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# Current Notes

Vol. 7 No. 5

June 1987



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Advertising copy, subscription requests or back-issue orders should be sent to the MANAGING EDITOR, Joe Waters, 122 N. Johnson Rd., Sterling, VA 22170. Deadline date for advertisements is the 15th day of the month.

The ST EDITOR is Frank Sommers, 4624 Langdrum Lane, Chevy Chase, MD 20815. The XE/XL EDITOR is Jack Holtzhauer, 15817 Vista Drive, Dumfries, VA 22026. Submissions of articles or review copies of products should be sent directly to the appropriate editor. Deadline date for articles is the 10th of the month.



# EDITORIAL

By Joe Waters

## LASERS ANYONE?

As many of you know, CURRENT NOTES has had a QMS Kiss laser printer for about a year now. I can assure you that without this printer, CURRENT NOTES would certainly not have grown as large as it has. Besides providing clear, crisp, print, the laser has been treasured for its SPEED and its QUIETNESS. I literally go through 500 sheets of paper each issue. Imagine how long and noisy, that would be on a dot matrix printer.

Sitting at my desk now, I am writing this editorial on my ST and I will soon print it on my laser printer. Am I doing "desktop publishing?" Well, yes and no. I certainly am publishing, but the term "desktop publishing", so much in vogue nowadays, means something more than this. It means being able to produce typeset-quality output from a small "desk-top" workstation. This requires, in addition to a computer, software that provides for a wide variety of fonts in a multitude of sizes, and a printer capable of displaying all that font variety on paper. Apple computer, with the Macintosh, *Pagemaker*, and the Apple Laser printer, has been able to produce high-quality output for some time.

With the introduction of *Publishing Partner*, a software package is now available that can compete with the best available in the Apple or IBM worlds. We all know the ST can certainly compete with the Macintosh and the IBM. All we need is a laser capable of printing the high-quality output that distinguishes desk-top publishing. Unfortunately, the QMS Kiss is not the answer. What is? Well, you'll just have to read Bill Price's article on "The Laser Printer Dilemma" to find out. Not only does Bill discuss the ins and outs of printing in desk-top publishing, but he also transferred his article to *Publishing Partner* and had it printed on the Apple Laser-writer. The results speak for themselves.

## READY, SET, GO!

Bill's article is not the only example of desk-top publishing in this issue. Jeff Greenblatt ported a popular Macintosh desk-top publishing program, *Ready, Set, Go!* over to his Magic-Sac equipped ST and used it to format his column this month. Considering that Jeff's output was printed on a Gemini dot-matrix printer, the text quality is quite remarkable.

## ST WRITER HIJINKS

I'm still using my tried and true *ST Writer* to produce CURRENT NOTES. However, you might note some differences this issue. I am no longer

using an Epson emulation mode. This month, I told the Kiss to pretend its a Qume Sprint printer. The basic type is Prestige Elite being printed at 15 cpi and 7 lpi. Now at least the i's look like i's!

There are also a variety of other fonts on each page. The article titles, subtitles, and author's name are all printed in different sizes of a font known as Q-format. The headers and footers are in Courier. And, niftiest trick of all, look at the section titles within the body of the text. Not only are they in a larger font, they are printed at 10 cpi. Test for all ST Writer fans: How did I manage to print some characters at 10 cpi (and change the font) in a left-hand column and NOT mess up the characters in the right-hand column. Since this couldn't be done, it took awhile to figure it out. I'll tell all next month.

## ACA SCHOLARSHIP

Are you or someone in your household going off to school this fall? Applied Computer Associates is offering a \$1,000 scholarship to the school of your choice. The drawing will be in the last week of June. Sign-up at either store, in Gaithersburg, MD or Chantilly, VA.

