive

· Partition the new drive by typing FDISK
· At this point you will be given several choices
· Select 5, Change current fixed disk drive
· Select fixed disk drive 2 (D Drive)
· Select 1, Create DOS partition NOTE: You will be given options at this point to create additional partitions. It is assumed you will select only one partition. If you choose additional partitions then this installation procedure will not be directly traceable.
 Continue to follow the FDISK instructions but be careful not to make any changes to fixed disk 1 (C Drive)
 Format the new drive by typing FORMAT D: and answering the questions.
 CAUTION: Be careful not to format your C: drive!
 NOTE: If your original drive had more than one partition before you installed the new drive, any additional partitions would have been shifted by one drive letter (e.g.: If your single drive was C and D it will now be C and E because the second physical drive automatically becomes D).

To confirm that your new drive is operational, use the Check Disk command by typing CHKDSK D:

Congratulations, your second drive installation is completed. If you were not so lucky, and are not operational, don't panic yet. There is only a very small chance you have damaged anything unless you were very careless. You probably have one of those embarrassing minor glitches. First go back and reread the installation steps and confirm you haven't missed anything. In particular, recheck your CMOS set up, disk drive jumpers, and drive cable C drive jumper back to its original position and deselect drive D in your CMOS set up.

If necessary, use your emergency boot disk and try to access the hard drives. If you must reverse your installation, don't forget to change your orientation.

Software Review by Mark Christopher

ACZAR 2.1   Archive Shell

CZAR Software
P.O. Box 370087
El Paso, TX 79937-0087
Support BBS (915) 595-8705
Voice or Fax (915) 595-8787
CompuServe   71031,3614   FIDO 1:381/99
Member - Association of Shareware Professionals

C:\ pkzip Myfile.txt c:\word\allfiles <ENTER>
ERROR: file Myfile.txt not found.
What do you mean "not found"? It's right there! Stupid
program!   **WHINE-MOAN , WHINE-MOAN**

C:\ pkunzip Allfiles.zip <ENTER>
Oh Great! I just unzipped over 2 1/2 megs of Windows files to
my Root Directory!
DUMMY!   **WHINE-MOAN , WHINE-MOAN**
Does this sound familiar?
For years, I have listened to and read on-line the whines and
moans of people (yes me too) because of having to type
commands and switches for archive programs.
Well, no more whining for this guy!
Enter stage right, the archive compression shell.

Archive programs work under mathematical compression
algorithms that allow them to reduce the size of a program or
file as much as 90% or more. Compression under an archive
shell is an easy way to do directory/file tasks, and manipulate
files on floppies or a hard drive.

One such shell program is ACZAR (pronounced AZAR). This
is a program that helps manage files by compressing and
uncompressing them very easily, and also supports all switches
for the virus scanner program SCAN. Not only can you
ZIP/UNZIP files, ACZAR supports all major archive programs
(even .SQZ from Sweden and .HYP from Germany), extended
memory, expanded memory, self extracting files, and your day-
to-day file/disk management such as copy, delete, move,
rename, view, attribute change, text search, and locate just to
mention a few.

ACZAR starts by searching all drives and directories to build a
files/directory list, and uses internal file ID's to detect
archived/compressed files. There is no need to modify your
AUTOEXEC.BAT or CONFIG.SYS files for this puppy to fly.
The main screen is divided into a upper and lower section.
These are labeled as SOURCE and TARGET respectively.
Although this can be reversed when performing certain tasks
(like unzipping from one directory/drive to another), it goes
against the standard top-down method of programming today
and may cause confusion to the user.
Compression/Decompression tasks and multiple file
Compression/Decompression tasks (the latter requires "tagging
" the files first) can be performed by a few clicks of the mouse
or several key presses on the keyboard. When working through

a compression task the only typing you will do is naming the
newly compressed file and extension.

The source drive can be any drive available to your computer,
as can the target drive. This means that files can be
manipulated from one drive to another, directory or
subdirectory to another, or within the same drive/directory.
Since I usually work with files that sometimes have many
different file extensions, the option of "tagging" the files I want
to compress is a real time saver. Not to mention being able to
compress these files directly to a directory for say, uploading
and downloading, or to a floppy as a back-up.

This also works in reverse. When I receive a compressed file
via the modem, it either goes to the download or upload
directory. This is usually not the place I want, and/or will use
these files. Uncompressing is a snap by choosing the source
(where the compressed file resides, and it's name), then the
target (where I want the uncompressed file to go).
This is something that the beginner can experiment with
because the original compressed file doesn't go anywhere until
you move or delete it.

