

CURRENT NOTES

Vol. 11, No. 2

March 1991

\$3.95

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An Interview with Todd Johnson, *Font Creator*

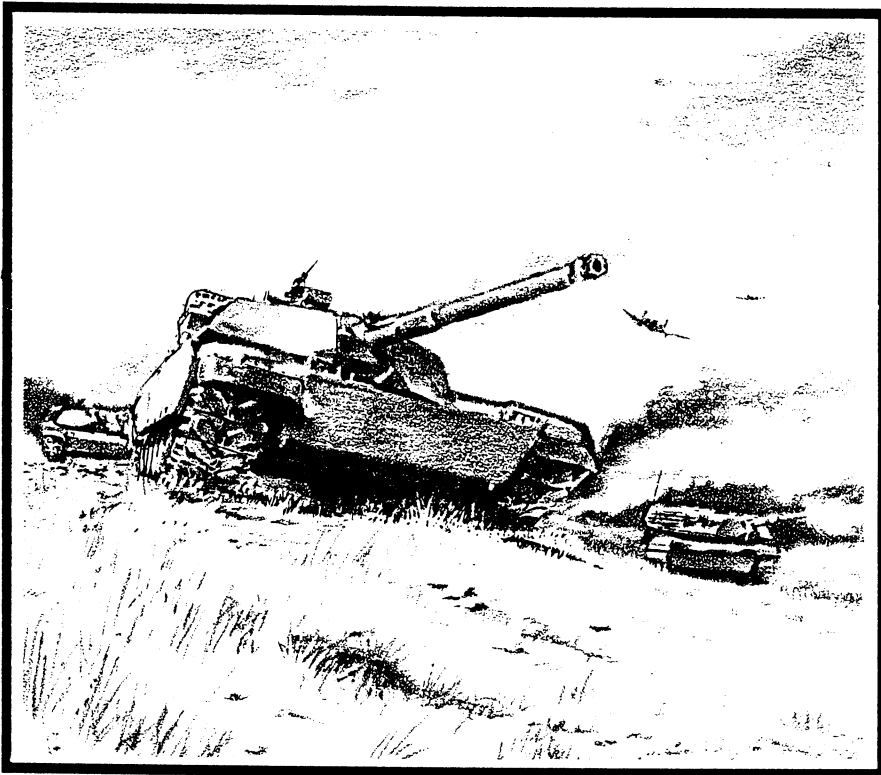
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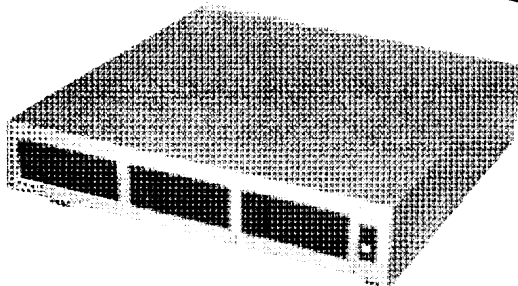
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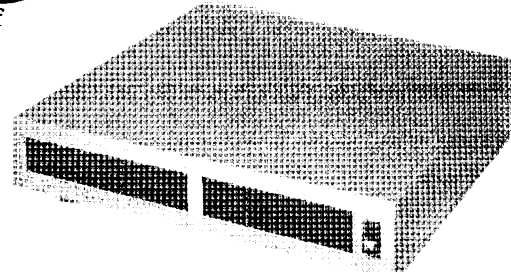
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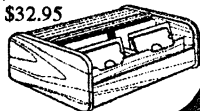
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Powerful software for a dazzling finish.

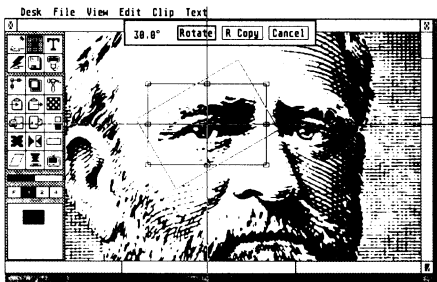
Other scanners come with software that can do a few basic tasks. Our scanner comes with Migraph Touch-Up, the *complete* image editor

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Scan, edit, and enhance — even create original images. Touch-Up can do it all.

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And Touch-Up is outfitted with a complete



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1989: (\$2.00 each.)

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Don't forget to send in a change of address notice if you are moving. *Current Notes* is distributed via second class rates. The post office does not forward second class publications; they throw them away.

This publication is produced using an Atari Mega ST4, an Atari SM124 monochrome monitor and a Moniterm Viking monitor, a Navarone scanner, and the Atari SLM804 Laser Printer. Most of the output is generated with *Publisher ST*. Some pages, including advertisements, are produced with *PageStream* and others with *Calamus*.

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- ST-related review or article.
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From the Editor's Desk:



by Joe Waters

I remember reading, several years ago, an editorial in a desktop publishing magazine that sang the praises of the latest addition to their arsenal of publishing "peripherals"—a waxer. A waxer? What was that?

Those of you who are into desktop publishing know about the basics. You need a computer, a desktop publishing program, and a high-quality printer. If you start out with this, you soon learn that you also need a word processing program, since editing in a desktop publishing program is usually awkward. It helps a great deal if the word processor has a spelling checker as well. You also understand about pictures. You need some clip art and perhaps a scanner to capture your own pictures electronically. If you have some artistic talent, you may want some graphics programs to facilitate doing your own illustrations. Whether you want to or not, you also soon learn about fonts and start collecting a variety of different electronic 'letters' to use in your creations.

But where does the waxer come in? This is a "peripheral" that doesn't attach anywhere to your computer. Yet the editorial was so enthusiastic, I asked my local printer about waxers and found that he could order me one—you can't exactly find a "waxer" at K-Mart. I decided to go for it. At \$50, this was a significant purchase, but once it arrived and I started using it, I realized why this was such a handy piece of equipment. No desktop publisher should be without it. (By the way, my waxer was from Lector-Stik Corp., 3721 Broadway, Chicago, IL 60613.)

When you are producing a publication that has a large circulation, you usually make only *one* master copy of each page. These, then, go to a printer who photographs your page and, using printing presses, produces all the copies you need. Before computers and desktop publishing programs, master copies would be made using a lot of cut and paste technology. If you wanted a graphic on a page, you would leave a hole in the text, cut out the graphic, and paste it in.

Although DTP programs have made this process a lot easier and much more of the final page can be generated by the computer, cut and paste is still used and still valuable. Advertisements, normally sent in separately by the advertiser, must be placed on pages. If you have a good photograph, it doesn't make any sense to scan it in, thus reducing its resolution, and place it on your page using your DTP program. Just leave a hole and put the original photo on the page. Remember, you only need to make one master copy and the final printed publication will look far better if you use originals.

I had been using glue sticks for this cut and paste activity. This would work ok, but, once glued, objects could not easily be removed and, in spite of my best efforts, there was always a bit of a wrinkle on the page when using the glue. This is where the waxer comes in. It is a small hand-held device, with a chamber that holds wax and a roller to spread that wax. To melt the wax, you plug the waxer in an hour or so before you need it. The hot wax is then rolled on the back of whatever you need to paste. Place the picture on the page and smooth it out with a flat stick. Perfectly smooth, but not quite straight? Simple, just lift it off and place again. This little "non-computer" gadget made publishing a lot easier.

I mention this waxer because I have found another "peripheral" that has proved to be a great aid to desktop publishing. However, because of a computer bias, I delayed purchasing this item for far longer than I should have. I am talking about the Franklin Language Master (LM) Dictionary and Thesaurus. This is a stand-alone, hand-held device with a keyboard and a 4-line, 40-character screen listing at about \$120. It includes an 80,000 word Merriam-Webster dictionary, 40,000 word Thesaurus with 470,000 synonyms plus a host of word games (Anagrams, Hangman, Memory Challenge, Spelling Bee, Word Auction).

Why the computer bias? Well, this very same product could be obtained as a computer program. In fact, I know *Language Master* is available on the Mac because I purchased a copy. So, if you could have a computer program, why buy a separate device? Answer: the device is far more efficient and handy. Spelling checkers, of course, are useful, but they do not have definitions and they usually don't tell you how to hyphenate words. DTP programs often automatically hyphenate words, but they don't always hyphenate correctly so final copy must be carefully checked. When editing a file, it is now a simple matter when encountering a questionable word or hyphenation to reach over, punch the word into the LM and get an immediate readout. The LM is fast and the editing screen is not disturbed with the output of a competing program. I simply make the correction and move on. It has speeded up the process considerably.

There are other benefits. I save about two megabytes on my hard drive since I don't have to have all this data online. Secondly, it can be used easily anywhere at any time by anyone in the family; you don't have to boot up a computer to look up a word.

My point in mentioning these devices is to remind people that, although computers are great fun and can be very efficient, they are there to do a job. The final goal is accomplishing the job, not using a computer. Don't try and force fit all tasks into your computer. For some tasks, simpler methods may very well be more efficient.

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□ Vortex At Once AT Emulator

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□ Ad Speed

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□ Publisher ST	\$49.99
□ Scanart Library	\$39.99
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□ PageStream Fonts Disk	\$23.99
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□ Panasonic KXP-1191	\$189.99
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□ Panasonic 32K Buffer for 1181, 1191, & 1124	\$57.00

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□ Diamond Back II	\$39.99
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□ Draw Art Professional	\$29.99
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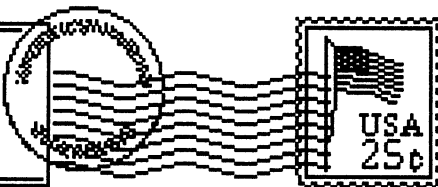
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Letters to the Editor



Where is Info-Atari16?

Dear John Barnes,

I enjoy your articles in *Current Notes*, in fact I enjoy almost all of the articles in *Current Notes*. Enough flattery, I need your help. I recently remembered that you had written an article about info-Atari16 on the Internet, so I now ask you (as my only contact) for some help.

Years ago, 1985-1986, the bulletins from info-atari16 were available on the mainframe computer at my place of work. I gathered much useful information and quite a few very good programs (among them *Uniterm* up to version 2.0e). The bulletins were then no longer subscribed to and I lost touch. In the meantime, *Uniterm* has done sterling work for me. For scientific use it is far superior to *Versaterm Pro* on the Mac. It is, for example, very easy to use *Uniterm* when the host is in KERMIT server mode.

I would like to know how to get back in touch with info-atari16 again, but I don't know how to start. I have access to Bitnet and more recently to the Internet. I can now ftp, but from where? Does info-atari16 still exist? Who and where is the moderator? Are there any LISTSERV's still handling Atari programs?

Martin H. R. Donald
Mountain View, CA

Dear Martin;

Info-atari16 is alive and well, as attested to by several megabytes of digest that I have captured on floppy over the last couple of months. The stuff comes in at a rate that is nearly impossible to keep up with. It would be nice to have a program along the lines of GENIE's *ST Aladdin* to deal with it.

In order to subscribe via the Internet, one needs only use the Internet mail software on your local host to send mail to INFO-ATARI16-REQUEST@naucse.cse.nau.edu. The subject line of the message should contain the word "Subscribe" by itself. It is also a good idea to use this as the first line of the message. The last person I knew of as moderator was a certain John Dunning, who stays pretty much in the background. Be prepared to offload the stuff fairly often so that you do not use up your disk quota on the host.

In the 1985-86 time frame, info-atari16 resided on score.stanford.edu, but they dropped it and it moved around a bit. This has caused periodic interruptions in service.

The best site for ftp'ing files is terminator.cc.umich.edu. This site supports anonymous ftp. The root directory for the Atari files is reached by typing "cd ~atari." You will find

lots of GNU stuff, Mint, Sozobon C, TeX, and other goodies there.

There is a LISTSERV site related to a Usenet newsgroup named comp.sys.atari, but I do not recommend this approach for people who can ftp over the Internet.

The casual *Current Notes* reader will undoubtedly be perplexed by all of this jargon. I am posting my electronic mail contact points in case anyone wants to obtain more information:

GENIE: J.D.Barnes
Compuserve: 73030,2307
Internet: JOHN.BARNES@enh.nist.gov

I would appreciate it if future letter writers would provide me with e-mail addresses so that I can get back to them more quickly.

Thank you, Mr. Donald, for your interest in *Current Notes* and the Junkyard Pussycat in particular.

John D. Barnes
Junkyard Pussycat

Star Base Corrections

Dear Joe,

Gary Purinton's review of my *Star Base* in the January-February issue was, I think, both informational and technically accurate. I was especially glad seeing the author point out the (intended) limitations in the range of things the program would do (we do few things, but we do them right!) and the necessity of having some elementary knowledge of astronomy to use and enjoy *Star Base*. It should be stressed that less advanced users may be perfectly happy with *Star 2000* (CN#440), the freeware version of my program. Trying it before spending \$43 for the whole thing is, I think, a good idea.

Here we come to a possible source of confusion: the title of Mr. Purinton's review is "Star Base 2000," accidentally combining the names of two related programs: *Star Base* (the full version Debonair Software is selling) and *Star 2000* (the scaled-down freeware version). Gotcha!

One small point in the review may also need some additional explanation. Whereas *Star Base* is, as stated in the review, capable of, say, checking how many stars there are in different brightness or color intervals, it should be remembered that the Yale Catalog contains just nine thousand of the *brightest* stars in our sky, so any conclusions drawn from such a classification will be, of course, biased in favor of brighter stars. This is the reason that you will not find there, for example, some of our nearest neighbors, as e.g. the Barnard Star, which is very dim, both

on the absolute and apparent scale. On the other hand, if a star is more distant than, say, 100 parsecs, it has to be a giant in order to make it to the Yale catalog. If we take into account the fact that the volume within 100 parsecs is one thousand times that of within 10 parsecs, the "loud minority" effect will be obvious.

Well, this is not to argue with the reviewer (who does not make any false statements here), but to illustrate some of the fun and mental exercise one may have with one stupid little program.

Using this opportunity I would also like to inform those who may be interested that the planned improvements to *Star Base* (the first update is free, remember?) will take into account some nice suggestions from our users. For example, in the March update the observer's location and time can be set with use of a configuration file and the ST's internal clock, while this Summer we hope to include a catalog of extragalactic objects. Do not ask about the comets; this was supposed to be a surprise.

J. Andrzej Wrotniak
Crofton, MD

KeySkins and Playgirl

Dear Mr. Waters,

I just received the November 1990 issue of *Current Notes*. As always, I read it cover to cover (every word and ad!)—it was just great. Since I live in Alaska, my main relationship with other users is by what is written in publications such as CN. The November issue was one of the best I've seen from you folks. You've taken me to the WAACE Atarifest '90 (which I would have attended if not for having to feed two kids) and let me peek in to the new and on-going Atari-family products. The developers I know by name from years of reading of their work and the many purchases I've made of their products. If I could have been there, I'd thank every one of them personally for making up for Atari Corporation's lack of support and creativity. I will not exclude the many publishers like you that keep my issues coming every month. When I receive an Atari ST-based publication in the mail, it's sort of like a return radio beacon. I send out the signal in the form of subscriptions and if I get a steady clean response, I know the other end is alive and well!

It was a nice surprise to also see mention of my KeySkin keyboard protective skins. Please correct only a few lines: phone number... it's (907) 283-5837, and please also note that in addition to the \$19.95 there is a \$2.00 postage & handling charge (sorry, only checks and money orders). Order 2+ and we pay S/H!

While I have your eye—I really have to know about the cover of the November issue: Behind Dave and Sandy Small were covers to magazines. One of them was *Playgirl*... what's that all about? Is that them on the cover?

And one more "important" question. It was not mentioned, but will *NeoDesk 3* use more memory than my *NeoDesk 2.5*? I only have 1 meg--so it is an important issue for me.

Richard Sitbon
Kenai, AK

Thanks for the compliments, Richard. KeySkins corrections noted above. As to Dave and Sandy and the Playgirl, well, that's a story Dave will have to tell. The system requirements for *NeoDesk 3*: "Any Atari ST, Mega, STE, or TT system. All screen resolutions (including low resolution and Monterm). Only requires 35k of memory when running a program. Floppy only or hard disk systems fully supported."

Calamus V1.09N

Dear Sir:

Calamus Version 1.09N handles fonts slightly different than previous versions. Some fonts that were created with third party Font Editor will not function properly with 1.09N. In order to correct this simply load the font into our Font Editor and then re-save it. You could also contact the person or company that created this font originally for any update version of the font. All of the major Calamus font companies are aware of this problem and have updated their fonts accordingly. I hope this information helps.

Shawn Wheatcroft
ISD Marketing
Ontario, Canada

TUI Clarification

Dear Editor:

Thanks for including our product in your comparison review of desk accessory CLIs. It is obvious that the reviewer spent a lot of time and thought on it, and most of it was very accurate.

I'm unsure, however, of what he means by saying that other DAs are not accessible when *TUI* is active. While *TUI* is in the process of performing an operation, this is true. However, any time *TUI* is waiting for user input on the command line, you can access any other open window or DA. He also states that *TUI* doesn't have aliases or user-defined variables, but doesn't its macro facility qualify?

It seems a little misleading when the reviewer states that, "Few, if any, utility programs of any real value can be launched within a desk accessory that is running under an application." *TUI* has no trouble with this as long as the programs run from it are not GEM-based. Running GEM-based programs from a desk accessory, even while on the Desktop, is something that has eluded me, and that even the gurus at Atari inform me is not possible. I believe NeoDesk CLI does it by activating this function of the main NeoDesk program, not by directly doing it from the DA, so this method is not available to "stand-alone" DAs. In the same fashion,

NeoDesk CLI is able to remain open (or more properly to automatically reopen) on the Desktop after running a program from the Desktop only by using trickery within the main NeoDesk shell. I'm not saying this is not effective, just that it's wrong to imply that any DA should be able to do these things.

Thanks again for the otherwise accurate and thorough article, and for printing this reply.

James C. Stamm
Silicon Mountain Sys
Huntington, WV

BaltimoreBBS

Dear Joe,

As others have often said ... Thanks for such a wonderful publication. I am constantly amazed by the depth and quality of all your articles. I wish other magazines were as well written as yours.

I wanted to share with your readers in the Baltimore area, the existence of a bulletin board which supports all computers, including Atari. Originally started as a joint effort with the Maryland Science Center and the Maryland Apple Corps, MUTAGENESIS is now a board sponsored by the Maryland Apple Corps, but dedicated to all computer enthusiasts. I would encourage anyone to try it out.

At the moment there is no Atari activity on this board, but there is a section reserved for it. Maybe this letter will change that. The board number is 301-337-4936, and operates at 2400 baud. Hopefully, I will see some interest from other Atari fans ... 800/1040/Portfolio.

Thanks for helping to spread the word and for a wonderful magazine.

William W. Furr
Timonium, MD

DRIVPARM Command

Dear Editor,

This is a footnote to Robin Kazeluh's letter in September's *Current Notes*, about using the DRIVPARM command when running MS-DOS on her ST. DRIVPARM will let you format to 720K in a double-sided double-density 3 1/2" floppy disk drive. It does not, however, enable DOS to "access" or "recognize" such a drive as being double-sided or anything else. DOS has no such problems. The only thing DOS can't do without assistance is format a diskette to 720K in such a drive, and formatting is the sole function of DRIVPARM.

DRIVPARM has one unfortunate side effect, in slowing formatting and other floppy drive operations (copying, etc.) by about one third. This doesn't mean much if you have a hard disk, but folks with floppy-only systems may want a little more "speed." If you don't mind extra baggage and don't like the third party device drivers, you might try a public domain or shareware formatting utility. There are plenty of these available: Jacques Pier-son's SDF is one I know about that works

o.k., is simple and free. If you can't find SDF on a bulletin board, the best vendor is the public (Software) Library, P.O. Box 35705, Houston, TX 77235-5705 (orders: 1-800-2424-PSL). SDF is on disk #1364, along with a lot of fancy and not-so-fancy formatters.

Most of us with IBM clones are not too familiar with MS-DOS either, because we rely on the developers of these wonderful shareware and public domain utilities to keep from going nuts.

David Lefty
Chicago, IL

Why Doesn't Atari...?

Dear Sir,

I have been a subscriber to *Current Notes* for about a year. I have a modified "ST from Hell" to borrow a phrase, and a modified "130XE from the Crypt," CN has the best articles by far on Atari products, and I can only wonder how I got along without it for so many years.

After I read an article by Mr. Small or others that discuss modifications to the ST that are under development, I am puzzled over why Atari Corp. doesn't work on such things. Why, for instance, don't they offer an ST that can more easily have internal additions installed, without trying to squeeze something into the restricted space of an ST? Why don't they move on to an "Alps" IBM style keyboard? Why don't they offer a multisynch monitor and upgrade the video to compete with VGA? How come they aren't working on a 68030 board for the ST? Haven't they noticed that 1.44 meg 3.5" drives are the new standard? Has Atari done anything right? Yes! They provide a 'BASIC' system that is an alternative to the MS-DOS and MAC that is still competitive at offering price, if you can find an Atari ST offered somewhere. But they definitely need an upward path for those who want to soup up their system, or want more power out of the box.

Is there a means for comparing the performance of an ST to an MS-DOS machine or a MAC? The IBM world has the Norton and Landmark ratings. I would like to know where an ST would be on such a scale. It would be very interesting to see how it stacks up.

Walt Huber
Atwater, CA

GEMulate an ST on a PC

Dear Joe,

I just read through the January/February 1991 issue of *Current Notes* and had some comments. Three articles in particular caught my attention. Bruce Noonan's TT overview, Andrzej Wrotniak's "Sad Sad World Of PC Clones," and Frank Sommer's comments about my recent articles in *ST Report*.

Most readers have by now either read or heard of my the "Life After The Atari" articles in *ST Report*. As I hoped they would, they generated a lot of discussion among ST

users. My aim was to wake people up to the fact that ST users don't have to settle for the kind of treatment they have been receiving from Atari since about 1987: products that either never ship or ship very late, poor developer and dealer support, lack of advertising to attract new users, and the loss of the "power without the price" that Atari products had in the past. The TT is supposed to be Atari's new top-of-the-line "real" computer. At a price of around \$3,000, it is slower than I expected, and is simply less useful than a similarly priced (or cheaper!) PC. I own an ST and a PC, and having used and programmed on both, the PC is simply the way to go in 1991 and beyond.

I have used Bruce's TT many times and have tested and benchmarked it. Recently, when I tried running *ST Xformer* on it, I was terribly disappointed to discover that even at 32MHz with the cache enabled, 8-bit emulation was barely at full speed, and only twice the speed of 8-bit emulation on the ST. (For comparison, the PC version of *Xformer* running on a 20MHz 386 runs about 50% faster). With other benchmarks I found that graphics operations are only twice as fast on the TT. And a lot of software that I'd like to try on it doesn't run. I'd like to try rewriting some of my software using faster 68030 code, but Atari has yet to make available any 68030 development tools. At a price of around \$3,000, the TT is now nothing more than a fast ST. My 16MHz 1040ST almost runs as fast and costs about \$2,000 less.

I thought J. Andrzej Wrotniak's article about "brain-damaged" PCs was too short to cover the topic of PCs in detail, and focused only on bad points. As a developer, I find it surprising that he still views his 80386 PC as a 16-bit machine capable of only working with 64K at a time. The 80386 is a full 32-bit processor with 4 billion bytes of real address space, compared to the ST's 4 million. 32-bit programming tools, compilers, and operating systems have been around for years. And there are already about twice as many 80386 based machines in use as there are STs, and even more Windows users than ST users, so the market for a developer is larger (and growing rapidly). There is certainly no shortage of development tools or technical information for PC developers.

Frank mentioned a new 486 based machine for about \$3,000, roughly the same price as the TT. That is a great price, and just the beginning. With Intel demonstrating a 100MHz version of the 486 this month, and new lower cost 20MHz 486 chips coming out later this year, it won't be long before the 486 based PCs drop below the \$2,000 level. If you can't afford \$3,000, look into a 386SX based system. At \$1,500 and lower, these machines do everything the \$3,000 machines do, just slower. "Slower" is a relative term here, since the PC version of *Xformer* runs as fast on a 386SX as the TT version! So don't count the 386SX out quite yet.

So what is my point in all this? Should everyone just sell their STs and spend two or three thousand dollars on a PC? Ideally, yes. In reality, no. We can't all afford to buy another computer now (especially with the low resale values of STs) and there are many ST users who are perfectly happy with their machines. Why should they sell? Well, if you are one of these people and are perfectly happy with your machine, then stick with it. Keep buying ST software and support the ST software market. There are still dozens of developers around supporting the ST, including (as odd as it may seem) me.

But sooner or later you will want more—more speed, better graphics, use of better software, a dealer who isn't 100 miles away. Many ST users are already at this stage, and I am not convinced that yet another Atari computer is the answer. Instead of spending \$1,500 on a 68030 upgrade or Mega STE, do the right thing and buy a PC.

I am also doing something to make this even more attractive by developing an Atari ST emulator for the PC, similar to the *ST Xformer* that allowed 8-bit users to make their transition to the ST easier. Called *Gemulator*, the ST emulator uses the 32-bit power of the 80386 to emulate the ST's 68000 microprocessor and hardware. I expect to have it ready as a sellable product in 12 to 18 months, with demos of the product at Atari shows and user groups later this year. Imagine running *Calamus* or *Pagestream* on a PC. Or your favorite word processor. If you hate the DOS or the Windows desktop, then try running *Neodesk*. Imagine all your favorite ST software running on a PC, alongside many of the existing PC titles already available.

The hardware requirements for the *Gemulator* are minimal—a two megabyte 80386SX PC, a VGA monitor, and a 3.5 inch floppy disk from which to boot TOS. Such a system today sells in the same price range as a 1040STE with a color monitor. If you have a hard disk or extra memory, those will be supported.

If you would like to find out more about what I'm doing, or if you'd like to comment on what I've said, write me a letter or phone me one evening and we'll talk. (Darek Mihocka, Branch Always Software, 14150 NE 20th St, #302, Bellevue, WA 98007. 206-885-5893.) I have been an Atari supporter for 10 years now, and while I no longer care for or have any faith in the people at Sunnyvale, I don't want the users to suffer any longer.

Darek Mihocka
Bellevue, WA

Help!

Dear Joe:

I have been a member of NOVATARI for about five years. During this time, I have enjoyed the NOVATARI meetings and *Current Notes*. I would like to thank you and all the volunteers that make this club and magazine what it is.

Since I moved to Maine a few years ago, the only Atari dealer that I know of in the state, Hands on Computer, has closed and the user's group disbanded before I could join.

I have been trying to find a terminal emulation program which will allow my Atari 520ST to connect by modem to my Hewlett Packard mainframe at work. An IBM compatible program called *Reflections* is normally used to do this on IBM computers. Why not buy pc ditto? It is too expensive for me.

Another program I am looking for is a "video titler" program. This program will allow me to add titles to my video tapes when a VCR is connected to my computer. This program is called *Video Titler* and is available for the 8-bit Commodore.

Another area I am wondering about pertains to word processors. I have tried *First Word*, *ST Writer*, and *Regent Word*. None of these programs seems to produce text files with a true ASCII format. In other words, I can't get them to work properly on an IBM version of *WordPerfect*. I have, of course, put my text files on an IBM formatted disk before trying to use them with *WordPerfect* on an IBM compatible machine.

Do you know where I could acquire programs like this? Is there someone else I could write to or am I out of luck? Thank you in advance.

Mario Cardoza Jr.
Brunswick, ME

I'm not sure what HP requirements are, but many users are happy with *Unitem* (CN #422) as a telecommunications program. Under *ST Writer*, you can print to disk rather than save to disk. This will produce an ASCII file. Perhaps our readers can help you out with some of your other questions.

Legal Size on HP Laser

Dear Joe

I'm a subscriber to *Current Notes*. I really look forward to getting it every month. You are providing a valuable service to Atari owners. In the last issue (Dec?), I read several letters concerning the new HP Laser III problems printing legal size with *PageStream*. I have a *DeskJet* and at one time also had this problem. After some experimentation, I discovered that it is NOT sufficient to set the printer to 14" length and define the document as legal size. A third requirement is that the printer configuration under GLOBAL must be modified to show the page as being 14" in length. I hope this helps those people who are having problems.

Ken Hulet
GENie: K.HULET

Send letters-to-the-editor to:
CN LETTERS
122 N. Johnson Rd,
Sterling, VA 22170.

ST Bests IBM PC in Battle to the Death, Gregg Pratt Makes the Right Noises, Items for the Future, Atari Attempts Plastic Surgery

Atari's Machine Outshines IBM's

Recently, noted CN author, Sam Van Wyck, a radar instructor at the Maritime Institute of Technology in Lythicum, Maryland, had the opportunity to mix it up with the "Big Boys." He called his encounter, *Into the Valley of Death Rode the 1040*, and describes it with a perception and vividness that will warm the hearts of all of us, especially the company that made "the weapon" that won enterprising Sam his battle.

Sam writes and we quote:

"You can talk all you want about the merits of your computer but if it carries the name ATARI, most business and professional people will dismiss it as nothing but a toy. Don't disturb these closed minds with logic, they don't want to hear it. On the other hand, suppose you could make them WANT to know more about this incredible machine...

"When my school announced that it would offer its faculty a three day course on *Wordperfect*, I was delighted. Although I have used this word processor for almost two years, there is still much I don't yet know.

"Rather than use one of the school's IBM clones, I elected to move my 1040 and hard drive into the computer lab. With some degree of forethought I managed to secure a table near the front of the room. The instructor warned me that he would not be able to delay the class while my 8MHz Atari struggled to keep pace with the 25MHz MS-DOS machines, but I assured him that somehow we would cope.

"The first hour or two were mostly devoted to getting the beginners to use the proper load

and format commands. After a break, when screen movement and document loading were covered, it became obvious that my little Atari was holding its own as far as being able to perform the basic moves. Several students were moved to envy over the drop-down menus and mouse.



"During lunch break, I left the machine running the *CareBears* graphics demo, sound included. I returned to find a group of fascinated onlookers trying to figure out how all the colors and shapes could be possible.

"Composing a document followed. While the clones were struggling with little color bars indicating Underline, **Boldface** and *Italics*, the Atari screen was showing these features exactly as they would appear on the finished page. At the end of the first day, the Executive Director's secretary was asking the instructor why their machines couldn't do the same thing. They could, of course, but only at considerable additional expense.

"The following day did nothing to diminish Atari's reputation. Despite the 3-to-1 speed advantage of

the IBM, the only noticeable difference was when scrolling a full screen of type a line at a time. On the other hand, the exceptionally quick mouse control of menu selection and format changes more than made up for the difference.

"At the first break, I was asked to reboot the computer at least a dozen times so everyone could hear the voice of HAL 9000 proclaiming, "All my circuits are functioning perfectly!" At lunch, they were totally blown away by Slide-show graphics and the Startrek sound demo, "These are the voyages of the Starship *Enterprise*," with full orchestral accompaniment.

"By the end of the third day, many had developed a completely different attitude toward what they once relegated to the category of "merely a game machine." The Atari had more than held its own among machines costing several times its original price. What pleased me the most was the fact that they had come to this conclusion on their own, with no coercion (well, maybe just a tiny bit) from me.

"Perhaps one of the best ways to spread the message that an Atari is capable of *many* tasks, is simply to seek out those settings where others can watch, marvel and come to their own conclusions. Now, I wonder how all sixteen of those IBM clones felt about it. Do computers dream?"

Hats Off, Sam Van Wyck; Hats Off, Atari.

Across a Crowded Room

That famous line from the play, "South Pacific," was appropriate for the "grand hall" of GENie on the night in early February that Sam Tramiel tried patiently for several

hours to wade through the electronic crowd that had assembled and answer their questions. But to no avail. After a crash, all the guests had to log on again. And after they did, the result was another crash. It started at 10 P.M. and before midnight, it became apparent that it was too big a throng for the "conference program" to handle. Even Niel Harris, in charge of promoting GENie's fast expanding business, and former effective PR man for Atari, admitted he ran out of patience and logged off. (Sam Tramiel was scheduled to try again on CompuServe on 21 February, and a download of that should still be available.)

Back to the Future

To Atari's credit, at the next round table conference the following week, Greg Pratt, President, Atari, U.S. was the centerpiece, fielding questions and enunciating Atari's intention to get back into the U.S. market. Items of note:

- o **Distribution**—Network overhauled, all machines but TT will go mass market, with 1040 STE leading the way. Within one or two months, Atari expects to have "a very effective network of highly motivated dealers." There will be 100 key dealers, Strategic Partners, who will be "especially qualified to provide high end customers (sic) with the type of support that they require." Distributors will be a secondary method of moving the Atari product. There will only be one class of dealer and gone is the \$multi-thousand cost of becoming a certified dealer. And there will be ample product to go around!
- o **New Prices:** 1040 STE \$600; Mega STE \$1700 (2mb); \$1850 (4mb)—both with 50mb hard drives; TT030/2-50 (translates to 32 MHz clock speed, 2 mb of memory and 50 mb hard drive) \$2400; TT030/4-50 \$2800; TT030/8-50 \$3800; Megafile 30 hard drives \$600; Megafile 44 removable cartridge drives \$900;

Megafile 60 hard drives \$800; SLM605 laser printers \$1300.

- o **Lynx:** New Lynx is smaller, same size screen, and twice the thickness of Nintendo's GameBoy.
- o **Advertising:** Print medial only, no TV, but in major magazines with office focus, e.g. Money, INC., Home Office, Newsweek and Omni.
- o **Business Market:** Major re-education program in the U.S....to have Atari accepted as a business machine.
- o **New Computer Line In '92:** Next generation of Atari machines will establish Atari as again offering "incredible capabilities at reasonable prices." The new machines "will be so powerful, so fast with such great graphics that we will grab the attention of the computing world. These products will be available in 1992."

All of this was preceded by Bill Rehbok, Atari Director of Technical Services, saying, "I think the best thing Atari can do is get product out in the market ... I truly believe things are headed in the right direction ... and if I'm crazy enough to relocate from Chicago to Sunnyvale ... you should all hang in there just a little longer to see how Atari performs. There are no promises this time, just action."

Language, Letters, and War

All wars and all military combine to fatten up the dictionary. Even as the war has begun, new words were flooding into the lexicon, or at least new meanings for words. "BCD's" are military issue eye glasses for our soldiers in the Gulf. They are so ugly they have been given the acronym "BCD's" which stands for "Birth Control Devices." Pentagon briefings use pictures of "TV bombs" on their way through the door of the target, and declare that evidence of destruction is "anecdotal" at this time. The press sees the pictures and reports this is a "Nintendo-like war". (If Atari had learned about Saturday morning TV ads, it could have been an "Atari-

like war.") Even words invented in other wars were redecorated. In WWII a "dearjohn" was a kiss-off, your girl friend had found somebody else and sent you, John, a letter saying as much. Now, when this war was barely a week old, we had "electric dearjohns." For no charge, GENie will accept your ST modem'd "good-bye" and send it directly to Saudi Arabia where a laser printer produces a copy which is put into an envelope and taken to the MPO (military post office) for speedy delivery to "John." Fortunately, the traffic is only one way, so he can't get back at the authoress with the same immediacy. And the good news is that should you want to tell your guy or your girl "over there" that you miss 'em, GENie will speed it on its way. GENie calls it "Letters From Home," and it's free whether you have a GENie account or not (call 1-800-638-9636 for info on how to do it). CompuServe offers the same facility but to subscribers only.

Mac Fan? Not Me!

When is it nice to be an Atari user and not a Macintosh user or fan? When a five-year study is released by a university that documents the fact that English papers produced by IBM or IBM clone users were "smarter" than Mac produced papers. Now what does that actually mean? Papers aren't smarter or dumber; their authors are. So for those of you Atari "loyalists" who have been sliding away toward the Mac, watch it! Nobody wants to be considered dumber than somebody else. And parents, when your child calls home from college and says he has a choice of getting a Mac or an IBM at student discount, you now know which to choose. According to our favorite computer Sherlock Holmes, T.R. Reid of the Washington Post, IBM-using freshman, taking the standard writing course at the University of Delaware, were four-years more articulate on paper than their Mac-using fellow freshman.