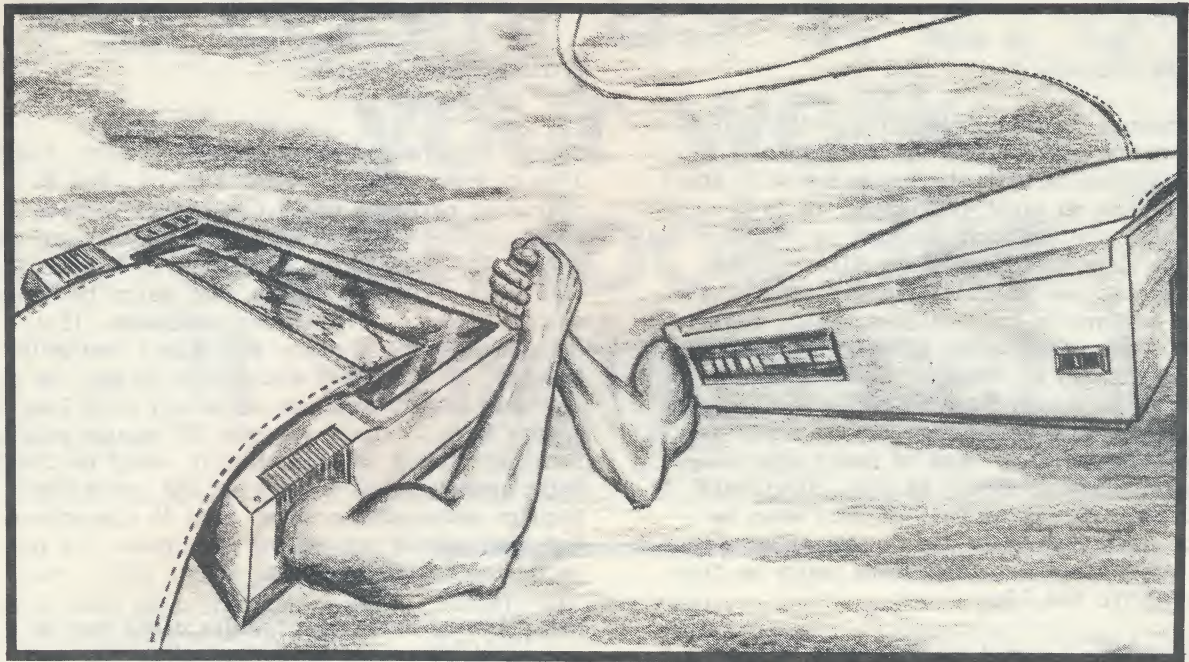
## BYE, BYE, BLACK....

As many of you know, Black Patch Systems is no more. The two young owners took their fledgling business on a meteoric ride; they grew and grew and grew. They also advertised. As they advertised, they grew further and advertised more. Their advertising, along with their pricing structure, went beyond good business sense. The business sputtered, and faltered, and collapsed. At the end, the business was tens of thousands of dollars in the hole. They declared bankruptcy. Black Patch was not a corporation; it was not a partnership; it was just these two young men. Both are now personally responsible for all that debt. Since all the money coming in went primarily to build up more business, neither one built up any significant assets. It will take them a long time to pay off the bills.

I mention the Black Patch episode because of two new business that have arisen in that area. TOAD Computer Services and Computers Complete. The owners of both establishments had, at one time or another, worked for Black Patch. However, neither was ever involved in running Black Patch nor are any of the Black Patch principals involved in these businesses. They are both entirely separate and distinct entities. We wish them both the best of luck.



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### **Megafont II+ \$24.95** By Dellinger & Rognlie \* †

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## LETTERS TO THE EDITOR

Dear Mr. Waters

In response to your May 1987 CN editorial, I am dropping out of NOVA not because of dissatisfaction with the group but with Atari itself. As an eight-bit owner, it is perfectly obvious that our day is over and its time to move on to something else. In my opinion the new Atari's products are not the thing to move on to. Besides, Atari really doesn't seem interested in serving those who got it through bad times. Their attention seems to be wholly on mass market acceptance. It doesn't have to be that way as Apple has shown. Apple is my idea of how a specialty computer company should be run. Obviously, I think Neil Harris is full of bull when he talks about the Apple IIg in CN. I know too many Apple loyalists who are as happy as they can be with the IIg.