OK, a month or two goes by and you have compressed every
file you own. How do I tell what files are where? Through
ACZAR, compressed files can be viewed without
uncompressing the original. And rather than compressing the
same directory a month later for back-up purposes, you simply
update it.

ACZAR does assume that you are familiar with archive
program switches. but it is not necessary for basic operation.
Being Shareware, ACZAR is a "try before you buy" program.
The unregistered version gives you the opportunity to use the
program and see what file compression is all about, and how
easy it is through a shell.

In no time you will be compressing everything from your dog to
your Boss, that is if you can get him on a 1.44meg floppy.

NO
MORE
WHINING

The BBS Navigator

Electronic Connection
Uploading a File to the SPAUG BBS
1. At the Main Menu select (F) for the Files Menu
2. At the Files Menu select (U)pload
3. Follow the prompts
4. Route your upload to Area 1 (That is a subdirectory called "Uploads")
5. Select a file transfer protocol (Zmodem etc.)
6. Type the file name
7. Input a description and key words
8. "Ready to receive your file" then a garbage line
9. Follow your Communication Program procedures to upload your file
10. Use the same transfer protocol as selected in line 4 (Zmodem etc.)
11. "File Complete" press enter
12. Scanning/testing - WildCat will scan your file for a virus
13. Passing the test, "Upload Successful"

Electronic Connection
Attaching a File to a SPAUG BBS Message
1. At the Main Menu select (M) for the Message Menu
2. (J)oin the conference of your choice.
3. (E) nter a new message
4. Answer the prompts until a full screen window appears with line numbers
5. Type your message
6. Press Esc
7. Note the Command Line options
8. Select A[t]tach
9. Answer (Y)es to attach a file
10. Type the file name
11. Choose a Transfer protocol (Zmodem etc.)
12. Upload the file with the same protocol you just chose
13. " Message attachment upload successful"
14. Transfer complete - Press (S)ave
15. Message #xxx saved

Electronic Connection
Downloading a File from SPAUG BBS
1. At the Main Menu select (F) for the Files Menu
2. At the Files Menu select (L)ist
3. Select a File Area or (L)ist
4. Review Files in selected area
5. Command Line choose (D)ownload
6. Type in file name to download
7. Auto Logoff (N) or Y
8. Select a file transfer protocol (Zmodem etc.)
9. "Ready to send (file)"
10. Follow your Communication Program procedures to download your file
11. Use the same transfer protocol as selected in line 8 (Zmodem etc.)
12. "Download Successful"
13. WildCat returns you to file area

Electronic Connection
Uploading a Text File into the SPAUG BBS Message Screen
1. At the Main Menu select (M) for the Message Menu
2. Select (E)nter a Message
3. Select a Conference or hit <CR>
4. To: (Enter a name)
5. Subject: (Enter a title)
6. Return Receipt? (N) or Y
7. Full Screen Editor (Y) or N
8. At open Full Screen, hit ESC key
9. Command line menu, Select (U)pload
10. Select (A)SCII file transfer protocol
11. "Ready to Receive your File"
12. Follow your Communication Program procedures to upload your file
13. Use the text transfer protocol as selected in line 10 (ASCII)
14. "Transfer Complete" press enter
15. Command Line Menu, select (F)ull Screen
16. Your message appears
17. Hit ESC
18. At Command Line Menu, select (S)ave

MESSAGE MENU
WILDCAT! Version 3

R ead Messages	**E** nter a New Message	**F** iles Section
S can Messages	**Q** uit to Main Menu	**K** ill a Message
H elp Level	**U** pdate Conf Scan/Read	
J oin a Conference		**?** Command Help

FILES MENU
WILDCAT! Version 3

Q uit to Main	**L** ist Available Files	**D** ownload a File
U pload a File	**N** ew Files Since [N]	**V** iew a ZIP File
M essage Menu	**T** ext Search for Files	**G** oodbye & Logoff
R ead a Text File	**S** tats on Up/Downloads	**H** elp Level
I nfo on a File	**J** oin a Conference	
E dit Marked List	**F** ile Transfer Info	**?** Command Help

MAIN MENU
WILDCAT! Version 3

M essage Menu	**H** elp Level	**Q** uestonaires
C omments	**N** ewsletter	
J oin Conference	**G** oodbye	**I** nitial Welcome
Y our Settings		
	B ulletins	**?** Command Help