That means, using a "readability scale," the language in their papers was at a level of grade 12.1 versus the Mac dunces down there at grade 7.9. So what, you say. Well, listen up! The Mac users had almost four times as many spelling errors as IBM types. And the killer? The Mac users got lower grades, on the average, than their MS-DOS whiz kids. Those are the facts. What is the reason? Well, you and WordPerfect Corp. might argue that it was because the IBM machines used *WordPerfect* and the Mac's *WordWrite*. That's an argument, but Macintosh machines, using any of their word processing programs, are known to be excellent word processors. So what are you left with as a reason? The counter culture. Mac users are more laid back than their up-tight IBM pals. You can try that argument until it nets you a shiner, and then even with David Small's help you'll have difficulty proving it. Yet, it might be interesting to plot the grades of the two groups for four years in all their courses and see?

ColorIt IBM& Clones

Color control has moved from Atari, from Amiga, from the Mac's to IBM and its clones. A small company in Waltham, Mass., Edsun Labs, is producing a digital-to-analog converter chip that will provide computers with an apparent display of 2,048 by 1,536 pixels compared with the current VGA's 640 by 480. The DAC chip replaces the converter already built into VGA add-on cards or motherboards. In effect, you now can have photographic like images on your screen. The cost of the color monitor that can display these gems? The same as your current 640 by 480 color monitor because the pixel increase is only "apparent," i.e., the chip combines any two colors to form ones of intermediate shades for rendering the edges of an object on the screen. So gone are the jaggies. Epson will debut the system with its Equity 386SX/20 Plus model

in the first quarter of this year. Other video card PC manufacturers are already ordering the chips which cost less than \$20.

Will There Be?

Speculation about Atari's vaporware of yesteryear and yesterday persists and likely will, even after Atari fades from the U.S. market. The oldest item on the list is the **CD-ROM drive**. Ostensibly a new version will be showing up here soon, as soon as Atari finds a supplier for the drive mechanism that Chinon used to make but will make no longer for Atari. The machine is available in Europe with the old drive mechanism but lack of application disks and the high cost for European pocket books has made it almost a non item there. Bob Engbergson of Pacific Software Supply thought the appearance, shortly, of Amiga's CD-ROM machine would give Atari the necessary stimulus to get more application disks out on dealer shelves. More recently there has been high interest in the **new GDOS** for Atari programs. Called FSM for font scaling module, it may be just around the corner. *WordFlair* will reportedly incorporate it in its newly updated word processor as it becomes available. Even more recently word began drifting around that the Mega STe's, a large supply of which, according to Atari, are "due on the next boat," will have built in **AT Speed 286 PC emulator's** by the end of the year. The latter, of course, is not confirmed by Atari. Along with that speculation, is the question of what will Atari show off that's new at the CeBIT show in Germany? One speculation is the **new Portfolio** with 286 power. The rumors of a **new product line of computers**, started by Gregg Pratt's comments about Atari's plans during his Genie interview, don't include any of them appearing at CeBIT. In fact, there is heavy scepticism extant that Atari will be fortunate to have its current issue of "new machines," the Mega

STe's and TT's "tweaked up" and performing by the beginning of next year. And finally, the word is that this is the year that Atari "prepares itself" for next year which will be the real "Year of Atari."

Plastic Surgery

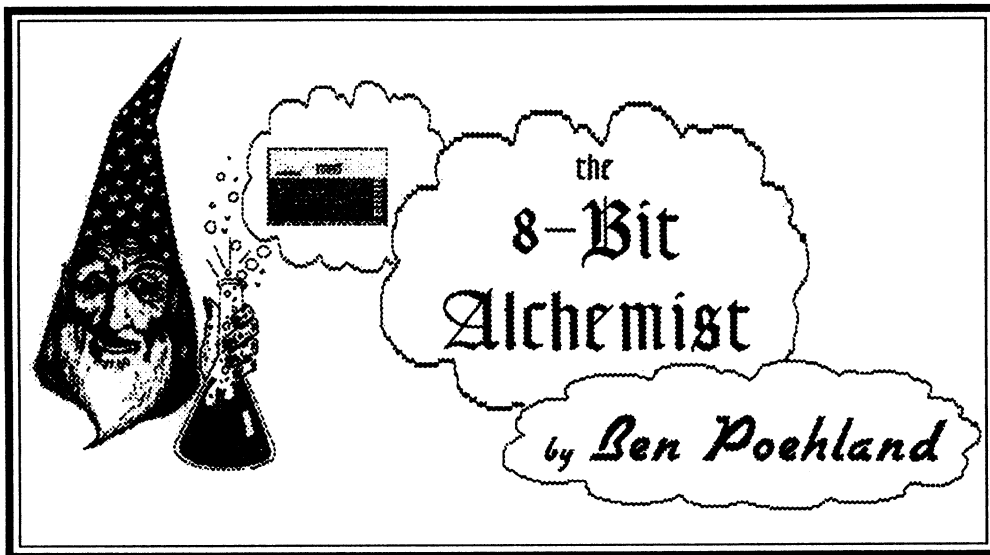
Looking eagerly for a new face, for an image that will open office doors and let Atari enter without paying any TV ad fees, Atari is attempting plastic surgery. Gone are the smiles that come with the pleasure of playing a fast moving game of *Tetris* or living out 99 years of Supreme Commander in *Supremacy*. Now with chin jutting out over the tie and pin stripe vest, the impression is one of all business. As a significant move in this direction, Atari is investing serious monies in a large booth at CEPS in Chicago. The Computer Electronic Publishing Show runs for three days in April, 9th thru the 11th. It is one of the major desktop publishing and printing shows in the country. This will be Atari's premiere appearance.

Inching Forward

For the past month Atari stock has been fighting a successful battle with the "penny stock" dark hole. Down at one point to \$1.50 a share, gradual movement with anywhere from 10-20,000 shares to over a 100,000 shares a day changing hands, the stock has inched its way back up to close at \$3 a share in mid-February. While this seems like small potatoes, it is, however, still a doubling of the value of the stock.

Who's on Top?

A ranking of the 20 most profitable games sold in Europe, i.e. most copies sold, notes that Atari has only two of the slots, #8 and #20 with *Power Monger* and *Speed Ball II*, respectively. Some of us might say, "A ha!" only to learn that IBM has *no* contenders in the top 20 and Amiga, which is ranked as the number one home computer in Europe, has only three on the list!



Editor Stuff is answering the mail, editing manuscripts, coordinating the efforts of other people, and generally tending to the unexpected things that pop up. There's a lot more Editor Stuff to do than I realized.

Then there is my Contributing Author's Hat. This is a rakish-looking thing with a feather, a la Robin Hood. I wear it when I get an idea that just begs to be written down. Especially if the idea involves combat with

The Winter Drearies have closed their icy grip upon this Alchemist earlier than usual this year. Last winter in Pennsylvania was relatively mild, but so far this year Nature is restoring the balance. The Alchemist has lots of interesting 8-bit projects under way, but all of them seem no nearer to completion than the day they were conceived.

The War doesn't help. As I write this, the Gulf War is in its fifth day. All the hi-tech stuff looks great on TV. Like it was a computer videogame; some reporters are calling it the Nintendo War. But it isn't Gulf Strike on your XE. This is the Real Thing, folks. Missiles exploding in populated cities, bombs dropping in withering tonnage, empty places at the dinner table. You won't find me among the ranks of noisy mobs burning effigies of the President. But I take comfort in thinking that maybe by the time this article appears in print the dreadful business will be concluded, and Saddam Hussein will have joined the ranks of recent history's other vainglorious notaries in a Rogue's Gallery featuring the likes of Idi Amin, Pol Pot, and Noriega.

Haberdashery

I always wear my Alchemist Hat when I'm doing Alchemist Stuff. Alchemist Stuff is diddling with the innards of some piece of computer or other electronic hardware, exploring some new piece of software, or checking out a new Twilight Source. The Alchemist Hat is my favorite, and it looks exactly like the one in the logo at the top of this page. I also don it when I write this column, so it doubles as a Columnist Hat.

In my connection with *Current Notes*, though, there are some other hats I wear. There is my Editor's Hat—not really a hat at all, but one of those green eyeshade things that are only worn by Editors and the professional hustlers who haunt pool parlors. I think the reason my Alchemist has the blues is because I've been wearing my Editor's Hat for most of the past month. I wear my Editor's Hat when I do Editor Stuff.

recalcitrant machinery, pompous corporate executives, or the Guvermint. When you wear a Hat like that, you are something of a maverick—a bit irreverent, rebellious, itching for the opportunity to snipe away at all the absurdity and hypocrisy in the world. Most Atarians have a hat like this in their closet, though some might not admit it. Now, if you were an IBM enthusiast, your closet would contain only row upon row of starched white shirts. You would follow the crowd, never complain, and worship regularly at a Big Blue altar.

Finally, there is my Subscriber's Hat. I don't have to describe this one. You're wearing yours right now, and it looks exactly like mine. Funny thing, this is the only Hat I pay extra for. Because I wear so many other hats for *Current Notes*, our Publisher gives me several issues each month for free. But I give away most of these freebies in an effort to recruit new subscribers. So when I renew my personal subscription, I wear the same Subscriber's Hat you wear. I don't subscribe just to get useful information about my computer or the latest scuttlebutt about Atari (though those would be reasons enough to subscribe). My subscription to this magazine is a subscription to values, like candor and honesty. If I want baloney, I can pick a slick off the local newsstand. Or check out the lunchmeat counter at the deli.

A Few Good Reviewers

So now I'm going to put on my Editor's Hat and address a subject that has occupied my thoughts, and a lot of my time lately: software reviews. With the decline of the 8-bit market and decreasing support from Atari, I had assumed there would be little in the way of new software coming onto the market. To some degree this assumption was valid. I figured myself and maybe a couple other people could handle all the 8-bit software reviews *Current Notes* would print. It hasn't quite worked that way, though. I'm not saying I'm flooded with new software, but there's more vitality in

the 8-bit software market than I realized. The shareware authors and specialty houses are still producing, and, of course, there's older commercial software that is worth another look. That's great news for us 8-bit phreaks, but it makes life complicated for an Editor.

I'm looking for A Few Good Reviewers. Here's The Deal: I send you software, and you "pay" for it by using it and writing up a review. The software is yours to keep.

Interested? Drop me a line, or send me E-mail. Your name, address, and evening/weekend phone for starters. Tell me all the gory details about your computer—which machine(s) you have, how much RAM, any hardware mods, number and type of drives, drive upgrades, interfaces, modems, printers, monitors, etc. If you do any programming, what languages you use and what degree of proficiency—beginner, intermediate, advanced. What word processing program(s) you would most likely use to prepare a manuscript. What commercial or public telecommunications networks you use, if any. Let me know how long you've had your Atari 8-bit and whether you've done reviews before. And if you have a preference for the types of software you'd like to review (videogames, utilities, databases, wordprocessors, telecom, business, hardware applications, music, educational, programming languages, graphics, etc.) let me know that, too.

Some folks would be delighted to receive free software but are self-conscious about their writing skills. Hey, don't let a silly thing like that stop you. This isn't high school, and we don't flunk you for typos, bad spelling or grammar. That's what Editors are for. We fix up all that stuff, so when your article appears in print you look like a Nobel laureate (well, almost).

Then there are folks who are interested but have never done an evaluation and don't know what to say. Not to worry. Included in the software package you receive is a fairly detailed set of guidelines that will help you evaluate most any software. You can always check the pages of *Current Notes* for cues on doing reviews. Len Poggiali's reviews of Bresnik's educational software, and Dave Harris' *SynCalc* review elsewhere in this issue are fine examples. And just because you get free software doesn't necessarily mean you have to rave about it. If it's good, say it's good. If it's junk, you can say that, too. As long as you back up your opinion with sound reasoning. Describe the software much as you would to a friend. And, hey, if you have some treasured piece of software that hasn't been reviewed in these pages, you might want to write it up and send it in. Don't keep all the goodies to yourself.

If you've never had the experience of seeing your name in print, give it a try. I guarantee the first time you open the pages and see Your Name at the top of Your Article it'll be one heckuva kick. And for good measure our Publisher gives you an extra free copy of the magazine containing your article. Pass it around, im-

press your friends. And know that you have made a personal contribution to the 8-bit community.

Twilight Sources

OK, now I'm wearing my Alchemist Hat again. We Alchemists love to rummage around in the Twilight. Here are my latest discoveries.

IB Computers. [9244 S.W. Beaverton-Hillsdale Hwy., Valley Plaza Shopping Center, Beaverton OR 97005 (503)297-8425]. A full-line Atari dealer (including 8-bit hardware and software) with an unusually good selection of cases for hard drives. If you are putting together an 8-bit hard drive and having difficulty locating a suitable enclosure, give these folks a try. Ask for Jim Berry or Duffy Lane. Check out IB's ad in *Computer Shopper*.

Sagamore Software. [2104 Arapahoe Drive, Lafayette IN 47905]. Operated by Roger McClannen, Sagamore offers a free 30-page catalog of PD software. The catalog is professionally printed and well organized. Sagamore has a few value-added angles I haven't seen before. Unlike most PD distributors whose offerings are served up on cheap bulk floppies, Sagamore uses only top-quality name brand disks such as the teflon-coated Verbatim DataLife Plus. All disks are double-sided, and some software is ARCed to crowd more files per disk (Bob Puff's excellent UNARC program is provided to unsquish the files). Sagamore also offers a monthly disk update to their catalog on a subscription basis. Disks are \$3.00 each plus a \$2.00 charge for orders of less than 10 disks. Payment by check or MO, no credit cards. A splendid PD source, well worth a postcard inquiry.

Coming Attractions

Now, about those unfinished projects I mentioned. In 1991 I hope to present some really neat 8-bit stuff in these pages. Software reviews in progress include the remaining four disks of Bresnik's educational software. A knock-down dragout telecom article featuring modems and a high-noon shootout between *BOB-TERM* and the *EXPRESS!* ROMcart. An article on using your 8-bit to communicate with VAX mainframes and the public telecom networks. A report on the MacInker (you don't need a Mac to use it). An issue in which all the 8-bit articles will focus upon stereo sound. Another issue with emphasis on the 1050 disk drive. A rebuild of the Type I power supply that increases its efficiency by 45%. An XL hardware upgrade to improve video output quality. A tutorial on creating a custom Epson printer driver with *AtariWriter Plus* or *80*. And more software reviews (provided I get A Few Good Reviewers and some more software). And, of course, an unending stream of Twilight Sources: it seems my December article barely scratched the surface of the Twilight Market.

(Continued on page 15.)

New 8-Bit Software

Ben Poehland, 8-Bit Editor

Heads up, 8-bit enthusiasts! Here are some new releases from the specialty commercial and shareware producers.

Commercial

Digital Music Studio, V. 2.00b. The *Digital Music Studio (DMS)* is described as a simple utility for using digitized sound. It allows you to play a whole range of sounds at different pitches, thus creating simple music. *DMS* comes with a main system which is used for the creation of music, editing, playing, etc. The *Studio* also has a compiler capable of converting your *DMS* tune into BASIC code which you can merge into your own programs. *DMS* is not required for playback, so your program will "stand alone."

Also included is a keyboard player, allowing you to play any of the sounds using the computer keyboard. The last part of the studio is the drum player. This loads in eight types of drum sounds, lets you play them using the keyboard, and also lets you change the pitches of the sounds.

DMS is for the Atari XL/XE (64k minimum) machines, comes on a double sided "floppy" disk, and requires no extra hardware to run. It comes with all the programs mentioned above, and has an on-disk user guide, and over 40 samples, ranging from a dog bark to an electric guitar.

A British import, DMS is available in the US exclusively from Edwards (address below). \$ 8.95 postpaid.

PS Borders & Fonts. Over 20 new borders and 15 fonts for use with *Print Shop & Print Shop Companion*, including several special fonts allowing you to mix upper and lower case text in the same printout. \$6.95 postpaid.

PS Graphics. Over 100 new graphics for use with *PRINT SHOP* and your ATARI 8-BIT COMPUTER. This volume emphasizes graphics of children's characters. \$6.95 postpaid.

Edwards is presently running a special offer for GENie subscribers, all three disks for \$18.00 postpaid. *Available from: Edwards Software, 138 South Main Street, Travelers Rest, SC 29690.*

Shareware:

Six new disks of educational programs from Bresnik Software were recently released, for use in both home or classroom environments. All disks are \$5.95 each plus \$2.00 P&H per order. Programs were written in BASIC, 6502 Assembler, or C, and boot with BASIC enabled. Programs may be copied or modified for use within the purchaser's immediate environment but may not be offered for resale (shareware). (See Len Pogiali's review of these programs elsewhere in this issue.) For all XL/XE (min. 64K) and 1050/XF551 drives.

Disk 01: Illusions/AudioVisualizer. Two independent programs on one disk. *AudioVisualizer* produces precisely controlled frequencies (singly or in pairs) and graphs them. Useful for instrument tuning, math/physics instruction, or auditory perception demonstrations. *Illusions* presents ten different visual effects utilizing the computer's ability to change form, color, and screen intensity.

Disk 02: Ecologist. Invites the user to bring organisms to a barren planet. As they transform the environment, the planet becomes habitable for people. Ecology on the planetary scale, with graphics to show you how well (or how badly) your planet is faring.

Disk 03: Wordsearch Maker. Works with any printer to produce an alphabetized word list and a word-search puzzle. Can be used with any Atari 8-bit wordprocessor.

Disk 04: Animals. A simple example of artificial intelligence, *Animals* develops binary decision trees and saves them to disk. Can be used to develop an identification key for any collection of items or ideas.

Disk 05: Mathematics. Two dozen programs of mathematical demonstrations, drills, and number games. A sampler: Pythagorean triplets, signed numbers, exponential notation, 3-D tic-tac-toe, and Lissajou figures.

Disk 06: Fractals. Produces graphs of fractional dimension. Mandelbrot set, Sierpinsky and Hilbert curves, fractal dragons and plane-filling mazes. SLOGRO simulates particle accretion, CHAOS produces Sierpinsky gaskets in a seemingly-random fashion. *[Available from: Bresnik Software, 555 Ware St., Mansfield, MA 02048. Shareware, all disks \$5.95 + \$2.00 P&H per order.]*

8-Bit Alchemist (continued from page 13)

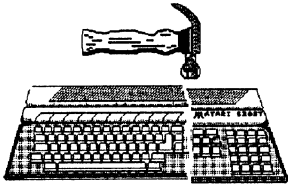
That's only the short-term stuff. I have at least three other projects in the works, exciting stuff but of a long-term nature. These are Secret Alchemist Things, some in collaboration with other people. I won't say what they are, but if you follow this column regularly you might catch on if I let it slip.

Of course, if none of the above is of interest to you, feel free to write and let me know what stuff you'd like to see. Above all, stay tuned.

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Simple Necessities of Life

A Calendar, a Notepad and How to Shoot the Brains Out of an Alien

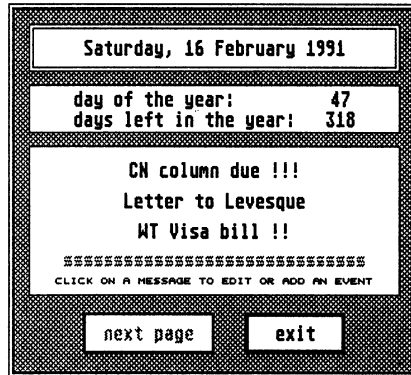
Many, many years ago, when Saddam Hussein was still wearing a white hat and we were expecting The Year of Atari just behind the corner, I discovered a need for a small calendar/memo writer utility for my ST. Having started writing it, I have never finished—although the program worked OK, it lacked the necessary degree of smoothness. I then moved to another compiler, so the project sat in the drawer while I was planning to finish it “one of these days.”

Cal 4.3

Well, I do not need to. Someone else did us all a favor, having written a simple (yet capable), useful and well-behaved calendar/memo utility.

Mr. Bill Aycock's *Cal* (Version 4.4 is now available) nicely fills the niche many (possibly most) of us may have.

Cal is, first of all, what its name would suggest—a calendar as a

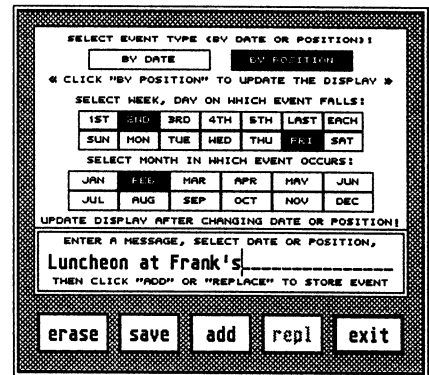


This day has three events attached. Up to 28 events can be attached to each day (if you need more, you need a secretary anyway).

desktop accessory (it can be also renamed to .PRG and run from a desktop, and Mr. Aycock was one of the nice people who answered my call for help on how to do it from a program). You can display a calendar for any month and any year you may be interested in. This is handy, but some other freeware programs (including an oldie but goodie, KalClock from Mr. Gordan Palameta) also do it.

facility provided, so that you may find all events containing a given string of characters, e.g. “Joan.”

The event-handling capability sets *Cal* apart from other freeware offerings of this kind (besides, the commercial *Time Link* seems to be no longer available), and the program is well-behaved and has many nice touches. It also comes with a companion utility to review lists of events and a complete documentation file. I would feel better if the event data were stored



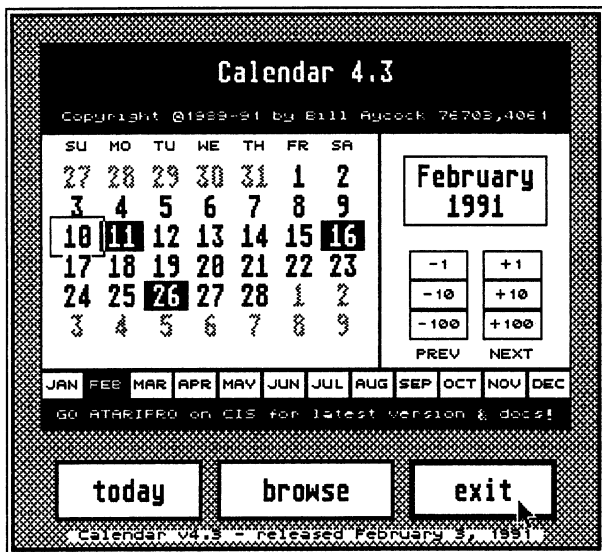
Here I am setting an event for the second Friday of February. Such events will be carried from year to year. I hope Frank will not run out of food.

in a separate file (as opposed to the program file itself which is the case), but this should not affect the everyday use much.

I found *Cal* one of the handiest freeware offerings in a long time, and it seems like Mr. Aycock scored a major hit.

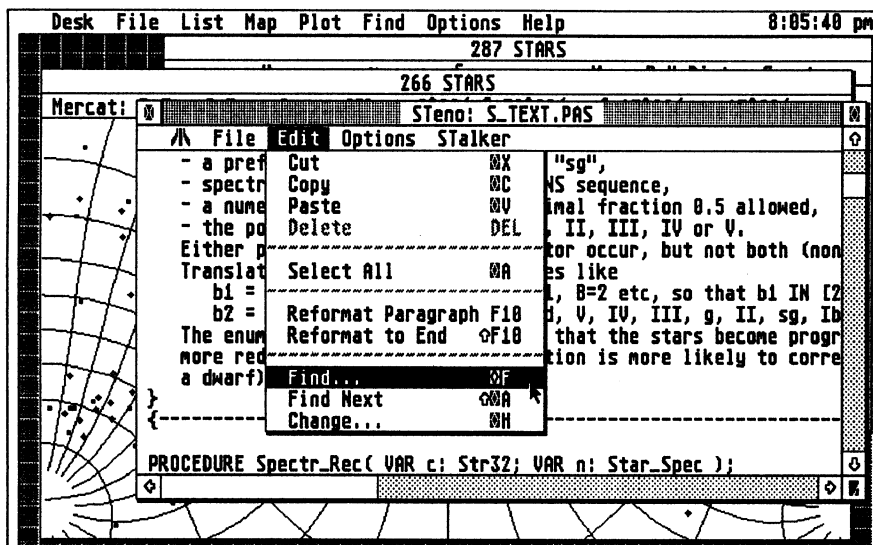
Need a Good Notepad? Try Steno

From Strata Software in Ontario comes *STalker 2.0*, a terminal emulation package, which can be run both as a regular program and as a desktop accessory (which is quite handy, as the file transfer can



The front panel of *Cal* shows a calendar for a month. The current date is outlined, while days with events attached are drawn in inverse. Clicking on a date displays the day's events (allowing to add new ones), while other buttons allow to switch to different months and years.

Then the author adds a powerful and convenient feature—a possibility of attaching small memos (called events) to particular dates, say, 15th of July or the second Friday of March. The events may be defined as one-time (as, e.g. a meeting) or repeated each year (as birthdays or Mother's Day). If a day has events attached to it, it will show black in the calendar. There is also a simple search



STeno has a nifty menu inside its window—not unlike *Windows 3*. Here I am reading a piece of documentation for the program I am just running. Simple, but very, very useful.

be then run in the background, while you are occupied doing other things on your computer).

Frankly speaking, I have mixed feelings about *STalker*—the program is nicely designed and has a good “feel” (as subjective as it may be), but screen scrolling in monochrome with use of the standard system font lost track of the cursor position in the window (the problem did not seem to be present in color) and, more importantly, its VT terminal emulation is only approximate. If you want to check any program’s claims of VT compatibility, log on into a mainframe and try fullscreen editing: this is the moment of truth. Of all programs I have tried, only *Uniterm* does a good job here (with *Ansigraf*, no longer supported, it seems, being second.) Neither can *Flash*, nor *Interlink* (both good programs, otherwise) do a good VT-emulation job.

For those of us who do not need exact VT-52 or VT-100 emulation (these who do include mostly bearded campus types), *STalker* still seems to be a good choice. The program is capable of many things, and it, indeed, runs just fine as a desktop accessory which, for many of us, may be enough of a reason to buy it. I often use it to access CompuServe or one of the local bulletin boards, where fullscreen editing is not needed.

And now we come to the point. Included in the package (the whole thing available, after a discount, for just \$20 or so) is a companion accessory, *STeno*.

STeno is a simple windowed text editor. Like many other accessory notepads (*Notepad*, *SpiritEd*, *Word 400*, available for free, are just a tip of the iceberg) it allows you to read and edit text while inside any other application, as long as you have an access to the menu bar. Still, until *STeno* I was not able to settle down on a single, dependable utility of this kind. Some of them are quite unpredictable (just crash the system from time to time); others have some irritating limitations.

STeno offers just the right compromise between capabilities, size, and complexity, and all this in a well rounded package, with simple and convenient user interface. The “info line” just below its window title contains a clickable menu bar with all the file, block and search functions most of us would need. If you need more, use your word processor!

Mr. Eric Rosenquist, who wrote the program, not only did a very good job on the implementation (everything works just fine, and this is already a lot!), but also was successful in avoiding some of those annoying design flaws. For

example, an accessory of this kind should remember its window size and use it again when it is being reopened (as opposed to switching to the default setting every time). *STeno* does it (and many other things, let me spare you the details) just the right way, and this is why I am using it, not anything else.

Those of us with poor eyesight may appreciate the capability of setting screen font size up to twice the “regular” one. True, I would prefer to do it by clicking on option buttons rather than by entering the font size in points, but this is a minor complaint (as any others I may have about this program).

[There is also a possibility of passing information between *STeno* and *STalker*, so that they can be used as a whole, but because this is not a review of *STalker*, I am not going to elaborate on this subject.]

Now, being able to write a documentation or a review of a program without leaving it, is a lifesaver. I would have gladly paid the \$20 package price for the *STeno* alone, in spite of any competition it may be facing from free-ware offerings—it is just better and more dependable. If you have any need for a text editor in form of a desktop accessory, *STeno* seems to be the obvious choice—and if you need a terminal emulation program (as long as you do not need the *real* VT-compatibility, but most of us do not), then the *STeno/STalker* package is more than a steal. Twenty bucks? These guys have to be crazy!

Liked Millenium? Get Supremacy!

Remember *Millenium 2.2*, a limited resource management game I was writing about last April? From Probe Software in Britain comes another game of this kind, *Supremacy* (distributed here by Virgin/Melbourne House).

Both the setting and underlying game principles of *Supremacy* are almost the same as in *Millenium 2.2*. You are a commander

of a star base, having some resources (population, troops, production capacities, mineral resources etc.) and some other planets to colonize—and defend from the baddies. You make hundreds of decisions: what techno gadgets to buy or to build, how to tax your population (which strongly affects their procreation rate; I hope the Third World will learn this trick), how many troops to draft, how to equip them, when and if to settle other planets, how to set up their defenses, and *many* others. In the meantime, the baddies are trying to do the same, attacking your settlements and conquering available planets (as we know, this is the best way to solve the Palestinian problem), and ultimately you will have to land your Marines on the enemy home planet.

Supremacy is, however, an improvement upon *Millenium*. It has more attractive graphics and sound, some (limited) animation, somewhat more sophisticated user interface (mouse and icon driven, of course). It also offers four levels of difficulty (the corresponding enemy planets are denoted with Japanese numerals and you are given brief descriptions of the slime aliens in each case). In general, the package is better-looking and more polished (although I really like the atmospheric feeling of *Millenium*, a good game by itself).

The easiest level is not too challenging and can be completed in two hours or so. It can be used to get familiarity with the user interface and basic strategies. This is just one example of the good design of *Supremacy*; there are many others scattered around. The higher levels (which I yet have to complete) seem to be, indeed, tougher and more interesting, with not just meaner enemies, but also more complicated decisions to make.

One of the three floppies seems to be entirely devoted to the storage of final sequences, which you will be able to view after winning the game. At the lowest level

you will be rewarded with the view of the enemy commander having his brains blown out—not in a very documentary depiction (thank heavens!), but still, not an example of good taste.

The documentation is exceptionally good, maybe the best game manual out of a hundred or so I have: clear, well written, nicely illustrated and attractively printed. It even has a small (but useful) alphabetical index! There is also a quick reference sheet and an insert with machine-specific instructions (Atari ST: load Disk 1 and switch the machine on).

I think I have discovered some (non-critical) bugs in the program: for example, some of my assets were disappearing without reason under some circumstances. They were, however, quite minor and only mildly annoying, and did not make the game less of a pleasure to play.

Supremacy requires a color monitor, uses a documentation check (in addition to a mild copy protection), and comes on three double-sided floppies. If you have only a single-sided disk, you will miss the digitized sounds (obviously, stored on side two).

To sum all this up: if you like games of this sort (or if you would like to try one), or if you want to steer your children in the direction of games which do not offend their intelligence, then *Supremacy*, in spite of a somewhat steep price (\$40 or so after discount) is a very good choice.

Dungeon Master Compact Disk

Mrs. Lynton from L&Y Electronics knows I am a sucker for a simple trick: when all I bought has already been entered into her diabolic cash register, she reaches somewhere under the counter, gets a small package and says (with an innocent smile) "I am sure you do not have this one!"

Last time "this one" was... a compact disk. No, not a CD-ROM,

but just a CD, with music. Heck, I am broke anyway, another ten dollars would not hurt me much more. And so I ended up with *Dungeon Master—The Album*, forty-five or so minutes of synthesized (probably MIDI) music, which can be used as a background for exploring the dungeons, or just to accompany a quiet dinner. Last, but not least, the top side of the disk looks really cool.

The music is composed and played by Darrell Harvey, Rex Baca and Kip Martin from San Diego, California. It falls somewhere between New Age and Mussorgski's *Pictures from an Exhibition*, and while it is not going to make it to the charts, it will provide listening pleasure, especially to those of us who, from time to time, still like to spit a fireball, bite into a juicy round of worm, or lock a skeleton in a closet.

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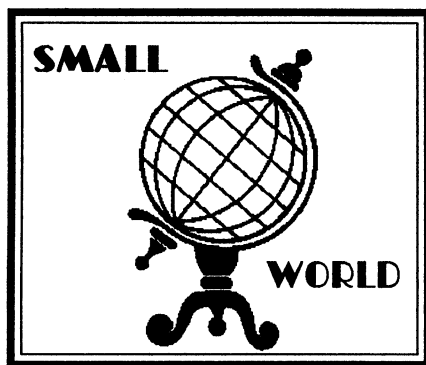
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68030 SST Accelerator and Lots About The ST: Part 2--The Role of Video Memory *by David Small, (C)1991, All Rights Reserved*

Author's Note

This series of articles are not just about the 68030. They contain a GREAT deal of information about the ST, in general, that I feel an owner will be interested in, and it'll improve your knowledge of your ST to read it, even if you could not care less about the 68030.

Editor's Note

[Part 1 discussed the details of generating a picture, by means of lots of dots, on your monitor. He also explored the meaning of several video concepts including color, refresh rate, interlace, persistence, and plasma displays. All of the above helps to explain the importance of video RAM. We repeat the main conclusion of Part 1 and continue the story. -JW]

Video Memory

...In video memory is kept a detailed picture of what should go on the computer screen. When the monitor needs to output the display again, the computer goes to video RAM, grabs the picture, and feeds it to the monitor over the next 1/70th of a second to draw the display. And it does this over and over.

Now I need for you to make a conceptual leap. When the Atari wants to draw to video, oh, let's say, when it wants to display a disk directory after you double click on a disk icon, *it just changes video memory inside itself. It does not draw to the monitor. It draws to video RAM!!*

I emphasize this point because it is one people have a lot of diffi-

culty with. The plain fact is that to the Atari, memory is memory is memory. It doesn't care *what* memory is used for by the outside world; in fact, judging by my debugging session, it doesn't care about the outside world at all! All the Atari is doing is following its program to write some information into RAM; that RAM just happens to be video RAM. When it writes data there, the next time the monitor needs to be refreshed (always pending, 1/70th second later, and almost always in-progress), that data shows up as video dots.

Everything is Numbers

Those of you who remember my February 1989 column in *Current Notes*, "Numbers," remember that I pointed out that to a computer, **EVERYTHING** is numbers. Even letters ("ABC...") are represented as numbers (in this case, 65, 66, and 67. Those beautiful graphics of *Dungeon Master*? They are simply numbers inside the "Video RAM" of the ST. That fantastic novel you're writing on your ST? *Every* character is represented by a number; when the computer wants to print an "a" in your novel, it literally sends a "65" to the printer, which then spits out letter #65, a number. And your novel is saved as numbers, one per character. Yes, folks, pictures, sound, characters, word processing--*Everything* inside the computer *is just a number*. All the computer does is shuffle numbers around; that's all it *knows* how to do. The point is that if you make numbers represent other things, the computer can do non-numerical work, while still thinking it is working with numbers.

This is another very difficult concept to get across to beginners. Generally, when I'm showing this, I take numbers that people shout out, and I write them into Video RAM. And magically, 1/70th second later (instantaneous to our eyes), dots appear on the screen. Those are the numbers as video. I take the numbers and show what they look like as characters; I take the numbers and show what they look like as music (via MIDI or the ST's internal sound chip). The "numbers" part is the key, though. It takes 32,000 bytes of memory (32K) to hold a video image on either the monochrome or color Atari. (You may know that color has less pixels/dots on the screen; the reason it still takes up 32K is that the Atari has to remember RGB color information, not just a simple on/off, which takes up more room per dot).

Monochrome: 640x400-256,000 pixels. Each pixel is either on or off (black/white) and can be represented by a single bit (0 or 1). $256,000 / (8 \text{ bits per byte}) = 32,000 \text{ bytes}$, i.e., 32K.

Medium Resolution: 640x200-128,000 pixels. Each pixel is one of four possible colors, which can be represented by 2 bits (00,01,10,11). $128,000 \times 2 / 8 = 32,000 \text{ bytes}$.

Low Resolution: 320x200-64,000 pixels. Each pixel is one of 16 possible colors represented by 4 bits (0000, 0001, ... ,1111). $64,000 \times 4 / 8 = 32,000 \text{ bytes}$.

Atari uses a very, very good scheme to manage video memory, for the truth of the matter is that driving a display *beats a computer to death*. Many manufacturers can only come up with kludges, because they can't handle the terrific drain on memory that video makes! Others do things like dedicate expensive RAM chips *solely* to

video, which you pay out the nose for.

Atari has achieved the very near impossible in making an *in-expensive* computer do this. Sure, it's easy when you can afford memory chips that are super fast and dedicated to video and expensive video driver chips—all of which cost the consumer around 4–8 times what they cost the manufacturer. The price of a 520 ST, capable of doing this, is very impressive given its rock-steady, flicker-free, pleasing 640 x 400 monochrome and 640 x 200 color display.

The Burden of Video Memory

Let's do a little math (just a little—keep reading, it's just to illustrate the point). We know it takes 32K for Atari to hold the screen. That's output 70 times a second. So 32,000 bytes output 70 times a second is 2,240,000 bytes per second—call it 2.24 megabytes per second.

I'm sure you're a little Future Shocked at computers in general and how fast they are. But that 2.24 megabytes/second is a darn impressive number!! Let me briefly give you some comparisons. First, that means filling up a whole Mega-4's memory in under 2 seconds. Wow!

There is now a Mac II SCSI hard disk controller whose ad proudly states, "Can transfer 3 megabytes per second!" It costs and requires specific drives that can handle that sort of (considered awesome) speed. Heck, Atari's near that in video! As for me, I published a little program called Twister that made floppies run at their absolute maximum safe rate (going further would have made the floppies unreliable). This gave me 1 megabyte per *minute*, not 2.24 megabytes per *second*!

But you've got other problems, too. This video RAM *is not always there when you need it*. Remember that the monitor is mercilessly—marching across scan lines,

expecting the computer to keep up, and if the computer does not, oh well. The monitor is certainly not going to care if the picture smears or goes slaunchwise because the computer was too slow. You have no choice; you *must* keep up with the monitor!

Static RAM

RAM today is of two types. "Static RAM" is *expensive* to the point where, if it is used at all in a machine, it is used in very low amounts. Even the Mac IIx, at over \$10,000, only includes 32K of Static RAM in it—and that's a machine that sells for so much that Apple could afford almost anything for it. I know ... my wife likes the speed of the fx for her work. Oh, do I know. (My wallet shrieks when I get close to her workstation).

Static RAM is what you think RAM is. You write something into it, it stays there indefinitely (at least, until you turn the machine off). It's always available, fast, and whatnot.

Dynamic RAM

The other type is "Dynamic RAM." This is the RAM you're used to. It forms the main memory of your ST, it is often packaged in "SIMMs" (Single Inline Memory Modules) which the STe, Mega STe, and TT use at around 1 megabyte for \$40 (note: chip prices are as volatile as oil prices; I am writing this in January, 1991). 256,000 bytes will cost you less than a 6-pack of Diet Pepsi!

Side note: You'll recall the great RAM shortage Atari blamed for not being able to ship computers; that's "D-Ram" or "Dynamic RAM." D-RAMs have come a long way in a few years; I can recall when a 16,000 byte D-RAM board for the 8-bit really cost. Nowadays, you can get a megabyte (1 million bytes) for less!

Dynamic RAM is a devil's bargain. All it is is a bunch of, frankly, leaky tanks (techs: capacitors) that hold electricity. You write into them, and they're filled with electricity,

whose only goal in life is to leak away. They leak away unless you pour in more electricity many, many times per second. This pouring in is called "Dynamic RAM refresh." If I recall correctly, about 18 times per second is pretty good. (Some people refresh less to not slow down their computer as much, which is dangerous). In order to refresh RAM, you have to access it, which sort of forces the RAM chip to replenish the tank.

(As you can see, I am translating a great many technical concepts into English here...)

This means you have to access a LOT of memory very often to keep it from dropping data. And if you have four megabytes of memory, that is no joke; refresh can positively kill performance of a machine. Fortunately, RAM designers have come up with ways where accessing one memory cell can refresh a whole bunch of them, but that access still has to happen.

It's cast in concrete. If your ST (or virtually any other modern computer) stops refreshing its D-RAM, it gets amnesia; its memory dribbles away. Even sitting idle, at a desktop, the ST is struggling not to lose its memory. As memory upgraders can tell you, sometimes it doesn't succeed—and it only takes 1 bit or so out of the 12 million bits in your computer (4 megabytes X 8 bits per byte) to cause a system crash.

Unfortunately, during "D-RAM refresh," *the memory being refreshed CANNOT be accessed!* Now think back to our monitor, scanning away. If we can't get to the video RAM because it's being refreshed (for its own good, admittedly), the monitor will display a blank white or whatever old, wrong information it has. This makes a mess of your display and temper. This is a BIG problem for computer designers.

Side note: You Z-80 processor users: If you want the ultimate in copy protection zap schemes, try this. Your "I" register controls

dynamic RAM refresh. Kill interrupts, and sit in a loop stuffing any constant value into the "I" register. Your dynamic RAM will stop refreshing!! This is a rather secret trick of some Z-80 gurus I know and thought I would pass on.

Hopefully by now you've forgiven your ST for a few crashes. Anything trying to juggle 12 million bits while dropping none deserves to be able to make a few mistakes. And now you know why memory upgrades are approached with such fear and trembling by designers, and why the instructions for adding RAM specify how very careful you must be; the slightest mistake, and you start getting D-RAM "hits" or errors, and there goes your computer's reliability. Computer designers have to go through incredible amounts of nonsense to get D-RAM up, and then through far more to make sure it is *reliable*. I know; there are eight megabytes of RAM on our 68030 accelerator.

To quickly rattle off some D-RAM nonsense—you must put a capacitor, a small storage tank, near every RAM chip; it is vital. I mean *close*, not two inches away. Otherwise, when the D-RAM requests power to replenish itself, it temporarily drains *its tiny section of the circuit board*, runs dry, and your data dies. D-RAM's also need "anti-ringing" measures; when a D-RAM outputs data, it does it in a way that causes the whole wire to "gong" like a bell. This plays merry hell with the other chips, who are looking for a solid, consistent value. And did I mention that plain ol' cosmic rays hit D-RAM and cause it to change whatever is inside it? Up here in Denver, a mile higher (and thus with less atmosphere to block cosmic rays), we have a measurably higher loss-of-data rate in D-RAM from cosmic rays.

And my favorite ... after you have read something out of D-RAM, the tanks that hold the electricity are depleted. You must let them rest a tad, and recharge, before working with them again. This

means everything comes to a stop until the D-RAM wakes back up. (This is called "pre-charge"). This has the effect of slowing down the computer overall; when the main processor asks to use memory, and it cannot because of pre-charge or refresh, it twiddles its thumbs for a clock cycle (a clock cycle is one of those "8 Mhz," or eight million per second, things that the ST's speed is set at. MegaHertz used to be called MegaCycle, which is a lot more clear, but someone wanted to memorialize Hertz, so...)

Wait States

This thumb twiddling is called a "wait state." Obviously, the less you have to wait on memory, the better, so that's why you often see "Zero Wait States" in computer advertisements; they're telling you that their memory setup doesn't ever require the CPU to wait.

The only good side to all this hassle with D-RAM chips is that they are *cheap*. If you can manage to tolerate all their idiosyncracies with your design, your computer will cost far, far less than with a static RAM computer. D-RAM is now incredibly cheap, and will continue to be used for the foreseeable future. Already, we are seeing *four* megabytes per SIMM module, at prices that are getting tolerable; these are used, for instance, on the TT for fastRAM, where you have four SIMM sockets. Plug in four one-megabyte SIMMs, and you have four megabytes of memory; plug in four 4-megabyte SIMMS, and you have a whopping 16 megabytes of memory!

I personally believe that while Static RAM has its place, the incredibly low price of gobs of dynamic RAM make it very appealing. I have used both in various projects, by the way.

All RAM is rated for speed. The speed rating is in nanoseconds (believe it or not, *billionths* of a second), and is sort of hard to tie to CPU speed because of all the other factors involved. An example of

speed rating is "80 nanosecond RAM" (highly common). One common misconception is that putting in faster RAM will make your system run faster. Right now, a stock ST is using RAM as fast as its CPU can manage; if you put in faster RAM, the CPU can't get to it any faster anyway, and thus it's wasted. It's like putting a bigger dishwasher in a house with five dishes—the extra capacity goes unused. In computers, as with all else, "Speed Costs Money—How Fast Do You Want To Go?" Using expensive fast RAM when it does no good is pointless, and believe me, RAM can get *very* expensive.

Shifter, MMU, DMA, and D-RAM Refresh

When the designers sat down with their Jolt Colas to design the ST, they had all these problems in mind. They had to have lots of RAM. They had to refresh it. They had to shove out an incredible 2.24 megabytes per second to do decent video. They wanted fast disk access, where the disk could directly load to RAM.

So, they pulled a variation of the old Apple][trick that Steve Wozniak (co-founder, Apple) came up with. It is pure genius.

As I said, memory is rated in speed. You can think of it in nanoseconds, or in number of times per second. What Atari did was put 16 Megahertz (16 million per second) RAM into the ST, and split its function, dead even, between CPU/68000 and video, giving 8 Mhz to each. This is a tremendous amount of access power to give to video, but as we've seen, the ST needs it to keep that image up there on the monitor.

Thus, the CPU in the ST can run full speed at eight Mhz, and the video can run full speed at eight Mhz, and they don't fight with each other. (quibble: They conflict a little bit, but the 68000's internal timing works out incredibly well for this setup.) Basically, the memory alternates between the 68000 CPU and

the video, giving 68000 odd numbered cycles and video even-numbered cycles.

On video, the video chip, with the aid of various other chips (the Memory Management Unit, or MMU, which is *not* the same as a 68030 MMU, by the way), grabs some memory and stuffs it into the "shifter." The shifter is one of the big, custom chips on the ST. It's called the shifter because it takes this video data, in the form of 16 dots/pixels, and one by one, "shifts" them out into the monitor. (The shifting is something like a row of 16 seated people standing up and moving one chair to the right, with the lastmost person going out the door).

On 68000, the memory is used for many and varied functions—storing programs, data, video, sound, and whatnot.

In the meantime, the MMU is busy refreshing the dynamic RAM chips. I believe that because video is constantly being sent out of the 32K video RAM, most refresh is taken care of automatically, since that video access "counts" as a refresh access.

Neat, huh? The designers made the disadvantages of the design need help each other. For instance, even though video is an immense strain on the ST, it helps refresh memory! Back when the ST was designed, the 68000 usually ran at 8 Mhz, so the designers took the times when the 68000 was not fast enough to use memory, and gave them to video. Video got the priority it needed to keep up with the monitor, and the CPU wasn't interfered. As I said, it was a very good design.

Atari put the design into custom chips (which are very expensive to design and lay out, but once done, inexpensive to make), and started cranking out ST's. At some point, the cost of making the chips was overcome and Atari started making serious money.

By the way, the Atari 8-bit machine didn't share all this design.

In the Atari 8-bit, video fought with the CPU for memory, and *Video Always Wins*—it has to. The video monitor does not wait for the computer; there's an electron beam flying along, whereas the CPU can "wait state" with no sweat. Remember on the Atari 8-bit where turning graphics 8 (intense video) on would slow the machine down appreciably? Remember where

The big fight in the ST isn't over the CPU at all. The contention is over memory!

programs that needed to seriously number crunch would click off the video to gain 30% in speed? This is called "video contention."

So, you see, the big fight in the ST isn't over the CPU at all. The contention is over *memory*!

Enter the accelerators.

Accelerators

One day, someone got a bright idea, and stuck a 16-Mhz 68000 into the Atari ST. They then changed the "clock" (which throttles the chip) from 8 Mhz to 16 Mhz, and confidently expected the speed to increase.

The experiment flopped. There was maybe a 10% increase in speed—and they were expecting a near doubling in speed.

What happened? You can guess from the above: video contention.

You see, a 68000 works by "fetching" instructions from memory, and executing them. Now at 8 Mhz, the 68000 rarely noticed video. Mostly, video and the 68000 stayed out of each other's way. But not so with a 16 Mhz 68000! That CPU could hog memory all by itself.

The ST's video circuit, faced with this threat, calmly shut off (wait-stated) the 68000 whenever it needed memory. *Video Gets Priority*, always. So the "advantage" of going to 16 Mhz was largely

negated, because the 68000 couldn't get any new instructions to execute—and the 16 Mhz 68000 spent a long time wait-stated.

It was the video memory bottleneck. Frankly, if you want something to look at on your TV, you have to give up 8 mhz of your memory to video. There's no way we could ever find of shutting down video, or making its load less onerous to the ST. Atari's custom chips cannot be changed, and it's extremely difficult to even intercept wires heading for them to alter functions. The GLUE and MMU chips are out there stuffing video to the shifter, and they don't care that they are getting in our way. And, of course, they get priority.

Cached Accelerators

The next big step in acceleration came with "cached accelerators." A cache isn't hard to explain. First off, let's call this video memory "ST RAM" from now on, ok? It'll help later when we get into a new type of RAM.

A cache works by lowering the number of times the 68000 processor has to go to ST RAM (and thus be forced to wait by the video guardians). It is a small, usually 16K, Static RAM memory chip; yes, that means it is expensive. It works because most programs tend to execute the same instructions over and over again.

For instance, let's say we're trying to clear the ST screen. This is a matter of writing 32,000 bytes to video RAM that represent white dots. If your program is in ST RAM, and we're trying to run at 16 Mhz, it'll have to wait for each new instruction as it does this:

```
Place = 1
LOOP: Put white into Place
Add 1 to Place
If Place = 32000 we are done
Otherwise Go To Loop
```

Hence, there's plenty of waiting, even though it's the same instructions being executed over and over.

In a cache system, anytime you read (or write) ST RAM, the place you worked with in ST RAM and the value you read/wrote is recorded in cache RAM. (Naturally, since you have 4,000,000 bytes of ST RAM and 16,000 of cache RAM, the cache cannot remember every one!) So the cache usually works on a last-access basis; whenever you load a new place and value into the cache, the one that was accessed the longest ago is removed from the cache.

Now, as we fetch the instructions for this loop, they are slowly fetched from ST RAM, and also loaded into the cache. The cache now "knows" what values are in this program's memory location. When we go through the loop again, and the 68000 asks for the next instruction, the cache steps in and says, "Just one moment; you don't need to go wait on ST memory. I have the bytes you need right here." The 68000 gratefully

accepts the bytes, *and doesn't have to wait on ST RAM* (except for the write to video RAM).

Caches can be good or bad; it really all depends on the program they are working with. If it has loops, where the cache can "load up" the loop and supply it to the 68000 over and over, that's great! If the program jumps around all over, though, the cache really never gets an opportunity to help; it can only store the last 16,000 memory accesses, and while that may seem like a lot, remember, this is a machine hitting memory millions of times per second.

I own an IBM clone computer, and it's an 8 Mhz machine, just like the ST. I bought a 16 Mhz 80386 accelerator for it, with a 16K cache. I've found while using it (for instance, to write articles) that some things are sped up, and others are not. For instance, small, fast, tiny loops really zing along. Big programs don't seem to benefit much.

The benchmarks say that the machine is 17 times as fast as it used to be. That's ridiculous; there's no way it is. However, benchmarks ARE small, fast loops, and the cache works well with it. Remember, for a cache to work, you've got to re-run the same code over and over, and without too much work inbetween re-runs, or the cache is filled full of other data. Any old memory access of the ST kicks out the last thing loaded into the cache.

I have also used a true 16 Mhz 80386 computer, no cache, where memory was not strangling the processor to 8 Mhz. It flew in everything it did, not just small, tight loops. The screen scrolled so fast on a "DIR"ectory command I couldn't read it! My clone never does that. It's just a much higher performance machine.

Next month: The philosophy and design behind the 68030 SST Board.

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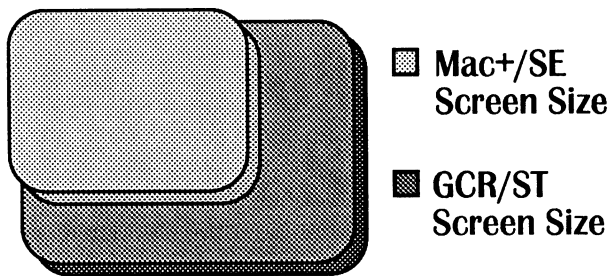
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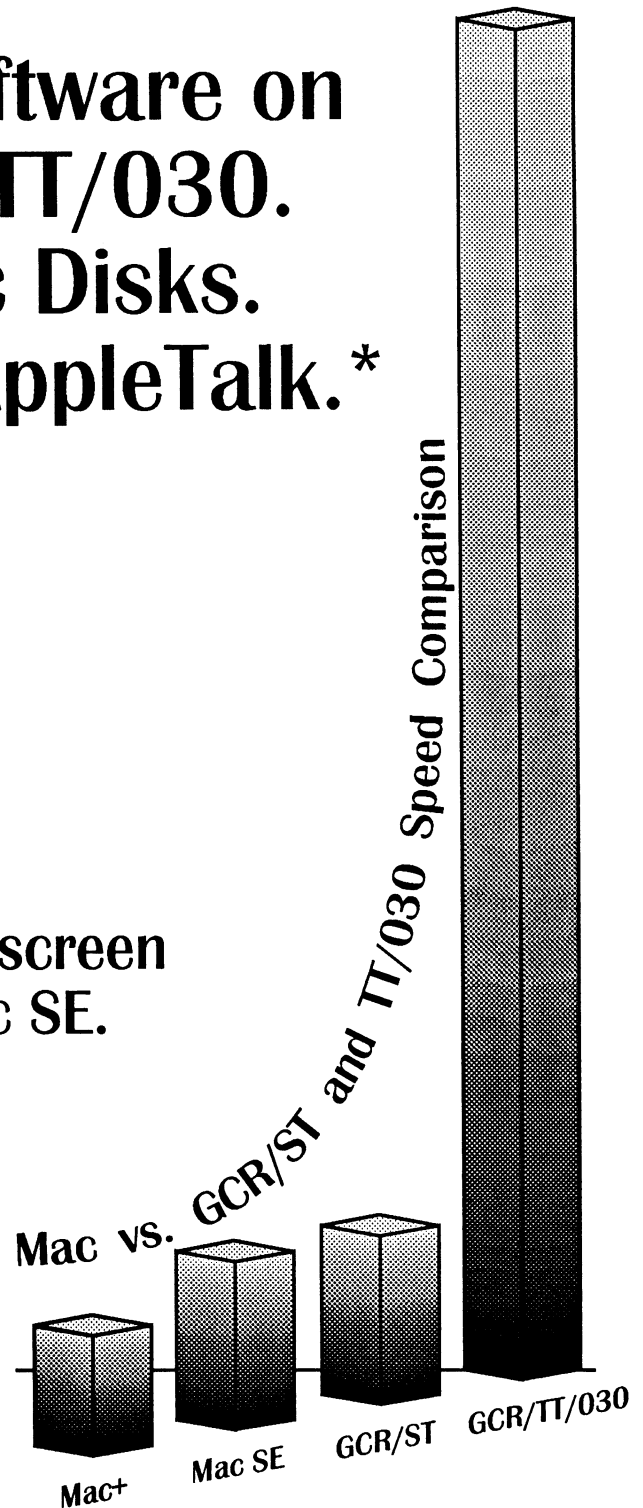
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STARTING BLOCK

by Richard Gunter

Hotwiring Your ST: Part II



This column continues last month's theme: using CodeHead Software's *HotWire*. In case you came in late, *HotWire* is an alternative to the Atari desktop, based on menus instead of the desktop metaphor. This column assumes you're familiar with the last one, so you may want to pick up a copy of the January/February 1991 issue.

For the record, notes for these tutorials were prepared using *HotWire* Version 2.3 and *MaxiFile* Version 2.0. Earlier or later versions may work a little differently, and later versions always have new features.

More on Chaining

My Main Menu is a bit different this time, to illustrate a slightly more elaborate chaining example. To the right of the mouse pointer in the illustration (a bit above center) you'll find three entries having outlined arrows at the left of each line. The ones on *VIP Professional* and *Phasar* entries point down, while *Phasar Tax Module* has an upward pointing arrow. *VIP* is the head of the chain and *Phasar Tax Module* is at the end.

This chain represents a loop. After *VIP Professional* runs, *Phasar* starts automatically. Next, *Phasar Tax* is initiated, followed by *VIP Professional*. This sequence can be started with any of the three programs. To break out, press SHIFT-UNDO as you leave a program.

If *Phasar's* menu entry were given an upward arrow, the loop would work a little differently; I could begin with *Phasar Tax Module*, which would be followed by *VIP*, and then *Phasar* and *VIP* would alternate.

Add or delete the chain control arrows by editing each program's menu entry (*HotWire's* Options menu). CONTROL-A adds an up arrow and CONTROL-B adds a down arrow. Naturally, the program entries in a chain have to be contiguous in the menu.

Hot Documents

With the standard Atari desktop, it's possible to "install" an application. This allows you to double-click on a data file in order to run a particular application and pass it the name of that data file. Unfortunately, Atari didn't implement this feature in a very complete manner. It's possible to manually edit a DESKTOP.INF file

to make this work better—a risky proposition if you don't know exactly what you're doing. *HotWire* has a feature supporting the same sort of thing, with no risk.

The *HotWire* Options menu has a line labelled "Documents" and contains four empty 3-character slots. In these you can type the file extenders that you want associated with an application. Naturally, this only works with applications that will accept a file name when they start up, and only when *HotWire* is running and that menu is loaded. The "Hot" button next to the "Documents" title is a toggle that allows you to select either of two methods for passing the file name. (Check the *HotWire* manual for details).

There are only four slots for specifying file extenders and wild cards ("?" and "*") are not supported. I've mentioned this to Charles Johnson, and he's considering adding wild card support for a future update. No promises, of course...

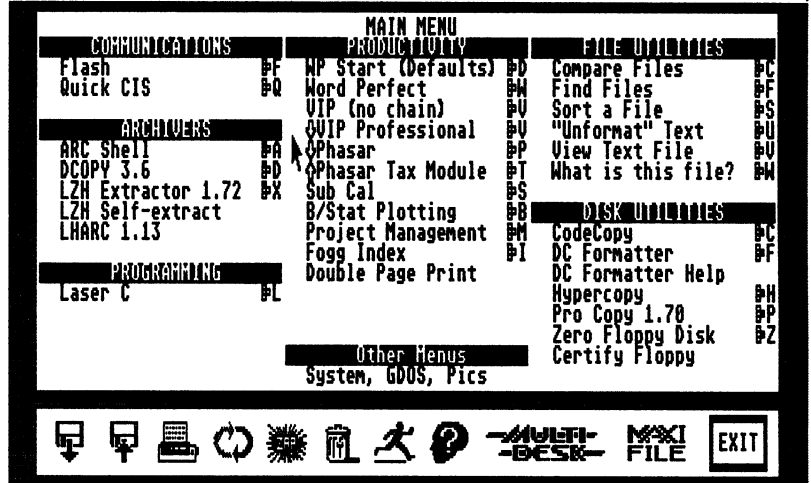
The Running Man

The running man icon at the bottom of the menu supports "running" a document. To do so, use a right-click of the mouse to bring up the file selector. Find the document and select it. *HotWire* figures out what application should process that file extender, and off you go. Left-clicking on the running man allows you to run any program via the file selector.

A word of caution: *HotWire* 2.3 will allow you to specify the same file extender for multiple applications. The FIRST of these found will determine the application actually run.

Desk File Edit Configure Options

7:28:06 {



The Info Box

The Info box is displayed from the *HotWire* menu by clicking on the "head" icon or the first entry in the "Desk" menu. It shows free RAM, the current date, which menu is loaded, and what program is to be autostarted. It also allows you to adjust a couple of *HotWire* delay parameters that I've never messed with.

Multiple Menus

Last time, I suggested that you set up your menus in a separate folder and use the HOTWIREn.HOT notation for their names. Here's why. If you make HOTWIRE0.HOT the name of your main menu, it will be the first one loaded when *HotWire* runs. On the numeric keypad to the right of the keyboard, pressing a "1" will cause *HotWire* to instantly load the menu named HOTWIRE1.HOT. Pressing "0" on the keypad brings you back to your main menu. Holding down the CONTROL key while pressing a number is a fast way of saving the menu when you've changed it.

Using the keypad makes for a very fast and efficient method of switching around among multiple menus. In addition, you can (as I did), make an entry on one menu that points to another, and use either a hotkey or a mouse click to get to it.

Combining these techniques, you can design and use a very complicated family of menus—even a hierarchy, where subordinate menus are reached by mouse click and the keypad is used to return to the top level of the structure.

Hotwire and MaxiFile

HotWire contains built-in interfaces with *MultiDesk* and *MaxiFile*. Of the two, I only use *MaxiFile*. The interface is more than just a button; *HotWire* and *MaxiFile* actually communicate in a rather neat way. From *MaxiFile*'s file display, you can double-click on a program to run it, or double-click on a data file to run the application associated with it in the *HotWire* menu. When the application finishes, you'll return to the *MaxiFile* display you began with.

At this writing, there's a slight glitch in running from *MaxiFile*; some of the options specified in the *HotWire* menu aren't effective. In particular, if you normally have the corner clock enabled, but suppressed via the Options menu for a particular application, *MaxiFile* won't pick that up. Pressing CONTROL-LEFT SHIFT-ALTERNATE-PLUS ("+" from the main section of the keyboard) prior to running the application will toggle the clock off. I've mentioned this to Charles, and he's looking into it.

The Clock

HotWire's corner clock is one of its neater features. This thing unobtrusively replaces the clock/alarm accessory I used to use, and CodeHead's own upper/lower case indicator. (Poof go two slot-eating desk accessories).

The clock can be set to show date or the time of day and, optionally, the case indicator. It also allows both one time and repeating alarm settings. Repeating alarms can be set to go off daily, weekly, or monthly. And it has a snooze feature.

Other Stuff


There are lots of other features that I don't have time to discuss, or that I don't know enough about; among them ledgering (which allows you to accumulate statistics about system usage), "work" files, and environment variable support.

Putting It All to Work

Even though I've tried to stick to the basics of *HotWire*, we've crawled through quite a bit of detail. Seen all at once, it may make using *HotWire* seem a little intimidating to some people. Believe me, it really isn't as complicated as I may have made it appear. Take things slow and easy and don't try to do too much all at once; you'll be all right.

Start off with a simple menu that runs the applications you use most frequently. Use the Running Man icon to get to the others for a while. Don't try to dress up your menu too much until you're comfortable with the editing functions. Group your applications in blocks that naturally seem to go together, and use key combinations that are easy to remember for each group. As you become more comfortable with *HotWire* and the menus you've built, you can try more exotic variations and features.

I've only recently expanded to two menus, and I'm still tinkering with them. Even with the rather simple-minded setup I have, *HotWire* has made using my Atari easier than before (and it was already nice). It really hurts me to go to work and put up with those "other" machines. Till next time...

		Version 2.3
By Charles F. Johnson & John Eidsvoog Copyright © 1989, 90 CodeHead Software All Rights Reserved.		
Free RAM: 1,422,946		
Sunday, February 3, 1991		
HOT File: HOTWIRE1.HOT		
Astorun Prg: Word Perfect		
Richard A. Gunter		
Autostart Delay: 05	Alert Box Delay: 03	OK



*Hoping for an early end
to Persian Gulf
hostilities and the safe
and speedy return of all
Desert Storm personnel.*



The Junkyard Pussycat

by John Barnes

Online on CompuServe

On what he hopes will be the final leg of his journey through the online information services, the Junkyard Pussycat sniffed around in CompuServe. The visit was somewhat nostalgic, as CIS (or CI\$ as some prefer to call it) was the first of these services that the Pussycat visited back in his 8-bit days. The downloads from that service started many a user group in the library business.

CompuServe may be the largest of the online services, although Prodigy may be giving it a run for its money. A sampling of the number of people who logged on one Friday evening and Saturday morning revealed fairly heavy traffic. By other measures, however, such as the number of messages and files, the CIS Atari forums suffer in comparison with those on GENie.

The High Priced Spread

At \$12.80 per hour (\$12.50 for connect time plus \$.30 for Network charges) for 1200 or 2400 baud, CompuServe definitely gets a premium price. Of course, there are places from which it is expensive to log on to other services because of long distance charges. In such cases, CompuServe may well represent the best cure for cabin fever.

As in all matters of religion, there are users who would rather fight than switch. There is another group who will roam every service they can lay their hands on, and it is amazing how often the same names turn up on all three services (CIS, GENie, and Delphi). Some of these people are also heavy hitters on Usenet and Internet, and one wonders where they find the time for all of this.

Getting Started

The easiest way to get onto CompuServe is through one of the starter packs that comes with a modem. There will usually be a list of phone numbers and an account number that will entitle the user to an hour or so of free time. A few days after registering as a permanent user CIS sends a permanent password in the mail. If you did not receive one of these with your modem purchase, check with one of the people on your local BBS, as they may be aware of special offers that come along from time to time.

The CompuServe people are very security conscious, so they assign an account number of the form 7nnnn,mmmm and a lengthy password containing at least one non-alphabetic character. The Pussycat has to confess that one of the reasons that he used the service so infrequently was an inability to keep track of the account number and password.

Flash, *Interlink*, *STalker* or almost any other terminal program with decent capture capabilities is an adequate tool for accessing CompuServe. James Ness' *QuickCIS* program, as will be shown later, is not a tool for novice CIS users.

The network tries to accommodate new users by offering a practice forum (GO PRACTICE), which is useful for trying out some of the commands and getting a feel for the structure of forums in general.

Various instructional guides or how-to books can be ordered (at fairly stiff prices). While the online help is a big plus, other users may feel a need to do some serious reading of the manuals. The user command interface is anything but transparent.

Subscribers receive an attractive (and, in the Pussycat's opinion, moderately interesting) monthly magazine which tries hard to entice users into areas that they might not otherwise frequent. CompuServe's repertory of services and products is indeed bewildering, so that an illustrated guide is occasionally helpful.

The User Interface

Any service that is as comprehensive as CompuServe is bound to require some learning on the part of the user. Context-sensitive HELP is only a "?" away from most prompts. The command repertoire is extensive. There are some terse command summaries available, and beginners will find it useful to keep, save, and edit their capture buffers for future reference.

The complexity of the command structure has become such a problem that the better online services are now trying to shift some of the load into the user's own machine. Prodigy is famous for this, and GENie has *ST Aladdin*. James Ness, one of the CIS sysops, has written a freeware program named *QuickCIS*, which is touted as an aid to interacting with CompuServe. There are many reasons why *QuickCis* is not nearly as useful as GENie's *ST Aladdin* for this purpose.

First of all, *QuickCIS* forces the user to supply obscure typed-in command strings. Errors in these strings will cause the program to act unpredictably.

The screen snapshot illustrates some of these problems. This is a view of the form that the user must fill out in order to configure *QuickCIS* to make a normal call. Note the cryptic command line describing how the message bases should be read. The approach to interaction with the library is also highly stylized.

QuickCIS is a poor terminal program. It lacks a capture feature, which makes it quite difficult to diagnose problems in the script that the program concocts for a session.

QuickCIS's mail editor is simply dreadful. It seems to be entirely line-oriented, making negligible use of the mouse or the arrow keys, and there is no way to import text files from another editor.

Experienced habitués of Compuserve might find *QuickCIS* useful, but the Pussycat eventually decided to trust his own instincts and old reliable *Flash*. At least *Flash's* capture buffer allowed him to see what was happening. Old hands have built *Flash* script files that allow substantial automation of their terminal sessions.

Mac and IBM users have alternatives available in the form of *Navigator* (for the Mac) and *CIM* (*Compuserve Information Manager*) for both the Mac and IBM and *TAPCIS* for MS-DOS. These are rather expensive payware programs and *Navigator* may not work under Spectre GCR. A review of *CIM* for the Mac in the February '91 issue of *MacUser* has certainly turned off the Pussycat.

CIS (at least on the Pussycat's local node) seemed more responsive than GENie and Delphi, with fewer awkward pauses when the user switched to a new activity. At \$12.80 per hour most users would find such pauses painful.

GO ATARINET

The overall umbrella for Atari users on Compuserve is called the "Atari Users Network." It contains four principal forums for Atari users; they are the Atari Arts forum (GO ATARIARTS), the Atari Productivity forum (GO ATARIPRO), the Atari Vendors forum (GO ATARIVEN), and the 8-bit forum (GO ATARI8). An Atari Developers forum (ATARIDEV) is open to registered developers. Each forum has several message threads and a number of library areas.

The message bases use a combination of the "thread" approach used on Delphi and local BBS's and the "topic" approach used on GENie. Proper use of the "SELECT" functions is essential in order to obtain a coherent picture of a conversation. Unfortunately, early

The screenshot shows the 'View/Change QuickCIS Configuration' window. At the top is a menu bar: Desk Misc Configure Call CIS Messages. The main area contains several sections:

- Bps Rate:** A list with options 300, 1200, 2400 (checked), and 9600.
- CIS Mail:** Options 'Store only' (checked), 'Store/Delete', and 'Ignore'.
- News Flash:** Options 'Store' (checked) and 'Ignore'.
- Login Via:** Options 'Default' (checked) and 'LOGIN.SCR'.
- Downloads Via:** Options 'Shadow (CIS B*)', 'XYZ.TTP (Vmodem)' (checked), and 'No Downloading'.
- Modem Init:** A text field containing 'ATZ'.
- Dial:** A text field containing 'ATDT2023883303'.
- Color:** A button.
- CIS User ID:** A text field containing '73030,2302'.
- Password:** A text field containing 'Not Displayed'.
- D/L Path:** A text field containing 'Find'.
- Forum Lib (Age: 2):** A table with columns 'Forum' and 'Lib'. Rows include ATARIART, ATARIPRO, ATARIVEN, and three 'None' entries.
- Read Cmd:** A text field containing 'RM:REA FOR DAYS:1'.
- Current CIS Rates (Per Hour):** A section showing rates for 300bps (\$06.30), 1200bps (\$12.80), 2400bps (\$12.80), and 9600bps (\$37.30). An 'OKAY' button is to the right.

QuickCIS configuration screen.

messages drop off of the threads rather quickly, so that the crucial starting thoughts become inaccessible.

The message bases have a rather chatty flavor, which the Pussycat did not find particularly illuminating. The Pussycat's failure to make better use of *QuickCIS* may also be influencing his thinking on these matters because he finds it hard to browse around.

The File Libraries

The file libraries, on the other hand, seem to have a somewhat more businesslike aura than those on GENie. The Pussycat found a higher percentage of applications, with less emphasis on "for sale" announcements and image files. It appears that the programmers who upload their wares here are pretty serious.

In addition to the usual xmodem, ymodem, and Kermit, CIS has its own file transfer protocol (Compuserve B) that supposedly provides improved error handling, which might be helpful to those with noisy phone lines. The protocol is available to *Flash* users if they set their terminal type to "VIDTEX." CIS does not support the zmodem protocol, which seems to handle the error problem fairly effectively.

The ST file libraries on CIS are somewhat fragmented, as opposed to GENie, where the user can treat the combined libraries as one. The Pussycat downloaded two lists that together contained about 4,000 files. A quick scan of the names and keywords revealed some pretty interesting stuff. Look for the list of file names on an upcoming CN Library disk.

Conferencing

Online chitchat represents bread and butter to the electronic information services. The member directory in each forum can be searched for specific interests. A paging system is available for summoning other users to strike up a conversation.

The Pussycat dropped in on a Thursday evening conference where about 20 people had a nice chat with Bill Rehbock, manager of Technical Services for Atari U.S. This Community Gabfest (the name for this recurring conference series) was a nice, orderly gathering. The same conference on GENie would have been a zoo.