Bulletin Menu

[1] - About New Membership in our Club - Please read.
[2] - Club Activities - Dates, Times & Directions
[3] - SPAUG BBS Navigator
[4] - Software Review Form
[5] - Understanding Personal Computer FaxModems
[6] - Word For Windows SIG
[7] - SCSI Terms and Information
[8] - Look in "DIRECTORY" area for "ALLFILES.LST"
[9] - BBS Glossary of Terms
[10] - Definitions of file suffixs, .ZIP, .GIF, etc.
[11] - CD-ROM products & price list (10% off to SPAUG members)
[12] - Desktop Publishing Connection
[13] - Resume Referral Service
[14] - Microsoft Training Connection
[15] - Stock Brokerage Connection

Technology Resort Report
by Dick Harding

You've just gotten back from SCUBA diving in the Caribbean where the visibility was over 150 feet today. You brought back two big lobsters that you will boil for dinner tonight when some of your programmer friends will be joining you in your beach house. You are dripping wet from the fresh water outside shower, but you hardly notice because it's 85 degrees in the late afternoon.

You and your development team have worked hard to get the latest version shipping and a little relaxation has been very restful. Suddenly you notice that your computer has been patiently dinging to tell you that you have a message from your boss in Silicon Valley. The message reads "Urgent Conference at 5:30 PM" - that's in half an hour. You towel off and put on a tee-shirt while the lobsters struggle to get free.

At 5:30 the conferencing software comes up on the screen showing that the President and the V.P. of Sales of the company in Silicon Valley along with the Test Lead from her mountain home in Telluride, Colorado are in conference with you. The competition has discovered a major bug in the latest release and it needs to be fixed before the Stock Market opens tomorrow. The Test Lead shows the bug on the conferencing screen and the probable module that needs to be fixed. At this time the V.P. of Finance joins the conference using his laptop from his vacation home in Canada. The President displays the current stock value and how this bug could affect the company. You say that your team will get right on it and will transmit the fix to Test as soon as it is fixed. You and the Test Lead leave the meeting while the others continue on.

You then set up a conference with your programmers in the other beach cottages where they live with their families. You give them the test cases transmitted by the Test Lead and ask them to make the fix.

The company loves these technology resorts. They learned long ago that the team of professionals that plays together stays together. What better place to put the golden hand-cuffs on a good team of professionals than far away from the head-hunters and the traffic jams on a tropical paradise where the rent is low and the families fight to stay. Call it technological colonialism if you want, but it works.

Is this scenario some time in the future? No, it can happen today because of a new innovation in computer communications called *conferencing*.

An excellent example of this technology is a program called TalkShow by FutureLabs Inc. of Los Altos. This very easy to use Windows software allows the user to focus on communicating rather than on the tool being used. Fifteen minutes after I installed this software I was holding a conference. The way it works is that you use the software to connect you, the "host", to a "guest" just like on a TV talk show. While the software dials another computer on one phone line you dial your guest on another line for voice communications. The software brings up a white board on which you can place output of any Windows program, which is immediately transmitted over the modem to the guest. The guest and the host have different colored markers and can point to or annotate an image. The annotations are immediately sent to the other user. Modems are available that will handle both voice and data on the same line.

In my first conference I brought up a CAD package called Chief Architect and produced a color 3D image of a house and placed it on the white board. Immediately a thermometer appeared showing the house was being sent to my guest. It was fun to hear his reaction on the other end when the house appeared on his screen. **WOW!** Get the picture?

A conference can be joined over an in-house network or over the phone lines or any combination. The recommended limit of the number of conferees at one time is 10. For your convenience a slide tray feature is included in TalkShow so you can set up your presentation before you start a conference. When you are in conference a small tool bar much like the remote control for your TV is displayed so you can go forward or backward with your slide tray presentation.

TalkShow allows the host to make copies of the guest software for guests to use. The only catch is that the host has to do the calling. But for $200 for the whole package this is a real value. For example an architect could make a copy for each of his clients who have computers. He then could dial them up to show the progress he has made on their house design and request responses and further suggestions. FutureLabs is in your future.

Meanwhile back in the Caribbean it's about 6:30 PM and the programmers have found the bug and have transmitted the code to Telluride for testing. The programmers tell you to start boiling the lobsters. They're bring the drinks and the salads along with some fresh mangos. As the programmers arrive for dinner on the deck, the computer starts to ding again. It's the Test Lead. The tests are good. You tell the conferencing software to call the President of the company. The president comes on and you tell him that the bug has been fixed and that he can put out a bulletin to the customers to hit the patch button on their screens which will tell the current release to log on to CompuServe and automatically download the patch and update their current version with the fix. The President thanks you for a job well done and you log off.