CIS certainly plays up its CB simulator and chat features, so these might be worth a visit. Friends warn that teleconferencing should always be done at 300 baud to keep costs down. A conference visitor will be lucky to get 10 pages of chatter from the usual visit, so do not expect too much in the way of information.

The Activity Level on CIS

Solid numbers are hard to come by, but a couple of peeks at the user log revealed that CIS's Atari forums have a pretty substantial following and that many developers and Atari employees find it worthwhile to drop by. Download counts for the online magazines are lower than elsewhere, which may simply reflect a desire to avoid paying high prices for material that is available elsewhere.

Non-Atari Stuff

Compuserve carries a full line of the usual travel, shopping, news, and financial services. Many of these carry a surcharge and the Pussycat can't get too excited about them. Those who are into this kind of browsing will, however, find plenty to please them.

Thanks, Ron

The Pussycat wishes to express his heartfelt thanks to Ron Luks for arranging for free online time in the Atari forums so that he could mooch around and get a really good picture of the service without having to hock his computer.

The Bottom Line on CIS

With its high prices and cumbersome user interface CIS would never become the Pussycat's first choice for an online service. The Pussycat also finds the message bases too convoluted for easy retrieval of archival information. People who want to reach out to others in the Atari community seem to find the service valuable, as witnessed by the participation of many "names" from the developer community. The file areas appear to be of good quality, so that user group librarians and other serious file collectors might want to keep their oar in on this aspect.

Summarizing the Online Experience

The Pussycat's visits to the three national electronic information services were an interesting tour of part of the Atari world. An anthropologist would be fascinated by the cultural differences. An Atari politician

would find plenty to interest him. In an era in which user groups are falling by the wayside, magazine subscriptions are off, and dealers are finding other ways to earn a livelihood; these services provide sustenance to a clientele that is starved for even the most basic sorts of information and companionship.

The opportunity to query those in the know about technical fine points of upcoming products is very worthwhile as well as interesting.

Unfortunately, the information that is present in the online services is often cluttered up by a lot of opinions and other irrelevancies. The quality depends strongly on contributions from the customers, who are a very diverse bunch indeed.

GENie clearly holds the lead as a source of archival information. Their sysops (also known as the "topic police") are ruthless about keeping the topics on the designated subject. The designated topics are well labelled and easy to find. The information is kept on line long enough so that a coherent story can be gotten if the user is willing to look back far enough in time.

GENie has some 18,000 entries in its file catalog for ST users. This may be an artifact arising from a large number of items of limited interest. But there is a lot of gold among the dross. Keeping up with this file catalog is a "must" for anyone who is serious about finding new software. The file bases on the other services are definitely worth exploring as well. Delphi's 20/20 Advantage plan certainly makes it easy for those who want to fill up their hard drives; it just takes some patience to wait for things to turn up there.

The rate at which hot news files like those from Z-Net and ST Reports are downloaded is one of the few measures of activity that is applicable to all of the services. GENie far outstrips the other services on this basis.

As far as ST users are concerned, the advent of *ST Aladdin* put GENie miles ahead of the other services in terms of user interface.

The users who benefit most from the online services are those who use a discriminating approach to the subject matter. Developers and promoters who need to reach a national audience to boost their products certainly need the services, which cost about as much as a decent magazine ad over a period of a year or so. When the bill starts to mount up toward \$30 per month, it is probably time for a non-commercial user to ask whether the services are really worth a dozen magazine subscriptions or 60 disks from the local PD library.

The Pussycat has walked on the wild side in his tour through the services. He has made some new friends whom he hopes to keep in touch with. Atari users who have not unlimbered a modem might find such tourism a tonic for the winter blahs.

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New Stuff



Did You See Those Fonts?

(c) 1991 David C. Troy

Hi Again

Well, I'm sick. It appears that I have temporarily succumbed to some sort of nasty bronchial affliction, making my head feel like a damaged aqueduct. I took some Alka Seltzer cold medicine, which isn't all that bad to drink when you mix it up with raspberry flavored seltzer water (and when your taste buds aren't functioning.) So if any of this column sounds weird or strangely directed (more than usual), remember, I'm sick.

One quick note. I was looking over the January/February CN with my girlfriend, who is not a computer freak like us, but she does know a lot about the state of the ST and about my writings in *CN*. After reading some articles she said, "Dave, it seems like everyone in *Current Notes* is just trying to console one another." I thought that was a surprisingly accurate observation. As Atari users, we have a heck of a lot of solidarity and a lot of self pity, too. Think about it; about 50% of our time is spent saying, "The Atari can do it, too. It's OK that you bought one—never fear."

Slicctop Revisited

Last time, I went into a rather lengthy review of *Slicctop* and I said I would get back to you when I got my customization disk, that magical thing that contains the multitaskable programs for *Slicctop*. Well, I didn't get a customization disk yet. I sent in my registration card and what I got was the version 1.02 upgrade disk. It has a few enhancements. One is that it supports removable cartridge hard drives (like the Toadfile 44.) It monitors the hard drive to see if the media has been changed. The worst thing about *Slicctop* with removable cartridge drives is that it must be installed on every cartridge that you use. That makes me a little nervous—maybe because I'm just a member of a suspicious and ill-informed populous—but I don't like surrendering control to programs that grab hold of the hard disk in unexplained ways.

The updated version also does what it calls "system monitoring" where it looks to see if programs make illegal changes to vital system memory locations, and if they do, it fixes them. This allows for more compatibility with software. It also does "memory monitoring," a similar process where it checks to see

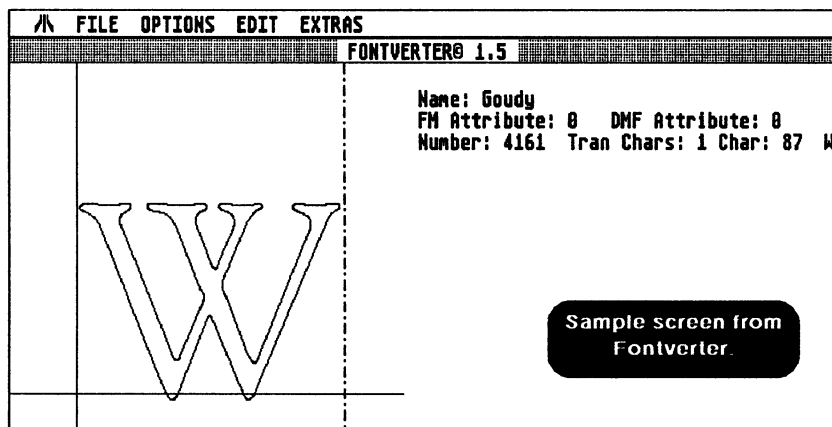
if the main memory configuration has changed without explanation. If so, it reports that fact to the user and you are given the option to reboot if you deem it necessary. This query can be a problem to a novice user because many desk accessories will bring up this question, and how is a novice user (or even some expert user) necessarily going to know to reboot or not? An option to turn this off would be good.

That's basically all that this 1.02 upgrade does for you. The card that comes with the disk says that the customization disk is delayed because many users felt the upgrade disk to be more important. This may very well be true. When I get my customization disk, we'll see how well *Slicctop* really handles multitasking.

Playing with Fonts

I like fonts. They can turn ordinary text into something downright expressive when used properly. Fonts on the ST are OK, except that a large bulk of all available fonts are designed by amateurs, people who just like to make fonts. This means that output from the ST often isn't comparable to output from IBM or Mac platforms, even though the hardware and DTP software are basically equal.

When I heard about *Fontverter*, Don Turnock's amazing program that converts Calamus fonts to Pagestream fonts and vice versa, I thought that it might come in handy. There are some nice fonts for *Calamus* that could be useful in *Pagestream*, and the reverse is true as well. When I looked at the specifications for Barry Parkinson's amazing program *Font Designer Plus*, and I realized it could convert between Postscript Type 1 fonts and Pagestream .DMF format, I really started to drool.



See, the difference between most native Pagestream fonts and Calamus fonts and Postscript Type 1 fonts is that the Postscript fonts are actually good. This means that all of the Postscript Type 1 Fonts files available for the Mac and IBM (and there are zillions of them, both commercial and public domain) can be used on *Pagestream* or *Calamus*, and edited, too. I will now describe my journey from a Mac Type 1 font to a Calamus and Pagesstream font. (See my friendly table for more ideas on what can be converted to what else.)

Starting with a Postscript Type 1 font on the Mac (suppose you have a Spectre GCR), get the file onto an ST disk by using Doug Wheeler's *Transverter* (or a Mac program that will write on DOS disks). Now you've got this file (let's say TIMESROM.PFB—Times Roman, and PFB is the extension for a Type 1 font) and it's essentially a copy of the Mac file on a TOS format disk. Now we have to run the program MACIBM10.PRG. It will read in the Macintized font file and strip off the header junk and leave you with a nice, pure, IBMized encrypted Type 1 font—called TIMESROM.PFZ (it changes the extender just so that you don't overwrite the original). Now we run TYP1CNV.PRG, which will read in TIMESROM.PFZ file and write out TIMESROM.ECF.

ECF (Editable Computer Font) files are the native format for Font Designer. The font can now be edited at will by Font Designer, which seems to me to be one of the best font editors around, utilizing the Postscript commands curveto, moveto, and lineto. With these three commands you can actually define a whole font. I don't want to get real deep into font editing, mainly because Porky Pig is a better artist than I am, and if I were to design a font by hand it would end up looking like a suicide note scrawled on a piece of toast. But if you're good at that sort of thing, this program looks excellent for it.

Using ECF_DMF.PRG, you can go from the ECF format to a Pagestream .DMF file, which is the outline-font format it uses for creating all non-postscript output. With *Font Designer*, you can also create a Postscript Type 3 font from the ECF file, which *Pagestream* will use for Postscript output. Type 3 fonts are known as .PS files under *Pagestream* and are the kind of fonts that are downloaded to a Postscript device at print time and are kept in memory for use in that document. Even *Ultrascript* will accept postscript files utilizing Type 3 fonts.

Running KERN_ECF.PRG will allow you to set kerning values (basically the space between specific characters—A and V need to be squished together in order not to look goofy). It will write its output in the

Conversions Possible With Font Designer Plus & Fontverter

Destination Type:	1	2	3	4	5	6
1. MAC PS Type 1	—	Yes	Yes	Yes	Yes	Yes
2. IBM PS Type 1	No	—	Yes	Yes	Yes	Yes
3. PostScript Type 3	No	No	—	No	No	No
4. Pagestream DMF	No	Yes	Yes	—	Yes	Yes
5. Calamus .CFN	No	Yes	Yes	Yes	—	Yes
6. Font Designer .ECF	No	Yes	Yes	Yes	Yes	—

If a conversion is at all possible with the use of any sequence of programs included with Font Designer Plus and Fontverter, the corresponding space is marked Yes on this chart. Note that not all conversions are possible. The Calamus font used in this table is the Goudy Old Style family, a set of commercial fonts ported over from the Mac with no modification.

form of a Pagestream .FM (font metric) file. After running KERN_ECF, you should be able to use your font in *Pagestream*, provided you have a screen font you can use with that font. You need to either make a new screen font or just reuse another one—simply rename it to match and give it the same font ID number. That's the subject of another article though, or see the one in the February 1990 issue of *ST Informer* which is very good and often a quick reference for me when I'm confused about Pagestream fonts.

Now we can run *Fontverter* and convert the Pagestream font into Calamus font. This is quite simple. Basically, all you have to do is read in the .DMF file, make a couple of little settings, then save the file as a Calamus .CNF file. After that, you must run CALEDIT10.PRG, which will allow you to put the font name into what's called the "Calamus Bitmap," the little nametag for the font that appears in your font selection window. This bitmap won't be as pretty for your converted fonts, because it just uses the ST's character set for that picture, but at least you know what font it is, and the font appears onscreen like any other Calamus font when you actually use it.

Essentially, we're done. There are some other settings you can tweak which will improve the behavior of the font in terms of character spacing. For instance, you can use the Calamus font editor to define each character's "window," by fitting little spacing boundary lines around each character. This makes characters fit together snugly, like they should. For instance, this would automatically bring A and V together because of their complementary shapes. This process isn't absolutely necessary—it just pretties things up.

Caveat Converter

There are some things that you ought to watch out for when converting between Type 1 fonts and other formats. One thing is that I'm having a quite unpredictable time getting one particular font to work as a Type

3 font under *Pagestream* with *Ultrascript*. I don't know if the problem is the font, the conversion process, or *Ultrascript*. When I know more, I will let you know. A couple of fonts didn't want to convert from Type 1 to ECF. They were not especially weird, they just didn't want to convert. Again, I will update y'all with progress on that.

Disorganized Power

If you're thinking "Gee whiz, that's a heck of a lot of programs to have to run to convert just from one format to another," I'm not going to argue with that. I think what's going on here is that Don Turnock wrote some of the programs and Barry Parkinson wrote the others; each have their strengths, but the result is a pretty confusing process, especially for non-die-hard font addicts. I'd be all for a SuperFontverter, which would allow you to pick a source font, of several formats, and then just select what format you want the output to be. Between the two of them, Don and Barry clearly have all the information they need to do this; it's just a question of writing the program and accelerating continental drift, too; Barry lives in England and Don's in Indiana. But heck, this is the information age, and nothing's too good for ST users. Maybe they have modems?!

In terms of power, I give these programs a 10, and I think the future will bring ratings of 12 or more. In terms of user friendliness, I think there's still a ways for them to go. But for a first effort, they're both really great! I should reemphasize that *Font Designer* is excellent by itself as a font editor. My interests are more in font conversion, and for that purpose the user friendliness issue is the only way that the *Fontverter* and *Font Designer* package fall short of excellent.

All for Now

I really ought to go. I'm very ill. I was hoping to get to babble about my TT or Mega STe or SLM605 this time, but none of those things have crossed my threshold yet. I think, according to the Gods, that the sequence will be like this, for me at least: SLM605, TT, then Mega STe. So, maybe I'll get to talk some about those things next time, and if anyone has any questions about font conversion, give me a call or e-mail or something.

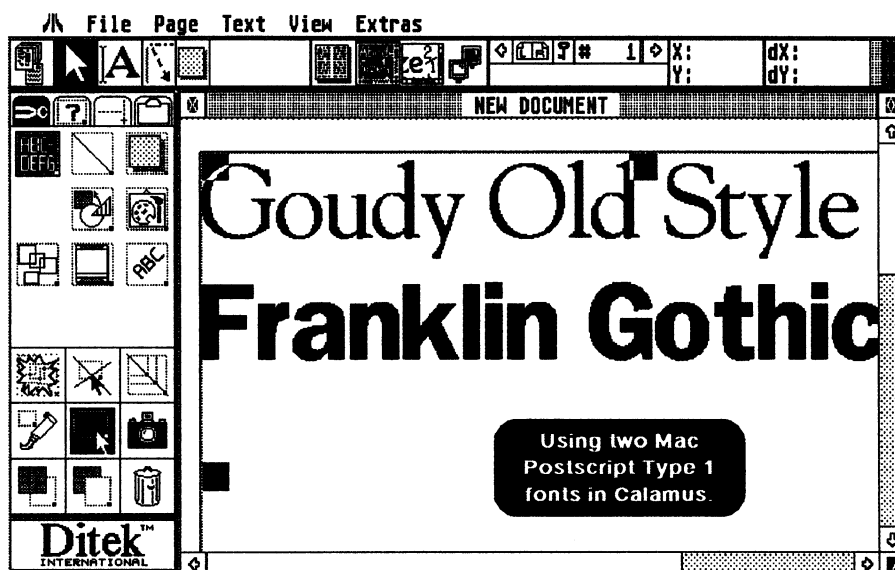
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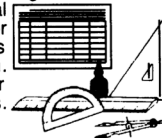
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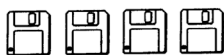
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TANKS A LOT

Three Armored Land-Combat Simulations with All the Thrill of Battle, But None of the Casualties

Review by Mike Heininger (c) 1991

Tank Platoon, Team Yankee, Sherman M4

Awright troops, listen up! The first wave of hostiles passed by us, Atari warriors, but now we got three tough tank simulations, so we can saddle up and kick butt! Any questions? Huh? OK, you got five minutes, Dweeb, to explain how they stack up!

Thanks, Sarge. Well, after a long wait, MicroProse's ambitious *M1 Tank Platoon* and Empire Software's *Team Yankee* appeared in early November to join Loriciel's *Sherman M4* in competing for armored land combat dollars. The trio is just in time for war freaks to get a better vicarious taste of the ugly things that may happen in Kuwait and Iraq now that political maneuvering has escalated into a deadly shooting war.

The three tank simulations share a general foundation concept but then differ considerably in features and applications. *M1 Tank Platoon* and *Team Yankee* simulate modern tank strategy and tactics while *Sherman M4* simulates World War II armor.

Team Yankee Best Mannered

Of the three, *Team Yankee* is the best mannered. The disk is not copy-protected, and the game enabling quiz requires identifying three vehicles from a selection of only eight: four U.S. and four Soviet. Furthermore, when *Team Yankee* loads from hard disk, it automatically goes into low resolution even if you start from medium resolution. Every game should be so pleasant to use.

M1 Tank Platoon, like all MicroProse products, demands a key disk in drive A even if the game is loaded on hard disk. And when sooner or later the key disk goes bad, another customer curses manufacturers who demand such high prices for volatile products.

Sherman M4 is even worse-mannered in that it does not load



on hard disk and also insists that the original disk be loaded in Drive A. Such copy-protected products deserve to be passed over whenever more reasonable competitors have products even close.

Naturally, this attitude requires corresponding concession; namely, do not steal products that are not copy protected by giving unauthorized copies to people who do not pay for their own copies.

Keep the Big Picture

In all three tank simulations, success depends on how well you manage the big picture at all times. You command between four and 16

armored vehicles whose survival depends primarily on how well you deploy all of them throughout battles, no matter how skillfully you operate any one vehicle.

All three have several levels of campaigns and opposition expertise. The two WWII simulations allow promotions of personnel.

For the clearest comparison, let's examine how each simulation handles situations, vehicles, terrain, graphics, sound, controls, unique features, unique problems, practice, campaigns, promotions, hints, and value.

Situation

M1 Tank Platoon is like an advanced course in armored warfare. Like all MicroProse simulations, *M1 Tank Platoon* has a thick manual (202 pages), replete not only with tutorial and operating instructions, but about half devoted to technology and tactics plus equipment and organization.

Team Yankee mimics the book *Team Yankee*, which projects the adventures of a U.S. Army tank unit as it fights a massive Soviet armored thrust through the Fulda Gap in Germany. The 60-page user guide is quick and clean like the software program.

Sherman M4 portrays the U.S. World War II tank mainstay via a pocket-size 26-page handbook. Nothing fancy, but quite effective.

Vehicles

M1 Tank Platoon offers the panoply of modern U.S. and Soviet armor plus a surprise: five types of aircraft! You fight in four M1A1



The SHERMAN M4 is the most famous among allied combat tanks of World War II. Built in huge quantities (48,071 all versions). Its arrival at the El Alamein landing coincided with the downfall of the Afrika Corps and of the armies in general.

Abrams main battle tanks. But battles may also involve the original M1 tank, M60A3 tank, West German Leopard 1 or 2 tanks, M2A1 and M3A1 Bradley fighting vehicles, M113A3 armored personnel carrier, M901A2 anti-tank missile carrier, M163A2 PIVADS anti-aircraft gun carrier, M106A2 mortar carrier, M109A3 self-propelled artillery, and MRLS rocket launcher against five types of Soviet tanks and 15 types of other Soviet armored vehicles. U.S. aircraft are the OH-58D Kiowa scout helicopter, AH-64A Apache attack helicopter, and A-10A Thunderbolt II attack jet; Soviet aircraft are the Mi-24 Hind E attack helicopter and Su-25 Frogfoot attack jet.

Team Yankee features the U.S. M1 Abrams tank, M-113 armored personnel carrier, M-2 Bradley infantry fighting vehicle, M-901 improved TOW vehicle (ITV) versus the Soviet T-62 tank, T-72 tank, BMP-2 infantry fighting vehicle, and BTR-60 armored personnel carrier. You control 16 armored fighting vehicles in four platoons of four each.

Sherman M4 pits the U.S. M4 medium tank, jeep, and halftrack against the German Tiger tank, Jagdpanzer 4 assault cannon /

tankhunter, Sturmgeschutz 3 assault cannon, and Panzer 4 tank. You control four Sherman M4 tanks plus two jeep tag-alongs.

Terrain

All three simulations offer 2D board game overviews and 3D combat over terrain with obstacles. *M1 Tank Platoon* is the only armor simulation offering hills to hide behind in the famous hull-down position.

Graphics

M1 Tank Platoon has MicroProse's familiar angular representations -- you get clear depictions of equipment and explosions, but they are not particularly impressive; neither are the rather bland colors.

Team Yankee is more colorful with better-looking vehicles.

Sherman M4 has some of the best-looking graphics ever. Turret and driver views are very detailed and colorful. Both board and 3D displays are sharp with clear distinctions between colors.

Sound

M1 Tank Platoon has the best sound, with explosions sounding the most like a real tank battle and exploiting TweetyBoard sound augmentation.

The opening theme sounds like a spinoff from *Red Storm Rising*.

Team Yankee sound is stark and does not use TweetyBoard.

Sherman M4 is the only one to attempt tank engine sound, achieving a pleasant business-like purr although it ignores TweetyBoard.

Controls

M1 Tank Platoon offers

the very helpful MicroProse key template because its controls are many and not always intuitive.

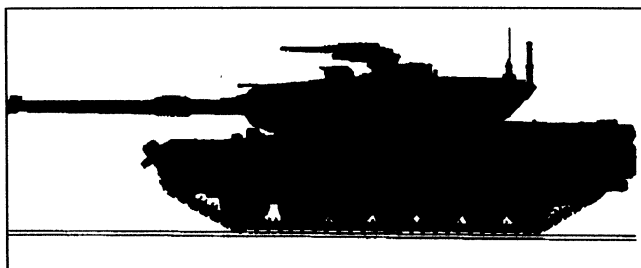
Team Yankee is giddyup--and-go, basically, with the arrow keys, easy and fun to use.

Sherman M4 is fairly intuitive with relatively few commands, most centering on the function keys.

Unique Features

M1 Tank Platoon offers Outside Tank view (so you can view the tank in action from 360 degrees around the tank) and a special Outside Any view (where you can watch the scout helicopter, attack helicopter, or A-10 jet in action, whenever they appear on the map, you cannot fly aircraft, but you can watch from their perspective). There is limited infantry simulation, plus tank smoke grenades and engine exhaust smoke generation. Tank gunnery can become as complex as you want it.

Team Yankee features control of four platoons of four armored vehicles each--total of 16. You will be able to fight mostly in M1 tanks, but also in the M-2 Bradley Infantry Fighting Vehicle, M-901 Improved TOW Vehicle (ITV), or M-113 Armored Personnel Carrier. You can fire TOW missiles from the M-2 or M-901 when they are stationary, but unlike real TOW missiles you don't have to control them for up to 15 seconds because otherwise you would lose too much control of all your other vehicles. Sherman M4 tanks may fire only after they are stopped.



M1 Abrams Main Battle Tank, Fastest, Best Armored Tank Extant with Thermal Gun Sights For Firing Through Smoke and Darkness

Unique Problems

M1 Tank Platoon instructions mention only IBM compatibles, never the Atari ST. Hence, it is very difficult to properly install on a hard

Specifications

Crew	3
Weight (Tonnes)	41
Full Length (cm)	953
Engine Type	Diesel
Road Range (km)	450
Max Speed (km/h)	70
Max Speed (Off-road)	N/A
Frontal Armour (mm)	250
Main Gun	Smooth
Calibre (mm)	125
Maxrate (round/min)	6-8
Effective Range	2000m
Total Rounds	39
HEAT Rounds	Yes
SABOT Rounds	Yes
Anti-Tanks Rounds	No

disk. *Team Yankee* vehicles are armed with an infinite number of machine gun rounds. Artillery may be set up only before a battle, not during.

Sherman M4 talks about being able to hop into the two jeeps accompanying the four Sherman tanks, but this doesn't happen in the Atari ST version.

Only cannons are available, not machineguns.

Practice

M1 Tank Platoon encourages use of a typical tank practice course; this is good advice because gunnery can get quite complicated, depending on how realistically you want to play.

Team Yankee doesn't bother with any practice option—just climb aboard and go fight!

Sherman M4 likewise shuns practice for the real thing.

Campaigns

M1 Tank Platoon offers a multitude of World War III scenarios, claiming that if you played this simulation eight hours a day, it would take about 179 years to

exhaust all the possible battlefields. Because the orders of battle are similarly variable, "it's virtually impossible to fight the same action twice." Gunnery is claimed to be similarly realistic: "Shells and missiles actually fly through the air at realistic speeds with realistic inaccuracies, striking targets or the ground as appropriate."

Team Yankee advises players to read the book, *Team Yankee*, since game action is closely based on battles in the book. Game designers explain, "It may annoy the purist, but when accuracy and game play conflicted, the game always won out. Another important feature is our belief that the player should be able to pick up the game and play without leafing through a 300 page manual."

Sherman M4 offers five levels of three campaigns: the Allied landings at Normandy, the Battle of the Bulge in the Ardennes, and the North African desert battles around El Alamein. For added challenge, some parameters may be modified, e.g., difficulty, enemy, troops.

Promotions

Only *M1 Tank Platoon* defines individual skill ratings for all 16 soldiers in the four tanks. Ranging from inept to superior, these ratings may be raised a notch—and individual performance speeded up accordingly—by judiciously awarding the few promotions available after successful battles. Soldiers also may earn medals regardless of rank.

Team Yankee offers up to eight campaign files to record your character's progress as you try to advance from pfc to captain in five chapters of the campaign.

Hints

In all three tank simulations, be careful to mark where you want artillery to impact before you call it in!



**T-72 Main Battle Tank
With Long Range Fuel Tanks**

Always have your overall board strategy well in mind before hopping into an individual vehicle to fight.

In *M1 Tank Platoon* and *Team Yankee*, always begin your fights in magnified infra red and laser ranging — the first tank to find and fire survives the longest.

In *Sherman M4*, against Tiger tanks dodge and run to attack from the flanks or rear; frontal attacks are suicide.

In all three simulations, concentrate more on overall leadership than individual vehicle fighting. Trust your computer-generated comrades to perform reasonably well, but in *M1 Tank Platoon* remember to order them to fire at will before you do anything else or they may become sitting ducks.

Value

With all three tank simulations listed at the same price, ranking them in order of value is a little easier mathematically but just as difficult philosophically. As with all products, the main question is: What do you need and what do you want?

If you want the most complex simulation with seemingly infinite possibilities, the obvious choice is *M1 Tank Platoon*. Neither of the other two simulations approach its multilayered options or opportunities to complicate your life.

If you want the friendliest game to load and the most intuitive to play, *Team Yankee* wins hands down.

If you want the prettiest graphics in an era before night vision and laser sights, *Sherman M4* stands out.

Ah, you say, but the budget is tight and these purchases must be ranked. You can afford one tank simulation now, maybe another later, and a third much later. Again, the choice depends on what turns you on. Since I prefer a friendly game that is easy to load and easy to play but not likely to become boring, I'd buy *Team Yankee* first, *Sherman M4* second, and *M1 Tank Platoon* third.

All three tank simulations are excellent value in spite of their relatively high game cost. You really can't lose whichever you buy.

All three products are available from dealers (usually at discount) or the manufacturers (all three list prices are \$59.95 each), and all three require at least 512k RAM. Individual specifics follow.

M1 Tank Platoon from Micro-Prose, 180 Lakefront Drive, Hunt Valley, MD 21030; 1-800-879-PLAY; recommend both keyboard and joystick, but can be run entirely from keyboard; copy-protected by key disk; unusual in no separate Atari instructions included.

Team Yankee from Empire Software, 4 The Stannetts, Laindon North Trade Centre, Basildon, Essex SS15 6DJ, England; disk NOT copy-protected; requires color monitor; mouse recommended, but can run on keyboard alone.

Sherman M4 from Loriciel via U.S. Gold Ltd, Units 2/3 Holford Way, Holford, Birmingham B6 7AX, England; copy-protected; runs via keyboard and/or joystick.

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A:DINVOG.DTP	4188	09-24-89	12:42 pm
A:DLETR.DTP	3588	09-24-89	12:43 pm
ENGLAND.DTP	15616	09-24-89	12:41 pm
FRANCE.DTP	15582	09-24-89	12:41 pm
HOLLAND.DTP	15506	09-24-89	12:41 pm
INV:AUST.DTP	4810	09-24-89	12:41 pm
INV:CAND.DTP	4202	09-24-89	12:41 pm
UIS:AD.DTP	66414	09-24-89	12:48 pm
UIS:IIAD.DTP	26220	09-24-89	12:48 pm
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Richard Biow interviews a Font Creator

Cherry
Fonts

FOR U.S. ATARIANS, CANADA IS not just another nation. It's another world, a better world, a more exciting world. For example, in Vancouver alone there are approximately 12 Atari dealers, which is at least a third as many outlets as the Tramiel brothers (Larry, Curley, and Moe) have been able to maintain in the entire 50 States. Another example is ISD Marketing of Markham, Ontario, exclusive representatives in North America of *Calamus*, which is the most solidly professional program you can buy for the ST.

This article was typeset with *Calamus*. The typeface used is Cherry Garamond from Cherry Fonts. This means it is a font drawn by Todd Johnson of Port Coquitlam, British Columbia. Todd's company offers more than 30 fonts for *Calamus*, and he sells them for little more than half the price of the Compu-graphic fonts available from ISD. Their quality matches that of CG fonts, and this is high praise, indeed: Compu-graphic fonts are well-known standards for high quality desktop publishing.

Let's consider type quality. The simplest kind of type is "mono-spaced," where each letter occupies the same amount of space on a line. Courier, originally developed at IBM for typewriters, typifies this font. It's legible, its wide curves resist the tendency to load up with ribbon ink, and it is probably the most common type used for business letters. Its weakness is inherent in mono-spacing—character-groups (words) are not grasped as intuitively as with proportionally-spaced fonts.

Proportionally-spaced fonts allot space according to character width, so that an "m," for example, takes up about three times as much room as an "i." This relationship groups characters more tightly in each separate word; it's more legible than mono-spacing.

Publishing Partner for the ST offers this feature. Almost all the material in this magazine is proportionally spaced.

The next feature in readability is "kerning." This is the intentional crowding of letters into other letters' 'turf,' as with groups such as "To" and "AW." *Automatic* kerning is a feature of top-flight publishing programs like *Calamus*.

Even more sophisticated is the purposeful running together of selected letters. Consider the words, "flexible" and "first." Note how the "f" and the "i" in "flexible" touch one another. Note, too, how this intentional crowding has even caused the "i" to lose its dot in "first." These tight-fitting combinations are called "ligatures." As you can see, Todd's fonts feature these

*"I used to have to
draw my own fonts
because the ones I
wanted or needed
for a certain project
weren't available."*

techniques wherever appropriate. Beyond that lies esthetics; why does one designer's font look better than another's? Why does Garamond, regardless of who issues it, look more classy than the same designer's Times font? The first question is, of course, unanswerable. The answer to the second depends on the purpose of the font's originator. Garamond was *designed* to look elegant. Times (See your daily paper) was designed to squeeze letters as closely together as possible while still remaining legible. It caught on during WW II, when a paper shortage developed, creating a need to use a more

compressed type, in order to save space in periodicals. This font, originally developed for the *London Times* newspaper by Stanley Morrison in 1931, filled the bill; in the U.S., *Time Magazine* adopted the style and made it a print media standard. Unfortunately, many printers misuse Times by printing wide lines of type with it, in which case it looks chunky and irregular.

Garamond, which holds together well regardless of line width, is not a completely new typeface either. It was created during the 15th century and has been greatly modified and subjectively interpreted by typeface designers ever since. In fact, there are many versions of Garamond currently available that were inspired by Claud Garamond's original designs.

Differences in fonts may seem trivial to the average reader but are life-and-death matters for publishers, whose economic survival depends, at least in part, upon making their products as readable as possible. This means that publishers must match type styles to readers' tastes and to subjects addressed. Otherwise, no matter how interesting the content may be, the article or story will be ignored. (Oscar Hammerstein: "There is no limit to the number of people that can stay away from a lousy show." Robert Heinlein: "Nobody has to read your stuff.")

Todd Johnson *tells us* that it takes him up to 200 hours to create a single font. He presently advertises 26 fonts, which multiplies out to 5200 hours, all on his own time, which is enough of a testament to his enthusiasm and motivation to make us want to hear him describe his work:

C.N.: I notice you've come out with your own version of Times. Why did you do so when *Calamus* supplies its own Times on the program disk?

Todd: The "Times 50" that comes

bundled with *Calamus* is not very indicative of what Times should look like. The dimensions and even the proportions of many characters are off. For one thing, each letter is drawn about 10% too large within its M-square.

C.N.: M-square??

Todd: The M-square is the invisible box within which all characters are drawn. If the characters are too high, they intrude visually into the characters above them. And, if they are too wide, they don't make efficient use of space, which is the main function of the Times font. The Calamus Times takes up too much room and, therefore, looks cramped.

C.N.: How really important is kerning? I notice that the proportionally-spaced fonts that Hewlett Packard sells for the DeskJet aren't kerned at all.

Todd: And it shows. Kerning—the selected degree of kerning for each letter pair—is enormously important. I spend a lot of time (and paper) adjusting the character spacing of my fonts.

C.N.: Do you use Calamus's *Font Editor*?

Todd: I use a program called *Genus*, which was developed here in Vancouver by a fellow named Gregg Rodgers. It has just recently been released commercially. I've been beta-testing it for almost two years now. It's a very high resolution piece of software.

C.N. The *Calamus* market is pretty much limited to ST's and STe's with two or more megs of memory. If you are going to create fonts for the ST, why limit your market to *Calamus* users? Why not make them available for other DTP programs for the ST?

Todd: Well, take *Pagestream* as an example. To convert the fonts for use with *Pagestream*, I would have to design a whole set of screen fonts. This is a time consuming process. Rumor has it I might be considering the task though. They are updating their font system, too, which puts us font vendors in a bit of a precarious position. By the way, I think *Calamus* runs fine on one meg systems.

C.N. But are sales of these purely *Calamus* fonts enough to be worth your time?

Todd: Oh, yes! Besides, I'm not drawing fonts as my full-time job. I don't have to make my living from them. This is something I can do for enjoyment. My main income is derived from my job as an engineer in a recording studio.

C.N.: How did you become interested in font design?

Todd: I've had an interest in graphics since long before I bought my ST back in '85. I then used it to draw pictures in *Spectrum 512* and similar programs. Then when desktop publishing and typesetting eventually became available to Atari STs, I became completely enthralled. I used to have to draw my own fonts because the ones I wanted or needed for a certain project weren't available. Lately, though, I've concentrated *entirely* on type; there's only so much time available.

C.N.: One problem with *Calamus* in the U.S. is the difficulty of transferring a file to a really high-resolution professional printer. I understand there are units in use in Canada that will do the transfer, but not in the U.S.

Todd: That's not quite the case. For example, there's Omnicomp in San Francisco who can take a *Calamus* file and print it on a Linotronic Imagesetter. Laser's Edge, here in Vancouver will also accept mailed in disks and send you back your printed page. The beauty of *Calamus* is that it prints very quickly on these machines and there's very little that can actually go wrong with your document. For the \$10 per page or so that it costs to be printed, it can really be worthwhile if you want flawless results.

C.N.: It sounds as if you get the same pleasure out of finishing a font that an artist gets out of finishing a painting.

Todd: <laughing> By the time I finish with a font, I'm so sick of it that I don't want to look at it any more! Seriously, I do enjoy drawing the fonts but it's hard to say when I am actually finished with them; they are constantly being adjusted. I guess I've become too critical.

C.N.: Since you're the expert on visual esthetics here—not me—how about letting me send you this writeup in a *WordPerfect* file. You check it for accuracy, load it into *Calamus*, set it up in your fonts, and then do the actual lay-

out, yourself. After that, you can send the *Calamus* file to (ST editor) Frank Sommers, and he'll do the final editing.

Todd: Fine with me.



A change of plans . . .

After Frank tweaked and approved the final draft of this article, it was returned to Todd who dropped the Calamus file off at Laser's Edge service bureau in Vancouver to be printed on their Linotronic Imagesetter at 1270 dots per inch resolution.

Document specifications:

The body type used for this interview was Cherry Garamond set at 9.7 points with 2 points of leading. The headline is the same font enlarged to 60 points and manually kerned very tightly. Also used for occasional embellishments were Cherry Garamond Italic and Bold.

This sidebar uses Cherry Ice medium and Cherry Ice Bold.

Companies and products mentioned:

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CALAMUS

ISD Marketing, 2651 John St., Unit 3,
Markham Ont., Canada L3R 2W5
(416) 479-1991

PAGESTREAM

Softlogik Corporation, P.O. Box 290070,
St. Louis, MO 63129
(314) 894-0431

GENUS font editor

Gregg Rodgers, 1324 Eastern Drive,
Port Coquitlam, B.C., Canada V3C 2R9
(604) 941-7198

LASER'S EDGE service bureau

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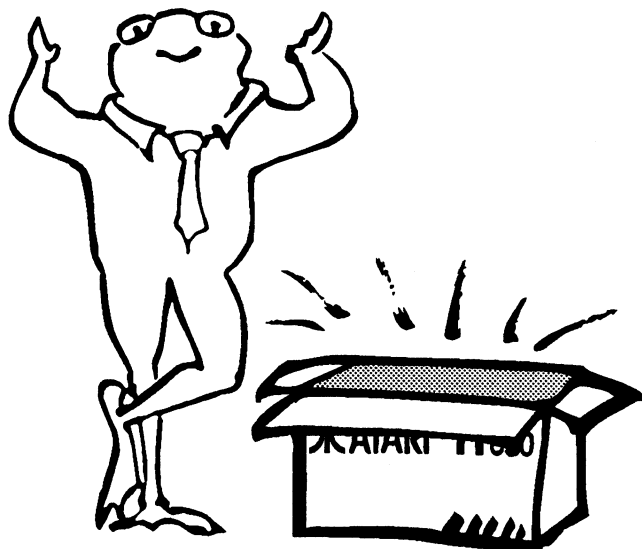
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Dave's Getting Married

In January, Dave Troy, owner of Toad Computers, and Jennifer Rucker of Arnold, Maryland, had the following announcement to make: "We're getting married." That statement was later confirmed with, "Yeah." The wedding is planned for Spring of 1992. While Dave is no longer available, Ray is. All inquiries should be sent to our regular address care of "Department QTPIE."

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he said. Not giving any more clues as to his uncanny ability to always be on the scene of such disasters, Mr. Magnum summed up his experience by saying, "Yeah, well." Mr. Magnum has been mysteriously appearing on the scene of violent crashes of all kinds since June of 1989. No reports of his existence have been confirmed from before that time, which many think odd, considering Magnum's uncanny first-aid abilities. He says, quite vehemently, "I am not a doctor, but I do know what I'm doing." The NTSB spokesman praised Magnum's work as "heroic" and wished "there were more people like T.F. Magnum out there in the world."



T.F. Magnum on the scene of wreck. He called this destruction "preventable," but he's glad he was there to save what he could.

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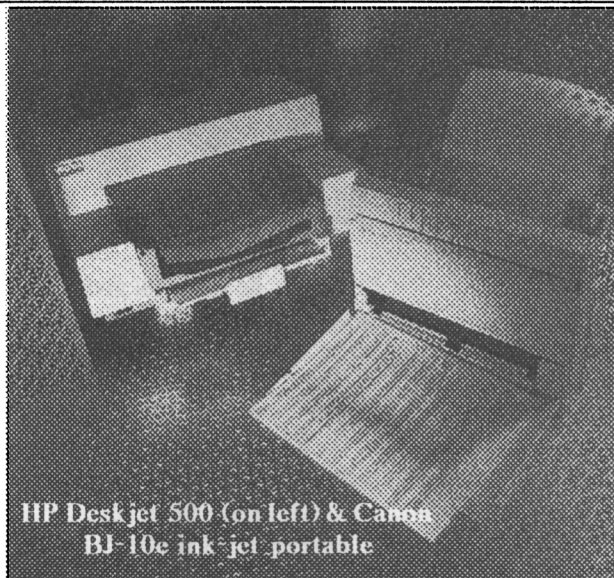
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The Hewlett- Packard Deskjet 500

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Reviewed by Paul R. Pokorski



HP Deskjet 500 (on left) & Canon BJ-10e ink-jet portable

Introduction

In order to obtain better print quality with my desktop publishing efforts, I decided to trade up my Panasonic KXP 1124 dot matrix printer to a brand, new Hewlett Packard Deskjet 500 printer that uses inkjet technology to obtain very high print quality. I was very pleased with the utilitarian capabilities of my KXP 1124 (used for documentation listings, mailing labels, etc.) and its form handling capabilities (push tractor, pull tractor, and sheet feed). However, I envied the outstanding print quality that my friends with laser printers were obtaining. Not being able presently to afford a laser printer, I opted for the next best thing, an HP Deskjet.

General Deskjet 500

The latest incarnation of the Deskjet printer family is called the Deskjet 500. This was preceded by the original or "Classic" Deskjet and the Deskjet Plus. The differences between the earlier Deskjets have to do with progressively better printing speeds, additional internal fonts, lower prices, and also, I assume, greater reliability (the Deskjet 500 has a three year warranty). Furthermore, a new ink cartridge has been made available that features ink that is less apt to smear when subjected to moisture, i.e., water. I had the opportunity of using a Deskjet Plus for a while—the retailer where I had purchased the Deskjet provided me with a loaner because the Deskjet 500's were out of stock—but couldn't really notice a difference in printing speed or print quality when using the printer with Softlogik's *PageStream* version 1.80 or with *Wordperfect ST*.

The HP Deskjet series of printers have really plummeted in terms of price over the past 16 months. I reviewed message threads on the GEnie network

associated with the Deskjet and observed that as recently as May 3, 1989, the Deskjet Plus was selling for approx. \$895 and the "classic" Deskjet for \$699. I purchased my Deskjet 500 from the Computer Factory in Pittsburgh for \$495—an excellent value, in my opinion.

Of course, by selecting an inkjet printer over a laser printer, I had given up a few features, for example, speed. A laser printer is roughly twice as fast as an inkjet printer in printing high-quality text.

Nevertheless, the print quality of the Deskjet *approaches* that of laser printers, although you must be aware of paper quality differences. Cheaper, porous paper will allow the ink to spread slightly, particularly with text. For producing quick and dirty listings, etc., cheaper paper works fine. Just obtain a ream of good laser printer-quality paper for those documents that require high print quality. I've also been using copier-quality paper with excellent results and no ink bleed-through.

I've noticed that, when printing documents that include .IMG, PI3, and other like images, that the ink tends to be rather heavy in FINAL mode on the Deskjet. I tend to print in DRAFT mode until the ink cartridge becomes somewhat expended then set the print mode to FINAL. This is easily done by a switch on the front panel.

The paper handling on the Deskjet is simplicity itself. The paper stacker holds around 100 pages and you can also singly load standard business envelopes.

Installation

Installation and setup of the DJ 500 is remarkably simple—just install the cartridge (being careful to follow HP's installation instructions), establish your parallel port connection, and stack some of your

favorite bond into the paper tray. One caveat: unless a simple printer cable modification is made, one needs to power the printer on BEFORE POWERING ON THE ST/MEGA.

The ST likes to see a 5V signal on pin 1. The Deskjet normally provides this signal on pin 1. However, if the ST is powered up before the Deskjet, the pin 1 signal gets grounded and the printer port on the ST becomes locked up. Then, when the Deskjet IS finally turned on, the printer won't print unless you power everything back off and power the Deskjet on FIRST, then the ST, associated peripherals, etc.

There is a simple fix reported for this problem that has to do with inserting either a PNP transistor or diode on pin 1 of the DB-25 connector. The simple parts list and instructions for doing so are available on the GENie network in the bulletin board area for the ST for one. If you don't have access to GENie, drop me a SASE and I'll forward the instructions to you.

I recently performed the modification to my parallel printer cable using the diode fix without any problems. I obtained the diode, for the cost of a self-addressed stamped envelope (Thanks, again, Joe) from a thoughtful soul on the GENie network who, when purchasing his diode, had to purchase them in a minimum quantity of 50. I merely disassembled the DB-25 connector, clipped the excess wire ends from the diode (with the black, or anode, portion of the diode facing towards the ST), soldered the diode on pin 1, placed some shrink wrap on the exposed wires, and reassembled the DB-25 connector. It worked like a charm!

The only other additional consideration to be aware of is the probable need to reinstall printer drivers for those applications that require them. For example, I had to review my trusty copy of *Wordperfect* to familiarize myself with the printer driver installation routine. Fortunately, the appropriate printer driver is included with *Wordperfect*--not so *EasyDraw*. I had earlier purchased a printer driver for use with *EasyDraw* and my Panasonic KXP 1124 printer. Now, in order to use the program, I need to purchase yet *another* printer driver for the Deskjet. However, many application programs provide either a specific Deskjet printer driver or a printer driver for the Hewlett-Packard Laserjet series which typically works fine with the Deskjet printers.

Ink Tips

The ink cartridges that, incidentally, contain the printhead, are associated with the Deskjet printer family are relatively expensive (\$20 list price). These ink cartridges are typically rated for about 500 pages of printing. Many people have begun refilling these cartridges via a variety of methods, the most popular method being the plotter ink / hypodermic needle

approach. The procedure is fairly simple -- merely place the tip of a hypodermic syringe, or similar device, into a small hole in the top of the ink cartridge and fill until the ink starts to bubble out the hole.

A popular refill ink appears to be Koh-i-Noor Rapidograph 3081-F non-waterproof plotter ink at about \$2.25 per 3/4 oz bottle found at most art supply stores. I recently refilled my cartridge with a small syringe with little difficulty.

The above-mentioned ink comes in a small bottle with a rather narrow spout. Keep this in mind when obtaining your syringes because after you drain the uppermost part of the ink, you will need to either pour the ink into another container or obtain a syringe with either a longer needle or a thinner body.

In all the GENie mail messages, etc. that I've read concerning refilling the Deskjet ink cartridges, no one's ever mentioned whether to take the cartridge out of the printer for refilling or leave it installed. I'd recommend removing the cartridge because of the potential for spills. In fact, keep several napkins/paper towels/rags handy to blot up minor spills, leaks, etc. while performing the injection procedure. You don't want your brand new Deskjet covered with fingerprint imprints, do you?

The number of full syringe loads the Deskjet cartridge can hold, obviously, depends on the size of the syringe in use. I've been using 1 CC syringes and have been able to inject 3 syringe-fuls into the cartridge. When injecting the ink, depress the plunger *slowly* otherwise the ink will bubble out and keep those previously mentioned paper napkins handy to blot up the inevitable ink bubbles.

I'm still developing my technique insofar as re-inking the Deskjet ink cartridges is concerned; it's a learned skill. Nevertheless, the cost savings is certainly there and worth the effort to locate the syringes and ink, inject the ink, et al. I'm still not certain just how long one can refill the same cartridge without encountering problems with clogged ink jet nozzles, but I've already saved the cost of, at least, one ink cartridge.

Labels, Et Al

A very important capability for which I frequently used my Panasonic KXP 1124 printer was to generate various kinds of labels: mailing/address, diskette, and audio cassette. Various sized mailing labels suitable for laser and inkjet printers are readily available from several manufacturers, for example 3M 2 5/8" Laser/Copier Labels (#7730). These labels are available in a plethora of sizes. The above mentioned labels cost around \$20 for approximately 3000 labels. My label printing program, *LabelMaster Elite*, doesn't support the laser or inkjet type of printer; therefore, I have to develop another mechanism. *Wordperfect* should do nicely for casual use.

Two capabilities that I *lost*, migrating to the Deskjet printer, at least on an interim basis, are the ability to print audio cassette labels and 3.5" diskette labels. I've made inroads into solving the diskette label printing requirement by locating Avery 3.5" diskette labels suitable for laser and inkjet-type printers. However, all my old label generating programs are essentially useless for the Deskjet printer. I'm going to write a small C program to generate the diskette labels as soon as I can allocate some free time.

I haven't been able to locate a source for laser/inkjet audio cassette labels, though. I compose and record my own music in my home recording studio and I like to generate professional-looking cassette labels and j-card inserts. If anyone knows of a source for these, please let me know (P.POKORSKI on GEnie or regular mail).

Incidentally, I've been using Chet Walter's *IMAGECAT* program to catalog my clip art with terrific results. At the infamous PACE AtariFest last winter, I browsed a fat binder full of clip art renderings done with *IMAGECAT* and an HP Deskjet printer that was most impressive. Ever since then, I wanted to be able to generate the same type of catalogs. They're really a cinch to create with the help of *IMAGECAT*, a very reasonably-priced program.

I still haven't been able to evaluate the overall boost the Deskjet should, and I'm sure *will*, present to my desktop publishing efforts. The majority of the newsletters and other documents that I have available were created with the help of the Supercharged *EasyDraw* system. As I mentioned before, I don't have a suitable printer driver for *EasyDraw* to use with the Deskjet 500. I purchased *PageStream* at the last PACE show and have toyed around with it, but haven't really produced anything with *PageStream* yet that I feel is exceptional; hence, I must reserve my experiences with DTP and the Deskjet 500 for another time.

Conclusion

I hope I've conveyed some useful information to those who are considering purchasing, or recently purchased, an HP Deskjet printer. The printer is capable of producing excellent quality printed documents of various types, produces very little noise, and has a relatively small footprint. The Deskjet printers certainly complement the Atari ST/Mega computer and are priced very attractively compared to laser printers. I know that laser printers continue to experience impressive decreases in price, but until they're available in the \$400-500 price range, the HP Deskjet printers will remain a solid product with good value at a reasonable price.

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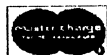
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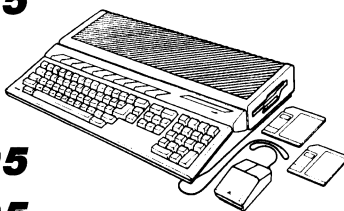
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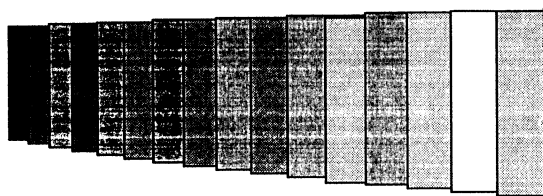
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Cardfile

Order Out of Chaos

Reviewed by Sam Van Wyck

"Good Morning! You have an appointment with your accountant at 9:30. Don't forget that tomorrow you are going to leave your car at the shop. Mr. Smith will be picking you up. I'll call him for you now so you can remind him. Also, your anniversary is next week. You wanted to make reservations for dinner. I'll dial that call when you're ready.

"Here is a list of your afternoon appointments. I've included the name and address of each client along with your descriptive notes about each individual.

"You wanted to contact all of the vendors doing business with our R&D division. I can have all their addresses on mailing labels as soon as you complete the letter so they can go out right away. Or, if you would prefer, I can print each envelope separately.

"Your wife wanted the Christmas Card list. I'll have a printout for you before you're ready to leave tonight.

"Here's your coffee. Have a really nice day!"
(NOTE: Cardfile will not fix your coffee or wish you a good day; not yet, anyway.)

Relief from Chaos

Bringing order out of chaos is a task that, for many of us, borders on the impossible. Pity the distracted, unsystematic person who misses appointments, loses telephone numbers and forgets vitally important dates and anniversaries; whose workspace is reminiscent of a haystack after a tornado; who suffers the scorn of fellow workers; the nagging of a spouse. How often have we (Yes, WE! This writer will freely admit to being a member of this sorry group!) wished for something that would somehow make the mess disappear and the confusion depart. Fellow sufferers, *Be of good cheer!* Relief is just a bootup away.

A Myriad of Functions

While Cardfile serves several purposes, its principal function begins with an address file, similar to the familiar Rolodex. The basic listing contains a number of preset fields into which data are entered. From these "cards," a myriad of additional functions are available.

The Address Cardsach card contains a number of fields for the entry of specific data. Although these are not user-definable, they are quite adequate for normal addresses and mailing list purposes. Considering how well Cardfile does the job it was designed to do, this is hardly a drawback.

The cards serve equally well for business or personal/social use. Lines are provided for company names and the title of the person listed as well as work and home telephone numbers. The name of a spouse may be substituted for the business reference. Two 40-space comment lines are also provided for descriptive notes which may also contain sorting codes.

Once a number of cards are assembled, they may be accessed individually in sequence or via a search function which will utilize both single and multiple criteria. By using data-specific codes when making entries, various categories may easily be extracted.

These might include Christmas card lists, PTA and church membership, politicians and so forth.

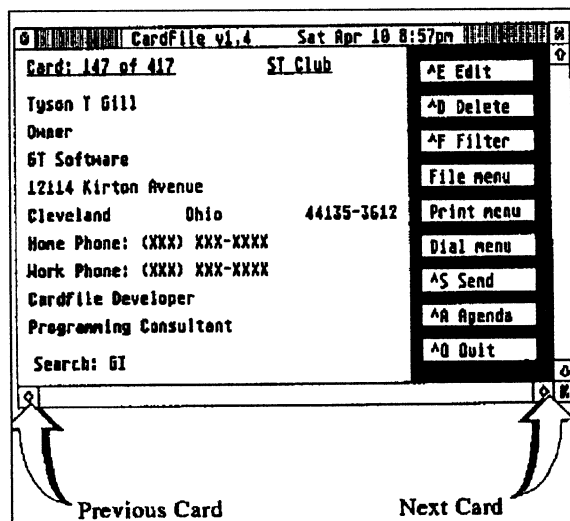
Editing a card is as simple as calling up the entry, activating the edit function either from the keyboard or mouse and making whatever changes are needed.

One of the nicest things about this utility is the ease with which certain tasks may be accomplished. Here is a program that was obviously well tested before it was released. For instance, repetitive entries such as the name

of a city and state or a common business listing may be entered either via a keyboard macro or through the use of a *template card* upon which similar data is preprinted for each entry.

The Telephone Dialer

One of the few pleasant future events depicted in the movie *ALIENS* was the use of a business card to dial a telephone number. The card was inserted into the telephone and the connection was immediately and automatically established. Cardfile can do almost



as well. Any telephone listing can be accessed via modem and a keyboard or mouse command. Want to call Aunt Minnie and wish her a happy birthday? Simply display her filecard and click on Dial Menu and you're on your way. When the ring is heard, an OFF HOOK button disengages the modem while you talk.

A problem was encountered with Version 1 that was first sent for review. Despite doing everything exactly as stated in the manual, the program refused to activate the dialing feature. A call to Mr. Tyson Gill at GT Software resulted in the immediate dispatch of *Cardfile v2.0* in which the problem was corrected.

The Appointment Calendar

Speaking of Aunt Minnie's birthday, *Cardfile* has a calendar function which permits you to log upcoming events and be automatically reminded of them. Calling up the Calendar submenu results in a default display dating back in 1986. Setting the current month is simply a matter of Point-And-Click while the dates scroll by. However, there are two other useful ways to accomplish this. A "Set Clocks" function allows the user to set both the GEMDOS and XBIOS clocks; this without having to have the Atari Control Accessory loaded. Also, if your system has a clock/calendar function installed, the calendar will take its date from this and display the current month with the current date in red, no less.

Double clicking on a date or typing ^A will bring up the Agenda for that day. Here, the time of an appointment may be entered or viewed, along with a description of the event. One very useful feature of the calendar is that it may be used to record both future and past events. In effect, it is similar to a hardcopy appointment book that may be saved for future reference. Events may even be added after the fact. At the end of a year, or other period, the file containing these memos may be removed and archived, keeping the active program area down to a reasonable size. Past agenda may be deleted automatically, if desired.

If you must add more paper to your office clutter, a daily appointment log may be printed via another simple mouse/keyboard command. This feature might be most useful for one whose day begins in the office but continues on the road. Daily printouts may be sequenced to create a longer agenda.

It Prints Labels and Lists, Too!

An address label print menu allows the use of various styles of cut label sheets. The number of labels, size, column definition and so forth are selected from an easy to use menu before beginning the printing operation.

Program or Desk Accessory?

Sure, you can have it your way! While *Cardfile* will run as a stand-alone program, it achieves its full potential as a desk accessory where it begins to approach the level of service offered by an efficient and conscientious secretary.

For instance, when beginning a business letter while using *Wordperfect*, a simple keyboard command to *Cardfile* will send the mailing address to the proper position on the page. If you need to call an associate to obtain information, another keystroke after selecting the appropriate card will dial her business or home phone number for you via modem. Finished with the letter? *Cardfile* will now print the address on an envelope and include your return address as well if you wish. The program is configured for the HP Deskjet but may be modified for other printers as needed.

When booted in desk accessory mode, any current agenda entries will cause a reminder to appear on the desktop. Emphasizing its well tested nature, this reminder appears twice; on the day *before* the appointment as well as on the day itself.

Should you choose to use *Cardfile* as a stand-alone program, these same functions are available. The only disadvantage is that they cannot run simultaneously with another application. Of course, the DA does eat a bit of memory, approximately 145K plus whatever you have in the data file. As a stand-along program, it only debits about 75K from your available RAM.

The Manual Makes It Easy

What would all these features be without a decent set of instructions? *Cardfile's* 60 page instruction manual is remarkable for its content, organization, illustrations and concise summaries of every feature. Does this sound like exaggerated praise? Perhaps, but as an occasional writer of training manuals, technical reports and other foolishness, I shall simply pay the author the highest compliment I know and say "I wish I'd written that!" Even old Komputer Klutz was able to make this one work.

Cardfile 2.0 is the creation of Tyson Gill of GT Software, 12114 Kirton Ave., Cleveland OH 44135-3612. It is available from the author for \$34.95 plus \$2.00 S&H (\$4.00 outside the U.S.). Updates will be sent to registered owners returning the original disk with a self-addressed, stamped disk mailer. A new disk and manual will cost you \$5.00 when the registration page from the old book is included. *Cardfile* functions with both color and mono systems. I like it; I'm using it; I'm *keeping* it and if Frank Sommers wants his disk returned to use at CN, he'll have to wrestle me for it because I'm not sending it back!

Operation Stealth

Under Cover Name: *James Bond--The Stealth Affair*, CIA and the Exclusive "Cinematique" OS, with a "Walkthrough" by Alfred C. Giovetti

Operation Stealth is the second game to be released by Delphine Software to feature the exclusive "Cinematique" operating system. Delphine Software claims to have refined and developed the "Cinematique" operating system since the release of *Future Wars*. *Operation Stealth* is not a sequel to the award winning *Future Wars*. *Operation Stealth* is a graphic animated spy thriller or secret agent adventure game in the best James Bond tradition.

The Atari Controversy

Operation Stealth was released for the Atari ST, Amiga and IBM-PC in conjunction with U.S.Gold for European distribution. Interplay Productions, Inc., the company that brought *Future Wars* to the United States, also picked up the license for the U.S. distribution of the game. Interplay was initially unsatisfied with the condition of the European version of *Operation Stealth*. It repackaged the game for U.S. distribution of the Amiga and IBM versions by obtaining licensing from Danique SA and United Artists Company to use the James Bond name and logo for the reworked game. Interplay then renamed *Operation Stealth* to *James Bond: The Stealth Affair*.

Unfortunately, *James Bond: The Stealth Affair* will not be repackaged for the ST; only for the Amiga and IBM versions of the game. Interplay did not feel that the ST market in the United States warranted printing up ST version box and disk stickers, and an ST system card for the retitled game. Although Delphine Software developed *Stealth* on the ST, Interplay rejects the idea of distributing the game in the U. S. Do not despair. *Stealth* is available domestically from mail order houses advertizing in this magazine that specialize in importing European ST titles. Other than the cosmetic and name changes mentioned above, *Operation Stealth* and *James Bond: The Stealth Affair* are identical.

CIA Thickens the Plot

The *Stealth* story begins in cinematic fashion with the best graphics of the game in a computer animated sequence depicting the theft of the *Stealth* Bomber. The pilot of the *Stealth* Bomber is incapacitated in the centrifuge by the plane's thief, who takes the pilot's clothes. The thief, now fully disguised in the real pilot's flight suit, is driven up to the plane. The thief boards

the plane and takes off for a far off airport somewhere in the world.

Stealth's next screens find John Glames (European version) or James Bond (American version) in the offices of the CIA in Langley, Virginia. John, the CIA agent, or James, the Special Section super-spy of the British Secret Service attached to the CIA for this mission, is being briefed on the facts of the mission, by a CIA operations supervisor.

Before John (James) knows it, he has disembarked from his plane and is standing in the plane arrival area of the Paraguayan Airport under the marshal law of dictator General Manigua.

Stealth has a number of ingenious spy weapons and devices well worthy of any James Bond spy thriller. The secret agent devices include the false attache case, the NTY passport forger, the watch cable, the cutting pen, the recording razor, the safe-cracking box, the cigarette case, rocket launching cigarettes and fingerprint revealing cigarettes. These spy devices are explained fully in the documentation. All of these devices must be used correctly for the successful completion of the game.

Stealth's plot is standard spy fare that you would expect to see in a spy movie. The action gets very camp, as when John (James) goes to a rendezvous with another spy in the park with a red carnation in his button hole. The game involves a lot of dying. Every time you turn around you are either not doing things fast enough or in the right order and you drown or are hauled off by the police. Try giving that customs officer the wrong passport and you will see what I mean. Dying often and easily makes adventure games less believable. You are well advised to save the game, often.

Those Annoying Arcade Sequences

Graphic adventure games seem to be coming out with more and more arcade sequences. *Stealth's* arcade sequences are not necessary to the plot or the story. Arcade sequences, in general, seem to be no more than just challenges of manual interface dexterity. *Stealth's* arcade sequences involve leaving the park before the police arrive, swimming out of a mine cave in, or out of a watery grave, swimming around the sharks while looking for the elusive elastic band,

traversing a maze to the enemy headquarters, quickly blowing up a computer, and disabling a bomb while flying a "lifeboat." The two most important keys for mastering the arcade sequences are the "+" and "-" keys that can be used to speed up or slow down the action. Slowing down the action will make the completion of complex tasks a little easier.

Graphic adventure games also have animated sequences that operate without the game player's intervention. These automated animated sequences are called "cut scenes" by some publishers. *Stealth's* cut scenes are enjoyable and in many cases provide important information for the completion of the game. You are advised to take notes on cut scene narration and dialogue. Due to the nature of the die-save-reboot routine in many graphic adventure games, repeated viewings of cut scenes is very boring and tedious. *Stealth's* cut scenes cannot be bypassed or turned off. While playing the game you are forced to watch the cut scenes over and over again.

Good Graphics or Good Taste?

Stealth's predecessor, *Future Wars*, was universally applauded for the beauty of its graphic and animation art. The screen art in *Future Wars* is some of the best computer art there is. Many people played *Future Wars* to its conclusion just to see the next beautiful screen created by the graphic artist, Eric Chahl. Eric did not work on *Stealth* and it shows. Gone are the dark, moody and hauntingly beautiful graphic renditions of *Future Wars*. *Stealth* replaces high art with a Bugs Bunny cartoon. Admittedly, *Stealth's* art is at least as good as, if not better than, the work of Sierra and Lucasfilm. But *Future Wars* is state of the art. Vince DeNardo at Interplay has informed me that they are experimenting with the graphic art, and the next Cinematique game title, *Cruise for a Corpse*, will have yet another artistic style.

Stealth's parser is made up of an abbreviated sequence of five verbs: examine, take, use, operate and speak. The parser constructs understandable statements by combining these five verbs with the point and click interface access of the inventory and labelled areas of the screen. You will no longer find yourself groping for words to type into the computer. In fact, the only typing that you may do will involve typing names for the save game files into the save game file pop-up window.

New Improved Interface

Stealth's simplified point and click interface is one of the nicest things about the game. The interface is completely mouse driven. *Future Wars'* interface required you to search the screen for labeled objects as small as one pixel in size. *Stealth's* labeled screen objects are somewhat larger, with the screen divided

into 9 large areas to simplify game play. Clicking the right mouse button on a verb in the verb menu automatically brings up the inventory menu for you to click on. Clicking the left mouse button on the verb menu will cause a cross hair to appear at the end of the mouse pointer allowing you to cause the verb to act on the labeled objects on the screen. The pop-up menus pop up right at the end of the mouse pointer no matter where it is on the screen. The mouse interface, is one of the most intelligent and convenient that I have seen.

Stealth's interface is further improved in that you no longer need to be standing right in front of an object to examine it or to use another object on it. *Future Wars* required you to be right on top of an object to examine, take or operate the item. In the new improved interface the "go to" command is implied and John or James will walk to any object indicated in the command sentence and execute the appropriate command just like Sierra and Lucasfilm games.

Stealth's sound effects are quite good even when compared to the excellent sound effects of Sierra. Marc Miner, who worked on the sound effects for *Future Wars*, returns to give us very realistic footfalls, gunshots and explosions even when heard through a PC speaker. *Stealth* was developed to take full advantage of the ST's sound capabilities. Also returning to work on *Stealth* is Jean Baudlot, who developed the musical score for *Future Wars*. The musical score is one that you would expect with a good movie. *Stealth* has theme music and suspense music to embellish the game action.

The Atari ST version of *Stealth* comes on three double sided double density ST formatted 3.5 inch disks. The double sided disks can be exchanged for single sided disks by mailing the disks back to U.S.Gold with the handy card provided. The game is hard disk compatible and only requires that you use the gem interface to create a folder and copy the files on the game disks over to it.

Stealth's copy protection scheme is off disk and is made up of a color picture that is matched to a black and white screen shot. You must identify the color of two shapes from the drawing. If you get one color wrong the game locks up and you must reboot to try again. I am not color blind but I often cannot tell the difference between red and rose or light and dark green. Someone who is color blind or has poor eyesight is just out of luck.

Stealth's user instruction manuals for both versions are short and to the point. *Stealth* has no short section on how to get started with the game, as *Future Wars* did.

Interplay has been kind enough to set up a 900 number for hints for *Stealth* and their other games. The 900 number is an "automated hint line" that uses a

computerized answering system to answer standard questions with prerecorded answers. They will no longer be providing hints on their regular telephone line. The regular telephone line will handle all other customer support besides hints. The new hint number is 1-900-370-PLAY. The line costs \$1.25 for the first minute and \$.75 for each additional minute. At those prices, I will be getting hints from a national bulletin board that charges less than \$.01 per minute for afterhours rates.

Conclusions

Stealth is an excellent follow up to the first Delphine/Cinematique game. While the game suffers from the change in graphics, the new enhanced and improved interface makes game play more enjoyable. The plot is more extensive, involved and interesting than that in *Future Wars*. The game is highly recommended for those who enjoyed *Future Wars* and the Sierra and Lucasfilm series of graphic adventure games. The game is not recommended for those who are color blind or have poor vision, those who despise the mouse dexterity challenge of arcade sequences, and those who became too attached to the art work of *Future Wars* to give this excellent game a chance.

[*Operation Stealth*, \$54.95. Delphine Software, c/o Interplay Productions, Inc., 3710 S. Susan, #100, Santa Ana, CA 92704 U.S.A., 1-714-549-2411.]

Walkthrough

General Remarks. *Stealth* uses frustrating arcade sequences interspersed with animated cut scenes and more traditional and enjoyable role playing puzzles and exploration. Save your game before every animated sequence. You can accelerate ("+" key) or decelerate ("-") key) the action to make the arcade sequences easier to complete. Save the game often and label the save game files intelligibly.

Learning Foreign Airport Customs. You arrive in the airport in Manigua. The first goal is to get through customs, obtain equipment from someone else's baggage and take a taxi to your rendezvous with another secret agent.

Examine newspaper box. Examine coin return slot. Take coin. Use coin on coin slot. Examine newspaper. Write down the name of the country in the newspaper, Germany. Walk through door into the bathroom.

In the bathroom, enter the door on the top of the screen. Close the stall door. Operate briefcase. Operate calculator. Use unused passport on Opening on left side of NTY forger. Operate down arrow button until the name Germany appears. Operate enter button on the NTY forger. Take German passport. Operate briefcase. Take the fountain pen. Take American passport. Examine American Passport. Take "bench of

notes." Operate briefcase. Exit bathroom stall. Exit bathroom and go back to the airport room you just came from.

Use German passport on custom official. Speak to welcome hostess. Examine telegram which the welcome hostess will give you. Write down flight 714 and Mr. Martinez. Walk off the left hand side of the screen.

Use airline ticket on guard. Walk off the left hand side of the screen between the glass partition and the first baggage claim pillar. Examine baggage until you find Mr. Martinez's baggage. Take Mr. Martinez's baggage. Walk off right hand of screen. Exit screen through door in upper right of screen.

You are now in the second bathroom. Enter first bathroom stall through door. Close stall door. Operate Martinez's baggage. Take razor. Exit stall. Examine electric plug on the far right and center of screen between stalls and sinks. Examine electric razor. Use electric cable on electric plug. Write down contact meeting at Park, recognition sign red carnation. Exit left hand of screen. Use german passport on custom official. Exit screen at lower left hand side.

Go through glass doors. Wait under taxi sign for a taxi to arrive. Walk up to the back right hand door of the taxi.

Bloody Carnations in the Park. You arrive at a plaza with an open air flower shop. Exit to upper left. Go through bank front door. Use bench of notes on the bank clerk. Go back out of bank front door. Walk off the right hand side of screen. Use coins on woman florist. Take one red carnation. Walk off screen behind building in upper left. Walk off screen behind the bank building in upper left. Save the game. Use red carnation on James (John). Walk to park bench. You will sit down and rest awhile. You will have gotten the key after the animation sequence. Arcade sequence: walk off the lower left hand side of the screen. Enter bank. Use bench of notes on bank clerk. Use card and key on bank teller. Walk off the bottom of the screen on the right side (the stairs down to the vault).

Go inside the cage in the bank safe room. Use key on lower right safe. Take little box. Take envelope. Sit back and enjoy the animation sequence.

Mine (and Your) Cave In. Examine "ground" near James (John). Operate "ground." Examine piece of metal that appears. Use cords or bonds on piece of metal. Operate piece of metal. Now you have a pick axe. Examine rear cave wall near James (John) on his left side. You will feel a current of air. Operate pick axe three times on the rear cave rock wall where the current of air was found on the right side of the screen. Save the game. Exit the cave through the hole you made with the pick axe.

Arcade sequence: Come up for air before you suffocate halfway through the third screen.

At the Hotel, on the Beach and into the Water. You arrive in front of the flower shop. Walk off the upper part of the left hand side of the screen behind the building. Walk off the lower left hand side of the screen in front of the bank. Walk down stairs to the beach. Speak man. Use coins on man. Go up to hotel. Go through the doors into the hotel.

In hotel lobby, speak to receptionist. Operate elevator button. Walk in elevator. Operate 2 button. Exit elevator on second floor when the door opens. Operate the door on the left hand side of the screen. Walk up first staircase in stairwell. At the top of the staircase, exit off the bottom of the screen. Walk right to the last room on the corridor. Save game. Operate door.

You now are transported via an animated sequence to a boat in the water. After "throw them in the water," before James (John) is tied up, operate bracelet. After you sink to the bottom, you must quickly operate bracelet. Operate girl. Swim for the surface.