As the sun sinks slowly in the west, in a blaze of glory that only the Caribbean can provide, you sit down with your friends to celebrate a job well done and enjoy a lobster feast, as the stars slowly creep up in the east and the gentle warm breeze blows the scent of hibiscus.

Dick Harding is a database consultant and a director of SVCS and dBASE Sig leader. He is a dealer for TalkShow and Chief Architect. He can be reached at Compucon Inc. (415) 322-9645.

V.FAST—What's That?

Harold A. Driscoll
Chicago Computer Society
Orange Bytes, February 1994

Have you ever tried to put a quart of milk into a pint bottle? Could you get the whole quart back later? Or did it spill all over the counter?

Modem design engineers have managed to work a similar trick, but with amazing success. They've been able to take an average telephone line, which can carry about 600 baud, and push many more than 600 bits/second through it. The first time around, they managed 1,200 and then 2.400 bits/second. Digging deeper into their bag of tricks, they came up with 9,600 and then 14,400 bits/seconds. Well, they've done it again--soon we'll be seeing modems pushing to 28, 800 bit/second through those small copper wires.

V.FAST is the name informally given to a draft international standard which is expected to receive final approval in 1994 by CCITT (International Consultative Committee for Telephone and Telegraph). CCITT is best known to computer users for its V-dot standards, such a V.32 and V.32bis; they have also set the various standards which have made possible the international telephone network we take for granted.

Several of the major vendors have V.FAST modems design ready to go; we can expect to see these products hit the market by the time the ink dries on the standard. Some vendors, such as Skokie based U.S. Robotics, have developed their own proprietary circuit design (chip sets). Others, including various clone vendors, will be using the recently introduced chip sets from Rockwell International.

The adoption of an international standard, before the new modems hit the market, is good news for computer users. None of us want to go through the Tower of Babel of proprietary moderns, and being unable to interconnect with those of other vendors, which we endured with early 9,600 bits/second modems.

There is an alternate proposal, informally dubbed V31turbo, limited to 19,200 bits/second, which lacks advanced features of V.FAST, but might be less expensive. Hopefully, a single standard will emerge quickly, but standards wars are still possible.

The major parts of a modem are the DAA (data access arrangement), the modem chip set and supporting micro code, and support components such as speaker, light panel, and power supply.

The DAA protects (isolates) the telephone network from the modem, interfaces with the phone line, and adapts the characteristics of the telephone line. Faster speed modems generally need a more expensive DAA than slower ones. The DAA circuitry may also differ from country to country, to meet local regulations.

The modem chip set, with its supporting micro code, is the heart of the modem. Integrated circuit technologies have reduced this to a small number of chips. Much of the feature differentiation of various models can involve differences in the micro code installed in the product. In addition, V/FAST requires 2-3 times the processing power (in the modem) of slower protocols.

The early modems, which ran up to 300 bits/second, and those at 1,200 bits/second, are quite rare, having been replaced by faster moderns. You can typically find consumer grade 2,400 models for under $100, and 14,400 modems for under $250. You'll usually pay slightly more for an external modem, but many of us prefer the display panel for troubleshooting.

When the V.FAST modems first become available, you can expect to pay a premium price (in the $1,000 + range), and jet the type of advanced features needed by network administrators. As the product line matures, the price will begin to drop, following what is often called price learning curve, and a variety of less expensive consumer grade products will appear. While this has taken a few years for past model technologies, I'd guess it would be somewhat shorter this time, since the market is much larger.

These new moderns will appeal to you, if you frequently upload a lot of files, particularly calling long distance or paying steep hourly usage charges. Personally, I'd choose a company such as U.S. Robotics, which aggressively stands behind their products, particularly until the dust settles. Most of us, however, will want to wait a while, envy in our eye during lengthy file transfers, until the price drops within reach. Besides, except when transferring large amounts of data, who among us can type that fast, or read our screen that many times per minute, anyway?

Multimedia Deckadence
by Dick Harding

The computer multimedia software market is exploding with sensational, exciting, arousing, stimulating, scintillating, voluptuous and alluring applications. This is a review of one of those applications which is liable to steal your heart away. Now that I have your attention I have to tell you this is not an **X rated** application although it is rather knotty.

This is a review of a program called Design & Build Your Deck by a company called Books That Work in Palo Alto, CA. This product is not on CD-ROM but it has a help system that points to the future of multimedia. The product is designed for the weekend deck builder but has features most professional deck builders would appreciate. If you know as little as I do about building a deck then you will love this program.