Evil Dudes, Mazes and Arcade Sequences. An animation sequence is followed by another arcade sequence. When you are in a hallway, operate the door. Walk through the doors. In the mansion study, examine statue. Operate statue's arm. Use little safe-cracking box in your inventory on the safe door. Operate validation switch on the safe-cracking box. Click on the up and down buttons until the first light on the little box lights up. The first light signals that the first number has been found. Click on the round button next to the up and down arrows. Now repeat the sequence for the next number in the combination, and the next number until the full combination is determined. Operate validation switch. Take little box. Operate lock combination. Save game. Take envelope.

Arcade sequence: Patterns will become evident that will help you with this test of mouse dexterity.

Sharks, Seaweed and Anti-Explosive Elastic Bands. Arcade sequence: The large sharks will move across the screen in such a way that you can swim straight through the middle of them without being hurt. You need to be high enough or low enough for this to work. Swim left. Swim down. Examine seaweed on left side of the screen. Take the elastic band. The elastic band is necessary for the successful completion of the end game sequence. Swim right until you can swim no further right. Examine palm tree on the sea bottom. Operate button. Leave the screen through the hole in the cliff. Once in the cavern, operate the porthole.

Man-Eating Fish and Rats both Animal and Hominid Varieties. Use pen on lock. Be sure to use the right number of drops of acid. Use the chart in the Instruction Manual that came with the game (Interplay pg 12, U.S.Gold page 5). Use watch on left wall. Use watch on right wall. Move to the right. Save game. Operate Grill.

Arcade sequence: The way through this maze of tunnels is the most complex and convoluted path.

In Disguise and in the Hands of the Enemy. In the bathroom, operate soldier. Take clothes. Take army boots. Take laces. Use laces on soldier. Take napkin. Use napkin on soldier. Take glass. Walk off the bottom of the screen. In the corridor, walk off the bottom of the screen. Walk through the first of the three doors at the top.

In room off of the corridor (called the drawer room by Delphine Software), operate the lower right hand drawer. Examine the lower right hand drawer. Take blank stamp. Operate the drawer that is one up from the bottom left. Examine the drawer that is one up from the bottom left. Take laces. Use laces on James (John). Walk off the bottom of the screen. Walk back up to the corridor just below the bathroom. Walk right to the corridor junction. Wait for information then walk down. Walk through the door. Use glass on water fountain. Operate garbage dump. Take life raft. Examine clothes. Take mission instructions. Go back through the door from which you entered the room. Walk into the upper right hand corridor. Walk left. Walk through the right hand door.

You are now in the officer's room. Save game. Use full glass of water on officer. Take the stamp while the officer is drinking. The officer will give you back the glass. Walk off bottom of the screen. Go right. Operate cigarette case. Examine all cigarettes. Operate blue ring cigarette. Use cigarette paper on glass. Walk off the bottom of the screen. Walk through the door. Use stamp on ink pad. Use ink pad on mission instructions. Walk off the bottom of the screen. Walk off into the upper left hand corridor. Use fingerprint on fingerprint ID. Walk out open door.

You are now in the security corridor. Walk off the screen to the right. Use authorized mission documents on the mailbox. Walk off top of the screen through the open door. Use electric cable on electric plug. Examine razor and operate razor, if necessary. Use razor on trash can. Walk off the screen to the right. Save game.

You are now in the master control room. The next sequence must be done very quickly. You may need to slow down or otherwise adjust the speed of the arcade sequence. Wait until razor voice starts. Use red cigarette on computer. After the computer blows up, operate Otto. Use compact disk on CD player. Walk off screen through the upper left hand corner door. Walk along window to the right of the screen.

An Explosive Ending. While hanging from the helicopter, use the elastic band on the bomb. When falling, operate lifeboat. Sit back and enjoy the winning animated sequence.

F-29 Retaliator

The Ultimate Tactical Fighter!

Review by Don Elmore

The box art describes the *F-29 Retaliator* as a futuristic aerial treat with a choice of two different aircraft, four battle environments and dozens of different tactical missions. Actually, Ocean Software Ltd's *F-29* provides four battle environments with over 91 different missions! They range from training scenarios at an Air Force Test Range in Arizona, to a "friendly nation" in the Middle East where friendly aircraft are outnumbered 3 to 1, to the Pacific Ocean where naval targets abound, to "Europe 196" described as the "ultimate" battle front.

Choice of Aircraft!

This is definitely a "high tech" game, and is extremely challenging for even the most advanced arm-chair jet jockey. Although the game is titled *F-29*, you are given a choice of aircraft. You may choose between the Lockheed F-22 Advanced Tactical Fighter or the Grumman F-29 (both referred to hereafter as the ATF). These babies are *hot*!

The well written 38-page manual provides the following technical specifications. These new ATFs fly at Mach 1.4 to 1.5 and can cruise at altitudes of over 70,000 feet. According to the manual, the primary design goals for the new ATF were STOL, STEALTH and SUPERCruise. Regarding the STOL (Short Takeoff & Landing) feature, a 60,000 lb. ATF, fully loaded with fuel and armament can take off from a rough surface, 2,000 ft. runway (or aircraft carrier deck). As for STEALTH, the ATF is built with radar absorbent materials which employ wing to body blend-

ing design, significantly reducing its radar cross section (by a factor of 100 compared to the F-15). Regarding the SUPERCruise capability, the ATF can maintain Mach 1.4 (1000 mph) without using afterburners. Its combat range is 700-900 miles.

Supersonic Plus!!

Parts of the manual are better understood if the reader is (or has been) a tactical jet fighter pilot. For example, in praising the enhanced capabilities of the ATF, the manual states that the ability to cruise with full armament at greater altitudes "at supersonic speed covering the ground from 75% faster than a subsonic cruise type, reduces the fighter's exposure time by a factor of 3 in the shrunken danger zone." I think that I almost understand that.

I am very impressed with the ATF's extreme maneuverability at almost any speed. That is because, unlike the earlier tactical fighters that relied heavily on hydraulic systems to move the control surfaces, the ATF uses powerful computers to interpret (read anticipate) what the pilot really wants to do. Thus, even as I pull back on the control stick, on-board computers simultaneously deflect the vectoring nozzles upward and the appropriate wing flaps downward, rotating the fuselage upward almost instantly. This becomes painfully obvious in actual air combat when you are trying to dodge enemy missiles. The Heads Up Display (HUD) has a "G" loading indicator that informs you of the gravitational force being exerted on the plane (and your warm body). If the "G" load exceeds 8, you can't see it because

the screen fades to black for a while. There is also a "Red-out" feature (blood rushing to your head) as you level off after a high-angle, high-speed ascent.

So now, how do we go about putting this ATF through its paces? Well, there are some purely administrative steps to complete first. After booting the program, you are asked to "enroll" in the Air Force and select your rank. Yes, I said select! You can choose to start out as a First Lieutenant or Captain, or Major, Lt. Colonel or even a full Colonel. The higher the rank chosen, the more points awarded for each mission, but keep in mind that the higher the rank, the more difficult the mission will be to complete.

Name Your Poison!

After joining the Air Force, you then proceed to choose one of the four battle scenarios offered. Number 1 is the USAF Test Range in Monument Valley, Arizona and contains various targets and remote control vehicles; a true simulation of a hostile war zone. Number 2 is the Middle East and consists of (among others) missions against enemy airfields, communications tracking stations, oil refineries, tank brigades and chemical processing plants. The final mission in the Middle East scenario (accessible only after completing all of the others) is "Abyss," described only as a secret or special range of missions in the final chapter of that war. (I haven't reached that level yet).

The Pacific missions in scenario Number 3 consist mostly of attacks on enemy war ships and super tankers, with some additional battles with hostile MIGs. The "Biggie"

in this scenario is Number 4, the Europe 196 missions. Battles in this scenario range from engaging (and hopefully destroying) incoming MIGs to providing close aerial support against Red Army tanks, destroying key bridges and enemy airfields, wiping out radar tracking stations and SAM emplacement, blowing up enemy armor and/or supply columns, and decimating industrial complexes and chemical factories...etc. As in the Middle East scenario, there is also an ultimate war update consisting of three secret missions; Saviors, Retaliator and Hour Glass.

Regardless of which ATF you select, you have virtually identical screen displays. Each scenario begins with you already in the cockpit ready for takeoff. You are looking forward, at the instrument display and the HUD and on out the window. The HUD can be toggled on or off, but I keep mine on. I've come to depend on a gun sight when trying to coax my on-board armaments to seek out and destroy those @%*#^*& that are doing their best to positively ruin my day. Also, I've decided that while altitude, air speed and compass bearing information is available somewhere among the instrument readings, they are much easier to see and understand in the HUD.

Weapons Galore

Both ATFs have seven weapons pylons, four external and three internal (in a bomb bay to reduce air drag). The weapons are awesome! They include two top-of-the-line interceptor air-to-air missiles; the AIAAM Fire Bolt (range 155 miles) and the AMRAAM120A (range 31 miles). These are described as "Fire and Forget" missiles because they have active radar homing capabilities. You can also select the AIM9M-R-SIDE-WINDER or the AIM132, both short range missiles (11 and 9 miles respectively) whose speed of Mach

3 is a bit slower than the long range missiles' Mach 5 and 4. There is also available the BACK-WINDER 9X, a rear-mount short range missile that locks on the attack radar of the enemy fighter(s) behind you, a CYA smart missile!

Some Really Nasty Ones!

The air-to-surface weapons are equally impressive. Enemy airfields can be subjected to the MRASM cruise missile, also called a SOM (Stand Off Missile). This baby has a digital scene matching area correlation (whatever that is) and carries a payload of 58 tactical airfield attack warheads. A "launch and leave" missile, the MRASM drops right down to the ground and flies for several hundred miles, hugging the landscape until it locates the enemy airfield. Then it heads right down the center line of the runway ejecting bomblets that produce a neat row of craters guaranteed to effectively dissuade takeoffs and landings. Or, you can order up a MAVERICK AGM, the latest generation of the Maverick family; a self-homing killer.

And don't forget the CSW missiles (Conventional Stand-off Weapon) which can actually distinguish between tanks and low-value trucks or decoys. It has 20 warheads that separate over an area and home in on particular targets. It is especially effective against tank or armor formations. Of course, in addition to all of the above options, each ATF carries twin nose gun cannons with 1760 rounds of ammunition. The ATFs can sting, bite or devour entirely at your discretion.

Both fighters are also equipped with quite an array of sophisticated "defensive" combat capabilities. The enemy threat panel has over a half dozen instruments and lights that will help you in combat. If you are "acquired" by enemy radar, a light will appear on your panel, and if the enemy launches a missile at

you, you will see a large bright, flashing light. You also have a radar warning receiver that detects any threats (air or ground) within a 24 mile range (sort of a rudimentary horizontal radar). For long range detection (and evasion) you have an electronic counter measures radar jammer, and when you are being tracked by enemy radar, or a radar-guided missile, you can release chaff, which effectively blinds enemy radar.

Busy-Busy-Busy

Believe me, life can become quite busy in your cockpit, even when you are successful in attacking the enemy. On repeated Pacific missions, I've managed to locate (and sink) the enemy battleship. However, in several of those attacks, even though I sunk her, as she went down, she fired missiles at me. My instrument panel lit up like a Xmas tree and I was plenty cold watching her sink.....because I had to eject and view her slipping below the surface while hanging from a parachute.

Multi-view

As in other combat flight simulations, *F-29* provides several different viewing angles. You can "look" forward, backward, to the right or left. You also have a fixed North and South facing view from outside the aircraft (as if from a wing or chase plane). There is also a special "satellite" view from approximately 80,000 feet overhead with your aircraft always at the center point of the view. You can zoom in (and out) from any of the exterior views. The eject sequence is neat, you can use it by pressing the <Escape> key twice within 3 seconds. Or, you can respond to instrument instructions to eject (the same way). Yes, your ATF will decide when and if your survival depends on bailing out! Hint: watch the screen carefully when you eject; you will usually get a glimpse

of your fighter diving or flying away. Depending on the circumstances of the ejection, you can still get credit for a successful mission even though you have donated your 60 million dollar aircraft to posterity.

Really Good Graphics

I find the graphics quite impressive. Insignificant black dots on the horizon develop into realistic looking enemy aircraft, canvass targets, enemy tanks, supply trains, battleships, whatever. But, I have learned that if I consistently wait to watch the dots turn into viable targets, by the time I can appreciate the detail, I also see their missiles coming at me. I'll end this review with a short description of how I worked my way into the simulations. I chose the lowest rank (for the easier missions), picked the Arizona test range and chose the first mission (finding and destroying two canvass targets).

350 Knots P/H and on the Ground

As soon as I accepted the mission, I was on the landing strip, in the cockpit, ready to go. I applied engine power, added flaps and released the breaks. The fighter is so hot that I could (and did) accelerate to 350+ knots before lifting off. But, I soon learned that achieving any speed over 300 knots without retracting the landing gear, damages it, and it is most difficult to land without wheels wheeling. So, I carefully roll out to 140 (or maybe 185) knots and lift off, retract the landing gear and the flaps, and then climb to approximately 1,000 feet. In the Arizona scenario, the runway is North-South and you take off due South (180 degrees, more or less). After proceeding South at 350 knots, for about one minute, I slowly execute a 180 degree turn and head back North. I reduce my speed to 185 knots, and drop down to about 350 feet of altitude. Eventually, I see the

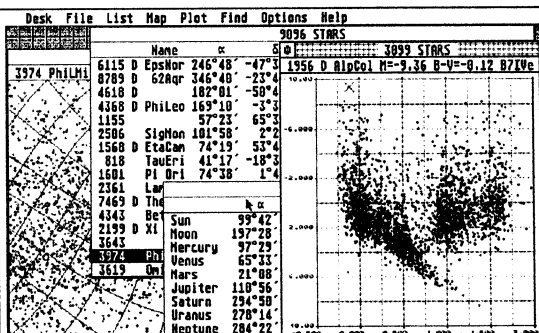
runway from which I took off, and I further reduce the speed to 140 knots, add flaps, drop the landing gear and try to line up on the center line of the runway. I continue descending ever so slowly, and (if lucky) manage to touch down on the center line and eventually apply the breaks to stop. Then, I take off and do the whole thing again, and again, and again. I have finally reached the point where I can take off and go to any of the scenario sectors and return successfully. I have also managed to accomplish many of the easier missions. I can take off from the aircraft carrier ... but haven't quite gotten the knack of landing on it, yet. Your on-board computer generates a display of a moving map showing your direction as well as terrain features and even targets. That, plus your clearly stated mission assignment, will enable you to easily find the specific target selected.

I guess what I am saying is that I am taking the slow, cautious approach to this game ... those of you with more flying experience, can jump right in and fight. Oh, when you are in the "admin" phase of the game, there is a choice called "Zulu Alert." This scenario provides a quick entry into the game and places you, with unlimited weapons in a "shoot-em-up" game in your selected scenario, starting in a mid-air dog fight against a squadron of enemy fighters. A practice mission.

I am running this game on a 520ST with enhanced memory, it also runs well on the 1040. It will not run on the Mega 4, but does run on a Mega 2 (with Tos 1.4) Bottom line, this is quite a game and should offer many hours of different degrees of challenging missions. **Go for it!!!**

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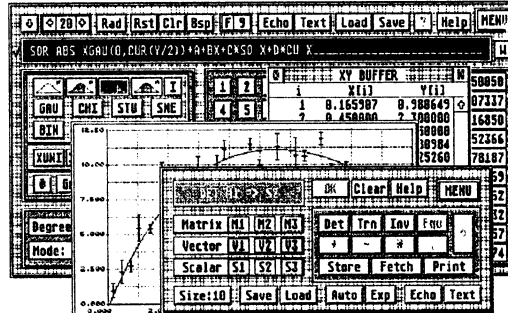
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Utilities Plus

A Smorgasbord of Useful Utilities

Review by H. Earl Hill

Utility programs come in two main flavors. One flavor is the myriad of programs, either freeware or shareware, available through various sources. These are notorious for endless revisions of bug fixes, minor improvements, or possibly even abandonment. The quality of these can also be of a quite uneven nature. With their separate DOC files, you can also wind up with reams of loose pages of documentation.

As an aside, one source of continual irritation to this reviewer is the infinite revisions of some programs, both shareware and commercial ones, where we see 1.94, 1.96, 1.97, 1.98,, etc. The object of these is, apparently, to provide the latest bug fixes, added capability, more speed, etc. However, I think a little more caution should be exercised, as excessive use of this principle may be hurting both the shareware concept as well as commercial programs. I think you know the ones I mean.

To continue, the other flavor is the commercial utility package having a collection of programs and a bound manual. Usually the programs comprise a variety of files capable of helping out with all types of computer use activity. Updates, when available, generally are of substance rather than minor bug fixes or cosmetic improvements.

MichTron's *Utilities Plus* is a good example of the second category. It is a collection of utilities under five main classifications: 1) *MichTron Utilities*, 2) *STuff*, 3) *Superdirectory*, 4) *M-Disk Plus*, and 5) *DOS Shell*. These have been issued previously, although not necessarily in as complete a form, as separate packages. The collections are not anonymous (a welcome feature!) but are authored by well-known programmers such as Timothy Purves, J. Weaver, Jr., and Mark Feldman. These names give an attribute of quality to the programs.

Due to the length of the manual (246 pages) and the total number of the files, it is a little difficult to discuss in depth each program file. Alternatively, I'd like to present an overview of each main section and discuss the contents of each in a selective fashion.

Michtron Utilities

MichTron Utilities is a program for advanced users, although its features can be used by anyone as their experience grows. The manual divides its use into two logically separated chapters. The first describes the individual functions. The second describes the application of these features. Under functions, you have the

ability to view/change the disk sectors or files at the byte level, copy/verify sectors, (re)format tracks, search for strings, clear sectors, change file parameters, and recover deleted files.

The second chapter discusses how to use the functions. For example, solving common problems, making file alterations, changing volume labels, and repairing damaged disks. These powerful functions, which are very well done, allow the experienced programmer to do things not otherwise possible. Due to their power, however, extreme caution is advised when using any of them. One missing feature, which would have been a helpful addition, would have been the addition of a dissassembler.

There are several supplemental utilities thrown in for extra measure. These programs are a screen snapshot and a format program. Two disk copy programs are included. One, *M-Copy*, copies only the in-use parts of the disk. The other, *Mi_Dupe*, is a back-up utility, which can copy some disks with weak protection schemes. My only negative would be the brevity of the write-ups, especially that on *Snapshot*, a very useful screen dump program. *M-Copy* is rather restricted in its utility, since it does not format the unused sectors.

STuff

STuff is a collection of compatible programs and desk accessories. The experience level required to use the collection ranges from the novice to the advanced professional. System requirements for each program, e.g., resolution, hard drive, etc., may vary. The collection is divided, in the manual, into five sections, one for each of the different types of programs included.

AUTO STuff

These are programs to be used in the ST's AUTO folder upon boot-up. (They are executed in the order in which they are placed in the AUTO folder, not that shown in the listing). Caution must be used in the placement of programs to be run from the AUTO folder.

Autodate: For those without battery-backed clock cards, this program remembers the last time your ST was booted, and allows you to easily modify the date and time. The system date and time are saved to the *Autodate* file---therefore it needs no .DAT file.

Hardauto. This goes in the hard drive AUTO folder and executes the programs in the order in which they appear in the directory. Upon completion, the remainder of the programs in the AUTO folder on Drive A are executed.

Reset. After installation, pressing the RESET button will execute a "cold boot" which will reinitialize the ST. *Reset* can also be run as a TOS program from the Desktop to restore full memory usage after a program such as MAKE512K has been used.

ST Select. This is a program similar to the public domain program *Accload*. In fact, a number of PD and even commercial programs, in expanded form, owe their parentage to many of the MichTron utilities. *ST Select* allows selection and deselection of AUTO folder programs and desk accessories by changing the last character of the extension of the program or accessory file. The selection status is changed, but the files themselves are neither changed nor deleted.

Several other miscellaneous programs also fall under this division. The titles are essentially self-explanatory of their function. These are: *Capslock*, *High*, *Onehand*, *Keycombo* and *Verify*.

Desk Stuff

Autogem. There is only one file in this category (accessories), but it is a very useful one. *Autogem* (with its .DAT file) allows the selection of a program to be auto-executed upon boot up. Any GEM program can be automatically run. Additionally, Install Application, used with a data file, can also be run. Programs within folders are no problem. The only criticism of *Autogem* is that it is somewhat slow in execution. And, of course, it is no longer needed with the newer TOS ROM chips.

GEM Stuff

Autofold. This program allows reordering of files in the AUTO folder. It is conveniently used along with *ST Select*. Having the .PRG files in the AUTO folder in the correct order is becoming becoming more important than ever, since so many .PRG files are being put in the AUTO folder, and their execution is critical. (The order listed on the Desktop is not necessarily the order in which they run). As more and more of these "AUTO Folder" programs are developed, the potential for conflicts (sometimes disastrous) is greatly increasing. For example, for a hard drive, driver programs should go first; date setting programs, such as *Autodate*, should go before other programs that require the system to know the correct date; and CodeHead's *HotWire* (a new commercial program), as an example, should run last.

Filelock. Not just a simple file lock, this sophisticated program encrypts and decrypts selected files along with a password. A useful program, but one to be used with a lot of caution.

TOS Stuff

TOS programs are of a unique type. Unlike TTP programs, they do not require or accept parameters from the calling program. They also do not use the GEM interface, but instead use the VT-52 emulation output. Their utility lies in that, hiding under a .PRG extension, they may be put into the AUTO folder where they are run before the system arrives at the GEM Desktop, thus avoiding conflicts.

The two TOS utility programs are *512K*, which reconfigures system memory to 512K for problem programs. (*Reset* can be used to go the other way). Note that only memory is adjusted, not addresses. The second program is *Keycode*, a nice little program to show the scan codes of the keys, a handy feature for programmers, or just for the curious.

TTP Stuff

This section contains seven TTP programs to perform various operations like printing, sorting or editing disk files. There are programs to compare files, delete files, and to change file attributes. Two programmer's tools are included to display files in hex and to display file headers. These are all useful programs, but without a shell program to run them, the typing in of the parameters could become a little tedious, especially to those becoming devoted to GEM. The filenames are abbreviated; users might find it more convenient to rename them to more descriptive names.

Super Directory

It's someone's law that you never have enough disks. A corollary to this is that it's hard to keep ahead of the disks you have. *Super Directory* aims to help out with this task by providing a disk cataloging GEM program. It helps keep a record of all your floppy and hard disk files in a conventional database type structure.

Super Directory allows you to load, save, search, sort and print your recorded files. Each disk must be given an index code. Edit allows adding a category or remark statement to the index. Aside from fine details of use requiring experience with the program, intuition, and careful reading of the manual, the only adverse feature would appear to be the small number of pages (13) in the manual devoted to describing all the ins and outs of a program as powerful as this.

M-Disk Plus

This is a combination of two separate programs, *M-Disk* and *Soft Spool*. *M-Disk* sets up a RAM disk; the other program sets up a printer spooler. After configuration, the programs are installed in an AUTO folder (is there any room left in it?). Use is conventional.

DOS Shell

By far the largest portion of the manual is devoted to *DOS Shell* and all its features. This program was written to allow those experienced users of MS-DOS the use of an environment that mimics MS-DOS. The *DOS Shell* also is faster than the GEM system. Some functions, such as multiple file handling, are much easier due to the availability of global commands.

For the inexperienced MS-DOS user, the typing in of commands as opposed to the GEM system will take a while to become accustomed to. For those desiring to learn, the best bet is probably to get one of the many books on MS-DOS and to do some homework. It is impossible without doing a separate review to cover all the features of the *DOS Shell*. Suffice it to say that ALL the MS-DOS commands that the ordinary user would want are available.

Documentation

Utilities Plus comes with a clearly written, 246 page bound manual. The manual is divided into five parts, with the chapters running consecutively. Besides a well-done table of contents, the manual contains an

excellent index, which is made even more useful by its arrangement into sub-categories for each of the main parts of *Utilities Plus*. The printing and reproductions are excellent, with the exception of a few minor unimportant typos.

An excellent feature of the manual is the extra information on items such as system problems, discussion of how a particular program works, cautions on use, helpful tips, background technical information, and details as to how to install and use a particular program.

Summary

To conclude, *Utilities Plus* would be recommended if you are looking for a good all-in-one collection of useful and helpful utilities. The documentation is well done, and particularly on target with helpful hints, warnings, instructions for set-up and use, and explanations of what is going on. The utilities all appear to be essentially bug-free. Overall, there is something for nearly everyone in this collection.

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Intermediate and Advanced Atari ST Subjects

A Second ST Book By Ralph C. Turner

Reviewed by Pamela Rice Hahn

Mr. Turner's first book, **The Atari ST Book**, is a must for any newcomer to the ST computer. This little blue book contains a wealth of hints, tips, and instructions beyond those covered in the owner's manual. It can save the user hours of searching through other resources and documentation plus the usual requisite trial-and-error experimentation it can take to master the computer. Continuing in this tradition of presenting ST material in an easily understood manner, Turner brings us his second book.

While a programmer friend says he believes the "Advanced" doesn't belong in Turner's newest book's title, skill level labeling is, after all, an arbitrary process. A bold disclaimer on the book's bright red cover proclaims that "no knowledge of programming [is] required." I feel confident in enthusiastically endorsing this book, while at the same time, being somewhat hesitant about who will find this book most appealing.

I found **Intermediate and Advanced Atari ST Subjects** helpful because, by nature and by aptitude, I am not a programmer. My writer's curiosity is such that I have read enough about programming to acquire an omnibus rather than concentrated skill level, which helps me make informed trouble-shooting decisions. By having a limited, if not a working, knowledge of a subject, I feel I understand better the logic behind a program's operation. Again, this is probably an arbitrary matter, but I believe this knowledge shortens the learning curve each time I tackle a new program. The first two chapters in Turner's book, "Binary Code De-Mystified" and "ASCII, Hexadecimal and Decimal" provide the groundwork for this basic behind-the-screen programming knowledge.

The next three chapters explain, in rudimentary terms, the basics behind disk structure, data storage, and file recovery. Turner explains the manner in which floppy disks are formatted, giving further details on sectors, clusters, the FAT (File Allocation Table) and a disk's directory. Turner walks the reader through the necessary steps to recover an accidentally deleted file using the public domain Tiny Tool program.

While Turner's writing style is awkward at times, he does a fine job of proving that mastering an advanced computer function, such as file recovery, doesn't have to be a difficult task. This and other explanations are quite effectively illustrated with screen snapshots.

For those so inclined, Mr. Turner provides a detailed explanation on how he went about assembling

his own hard drive. Regardless of whether you're willing to sit down with a table full of parts and assemble your own or simply prefer to buy a ready-made commercial

product, Turner explains the concepts surrounding hard drive operations. This not only assists the user in making an informed choice when purchasing such a drive, but aids in optimizing its use once that drive becomes part of the user's set-up. His explanation on disk caching is understandable and informative. If you have any curiosity as to whether or not your computing would benefit from the addition of a hard drive, Turner's coverage on this subject provides the information you need.

Turner also sprinkles comments about TOS 1.4 throughout the book. Unfortunately, TOS 1.4 isn't a topic listed in the index, so isolating those references is up to the reader. Turner did convince this reader, however, to add TOS 1.4 to my Mega 4. Eliminating the "forty-folder bug," which Turner describes in some detail, was sufficient reason to convince me to add this inexpensive upgrade.

The opening comments in Chapter 8, Connecting 5 1/4-Inch Floppy Drives, are examples of why I dislike the question-and-answer format Turner occasionally uses in his book. Responding to the question as to whether a 5 1/4" IBM floppy can be used with an ST, Turner answers, "Yes, but in order to do so you'll need to connect an IBM-type 5 1/4-inch floppy disk drive to your ST." This style sometimes causes Turner to overstate the obvious, which distracts from the otherwise useful information he conveys.

The balance of Chapter 8 explains the process of either building your own 5 1/4" disk drive, complete with details on what parts and precautions are needed, versus simply purchasing a unit specifically designed for use with the ST, such as the one available from I.B.

The next chapter is a brief, five-page explanation of IBM hardware versus software emulation with information on the advantages of each. The final chapter, Miscellaneous Subjects, rounds out the book by covering such topics as undecipherable disk directory characters and mouse acceleration.

Appendices supply ASCII Control Character definitions for the ST, sources for public domain software, and addresses of the suppliers mentioned in the book.

[Intermediate and Advanced Atari ST Subjects, by Ralph Turner, Index Legalis Publishing Co, P.O. Box 1822-3, Fairfield, IA 52556. \$16.95. (\$2.00 shipping & handling in U.S.A.; \$2.50 Canada)]

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Rick Dangerous

Arcade Action Archeology

A Review by Alfred C. Giovetti and Allison A. Giovetti

Remarkable Resemblance

"Just Remember that X never marks the spot," said Harrison Ford playing the character, Indiana Jones, in the movie "Indiana Jones and the Last Crusade." *Rick Dangerous* is surprisingly like Indiana Jones. Rick has a brown fedora hat with a wide brim, a short brown leather flight jacket, a pair of knee-high, black, shiny-leather boots, a six-shooter revolver, and "some dynamite."

Rick Dangerous is in search of archeological artifacts deep in the depths of the earth. *Rick Dangerous* is up against Amazonian Tribesmen, Nazi ("Nazis, I hate these guys!") agents, ruthless assassins (the guys with the fezzes) and other assorted bad guys. Rick has to dodge ram-paging boulders, poison blow darts and deadly pits at every turn. *Rick Dangerous* battles hostile tribesmen in an Amazonian temple, dodges persistent assassins in an Egyptian pyramid in order to recover a priceless gem, liberates prisoners of war from a fortified castle and saves the free world by destroying a Nazi missile base, singlehandedly. The opening screen of *Rick Dangerous* is right from the opening scene of the first Indiana Jones movie: the massive boulder rolling toward our hero who is wisely running away from this challenge. The only thing that saves *Rick Dangerous* from being an Indiana Jones clone is that he emulates Teddy Roosevelt and carries a big stick in place of the Indiana Jones' trademark bull whip.

Rick Dangerous is an arcade adventure game, which is heavy on the arcade action. *Rick Dangerous* is not a new game; it was released almost a year ago on the Atari ST.

Rick Dangerous is one of those rare games that never seems to lose its appeal. My children, ages 12, 11, 9 and 7, are constantly playing it on one of the eight computers that we have. Rick is a very playable and seductive Indiana Jones rip-off. It is one of my children's favorite games out of the thousands of disks and cartridges of video games. At the beginning of the game you are given six lives, six bullets and six sticks of dynamite. You accumulate points for eliminating angry antagonists, freeing prisoners, collecting boxes of weapons and golden masks.

The story begins in South America in 1945. "*Rick Dangerous* crash lands his plane over the amazon while searching for the lost Goolu Tribe. But, by a terrible twist of fate he lands in the middle of a bunch of wild Goolus. Can Rick escape these angry Amazonian heathens?" In the next scene or screen, we see *Rick Dangerous* running down a cavern corridor pursued by a rolling rock sphere that just barely fits in the corridor. If we fail to keep Rick ahead of this rolling boulder, he screams "WAAAAHHH," most convincingly.

The Plot Thickens

The object of the game is to survive, as with many arcade action games. You have the option of blowing up your opponents, shooting them or, in some cases, avoiding them. If another character touches Rick, he is dead. After the initial animated sequence of Rick parachuting out of his plane into the arms of a waiting Goolu warrior, who chases him, the game opens up with the initial sequence. The game screen is divided into two

sections. The upper section is a control panel the whole width of the screen which is about 1/4 inch high. The control panel displays in equal sections from left to right: the number of points accumulated so far, the number of explosive charges, bullets, and the number of lives remaining for Rick. The bottom portion of the screen, below the control panel, makes up the rest of the Atari ST monitor and is a side view of the action.

Rick's World

The game has 120 screens of action separated into four separate missions. The missions involve running the gauntlet of the Amazonian temple, successfully traversing the Egyptian temple, freeing the prisoners from the castle of evil and eliminating a Nazi missile base set to destroy the world. The screen is a side view similar to the one you see in many arcade games like Psychognosis' *Barbarian*. The players are small and round, 1/2 inch tall characterizations of living people. The screens are composed of stone walls, ceilings and floors, wooden platforms, spiked traps, masks, ladders, hand and foot holds cut into the stone walls, levers and moving walls. Each screen is a physical puzzle that you and Rick must solve. There are floor switches and levers that activate traps or wall sections. You must activate the levers and floor switches in the proper sequence to be able to complete the screen and move into the next one. The graphics have high detailing and use anti-aliasing and shading to perfection. Still, *Rick Dangerous* does not have the best animated graphics I have seen, but they are visually

striking and unusual, if a little cartoonish. The authors have both a sense of humor and timing. The game has a comic feel to it that begins with Rick's large stupid looking grin. Whatever the challenge, Rick just keeps on smiling.

Puzzle Oriented Action

One of the nice things about *Rick Dangerous* is that it is puzzle; it is not combat oriented. It is a pleasant change to have something else to do, but hack and slash. Do not get me wrong, you will kill your share of natives, dancers, assassins, Nazi agents and others. But most of the game screens are setup as puzzles with levers, floor switches, falling pieces of stone, pit traps, hand and foot holds cut into the wall for climbing, platforms to jump from. The traps are ingenious and involved and sometimes Rick must die several times before you can solve a puzzle scene. There are plenty of tunnels, ladders and drop-offs to keep the average arcade adventurer happy, and interspersed between these normal challenges are the real puzzles.

Music and Sound Effects

The program uses the music capabilities of the Atari ST to produce some pretty convincing screams, explosions, gun shots, and other sounds. These sounds are very good and are much better than what we usually see in an arcade game. The obligatory musical score changes for the introduction of each level. The music is suspenseful and is something like the silent movie background music. The use and quality of sounds is much better than average.

Dangerous Deficiencies

Yes, Virginia, Rick does have some deficiencies. *Rick Dangerous* has no save game feature. When Rick dies you must replay the entire game to get back to the point where the situation, trap or adver-

sary has killed off our hero. This process must be repeated until you solve the puzzle of the screen and are allowed to go onto the next screen. The game is quite good and going back over the beginning scenes is not that much of a task.

For those who do not enjoy replaying the entire game, the only cure for this is the "pooky" cheat. If you get onto the high score screen you can enter pooky as your name. You can now start a new game at any level in the game. In my experience, Rick's "pooky" cheat only works after finishing off the Amazon temple and you are in the

..a unique and
enjoyable arcade
game...

Egyptian level or beyond. After you loose all of your lives and you type "pooky" on the list instead of your name, you press the fire button on your joystick and a screen will come up that will allow you to choose from the four levels of the game. This cheat should work on all versions of the game.

Computer Compatibilities

Rick Dangerous will run on the Atari 520ST, 1040ST and Mega ST. The game is also available for the C64/128, IBM-PC (joystick not supported) and Amiga. A color monitor is required. A joystick is also required. Mouse control is not supported. The joystick control is quite good. The only problem experienced with the joystick control occurred when you use the joystick to shoot the six gun and you must push the button and push the joystick up. These two operations (button pushing and pushing up the joystick) must be done at precisely the correct time or Rick will jump instead of shooting, usually into the arms of the waiting enemy. To avoid this problem, you need to push the button before you push

the joystick up. Some users have complained about not being able to shut off the sound on the game, which is not a problem on the Atari ST. On the ST if you do not like the sound you simply turn the sound down or off on your monitor. I found the sound effects to be one of the best features of the game. The sound provided some of the best humor in the game. More instruction and additional description of how the game works would have been useful in the all too brief player manual.

Cliffhanger Conclusions

Overall, *Rick Dangerous* is an excellent game. Rick is a humorous and enjoyable blend of excellent animation, graphics, and sound. The puzzles and challenges Rick faces are humorous and entertaining. Firebird is now in the process of developing *Rick Dangerous II*. At this time, MicroProse is not sure if they are going to pick up Rick II for United States distribution. I would not recommend *Rick Dangerous* for those people who enjoy role playing adventure games and do not enjoy arcade games. *Rick Dangerous* is a very unique and enjoyable arcade game; but Rick is an arcade game, not a computer role playing adventure game. I recommend Rick dangerous very highly for those who enjoy arcade adventures.