I spent all afternoon yesterday playing with the cartoon like animations in the help system that tell you how to build various aspects of a deck. As you progress through the Before You Build part of the help system, it explains and demonstrates techniques that are very helpful and remarkably clear. It demonstrates the different positions of the sun at different times of the day and year. It also demonstrates how to lay out your foundation and how to build a staircase. When you get a demonstration using a tool like a skill saw or a hammer you get the sound with it. No they left out the carpenter whistle. All carpenters whistle while they work.

The ever-present Design button in the help system takes you directly to the Design part of the program where all the work is done. This product is designed for somewhat limited deck design. If your design is limited to three walls or less on the house it will work fine. The deck I designed for the house in Chief Architect is on two sides of a house but the house has a notch in the corner resulting in four walls which Design & Build Your Deck will not handle. You can only make changes in the 2D mode but has a really nice 3D mode. The materials list and price estimator include a beam cut list, a joist cut list, a shopping list and a parts list.

The program assumes a flat surface. For example you have no control over the stairs height just the deck height. Therefore you can't simulate a slope by having different length stairs. It would be great if the program had some deck furniture so you could plan your deck traffic patterns. In fact with this product you don't really draw the deck you modify the deck the system draws for you.

Now you may be asking aren't I the one that just wrote and told you how great Chief Architect is? Well, you're right. It is great but Design & Build Your Deck is focused on a particular aspect of building plus it has a help system to die for. Can you imagine a product like Chief Architect having a help system like Design & Build Your Deck? It would require a CD-ROM.

If you have fantasies of building a deck on your house some weekend, Design & Build Your Deck will not only fulfill them, it is so much fun to use it is down right, well, it's aaah---**deckadent!**

Dick Harding is a database consultant and a Director and dBASE Sig leader of SVCS. He is a dealer for Chief Architect. He can be reached at Compucon Inc. (415) 322-9645.
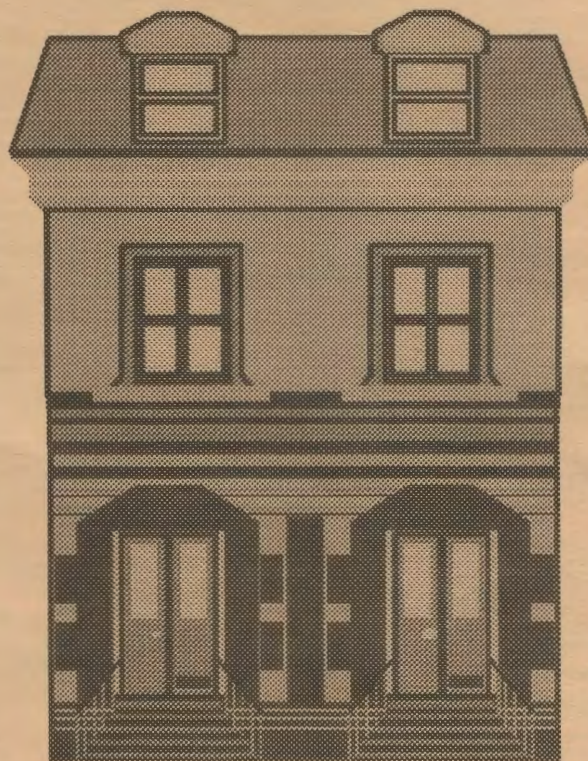
Review of More After Dark Windows 2.0
by Larry Mehl

More After Dark for Windows is a "screen-saver". It prevents burn-in of images displayed on your monitor. It accomplishes this by sensing when your computer has been inactive for an extended period of time and presenting an animated screen-saving display in its place. A tap of the shift key brings the screen back to life.

MADfW adds 26 screen-blanking modules in the AD Control Panel to the 40 displays provided by ADfW. You can delete the modules you don't want right from the AD control panel.

The manual said I had to have After Dark 2.0 or later, or another screen saver from Berkeley Systems, and, sure enough, it wouldn't install. A quick call to Berkeley had AD 2.09 to me via Express Mail.

After I started the Installation, MADfW thanked me for purchasing it and invited me to click Install to install it. It provides for two Installation options--Normal (all necessary files in their proper locations) and Custom (option to not install particular files, to conserve hard disk space or to not install the DOS screen-saver, AD-DOS.COM). It checks for enough disk space and asks for a serial number. It has an Uninstall feature which you can use from the floppy to "completely" remove AD and all its files from your system. I did not test this feature.

It installs itself in its own group (surprise!). I moved it to my Accessories group and deleted the AD group. Setup allows changing the inactivity time after which AD takes over the screen. I changed from default 5-minute sleep time to 2 minutes (I need nearly constant stimulation!.)