[Rick Dangerous, \$34.95. Firebird programmed Rick Dangerous. Released in Europe by Microprose. US rights held by Microplay, a division of MicroProse. Distributed by Medalist International, 180 Lakefront Drive, Hunt Valley, Maryland 21030.]

Time to RENEW?

Check the mailing label on your issue of *Current Notes*. If you see the expression **9103** on line one, it means that your subscription ends in month 3 of 1991, i.e., the March issue, this one, is your last issue. Please renew ASAP.

Part I: Selling and Other Delights

Atari provides an excellent tool for creating income

by DENNIS J. O'BOYLE

In addition to being practical, educational, and fun, your Atari ST computer can help you earn extra cash or even become a central factor in the way you make a living. But right up front you need to know that your ST is only a tool and, like any other tool, just having it doesn't mean you'll make money—unless you can operate the tool effectively and provide some type of service useful to those who'll pay for what you can do.

For example, suppose you traded your ST for a fully equipped hospital operating room. Does that mean you can start performing brain surgery tomorrow? Not unless you're a brain surgeon today! Or, would having all the tools in the Snap-on catalog make you an aircraft mechanic?

So you see, the ST really is only a tool, just like any other mundane otolaryngoscope, sphygmomanometer, weather-head socket, wrench, laser printer or disk drive. A tool can only do what you make it do, limited by your abilities and its design. By applying your knowledge from another area with what the tool/ST is capable of, you can create an interesting alternative income.

When I started with computers in 1984, about all I knew pertaining specifically to them was how to type. But that didn't stop me from making money with the ST the second week I had it. More on that later.

In fact, when I bought my 520ST, I didn't even know all the reasons why I was laying out the money. But I knew I couldn't live without a computer! My setup included an Atari SF354 single-sided 3.5" floppy disk drive, Citizen 120D dot matrix printer, Soft Logik's *Publishing Partner*, Timeworks' *Data Manager ST*, computer paper and ten blank disks.

Today, I have sort of a "dream system," with 2.5 megabytes of RAM, *Calamus* and other publishing software, double-sided floppy and hard disk drives, modem and laser printer.

As an illustration of how little I knew at the start, I'll risk your ridicule and try to be brave by sharing this with you: I asked the salesman what the blank disks were for. Now, you might enjoy laughing at my naivete and ignorance, but I admit I didn't know anything about computers then. (Funny thing, I haven't learned much since....) We all had to start somewhere, right? The

point is, you don't have to be a computer guru to go out and make money with your ST.

To illustrate, here's a list of 12 ways to use your ST and get paid for it:

1. Greeting Service—Your modem and ST dial phone numbers at specified times to wake people up, check on their well-being or anything else. Rise and shine!

2. Individualize cards and booklets—Customize existing or create new with wordprocessing and desktop publishing software and clip art. Be creative, or just look like it!

3. Information service—Use your modem to research financial/real estate/tax and other information. Sell to the highest bidder!

4. Message center—Start a "Dial-A-(whatever)" line, a 900 line, an electronic or voice mailbox, or your own bulletin board system. Hurry! Call now!

5. Sales organization—Market a product or service (the ST and software like *Sales Pro* are indispensable for telemarketing and business related activities). What a deal!

6. Travel agency/advisory—Provide a service of scheduling travel and accommodations like any other agency. All aboard!

7. Lottery results—Have a recorded message of the popular lotteries' winning numbers for the week. Hit the jackpot!

8. Professional data base management—Create a data base of patients and appointments for medical and dental offices and clinics. Call to remind patients a day or two before their appointments, saving both parties time and money. Or, create a data base of members' activities for other organizations. Churches like to know who's coming to church, how often they're coming, and what amount of money they're donating in the weekly offering, among other things. Gracious!

9. Alarm monitoring—Burglar and fire alarm companies hook their alarm systems to phone lines. You monitor activity and call the authorities. Dial 911!

10. Games—There must be dozens of people (kids included) in your neighborhood who'd be interested in learning and playing games. Start a tournament; have a ball!

11. Instruction—Teach people how to operate a computer or use specific software. Househusbands, businesswomen and countless others need to know the skills, but haven't acquired them yet. It's back to school time!

12. Desktop publishing business—Create dynamic resumes, reports, proposals, letters, newsletters, newspapers, manuals, texts, manuscripts, books, magazines, catalogs, advertisements, flyers, invitations, menus or any type of document. Provide a typesetting service. Enter the exciting world of publishing!

The last one, desktop publishing, is the main way I use my Atari ST for business right now, so here and in

Part Two next time, I'll explain its role in my success, and pray my journey/story will help you in your own hunt for satisfaction.

Recently, I landed a \$47,032 project with a Japanese industrial company. I'm waiting for confirmation on a \$189,000 bid for the military (ever wonder why hammers cost the government \$600?). Although these represent the largest sums I've ever dealt with as an individual, most of the work is for more modest amounts.

Several projects in the \$2,500–\$6,000 range have come in, with many \$25–\$1,000 opportunities monthly. And I'm just a guy working out of his house with an ST! So, have faith. If I can do it, you can do it, too.

Competition

There are many freelancers with IBM, Macintosh, Amiga and ST computers. We compete against advertising agencies, print/photocopy shops and graphic/technical publications businesses, all of which have tremendous overhead expenses.

These high costs include building and office space fees; salaries for management, secretarial and other staff (who usually have little or nothing to do with producing the actual work); and, of course, sales people, often called account executives, who collect salaries while trying to find work and are paid commissions for bringing in jobs.

The people actually doing the work at these organizations make about \$8 to \$25 per hour. Their employers' charges range from \$35 to \$250 and up per hour or final page. A page an hour is the average on most jobs and includes research, writing, design, layout and proofing.

Illustrations, photos or halftones (black-and-white photos rendered into dot patterns called halftones) are extra and have their own rates. If you get involved in the printing and mailing part of a job, it's customary to markup the charges by 15% for your time involvement, although some agency-type places mark things up as high as 600% (gulp!).

Astonishingly, places with incompetent staff frequently are awarded large contracts. Maybe their clients fall for a slick sales presentation or are impressed by a fancy office. One graphics company I know of created instruction sheets about installing bathroom racks for a prime account. This agency failed to include any safety information. Visualize a person drilling into the wall, encountering a live electrical wire. Ouch!

Just as shocking, a machinery service manual was being done at a place where I worked. As I explained what had to be done to a new employee (the key illustrator on the project), she had to ask, "What's a nut?" and "What's a bolt?!" As you probably guessed, this 6-week project became completely messed up. Eleven months later, after I'd left that company, I met

with the client. The job still wasn't done! Convince customers you're as good or better than a big company. And don't be depressed because you lack a fancy office with 3 secretaries, 5 managers, 20 computers and 38 employees. I compete against outfits like that all the time by offering superior quality, service and value.

Clients only want to know you can do the work and get it to them on time, with a minimum of their involvement. They don't always care how you create the work or what kind of computer you have; after all, people have been writing since primitive times on cave walls and birch bark.

Pricing

Frequently, expense isn't too great a concern as long as the price is reasonable. Companies usually take three bids for a job, and when they compare my low rates with those of an agency, lots of conversations occur.

I educate them about what they're really paying for with big companies—the overhead and unrelated expenses, while a possibly incompetent or inexperienced person does the work, or too many cooks stir the broth. Before your pricing is explained, you may have to substantiate your abilities by showing work samples and providing references.

I've been given lots of work for being the lowest bidder and often I'm the only bidder because I've convinced the right people of my abilities.

Selling

The difference for me has been knowing how to get people to pay for the work I do. Some call this "salespersonship," or the ability to sell.

Personality plays a large role. Having sales skill is an aspect of most success stories in America, but if you haven't sold or don't feel confident about representing yourself, relax. You could ask a person you have confidence in to help you get some work going in exchange for a commission. Eventually, you'll learn how to represent yourself and your work, and be on your way to business autonomy.

Essentially, selling, like the ST, is just another tool, and one you don't immediately need for making money with your computer skills. Chances are, you've "sold" yourself by getting someone to go out on a date with you, or in employment interviews that led to positions at the companies you've worked for.

Selling your services is about the same; just get on the phone, get the right person on the line, and say something like, "Hi, my name is Joe Blough (or whatever your name really is). I'm not a salesperson at all, but I am interested in meeting with you to discuss your current and future publishing needs. Are you available Tuesday at 10, or would Wednesday at 3 be better for you?"

Whom to Contact

The “right person” is the owner (or manager) of smaller businesses and the head of whatever department you want to assist in larger companies. It could be the marketing director, data processing manager or MIS supervisor.

Figure out before calling what you’re going to say and who would be the likely decision maker for buying your services. Make friends with the phone receptionist, and enlist her help.

If no one seems to know exactly what “desktop publishing” is, or who handles “technical documentation,” say, “Gee, I’m really sorry for causing you all this trouble. I know you’re very important and very busy. What is your name?”

Make a note of the name, then use it.

“Ms. [whatever], you’re probably the only one at your company who could help me. Would it be possible to speak with the [personnel director, marketing manager or a vice president—use one or all until you get results]?”

“That person would know what I’m talking about. It’s very important to your company that I speak with someone immediately. I know you’re busy, Ms. [whatever], and I have to say you’re one of the most professional executive assistants I’ve ever had the pleasure of talking to.”

Secretaries and receptionists are very important to you if you want to talk to or see the right people, so be nice to them. Besides, my mother is one!

You’ll also find they’re quite knowledgeable and helpful, a valuable information resource. Eventually, you’ll have a very good working relationship with them, so treat them as well as you do anyone else.

They often screen callers and may seem like obstacles to your efforts, but they’re only doing their jobs. Let them know they’ll be playing a part in helping their companies benefit from your services!

People have a natural resistance to salesmen and respond quite favorably when they learn you’re the one who would be doing the actual work. This favorable response may be due to the elimination of a middle (sales) person and its associated perception of higher expense.

How to Get Work

Before this article becomes a sales training manual, I’ll conclude with some final advice about acquiring work to do on your ST. Start calling around your area, getting the word out about what you can do. I’ve had luck with doing advertisements and flyers for businesses, menus for restaurants, brochures for auto body shops, and resumes for individuals. Any reason why you can’t start this way? You’ll eventually progress to bigger things. So far, my biggest ST-created venture was a 430-page technical manual. I know you can do similar work.

Create some literature about your services, using it as a marketing tool to show off your talents and help bring in business. Superior desktop publishing results involve not only good writing but excellent design and layout skills, too.

There are many books on the subject, and the most important guideline for me has been keeping everything “clean” and simple, leaving a lot of blank areas (known as “white space”) on the page if possible. Project requirements/restraints can prevent that, however.

Selling is a strange animal and requires persistence. You’ll have long periods between quoting work and actually starting a job. There’ll be dry spells. All of a sudden, a monsoon of work will flow in. Stay on the phone and schedule work the best you can to avoid rush jobs and idle times with no income. Exercise to feel good and keep a positive attitude. You can start the way I did, by doing work part-time apart from regular hours in a completely unrelated field. I worked for the city bus company. So that proves the old phrase, “If I can do it, you can do it.”

Again, I have to emphasize, make sure you really are able to provide what you say. If you can look at a menu and see how to make improvements, talk to the restaurant manager about redoing it on your ST. On the other hand, if you just look at menus to select your meal without seeing room for improvement, go ahead, order your food and think about making money some other way.

A Case Study

The menu bit worked for me. While enjoying a burger, fries and chocolate malt in the dining room of a local drive-in restaurant, I noticed the menu was poorly arranged. The logo was the only illustration. The food listings were misorganized, with malts, hash browns and other unrelated items listed under the “Sandwiches” subheading. Although the place is famous for its French fries, they didn’t appear on the menu listing at all.

I spoke to the owner, telling her my observations and asking, “just out of curiosity,” what she pays for a menu (the range is anywhere from \$35 to \$100). That way, she was given some free ideas and I learned menu pricing while avoiding a pushy, stereotypical sales approach. She could have taken the ideas and run with them, but was impressed by my interest and perceptions.

When I said I’d like to do the menu over for her on my computer (**SALES TIP:** Notice how I didn’t ask for anything, I just stated what I’d like to do), she gave me her business card, two of the menus for reference and asked how soon I would have a new menu done.

With food clip-art from Current Notes’ Public Domain Disks #249 and #250 (Clip Art Nos.10 and 11) and other sources, a bit of creativity, and my ST

system, I came up with a very stunning, highly effective menu. Before showing my work, I had the menu laminated.

When I presented the "before" and after menus, the restaurant owner was overwhelmed by the professional appearance and design of my version. She asked, "How much is this going to cost me?"

"What do you think it's worth?" was my reply. The first one to mention a price loses in any transaction.

"Hmm," she fondled the menu, turning it over several times, "This is the best menu my restaurant's ever had. I think the ad agency would charge me about \$150 or more for something like this" Her voice trailed off as she continued admiring her new menu.

"Well, I'm not an ad agency," I said, "I don't have the high overhead of an expensive office, three secretaries and five managers running around, trying to justify their salaries and figure out what to do. I'm just a guy with a computer in his house. And I love the food here. I sort of felt obligated to you, as a customer. Are there any other things I could do, any advertisements or anything?"

There's how to increase business with customers. Since she already "owed" me for the menu, but hadn't paid anything yet, she probably felt obligated to give me something else. Plus, she liked my work. So, she told me about an upcoming television commercial. We

agreed on \$50 and a free meal for my two hours of computer play with the menu, then discussed the details for the t.v. ad.

In most cases, I agree on a price before doing any work. The price may be an hourly rate and an estimate of how much time would be involved, with an additional figure for expenses like paper, copying fees, hiring and coordinating freelance artists, photographers, etc. Other projects are figured on a lumpsum or total cost basis, leaving all the intricacies to me.

With new and particularly good accounts, I offer a discount as incentive to get them started with me and make a decision more rapidly. Usually, it reads, "10% discount if terms are agreed to within thirty days."

You Can Do It

Try it yourself. With some bravado and a little observation of menus, flyers you find attached with little green rubberbands to your doorknob, and other business communications, you'll create some impressive accomplishments and make lots of money. I'm sure you'll do fine; let me know the results!

In Part Two next time, I'll explore the resume-writing part of my business and talk about pitfalls and how to avoid them. Included will be an assessment of working with copyrighted materials. That's all ahead in *Current Notes*, so don't miss a single issue!

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SynCalc

Best of the Best

Review by David J. Harris

If you have ever had the desire to figure out your finances, calculate a loan, finish your taxes, or do just about anything concerning numbers, the program you want is *SynCalc 130XE*. This program is to 8-bit spreadsheets what *PaperClip* is to 8-bit word processing. *SynCalc* is a super number crunching program which, like *PaperClip*, has received very little publicity over the years other than word of mouth. Programs of this caliber are just one of the reasons so many have clung to their trusty 8-bits for so long.

SynCalc is used daily in my household for budget purposes and ranks second on the overall usage list right behind *PaperClip*. Even though it is over six years old, it still stacks up well against many newer spreadsheets that run on more powerful machines. Many of its features are Lotus like in nature and very easy to use.

On the down side, it may be a little hard to find since it has been discontinued for some time. I seem to remember reading somewhere that No Frills Software was selling either originals or limited run copies. Regardless, it is definitely worth looking for. I fail to see why Atari does not buy the rights to programs like *SynCalc* and *PaperClip* and bundle them with the 130XE or the XF551 drive. [Editor's note: Atari is no longer actively shipping 8-bit systems, although many merchants in the "Twilight Market" still offer 8-bit hardware. You might be able to purchase *SynCalc* from one of the 8-bit sources listed in the December 1990 *Current Notes*. See "The 8-Bit Alchemist" elsewhere in this issue for a running update on sources of 8-bit hardware and software.]

SynCalc is one of only a handful of programs that actually takes advantage of the extended memory of the 130XE and the numerous 256K upgrades. *SynCalc* bankswitches the extra memory of the 130XE to give you a whopping 84K worksheet.

However, unlike *PaperClip* which will bankswitch memory up to 320K, *SynCalc* users are limited to the initial 84K worksheet mentioned above. The older version of *SynCalc* had a respectable 21K of workspace. Not bad for a 64K machine.

If 84K isn't enough for you, check into the little known, but nonetheless excellent, Ramcharger board for the old 800. This memory upgrade will give you 288K of workspace for *SynCalc* and *SynFile*. This should satisfy most home and small business needs.

On a sad note I wrote Broderbund a couple of years ago (before *SynCalc* was discontinued) concerning possible future 80 column enhancements and larger RAM worksheets. They regretfully informed me they had no plans to upgrade the program due to limited sales. Strike another victory for software piracy.

SynCalc comes with an excellent manual that is easy to understand and well laid out. It even has a quick reference card that is an invaluable aid when the manual is not handy. The manual takes the time to walk you through the process of setting up your own spreadsheet and gives many useful tips for saving time and avoiding errors.

Commands can be entered in one of two ways; by using either the popup window menus or the type in commands with the slash key. There are two types of windows: text and numeric; they really take advantage of the excellent colors available on the XE/XLs. I usually use the window menus because they are so easy to use, and I seldom have the time or patience for typing the commands in with the slash (/) key. Don't get the wrong idea, that the type-in commands are difficult. They're not. It's just that I'm incredibly lazy. Commands are very much like Lotus and make perfect sense: R for row, C for column, E for erase, etc.

Like most excellent spreadsheets, *SynCalc* comes with a wide variety of financial, statistical and math functions. Most of these, I must confess, are a little out of my range. Despite my rather weak math background, I have been able to put together with relative ease some rather impressive financial spreadsheets. My greatest triumph to date has been putting together a budget spreadsheet that keeps running totals of my bills in two different currencies.

Two of the most important groups of commands in *SynCalc* are the Format and Global Format commands. They are very easy to use in altering your worksheet's appearance to fit your data entry needs. The worksheet can be modified in just about any way imaginable. Columns can be resized, text can be centered or justified left or right, and you can even select the degree of accuracy after a percentage point. While almost anything can be either Global Formatted or Global Unformatted, you have to be careful with *SynCalc's* most potentially dangerous command: Global Erase (/E#). When used, the whole spreadsheet disappears in front of your very eyes. If it was not previously saved, your precious work is lost forever.

Here is an important tip for speeding up data entry that I had to find out about the hard way. Remember to disable the Automatic Recalc mode and then set it to Manual Recalc. By using this method calculations are only activated when the START key is pressed, saving precious time when entering data.

Since the Atari 6502 processor is running full speed at only 1.79 MHz, it does get bogged down as the spreadsheet grows in size. After a few hundred cells have been filled in it can take two or three seconds for the cursor to move from cell to cell during data entry if the Automatic Recalc has not been deactivated and changed to Manual Recalc.

On top of everything else, you still have access to all the usual commands that you expect from a good spreadsheet, such as Sort, Insert, Delete, Goto, Move, Copy, and Print. I have used *SynCalc* with an Atari XMM801, Epson LX-800, Star NX-10, and Okidata 180 Plus printers with no problems to speak of.

The limitations of a 40 column display have also been minimized by the use of scrolling windows coupled with the ability to fix titles and headings to certain positions. You can freeze titles in place so that as the spreadsheet scrolls it appears to move right under the fixed titles. This is really handy since only a few columns can be seen on screen at one time.

As if the above weren't enough, there is even a set of easy to use DOS commands. You can format a disk as well as Save, Delete, and Rename files. Another

special function thrown in for the old Visicalc user is a conversion feature that allows Visicalc files to be read by *SynCalc*. (I was unable to try this one out since no one I know owns *Visicalc*.) Another feature with a lot of potential is the Save Text command. You can save a spreadsheet in text form for future use in a word processor.

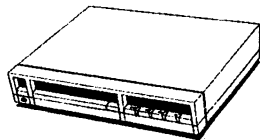
SynCalc does have a couple of drawbacks. For starters, it is heavily copy protected; forget about putting it on a hard drive. I have also had fits trying to make backup copies with my Happy 1050. *SynCalc* is one of the few programs I have that will not load in the Happy mode. It does load perfectly once the Happy mode has been deactivated.

A couple of features I would like to see in *SynCalc* are macros and an 80 column screen, but you know the odds of that happening. Built-in graphics would also be nice, but it works so well with *B/Graph* this really hasn't been a problem for me.

So take it from a number junkie who knows, this is one program you should not be without. You do have to invest some time learning to use this program, but it is time well spent.

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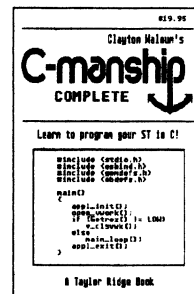
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Educational Software from Bresnik

1: Word-Search Maker and Animals

Review by Len Poggiali

[Editor's Note: This is the first installment of a three-part series of articles to appear in *Current Notes* in which six new disks of educational software recently released by Bresnik Software into the shareware market will be reviewed. – B.L.P.]

Word-Search Maker

By the time most students reach high school, they will have completed hundreds of word search puzzles. Some teachers use them as time killers, while others genuinely believe they serve an educational purpose. Both groups will be pleased with Bresnik Software's *Word-Search Maker*. At an extremely reasonable price, this program takes most of the bother out of creating word searches.

Unlike crossword puzzles, which test vocabulary skills, and cryptograms, which require logic and analytical abilities, word search puzzles focus on word recognition. This may seem like a simplistic skill, but with younger pupils and students requiring reading and spelling remediation, word searches can prove worthwhile. For example, word searches can be set up using homonyms, words that have similar spellings but different meanings (such as "either" and "ether"). Students with certain learning disabilities or those who do not read carefully might learn a good deal from such exercises.

Creating your own puzzles is a snap. From the main menu you may choose a directory of the puzzles on your disk in order to load an already completed gem, to read another directory, or to create a new word-search. Before you can create a puzzle, you must give it a title and determine how many letters across and down you want it to be (the maximum is 32X32). If you're inputting a long list of names (U.S. Presidents, for example), be sure to give the computer plenty of room to fit everything in.

The next step is to list each of the names. Any errors may be corrected and additions or deletions made quite easily once you have learned the somewhat confusing commands. After the list is completed, the computer takes awhile--the longer the puzzle, the longer the wait--to construct your masterpiece. After that you may save or print it to disk, change the title or word list, and print a hard copy.

Printouts consist of the puzzle, the word list, and an answer key. The three may be printed on separate sheets of paper or the puzzle and corresponding word

list may fit on the same sheet, if the teacher so chooses. Puzzles can be printed to screen using any standard Atari-compatible word processor. Also, files may be loaded from word processors to produce fill-in-the-blank puzzles with definitions of the puzzle words. This gives the program an additional educational dimension.

There are word-search makers out there with more features, that are easier to use, and that take less time to do the job. However, considering its price and availability, *Word-Search Maker* is a definite winner.

Grade: B.

Animals

Termed "a simple example of artificial intelligence," *Animals* allows users to develop identification trees and save them to disk. Although possibilities for use by most adults are limited, youngsters will have fun with the program, and many teachers will deem it a valuable learning tool. The \$5.95 price and the author's permission to make additional classroom copies free of charge add to the attractiveness of the package.

Initially, the program instructs whoever is creating the tree (student or teacher) to pick an animal but not to tell its name. Then the computer asks three questions: "Does it live on land?"; "Is it an elephant?"; and "Is it a herring?" Each question only may be answered "yes" or "no."

Assuming that your animal is neither an elephant nor a herring, after asking the three questions, the program will inquire as to what animal you picked. First you are instructed to type in the name of the animal and then to write a yes/no question describing it. You may continue in this way to add items until 200 animals and 200 questions about them are stored on disk. According to the documentation, by following a path of only thirty questions, one item out of one billion may be identified.

Subject matter is not limited to animals. U.S. Presidents, planets, literary works, and the like may be defined, identified, and retrieved in this manner. For the teacher's convenience, separate files may be placed on different disks. Also, by using the edit mode, an instructor can view or print a file, rephrase or delete an entry, and so on. To ensure that students do not tamper with files, the edit mode may be entered by use of a code word known only to the teacher.

Printouts are fascinating, giving clues as to how the program thinks. Each line contains the number of the record, the number of the question that got you there, the question number you go to if a "yes" answer is given, the question if a "no" is supplied, and the question itself. The on-disk documentation, for the most part, is clear and concise. Occasionally a section, such as the explanation on updating and "reading the pointers to disk locations," can be confusing.

Despite minor flaws, this little program, if used effectively and imaginatively, is an impressive learning device. Teachers will want to design some trees themselves and have students run through them, learning the information within. Having students create their own trees is even better because doing so requires the ability to observe, to identify traits, to locate similarities and differences between items, to classify, to correctly phrase interrogative sentences, etc. Not bad for an inexpensive "homemade" program. Not bad at all! Grade: B+.

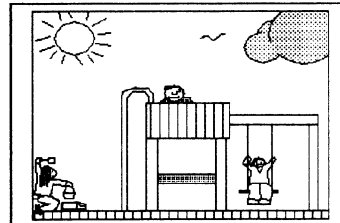
[*Word-Search Maker* and *Animals*, Bresnik Software, 555 Ware St, Mansfield, MA 02048. \$5.95 each plus \$2 postage and handling per Bresnik order. Runs on XL/XE machines w/enhanced memory. 48K owners and 810 drive users should inquire before purchasing.]

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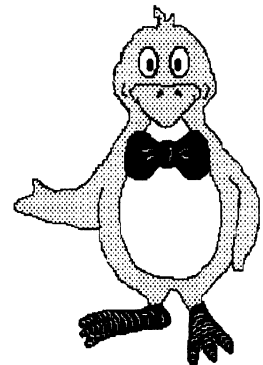
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Supremacy

A Space Opera from Melbourne House

Review by Milt Creighton

Games Beget Games

There seems to be a spate of space games appearing just now: *Imperium*, *Star Control*, *Interceptor*, *Just Another War in Space*, to name just a few. I guess these things tend to run in cycles. *DungeonMaster* seemed to set off a head-long rush of imitations and I'm still sorting through the recent deluge of combat flight simulators. Even tank games have enjoyed a minor boom, with at least two major new ST titles debuting recently (*Tank Platoon* and *Team Yankee*). Space games were bound to get their chance.

Enduring Challenge

Supremacy is a new strategic space economic/combat simulation imported from Europe. While not as intricate as *Imperium* or *Stellar Crusade*, it is a very challenging game, one that could keep you entertained for weeks or months if you like such games. *Supremacy* is actually offered under two different titles, one produced in Europe (*Supremacy*) and the other (*Overlord*) produced for the US market. Only the European version is reviewed here.

The storyline is a new one. You are the supreme ruler of your civilization (note the British spelling) and research into interstellar travel has accidentally opened a gateway from your space research facility into four hitherto unknown dimensions. Each of these dimensions contains a varying number of lifeless planets (between 8 and 32), opening the way for terraforming and expansion of your empire and your ego. Unfortunately, at the same time that you discovered your gateway, so did someone else discover theirs. In fact, there are four

hostile alien civilizations, one poised at the far end of each planetary system. And to make matters worse, the gateways are now permanent. Your empire is threatened from all four dimensions (fortunately, the threat proves to be sequential and not simultaneous). Gosh, imagine the odds of all that!

I don't think I have ever seen a game stretch even fictional credibility to the limits this one has. Suspension of disbelief in *Supremacy* requires constant effort and is further undermined by elements of the game itself. You'll have a tough time willingly identifying with anyone in this game. Fortunately, the game mechanics are diverting enough to cause the trappings to be relatively unimportant once you get to playing the game itself.

Supremacy comes on three copy-protected disks (you can't put it on the hard drive) and it only uses one floppy drive (no matter how many you have). However, once you've loaded the program it doesn't access the disk until the end-game sequence, making it an acceptable compromise. There is also a documentation check during logon to further foil pirates. Saving a game requires a specially formatted blank disk upon which you can save four games.

Supremacy has a problem with the T16 accelerator board in 16 MHz mode but seems to run normally with the RAM cache turned off (that requires a hardware switch), although I did experience several instances of the game freezing the keyboard for no apparent reason. Also, I had a problem running *Supremacy* with the ACER multiscanning monitor equipped with Omniswitch (horizontal tearing of the video similar to

that experienced on a machine with a T16 and the RAM-cache on). It ran normally on a standard 1040ST with an RGB color monitor.

The opening sequence is nothing short of spectacular. The music and artwork are second to none. In fact, the graphics in this game are splendid throughout. Had *Stellar Crusade* had the benefits of such a presentation it might have enjoyed the success of *DungeonMaster*. The game manual is 95 half-size well-written pages, about half of which is made up of a very adequate and detailed tutorial and a section of most-often-asked questions (and answers) in the back.

Don't Read My Lips

Basically, you begin with your planet-size research facility called Starbase, a population of about 2,000 people, limited resources, and no space ships of any kind. Not exactly an empire, is it? Your object is to claim all the planets in the newly discovered star system and defeat the enemy commander. It's done rather elegantly by raising or lowering taxes (thus affecting the growth rate of your population), building atmospheric processors for terraforming lifeless planets, buying domed horticultural (farm) ships (that can be moved onto the surface of any planet to feed the growing masses), purchasing core mining stations (to extract fuel and minerals), or solar power generators (to power the farms and mines), or cargo ships (to ship cargo and people), or battle cruisers (for carrying cargo, people, and especially armies).

In the first contest, all you need to buy items is sufficient cash, but in later scenarios you will also need sufficient energy and minerals to

purchase an item. You also need fuel for your ships, of course.

Specific Missions

The planets (once they are successfully terraformed) are of several different types and are optimized for a particular mission:

- desert planets produce large quantities of energy if equipped with solar collectors,
- volcanic planets are the best for fuel and minerals,
- tropical planets are best for food production, and
- metropolis planets produce lots of people who pay lots of taxes.

Since your burgeoning empire is threatened by aliens, you'll need troops to defend it. There is no space combat in this game. All combat is done on the planet surfaces and is mostly outside of your direct control. You'll build armies (200-man platoons actually), train them, equip them (a heavy expense) and then ship them around in battle cruisers. The battle cruisers slip into docking bays (somehow that's always a surprise) on enemy planets, disgorge their platoons, and the battle for the planet begins.

About the only thing you can do once a battle starts is send reinforcements (they still allow you to dock if there is room) and increase or decrease the intensity of battle. The odds of victory are dependent on the total number of soldiers on each side, the state of their training, and the quality of their equipment.

Winning means defeating the commander at the other end of the star system. Getting there is what makes *Supremacy* fun, and there are lots of economic and offensive and defensive strategies you can employ to achieve your ends. Naturally, you must balance economic and military goals, but it is not as easy as it sounds because *Supremacy* is a real-time simulation. There are no set turns here for

you to sit back and casually map out a strategy. Time marches on inexorably and the enemy commander continues to implement his strategies whether you choose to act or not. In addition, natural advances and disasters occur both in sequence and at random, tending to upset carefully laid plans. The ever-present tension is frustrating and exhilarating at the same time, recalling some of the white-knuckle atmosphere of the air traffic controller games of the past.

Harder & Harder

The scenarios are graduated in difficulty with the first one an easy win. The alien commander is very limited in capability and takes a long time to make decisions. In addition, he is a lousy tactician and

...you must balance
economic and military
goals, but it is not as easy
as it sounds...

an abysmal strategist and there are only eight planets in the system. So you have a direct shot at his starbase. The next scenario is quite a bit tougher for a number of reasons. The economics are more complex, the planetary system is larger, and opponents are more adept. You don't reap any advantages (other than experience and insight into the game mechanics) from your earlier victories either. Each contest must be won on its own merits. The third scenario is very difficult and the fourth is truly a nightmare.

The only real knocks on *Supremacy* are the uneven nature of its pseudo-history and fact that certain elements of the game don't make much sense even within its own universe. The game is played from a sort of central control console that you operate as supreme ruler. The problem is that a number of the messages displayed on the console don't make sense even within the

framework of the game. Threats from the other commander are okay, but some of the other messages suggest a previous negotiated truce and some sort of alliance to back it up. Where did that come from? It doesn't fit anywhere in the storyline even if it does serve as an indication of the operation of some of the game conditions. In addition, you can deploy core mining and horticultural stations to the surface of Starbase, your home planet, suggesting that the wealth of your super-developed home world has never been exploited! Also, the fact that space combat is not allowed between opposing battle cruisers is difficult to justify—especially since you may not ship armies on cargo ships.

I am also not pleased with the blood-thirsty end-game sequence. A victory concludes with your opponent being dragged before you in chains and you finish the game by executing him — by blowing off his head, for example. Despotism aside, just who are the bad guys in this game? You might not want to look too close.

The Bottom Line

Supremacy is truly an uneven product. Its good features are excellent. It offers fine value in its production: the manual is first rate, the graphics and sound are superb, the gameplay is entertaining and consistently challenging, and there is enough substance to keep you coming back for more. On the other hand, *Supremacy* has no "soul." It is false to its own history and thereby undermines its own raison d'être by exposing the mechanical framework underneath. If it is possible for you to get past that fault and into the game itself, you'll find good value in *Supremacy*. Likewise, if you demand that a game be true to its own roots, you'll find *Supremacy* a disappointment and may want to wait for the US version to appear.

Current Notes ST Library

July-August 1990

#460D: DYNACADD DEMO-(M) V1.76. CADD package, (no SAVE or EXPORT) comes with font editor program and several utilities. Req 1MB, DS.

#461: CALAMUS OUTLINE ART DEMO-(M) Working demo (no SAVE) to this companion program to Calamus. Req 1MB, DS.

#462: BLOODWYCH DEMO-(C) Fully-playable "Dungeon Master" game.

#463: BLOOD MONEY DEMO and WIPEOUT-(C) BLOOD MONEY, horizontally-scrolling shoot-'em up. WIPEOUT demo, Intergalactic Hoverboard Challenge.

#464: PERSONAL FINANCE--Payroll (V3.0). Cost of Living Adjuster, Checkbook V1.14, and Personal Finance Manager demo.

#465D: MAIL PRO & STOCKS AND BONDS-(M) Mail Pro Demo: filing and mail-merge system, demo ver offers limited entries. Req 1MB. Stocks and Bonds is a based on the fast action stock market game.

#466: 16-VOICE SEQUENCER--features multi-voice recording, split keyboards and/or velocity ranges, simple editing.

#467: MIDI MUSIC MAKER--music player for Music Studio 88, Music Construction Set, EZ-Track and many other formats.

#468: CALAMUS FONTS#3--Advertising, Barnum, Casual, Celtic, Chrome, Flash, Har-loe, Mouse, Schoolbook, Western. Incl Atari, MC & VISA logos.

#469: PAGESTREAM FONT EDITOR--The official font editor from Soft-Logik.

#470: CLIP ART#14--People, in variety of everyday situations--Degas format.

#471: CLIP ART#15--More People in Degas format pics. DSLIDE included.

#472: INSTANT GRAPHICS! V2.14--communicate over modem in color, sound, and motion.

#473: INSTANT GRAPHICS! UTILITIES--editing and graphics creation utility, in-depth tutorial, and utility to convert MS files to IG format for playing songs over your modem.

#474: MINITERM and MINIBBS--Miniterm is a full-featured desk acc. Minibbs is a full-featured operational BBS.

#475: HYPERSCREEN and STDCAT V4.3--Hyperscreen, implimentation of the Hypertext concept on the ST. STDCAT, disk cataloger program.

#476: ME FIRST-(C) V2.0. Interactive learning games/stories for children. Includes documentation and additional DATA files.

#477: CLASS and EZ-GRADE--CLASS V2.05, combination database and spreadsheet for teachers. EZ-Grade, demo of a commercial gradebook program.

#478: SPACEWARS-(C) Version 1.0, new outer space shoot-'em up game.

#479: HERO IID--DEMO of HERO II gaming system incl Dungeon Construction Set to create and manipulate dungeons for the HERO II game system.

September 1990

#480D: CN ST LIBRARY CATALOG--catalog of the 500+ disks in the CN PD Library.