Pop-ups during installation recommend setting Windows to 256 colors and buying a multimedia-compatible sound card. Right! A sound card would make the Aquarium's fishes' "blub-blub-blub" sound much better than the anemic sound from my original 2" speaker. Setup offers Multimedia Windows Sound or a Sound Blaster card as alternatives to the PC's speaker. I guess I'll have to pop for a $400 sound system for my computer, unless, that is, Jan has a sound board she wants me to review!

Simply stated, this is a fun product. One could (and I did) spend a lot of time just checking out many of the screen blanking modules' patterns and activity to see the different methods employed and the pattern variations available in the modules. A glass of wine (or substance of your choice) would be a nice accompaniment to an evening of watching Origami, for example, do its thing. Note however that this would seriously impact time available for playing solitaire!

The purpose of a screen-saver seems to be to replace static items on your monitor and I favor modules which have moving patterns, including Aquatic Realm (the aquarium--my favorite), Boris (kitten and butterfly), Flocks (birds, gnats, cameras, etc.),

and GeoBounce (polyhedrons with sides of different colors). At least one--Fade-Away--consists of one sweep of a radar-like pattern, culminating in a blank screen. Other modules are relatively static--you could doze off watching them. Each module has a control panel with sliders and check boxes appropriate to the contents of the display. I'll probably remove some of the more static modules, to save disk space.

The DOS screen saver is a nice plus. I have been looking for one which would work in DOS and not be shut down when I returned to DOS from Windows.

I advise a different strategy for installing than the one I followed.

Being the type who simply starts using a program rather than reading the manual first ended up causing me a bit of frustration until I called Tech Support. After my initial installation, when Windows started I was faced with the AD control panel, as if it was waiting for me to configure it. The problem was that I had moved AD to my Startup group, so it was starting a second time, after being invoked from DOS or Windows.

So, what else does it do? You can turn any AD display into wallpaper, or run several displays simultaneously. It is fully compatible with Novell and LANtastic networks and includes a screen-locking security system to prevent others from snooping, whether you are in DOS or Windows. You can set a password which is known only to you to wake up your screen, or set up a master password to allow a system or network administrator to do that. Technical information is included so that programmers (not me) can design their own screen-saving modules. These features were not tested for this review. When you want to put the screen to "sleep" right now when in Windows, you can move your mouse pointer into the lower left corner of your screen and "Presto!".

Complaints are minor:

Fonts on check boxes and buttons are a bit light and hard to read. (My Diamond Viper VLB graphics card was set to 1024x768, 256 colors (large font)).

I encourage all of you readers to review software which looks interesting--even though that could mean less for me to review, if you really get busy.

Well, good-bye -- I have to get back to the aquarium.

Software Name: more After Dark for Windows
Manufacturer: Berkeley Systems
                        Berkeley CA
                        510 / 540-5535

El-Fish *A Russian Aquarium*
by Ted Littman, NOCCC

This DOS-based program was designed and programmed by Animatek in Moscow and developed/marketed by Maxis, the creators of the famous SIM-series of entertainment software. If you have the necessary computer capability and are a tropical fish fancier, you're going to love El-Fish!

Here are some of the things you can do: build *aquascapes* out of dazzling electronic fish, plants, and other marine or artificial objects; catch fish for your aquarium from various locations in a Caribbean-like map scene; breed new species from any pair in your program library; accelerate the *natural* evolution of an individual species; and add music from the available library or import MIDI music files.

Of course, you can spend hours watching the stunning, ever-changing scenes in your virtual aquarium while listening to a proper musical accompaniment!

What do you need in the way of equipment?

Maxis says: a 386 or above with at least 4 MB of RAM; a hard disk with 10 MB free; a VGA or super-VGA card with at least 512K of video RAM; a math coprocessor (highly recommended); and a sound card (optional).

Ted Littman says: if you really want to enjoy the program and exercise your creativity, especially in the breeding of new fish species, then you need a 486DX/33 (or faster) with its built-in math coprocessor and a graphics accelerator card.

As Maxis writes in the *Quick Start Guide,* "El-Fish is a very technologically advanced piece of software that requires massive amounts of mathematical calculations. As a result, it eats up memory and hard disk space - and it uses up all the computer power you can give it. If you don't have a math coprocessor, some of the features and functions will take a while. "

Well, a 386DX/25 takes about four minutes to do the catch/breed/evolve process for each fish and an additional four hours to render the hundreds of animation frames required!

If you add a math coprocessor, the times reduce to 30 seconds and 30 minutes, respectively. With a 486DX/66. the times drop to a more reasonable 10 seconds/10 minutes. El-Fish should run swell with a Pentium machine!