#481D: CN MACINTOSH COLLECTION--complete text of the Magic Sac/Spectre columns published in CN from 3/87 - 7/90.

#482D: WALLACE NO.1--Cyber Animations: Dr.Who and Who-K9. 6 NEO pics.

#483D: WALLACE NO.2--Cyber Animation: Albatros. plus 6 NEO and 5 P11 pics).

#484D: WALLACE NO.3--Cyber Animations: Mad_Max and Megafugi. Marsch.spc, animate4.prg, and sslide.prg.

#485: ALGEBRA I: Linear Equations--tutorial leading user into correct equation solving techniques.

#486: ALGEBRA I: Verbal Problems--Covers 10 of the most common verbal type problems found in Albebra I textbooks.

#487: BASIC MATH SKILLS: Operations--pick adding, subtracting, multiplying, dividing, or a mixture of all four. Includes two different arcade type learning games.

#488: GIST (Grades, Interims, Student Teams)--grades management program.

#489: DO NOT STAMP UTILITIES--Area Code Locator; Postal.prg, state abbreviations and spellings; SHREDR V1.1, permanently shred data from your disk; Hot!Stat V1.1, analyze ledger files created by HotWire.

#490: THE VIRUS DISK--The Virus Killer, Ver 3.11, detect and eliminate viruses from your disks; Hospital, set of anti-virus utilities; Super Virus Killer; Flu, displays symptoms of viral infections.

#491: WILD FLOWERS--16 stunning pictures of Wisconsin wild flowers in PC1 format.

#492: UTILITY NO.44--FastCopy III! (program and accessory); HyperFormat, format 927K on 83-track DS disk. ARC Ver 6.02, latest version of ARC compression utility, runs roughly twice as fast as earlier Ver 5.21.

#493D: B/STAT--V2.36 of graphing and statistical analysis program. Req 1 MB, DS.

#494: TAIWAN II/GFA SHELL PLUS--Taipan II game, V1.1: early 1800s trade as you engage in combat with enemy ships.(C) GFA Shell Plus: replacement for the GFA Menux program.

October 1990

#495: TESTMASTER.Ver 2.01, (C/M) Set up your own tests to help prepare for exams.

#496D: GUITARIST DEMO. A tool to help guitarists learn chords and scales in all keys and all positions of the fretboard.

#497D: PUBLIC PAINTER V0.1 (Mono) Latest version of this popular paint program from Germany. Inclues English docs.

#498D: EQUINOX SOUNDTRACKER V2.5 Includes 5 songs: tar concert in air, dns, demons soundtrack, rsi rise up, and wild.

#499: STARBLADE DEMO. (C) Space-opera set in the 30th Century in the vastness of the Orion galaxy.

#500: YOLANDA and RICK DANGER- OUS. (C) Demos. Yolanda is an arcade/ adventure game. Rick Dangerous, explorer, captured by the Goolu tribe, must escape.

#501: PHOTON STORM.(C) Demo version of this fast-paced space arcade game.

#502: GLOVES/FUTURE(C) Demo versions of Kid Gloves and Back to the Future.

#503: NEODESK 3 AND CLI DEMOS. Demo of NeoDesk 3, replacement desktop. NeoDesk CLI is a window-based command line interpreter that hooks into NeoDesk itself.

#504: KID GAMES.(C) KV_Match: Flip over squares to match baby and parent animals. Letter Hunt: learn alphabet by matching letters on the screen. Enchanted Forest: a variant of both 'Shutes and Ladders' and 'Candyland' suitable for children 3 and above. KV_Geo-1, Hypertext geography, learn about the solar system. Shareware.

#505D: TALESPIN ADVENTURES.(C) SDI, Mansion, and Mountain. SDI.TAL (created by 10 children in the 2nd-5th grades), MOUNTAIN.TAL was designed by 8 3rd-5th graders.

#506: UTILITY NO. 45. TLC--Play, play any digitized sound fmt file; TLC--namr, add symbols to file name; tic--form, format disk to read/write fast; TLC--attr, change file attributes; mouse_db, new mouse doubler V3; spirited, text ed desk acc; a1--time, time & date setter; clock_5, all rez clock acc; maccel3, Atari Mouse Accelerator 3; occultarx, hard disk password protection; idle_22, idle screen saver;unlzh172, fastest extract for LZH archives; volume, rename disk vol; ST Sentry V5.1.

#507: TADS. Text Adventure Development System. Includes Ditch Day Drifter adv game.

#508: DEEP SPACE DRIFTER. A Text adventure game created with TADS.

#509D: GENIE FILES 9/90. Archive of files found in the 31 GENie libraries as of Sep 1, 1990. Files also listed in numerical order from 10,000 through 16,500.

November 1990

#510D: BULLETIN BOARD SYSTEMS. Two shareware bulletin board systems: Nite Lite BBS and Vulcan Embassy BBS.

#511: MIDI MUSIC DISK. MidiMike Version 1.0, Music Studio Song Player 1.2, and MSPlayer by Walter Holding.

#512: SORRY & ST SQUARE. (C). Sorry is the same as the popular board game of the same name. ST Squares is based on the Hollywood Squares game show.

#513: DISENCHANTED. An interactive fantasy game.

#514: PILEUP V3.1. (C) latest version of this Tetris clone is compatible with TOS 1.4.

December 1990

#515D: STARTING BLOCK. A collection of columns by Richard Gunter directed at the novice. Also includes other CN tutorial articles including a series on hard drives.

February 1991

#516: STARGATE V3.0. Look out your spaceship and see the stars around you.

#517D: ALADDIN. GENie Atari ST Aladdin, an automatic communications tool designed to provide you with the most efficient use of the features and services of GENie.

#518: UNION DEMO. A spectacular demo for the ST showing off many of the animation and sound capabilities of the ST. (C)

#519D: PRINTER UTILITIES. AW-Print, a generic printer utility that let's you define the characteristics of any printer and send codes via GEM drop-down menus. Also includes two 24-pin printer screen dump utilities (SCDMP1.5 and SCRDMP24), and specific printer setup utilities for the Panasonic KX-P1091i (PANASET), the STAR NB 24-10, (STARNB24), and Gemini 10x (GEMINI).

#520D: AIR WARRIOR, V2.0B. Latest update to this air simulation game. Game can be played in isolation to practice, but is designed for interactive combat on GENie.

#521D: CLIP ART NO. 16. "Old Cars," 28 IMG files of a variety of antique cars.

#522D: CLIP ART NO. 17. "Cartoons," 55 IMG files. 10 pictures of Garfield, 13 Smurf pics, and 32 other cartoon characters.

#523D: CLIP ART NO. 18. "Misc Themes," 49 IMG files: 6 Egyptian pictures, 29 Music pictures, and 14 Zodiac pics.

#524D: CLIP ART NO. 19. "High Res Pictures," a collection of 24 fine art pictures in an IMG clip-art format.

#525D: GRAN PRIX. An auto racing arcade game with dozens of various courses. (C).

#526D: eSTeem PILOT Demo (1.0). PILOT is the classic, educational authoring language, richly enhanced by GEM, for creating and using tutorials, computer-based instruction, and laser videodisc training.

#527D: NAME THAT TUNE & ALCHIMIE. Alchimie Jr is a music sequencer for use with MIDI. Name That Tune is a fun game that lets you match your skills with an opponent to see who is better at recognizing songs. Use with the song data disks listed below.

#528: NAME THAT TUNE MISC SONGS. 111 songs for use with the "Name That Tune" game on #527.

#529D: NAME THAT TUNE TV SONGS. 111 themes from various TV shows. Use with CN #527.

#530: CINEMA & FLASHCARD. Cinema allows young kids to run and create simple animation sequences. Flashcards is just like the name suggests. The author used it to help learn a foreign language.

#531: UTILITY NO. 46. Quick ST 2.2 Demo, speed up your ST! **Little Green Selector** V1.88--newest version of this alternative file selector routine. The **Gram Slam Grammar Checker** Demo--at last, a way to check your grammar!

#532: VALGUS & MANIAC MINER. (C) Valgus V2.0 is a GREAT 2-player version of a Tetris-clone game. Maniac Miner--go exploring for underground treasures but watch out for rockslides and other obstacles.

#533: ST GAMES. (C) **Collapse** V1.1, Blocks fall in groups of 3. The object is to line up 3 or more of the same type in horizontal, vertical or diagonal rows. **Jeopardy**, test your knowledge just like a contestant on the real show. **Valgus~2** V2.0 (pronounced "Valgus Squared,") in VSQ, the 7 familiar Valgus pieces are back, but they come at you from all 4 sides of the 27x27 playing area. **Tripple Yahtzee**, V2.0, popular dice game provides hours of enjoyment for one or more players.

#534D: HACMAN II. (C) This Pacman clone has all digitized sound effects plus several new "features": 100 new levels, 4 new ghosts, Cameo appearances by many other creatures, Puzzle boards, Skips (skip a board you hate by pressing the space bar), Ghost hit/miss statistics, Secret warps, and a surprise or two for the really devoted.

#535: KIDMIXUP PLUS. (C) The "plus" is that you can now add your own sequence files created with any DEGAS-compatible paint program. 3 picture files (a total of 27 sequence themes) are included with this program. Child chooses a sequence theme from the picture icons. 4 pictures appear. The child clicks on each in turn to place them at the bottom of the screen in the correct order.

#536D: FIVE KID PROGRAMS. (C) **Rabbit**, a rabbit bounces off the back of a fox in order to reach carrots floating by in the sky. **Santawrk**, Santa Claus is grasping for Christmas decorations while angels try to keep a trampoline under him. **Burger**, Ronald McDonald attempts to grab burgers as they float by in the sky. **Circus**, a 2-player math game with adjustable level of challenge. **Robin**, control mother robin as she eats flies and gathers her children from various nests. These programs for kids 3 and up.

#537: PERFECT MATCH, KV-FONIC, and MAKIN' AIKEN. (C) **Perfect Match**, shareware version of program originally distributed by Michtron. Match cards to demonstrate your knowledge. **KV_FONIC** introduces children to phonics. It includes 9 puzzles containing consonants (b,c,d,...), blends (sl, sn, sm...) and digraphs (th,sh...). You can easily create your own puzzles or modify the existing ones. In **Makin' Aiken**, kids put together a little man by choosing the various heads, hands, feet, etc, all to the tune of a cute little song.

#538: CALAMUS FONTS #4. Tiphany, Fancy Chancery, Windzor, University Roman and University Bold, Broadway Engraved, ST_FRANC (paste up your own ransom note), The Architect font, and SHOWFONT.CDK (produces a nice display of any Calamus compatible font.)

#539D: ARCADE DEMO DISK. (C) Toyota Rally, Flimbo's Quest, and Defender II.

NOTE: Due to the recent postal rate increase we have had to change our shipping and handling charge from \$1 for 6 disks to **\$1 for every 4 disks.**

CN Classics

#14: NEOCHROME--Atari Paint program w/docs.

#71D: FORTH*. Includes Forth 83 and Forthmacs, 2 implementations of language.

#277D C LANGUAGE*. Includes GNU C, Mark Williams C, and Proedit and Context2 editors.

#263D: ST LANGUAGES*. XLISP V2.0, PROLOG, SMALLTALK, ICON, XFORMER.

#211D: KID GAMES*. Kid Notes, Barnyard, Kid Sketch, Dix Piano Player, Kid Music, Kid Piano, Kid Potato, Kid Mixup. (C)

#431D: KID GAMES*. Kid Publish, Kid Shapes, Kidpublisher Prof. Demo. (C)

#187D: MONOPOLY & WHEEL OF FORTUNE*. (C)

#330D-#335D: SEEKER BIBLE. 6 disk set includes all 66 books of Bible.

#381 VANTERM V3.9. Full featured terminal program.

#395D-#399D: The TEX DISTRIBUTION. 5 disk set gives you the complete TeX desktop publishing system.

#422: UNITERM V2.0E. Powerful terminal emulator with best Kermit implementation.

#430: ST WRITER V3.8. English, Spanish, and German versions of this excellent word processor. Includes full documentation.

#432D: CALAUMUS FONTS 1 & 2*. Chancery, Cursive, Cond. Cursive, Gaudy, Gaudy Cond, Gillia, Revue, Souvenir, Med.Souvenir, Spokane, Study, Windy, Bodoni, Drurylane, Hallbats.

#440D: SUB-CAL and STAR BASE 2000*. Impressive calculator and star plotter and browser.

#452: PAINT PROGRAMS. (M) Andromeda, Public Painter, Megablit.

* NOTE: A number of these DS disks represent new combinations of two or more single-sided releases from the CN Library.

The CN library is also available on **Syquest 44MB** removable cartridges. Carts are \$119.95 each plus \$4 S&H. **Cart 1** has 112 ST disks (#347 - #469). **Cart 2** is the Spectre Collection (#S1-#S80).

You may also order Andrzej Wrotniak's programs through Current Notes: **STAR BASE**, \$43. **EL CAL 1.3**, \$44. (Both programs for \$80.)

All Current Notes disks are only \$4.00 each (add \$1 / every 4 disks for S&H up to a maximum of \$6.00). 10 disks for \$35.

CN disks are guaranteed to work. If you ever encounter a problem, simply return the disk and we will gladly replace it. Note that a "D" after a disk number indicates a double-sided disk.

Order disks from CN Library, 122 N. Johnson Rd, Sterling, VA 22170. VISA and MC orders are welcome (703) 450-4761.

New ST Disks for March, 1991

#540D: ARCADE DEMOS. Simulcra: demo of a very cool arcade-type UK game, you are this "tank" and you drive around a "3-D" map, blowing things away and getting enhanced weapons. **Spellbound:** this is a one level playable demo of this Psygnosis platform/collecting type game. Nice graphics! **9 Lives:** This is playable one level demo of this ARC Software platform type game with excellent graphics and animation. Not an easy game! (Color)

#541D: GOD'S WORD~2 DEMO. This is a working demo of the bible reading program God's Word ~2 for Medium or High resolution. This demo will also run from a floppy drive although the full blown program requires a hard drive. Print, Save, and Add to Index functions have been disabled in this demo. There are six books supplied with this demo, and an abbreviated topical reference index.

#542D: KID GAMES: WUZZLERS and REBUS WRITER. Here are two more kid programs in GFA Basic by D.A. Brumleve. Wuzzlers is a word and picture puzzle game. Rebus Writer allows the user to design and print rebuses, a kind of code in which pictures and symbols are used to represent words.

#543D: MIDI MAZE II. MIDI Maze II version 1.5 from Germany runs in color or high rez. This is an outstanding game! 16 ST's can interconnect via MIDI port or a single player can give it a shot (pun intended). Doc's are in German so someone please help us out w/translation.

#544D: PERSONAL MUSIC LIBRARIAN. This is a demo copy of Personal Music Librarian (PML), the comprehensive music cataloging system. We believe it will greatly add to your enjoyment of your music collection. Demo restricted to 35 recordings or 60 songs in the database. Requires 1 Meg RAM.

#545: CARDFILE, NOTES, MUSICALC. **CardFile 1.43** demo version is limited to ten address cards and ten appointments, but is otherwise fully functional. The documentation for the demo consists only of a menu summary. **Notes v0.9** (shareware) is a program intended to allow you to keep the equivalent of those little yellow stick on note papers within your computer. In it's current form Notes provides a means to create, maintain, and print files of related notes. **Musicalc v2.02** should prove useful for musicians, recording engineers, home studio owners, and people working with video and film. In addition to normal numeric calculations, Musicalc will preform time base and footage calculations. The most unique feature however is its ability to calculate bar (or beat), SMPTE time, and footage offsets referenced to a starting SMPTE time..

#546D: TCB TRACKER DEMO. TCB Tracker, officially named the best music program of 1990 in Europe, is a four track music record and playback system that includes a drum machine, sequencer, and synthesizer all

built in. In essence, it's a complete mixing studio. The notes played are all digitized sound, so the end results are crystal clear. It allows you to create real digital songs, mix existing songs, or use samples for your own programs—all in digital sound quality.

#547D: KID GAMES: 7KIDS and BARNIMALS. **The Wolf and the Seven Kids** is intended as a first adventure for young computer users, ages 5-9. The adventure is based on the Grimms' fairy tale, and the story may be familiar to children, but the program offers some surprises. There are several possible endings to the story, depending on what choices you make, and there are numerous opportunities for making choices. **Barnimals** is a listening/guessing game for the very youngest computer users, ages 0-4. Most kidprgs are intended to be used independently by children; the use of Barnimals, however, will be most successful if an adult or older child participates. Both programs by D.A. Brumleve.

#548: UTILITY DISK NO. 47. 11 utilities for your ST. **BACKUPST:** a new hard disk backup utility uses a proprietary data-stream format to create fast image backups but can back-up and restore (interactively) individual files and folders. Includes full docs. **KTEXT133:** K_Text version 1.33 allows viewing of Degas or Pixel perfect pictures, XBIOS 32 music, plus the use of appending files. Allows the use of VT52 commands and edits them in high rez. **STEXT11:** This is a shareware fast text reader for the ST, with several features including the ability to define blocks and print them, and to set bookmarks. **PFXPAK:** A German runtime packer, similar to DC-Squish, it will LZH your executable files and put a bit of SFX code at the beginning. When you click on a program, it will first extract itself, then run. This is invisible to the user, and very large files may even appear to load faster since the decompression may be faster than the original load time. **LIBMASTR:** Library Master is a shareware utility to organize, modify, convert, and print your Print Master Libraries. Ver 1.1 fixes a page break bug in version 1.0 and adds features and enhancements. **TEXTVIEW:** This program is a GEM-based text file viewer. All functions can be controlled by the mouse. It can be used as an installed application or even be started up by dragging the text file to the program (a la NeoDesk). **TX2_VIEW:** Demo of text reading program, version 1.35. **PIN-HEAD,** Ver 1.8 is a *very* tiny program (it uses less than 1K when installed!) that should be run from your AUTO folder. PinHead will drastically reduce the amount of time it takes to boot your computer, especially if you have several AUTO programs and desk accessories installed. Every program that runs after PinHead will load into the computer faster than you ever thought possible! And this speedup is not only evident at bootup time; programs will load much faster even when they are run

from the GEM desktop or a shell such as CodeHead Software's HotWire. PinHead gives you a lot of bang for your memory buck! **BIGCOLOR:** Version 1.05 is for use with Mono monitors, and allows some low resolution and most medium resolution programs to be run on a Mono monitor. **SANDP21:** ver 2.1 allows you to make your own electronic newsletter by formatting the text output in the window with different fonts and colors. You can even have your Heading lines in Boldface, italics, or any of the other combinations, and in any color, too! **FB2:** First Base (ver 1.6) Database is a fast memory resident database system for small and medium size applications. It is not full featured but has a wide range of uses, is fast and very easy to learn and use. It runs in medium or high resolution on an Atari ST or Mega.

#549D: UTILITY DISK NO. 48. **A2LSWITCH** (That's ARC.TTP TO LHARC.TTP Switcher!) This program is offered to allow people who use LHARC and ARC to switch back and forth between the two compression methods with the least amount of effort. **ARCSHL23:** ARC Shell Ver 2.3, by Charles F. Johnson, is a GEM program which is designed to work with the popular ST archiving utility ARC.TTP. Essentially, ARC Shell adds a GEM interface to the ARC program, letting you point and click to select the various options instead of typing a command line. ARC Shell also contains a complete GEM-based disk utilities package, that lets you copy files (with wildcards and with query), delete and rename files, create and delete folders, show the free space on any connected drive, and even run other programs...all without exiting to the desktop. **UNLZH:** ver 1.61 combines an easy to use, GEM based interface with high speed extraction routines, to give you a much simpler and much faster way to extract LZH archives. It is a self contained program - LHARC does not need to be present to extract files. It is written in 100% Assembly language, and extracts approximately four times faster than LHARC. **ARC602ST:** ARC File Archive Utility, Version 6.02 is used to create and maintain file archives. An archive is a group of files collected together into one file in such a way that the individual files may be recovered intact. ARC automatically compresses the files being archived so that the resulting archive takes up a minimum amount of space. **LHA121:** v1.21 (Based on: LHarc version 1.13b for MS-DOS), is another file compression utility that is even more efficient than ARC. **ARCGSH35:** This is Arcgsh version 3.5, a program that eases the calling of the well-known archivers Zoo, Arc, LHarc and Shar. Furthermore the programs Uud and Uue are supported to let you decode resp. encode binary files for handling with e-mail. You can use your favorite file viewer and your favorite editor from Arcgsh without any need to leave the program. **UNERASE:** This accessory allows you to undelete a file or a subdirectory.

New Spectre CN Library Disks

by Jeff Greenblatt

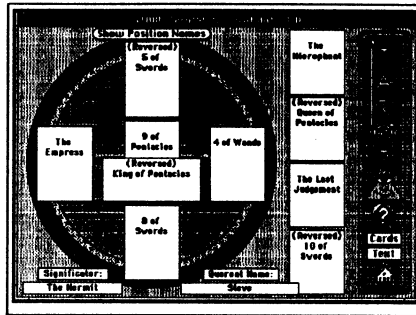
CN is adding #S106-#S110 PD and Shareware disks to the Spectre Library. Some of these applications will only work with version 3.0 of Spectre and are so noted. Disks are \$4 each plus \$1 S&H for every 4 disks. Order from CN Library, 122 N Johnson Rd, Sterling VA 22170 (703) 450-4761.

S110D: VideoWorks #3. 14 VideoWorks animations and a VideoWorks player (Circles 4th, City Street, Fish Story, Fool!, Lazer, MacMelt, O'SnakeEyes, Oracle, Shoes, Space Epic, Sub City, Tyrone, Weirdness, and Wishes.)

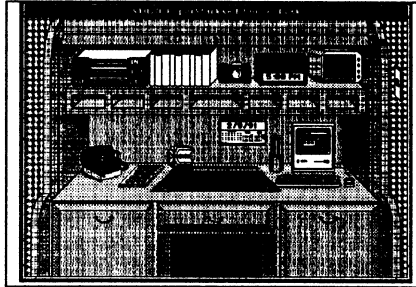
S109D: ATM Fonts #2. 8 Type 1 Postscript fonts for use with Adobe Type Manager 1.2 or higher (Benjamin Caps, Kinigstein Caps, Lower East Side, Lower West Side, Rudelsberg, Starburst, Upper East Side, and Varah Caps.)



S108D: Taromatic. A single HyperCard stack (Spectre 3.0 required). If you are into fortune telling or what the future beholds, give this a shot.



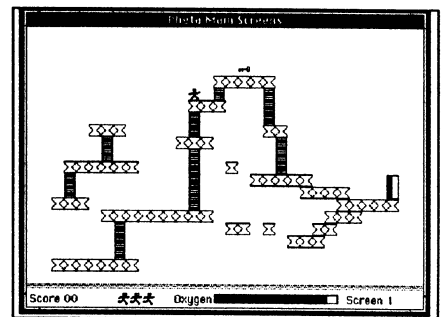
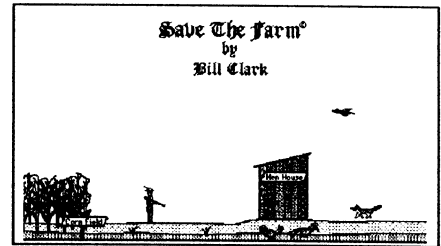
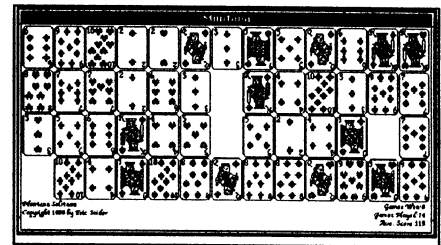
S107D: HyperStacks #12. 9 stacks (Spectre 3.0 required) for use with HyperCard (Amino Acids, Ansel Adams, Bloom County, Compress Plus, Home Desk (see picture), Homicide Investigation, HyperStation, Stock Tracker, and Usigi's DogCon.)



S106D: Games #15. Euchre 2.5, Montana 2.0 (pictured), Pokeno, Precision Cribbage, Save The Farm (pictured), and Spacestation Pheta 1.5 (pictured). (Spectre 3.0 required).

S105: ATM Fonts #1. Seven Type 1 Postscript fonts (Carrick Caps, Green Caps, Horst Caps, Konanur Caps, Lee Caps, Reynolds Caps, and Zaleski Caps.)

S104D: Intruder II. An adventure game created with World Builder.



S103D: Chime 1.6. Chime, (Spectre 3.0 req) related docs, and 27 chime sounds.

S102D: MouseDroppings Hints. 47 text files with hundreds of hints and tips on the use of the Macintosh.

S101D: Games #14. Express Lane, Glider+ 2.02 with Docs, Glypha 2.0 with Docs, MiniGolf, pNuki 1.1, Slam Dunk 1.2, TENS!, and Tripple Yahtzee (Spectre 3.0 required).

S100: Stuffit Classic 1.6
S99D: Utilities No. 16
S98D HyperStacks No. 11
S97D: Games #13
S96D: Publishit Easy Demo
S95: Startup Screens No. 2
S94: Sounds No. 9
S93D: Games No.12
S92D: EPS Clip Art No.3
S91D: Utilities No.15
S90D: Games No.11
S89: HyperStacks No.10
S88D: EPS Clip Art No.4
S87: Utilities No. 14
S86D: Twilight Vale Adv. Game
S85D: EPS Clip Art No. 3
S84: Sounds No.8
S83: Utilities No.13
S82D: HyperStacks No.9
S81D: Grendel 1.0 Adv. Game

CN Cart #2

Disks S01 to S80 are available individually, or all of them can be obtained on a single 44MB removable Syquest cartridge. Cartridge price is \$119.95 + \$4 Shipping & Handling.

S80: Postscript Fonts No.4
S79: Utility No.2
S78: EPS Clip Art No.2
S77: Graphics No.3
S76: StartUp Screens No.1
S75:: Games No.10
S74: Sounds No.7
S73: Utilities No.11
S72D: HyperStacks No.8
S71D: Shanghai Demo
S70D: HyperStacks #7
S69: Sounds No.6
S68: Games No.9
S67: Utilities No.10
S66: Games No.8
S65D: HyperStacks No.6
S64D: Postscript Clip Art No.1
S63: Utilities No.9
S62D: PipeDream Demo
S61D: HyperStacks No.5
S60D: PostScript Fonts No.3
S59: Sounds No.5
S58D: Clip Art No.2
S57: Utility No.8
S56D: HyperStacks No.4
S55: Utility No.7
S54: Games No.7

S53D: Clip Art No.1
S52: Postscript Fonts No.2
S51D: Postscript fonts No.1
S50: Dungeons of DoGm, V5.4
S49: Lawn Zapper arcade Game
S47D: Phoenix Adv Game, disk I
S48D: Phoenix Adv Game, disk II
S46: Everyman 1 Adv. Game
S45: Graphics No.2
S44: Utility No.6
S43 VideoWorks w/Sound No.2
S42: Productivity No.2
S41: Productivity No.1
S40D: HyperUtility No.3
S39: Utility No.5
S38: Games No.6
S37D: HyperStacks No.4
S36: Sounds No.4
S35D: HyperStacks No.3
S34: Excel Templates
S33D: HyperUtility No.2
S32: VideoWorks w/Sound No.1
S31: DAs No.2
S30: Utility No.4
S29: Sounds No.3
S28: Database Builder Demo
S27: Games No. 5

S26: Fkeys No.1
S25D: MacMoney Demo
S24: Games No.4
S23: Sounds No.2
S22: Sword of Siegfried
S21: Utility No.3
S20D: MacDraw II Demo
S19D: Hyper Utility No.1
S18: Graphics No.1
S17: Sounds No.1
S16: DAs No.1
S15: Games No.3
S14: Utility No.2
S13D: Stacks No.2
S12D: Full Impact Demo
S11: Utility No.1
S10: HyperStacks No.1
S09: Telecom No.1
S08: Image Studio Demo
S07: Games No.2
S06D: Powerpoint Demo
S05: Games No.1
S04D: Aldus Freehand Demo
S03D: Red Ryder 9.4
S02: MacPaint 2.0 Demo
S01: MacWrite 5.0 Demo

Current Notes Atari Club List. Members of listed Atari clubs may subscribe to *Current Notes* at a discount rate of **\$23/yr** (or \$42/two years)—over **40% off the newstand price!** Add your club to this list in either of two ways. If you have a club newsletter, add CN to your distribution list. Include a subscription form in your newsletter, or a message explaining the CN discount, that members can use to send in their subscriptions. Alternatively, you may become a registered CN club by sending in an initial subscription list of 10% of the membership or 6 members, whichever is less. (It would also help to have a list of club members; we may even be able to send a sample copy of CN out to your members.) Send to: **CN Atari Clubs**, 122 N. Johnson Rd., Sterling, VA 22170. For more information, call Joyce (703) 450-4761. **NOTE: Canadian Atari clubs** are also eligible. Foreign club rates are **\$31/year or \$58/2 years.**

Alabama

Alabama ACE, Joe Moudry, PO Box 1205, Tuscaloosa AL 35403-1205 (205) 556-1781.
Huntsville AUG, Levin Soule, 3911 W. Crestview, Huntsville AL 35816 (205) 534-1815, BBS: (205) 722-0900.

Arizona

NW Phoenix Atari Connection, Paul Parks, PO Box 36364, Phoenix AZ 85067 (602) 278-2375.
SE Valley Atari Connection, Tim Bar, PO Box 662, Chandler AZ 85224 (602) 821-1200.
Tucson Atari Central, Ray Waters, 1426 W. Kilburn Rd, Tucson AZ 85705-9232 (602) 887-4196.

Arkansas

Little Rock Atari Addicts, Keith Steensma, 28 John Hancock Cir, Jacksonville AR 72076 (501) 985-2131.

California

A.C.A.O.C., Larry Weinheimer, PO Box 9419, Fountain Valley CA 92708 (714) 969-9053.
A.U.G.I.E., Don Lucia, 3905 N. Lugo Ave, San Bernardino CA 92404 (714) 880-3539.
Antelope Valley ACE, Don Glover, PO Box 512, Palmdale CA 93590 (805) 272-9084, BBS: (805) 723-0093.
Atari Anonymous User Group, Todd Bane, PO Box 1433, Upland CA 91786-1433 (714) 737-4329, BBS: (714) 625-4251.
Atari Bay Area Computer Users' Society, Bill Zinn, PO Box 22212, San Francisco CA 94122 (415) 753-8483.
Atari Computer Enthusiasts Society, Tara Jacobs, 21210 E. Arrow Hwy, #35, Covina CA 91724-1432 (818) 331-1172.
Atari Federation, Chester Hadely, PO Box 5367, Vandenberg AFB CA 93437 (805) 733-4177.
Atari Users' Group of the Inland Empire, Don Lucia, 3905 N. Lugo, San Bernardino CA 92404 (714) 883-3547.
Bakersfield ACE, Anthony Garcia, PO Box 40203, Bakersfield CA 93308 (805) 397-9566.
Cajon Computer Club, Tim Adams, 639 West 36th Street, San Bernardino CA 92405 (714) 882-6784.
E.R.A.C.E., Gary Martin, 1906 Avineda Del Diablo, Escondido CA 92025 (619) 489-9872.
Far East Atari ST, Dale Ellis, PSC Box 7075, APO San Francisco CA 96293.
H.A.C.K.S., John King Tarpinian, 249 North Brand Boulevard #321, Glendale CA 91206 (818) 246-7286.
Long Beach ACE, Lee Curtis, PO Box 92812, Long Beach CA 90809-2812 (213) 423-2758.
N.O.C.C.C. ST-Sig, Dain Leese, 3852 Balsa, Irvine CA 92714 (714) 552-5185.
Pass Area ST Enthusiasts, Steve Miller, 1145 W Westward, Banning CA 92220 (714) 849-7927.
R.A.M. of Ventura County, Tim McCoy, PO Box 112, Camarillo CA 93011 (805) 482-4788, BBS: (805) 987-6985.

S.M.L.A.C.E., Eric A. Daniels, PO Box 2286, Orcutt CA 93457-2286 (805) 929-3296.

ST ACE of Sonoma County, Hal Anderson, PO Box 4916, Santa Rosa CA 95402 (707) 542-1745.

San Diego Atari Computer Enthusiasts, Thomas W. Briant, PO Box 900076, San Diego CA 92120 (619) 581-2477

San Diego ST Users Workshop, Chester Edwards, 902 Nolan Way, Chula Vista CA 92011 (619) 224-5090

Santa Barbara ACE, Avery Galbraith, PO Box 3678, Santa Barbara CA 93130-3678 (805) 687-1075

Santa Clarita Valley ACE, Mark Ostrove, 19449 Nadal St, Canyon Country CA 91351 (805) 252-6881

The Desert Atarians, Lee Ellis, 47-800 Madison Street #53, Indio CA 92201 (619) 342-1600, BBS: (619) 342-1647.

Colorado

Front Range AUG, Jerry Belfor, 3012 Rockborough Ct, Fort Collins CO 80525 (303) 223-2604, BBS: (303) 223-1297

Pikes Peak and Poke ACE, Rick Reaser, PO Box 17779, Colorado Springs CO 80935-7779.

Connecticut

AUG of Greater Hartford, William Midyette, PO Box 289, Windsor Locks CT 06096-0289 (203) 627-6996, BBS: (203) 623-3759.

Fairfield County ACE, Paula Burton, 362 Hattertown Rd, Monroe CT 06468 (203) 452-1716.

ST Atari Road Runners, Glen Werner, 1160 South Curtis St, Wallingford CT 06492.

ST Atari Users Society, Brian Rufini, 176 Burnside, E. Hartford CT 06180 (203) 289-7903

Delaware

Central Delaware Atari Computer Club, Tom Baldwin, PO Box 545, Camden DE 19934 (302) 678-9411.

Florida

Atari Boosters League East, Hadley Nelson, PO Box 1172, Winter Park FL 32790.

Georgia

Middle Georgia AUG, Pete Miller, 115 Feagin Mill Rd, Warner Robins GA 31088 (912) 328-8758.

Idaho

Boise User Group, Frank Chan, 1717 S. Curtis Rd, #31, Boise ID 83705 (208) 376-5603, BBS: (208) 377-1465.

Rattlesnake ACE, Carson Walden, 301 Birch St., Mountain Home ID 83647 208-587-7476, BBS: (208) 587-7603.

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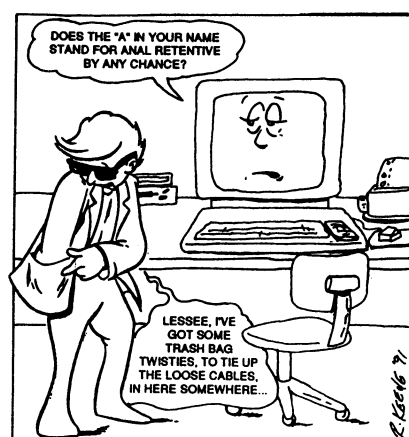
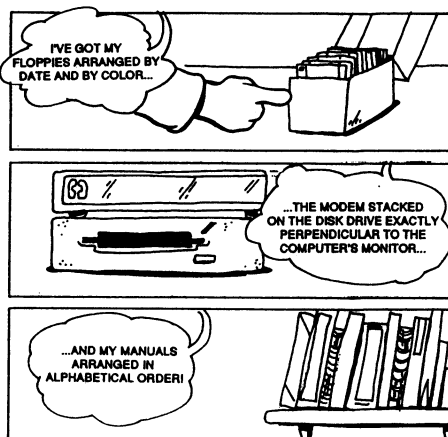
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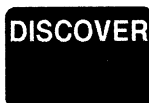
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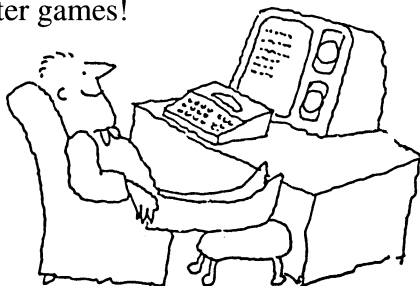
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