Maxis acknowledges the time problem by including in its user manual a tongue-in-cheek "Appendix 2: Things to do while El-Fish generates fish animations." Unfortunately, it won't run the computations in the background while you use the computer for other tasks.

The 20 minute installation of the program with its 104 packed files on four 3.5 inch HD disks was straightforward on my 386 33 machine. An ELFISH directory was created on the hard drive with sub directories for SYSTEM, FISH, AQUARIUM, ARTWORK, and SOUND, occupying in total about 6.7 MB.

The 90-page User's Manual is well-written, amusing, and profusely illustrated. However, the numerous photographs taken off of a color monitor suffered from loss of detail in the monochrome manual.

Although El-Fish purportedly runs with 256 colors in two resolutions (regular=376x348 and high=640x400)), I ran the program with a Trident super-VGA card at 800x600 with stunning results. However, the higher the resolution, the slower the program will run unless you use a graphics accelerator.

El-Fish is easy to use and fairly intuitive. Its Main Menu has a series of buttons to create/modify fish; create/view aquariums; design/view slide shows of multiple tanks; and inspect/copy/archive tanks, fish, and decorative objects. Context-sensitive help is only an F1 key away. A nice tutorial is in the User's Manual.

I tried the various options in breeding and evolving fish from ones I caught in the *El-Fish Sea* as well as from pairs which came with in the program's library. Some of the offspring were strikingly beautiful. Others were too weird to be of this Earth.

Unfortunately, animating these creatures on my computer was too lengthy to sustain my interest. However, it did nudge me to price a math coprocessor ($85) and to move purchase of a 486/66 a couple of notches higher on the priority list.

Do I recommend El-Fish? Yes, but only if you have the computer equipment to keep animation time to minutes per fish. Of course, you could let your machine run unattended overnight for this process. And while sound is not an essential adjunct to watching tropical fish swim in an aquarium, a musical accompaniment from my SoundBlaster sure added enjoyment to the experience.

El-Fish was born in Moscow of Russian parents at Animatek and bred in the U.S. by Maxis, 2 Theatre Square, Suite 230, Orinda, CA 94563-3346. List price is $60 and it can be ordered by calling (800)336-2947. Most computer retailers sell the program—Egghead 's price is $39. Tech support is available 10 hours a day, Monday to Friday via a toll call to a 510 area code. There also is a Maxis BBS.

THE SPAUG RESOURCE CENTER

OFFICERS

President	Brian Christopher	[415] 952-5632
Vice President	Cookie Cook	[415] 282-0474
Mascot	Jan Altman	[408] 243-5955
Treasurer	Bev Altman	[415] 329-8252

MANAGERS

Bulletin Board SYSOP	Brian Christopher	[415] 952-5632
PRint SCreen Editor	Brian Christopher	[415] 952-5632
Review Software	Jan Altman	[408] 243-5955

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
Paradox	Quinn Wildman	[408] 335-7892
dBase/FoxPro	Dick Harding	[415] 322-9645
CD-ROM	Charlie Wiener	[408] 255-1081

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
Telecommunications	Larry Mehl	[415] 326-6037

CLUB INFORMATION

Meetings   Cookie Cook
[415] 282-0474
Brian Christopher
[415] 952-5632

Membership	Beverly Altman

$35 per year   [415] 329-8252

Bulletin Board   [415] 321-4497
9600 bps 8-N-1

Mailing List   Bev Altman
[415] 329-8252

SPAUG is looking for persons that are capable of reviewing (life with) "Borland Office" on a Network or Lan. Please contact Brian Christopher at (415) 952-5632 for more information.

HEWLETT-PACKARD
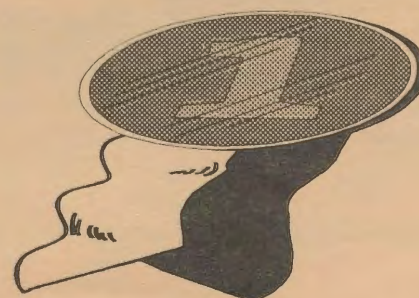### Printing Technology
July 27th 1994

Welcome to New Members
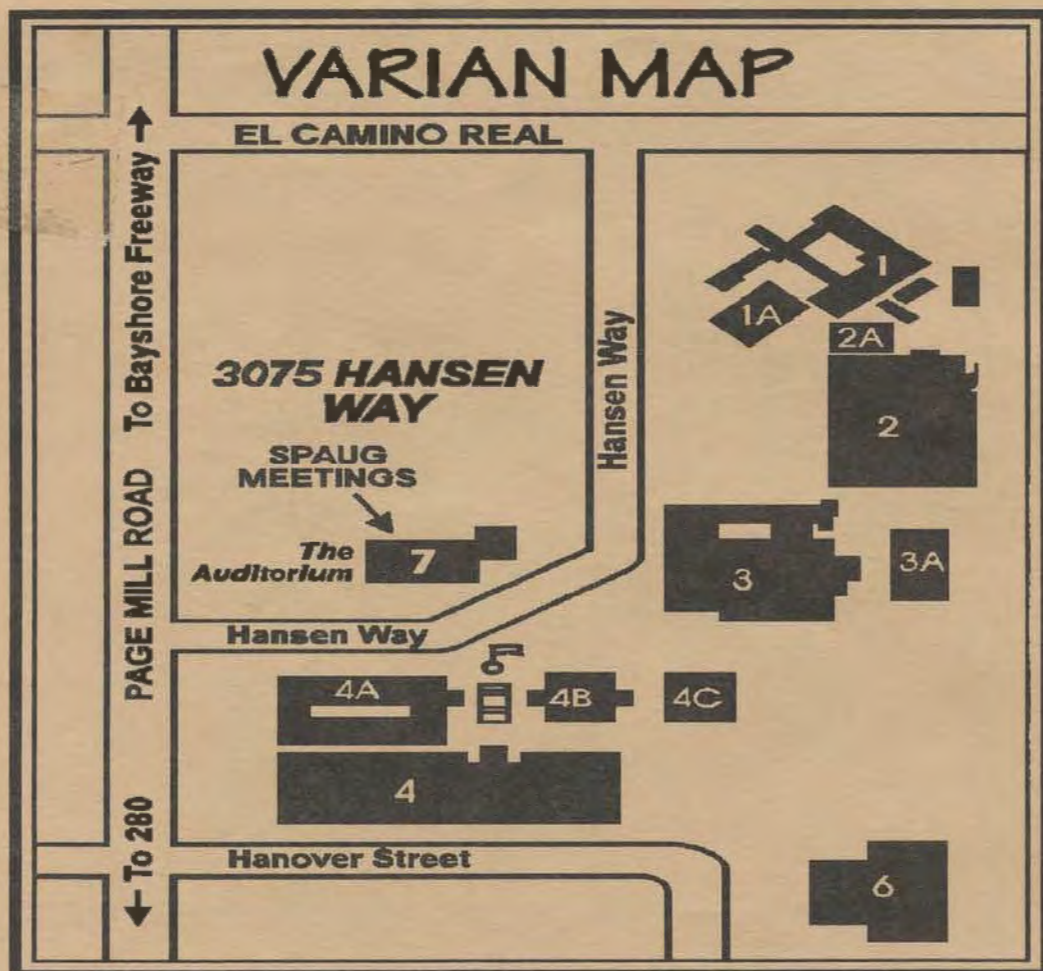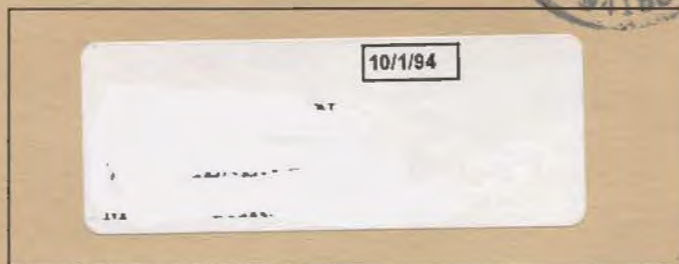Frank Campbell
Cal Schrotenboer

Thanks to Renewing Members
Dick Harding
Carol Liberato
Donna Philpott
Rick Samish
Kendric Smith

DISK of the MONTH FOR JUNE
The Best of Windows Shareware from Brian Livington's book Windows 3.1 Secrets - 29 Shareware and 14 Freeware programs, self installing, 3 disks - $2.00

The Stanford/Palo Alto
PC User Group
P.O. Box 3738
Stanford, CA 94309

Lunch Wagon 1890s
23 USA

Lunch Wagon 1890s
23 USA

29 USA

10/1/94

VARIAN MAP

EL CAMINO REAL

To Bayshore Freeway →

PAGE MILL ROAD

3075 HANSEN WAY

SPAUG
MEETINGS

The Auditorium **7**

Hansen Way

Hansen Way

1A

2A

2

3

3A

4A

4B

4C

4

6

← To 280 →

Hanover Street

⬋ This month ⬊
CAERE Corp.
Sanning and OCR