So what have I moved on to? Well, I now realize I made a mistake in the first place buying the best hardware available (800XL) without fully considering the software end. After being consistently frustrated by seeing software packages on the market that I wanted but were not available for the Atari, I took the opposite approach this time. I now own an IBM clone and could not be happier. Software literally floods the market and BBSes. New products are coming out all the time that I can run.

I still thank Atari and NOVA for making me computer literate and capable of moving on. I'm sure Atari and WAACE will survive and your current downturn in membership is only transitional as 8-bit owners get out and other ST and PC owners come in. However, I would not expect the almost fanatical dedication that you got from the 8-bit owners. They are just not of the same breed.

Sincerely,  
Steve Welch  
Annandale, VA

From: Gordon L. Monnier  
To: Ed Seward

Thanks for the review of Superdirectory. I would like to make several comments on it. The 24 character pathname was a compromise between constraints in screen size, RAM memory, and disk space. The program could be made to handle 64 character pathnames, but a vast majority of users do not exceed 24 characters pathnames. If I allowed longer pathnames then the a few would benefit, but the rest would have to pay the price for this inefficient use of memory with less RAM memory to hold their records. If enough people consider this a deficit then it could be changed. Unfortunately, you are one of the users who require pathnames greater than 24 characters. But that should not be the main basis for not recommending the program.

Not allowing deleting of whole disks was an oversight that will be corrected in the next version of Superdirectory. A quick and dirty fix for the moment, if you load in an empty disk this will delete all of the files. Features such as compressed printing, printer to disk file dumps, manual file entry, keyboard/mouse option, and many more will be incorporated into the new version of Superdirectory. Any comments or suggestions are always welcome.

{mark feldman}

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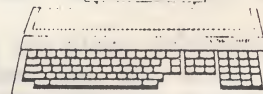
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# ATARI SCUTTLEBITS

## Computer Market ... Random Observations

By Bob Kelly

Have you visited a computer magazine store lately? If not, go take a close look. Times are a-changing and some harsh adjustments may be on the way.

One of my most enjoyable pleasures connected with home computing over the years has been reading the monthly computer magazines whether Atari specific or those for other popular computers. The store I generally visit is located in the financial district of downtown Washington, D.C. It offered the widest assortment of computer magazines of any store I knew. One wall in the store was 30+ feet long full of computer magazines. Each individual rack on the wall was capable of holding not just one magazine as is frequently the case in many stores, but 10 to 15. Over time, the magazine overflow spilled onto the floor and to other parts of the store. It was home computer magazine heaven. PC Week always appeared to be most in demand with sales numbering in the several 100's per issue. The Atari related magazines didn't fare too bad with Antic probably the largest seller at 50 to 75 issues per month.

Lately, this scene has radically changed. In the last eight months or so, the space occupied by computer magazines has been reduced by at least half. In addition, the number of magazines per rack is down. For those magazines still on the shelf, many copies of a single issue are now distributed over multiple racks rather than in one rack as before. Coupling this experience with other information I obtained, it appears computer magazine sales are once again declining.

What does this mean to you? With computer magazine sales trending down, another wave of magazine failures is on the horizon. As for Atari specific magazines, the commercial publications which may be in trouble are primarily directed at the 8-bit market. The likely candidates for failure are no secret! Also, look for some small ST specific magazines to go under. Your bottom line .... pause and reflect before writing that check to renew your magazine(s) this year. After this reflection, don't fail to subscribe to those you need lest they disappear.

### ATARI NEWS & VIEWS

Everyone should be aware by now that Atari and Commodore have settled their litigation. The terms of the settlement were not publicly dis-

closed. There are some interesting aspects to the settlement which I will expand on in a future column.

In April, Atari announced it will be selling \$75 million in convertible Eurobonds to European investors only. Standard and Poor's announced it had assigned a single B- rating to the debentures. On April 14th, Moody's Investors Service assigned an initial rating of a single B3 to the Atari Eurobond issue. Moody, in issuing this rating, stated, "Atari's product line is limited and significant amounts of funds will be required for capital spending and research and development to sustain and broaden the company's narrow product line." Translation, Moody believes Atari is a risky investment. However, you can be a winner when investing in Atari provided they diversify the product line which, in turn, is a function of how much R & D spending occurs.

Some current financial data on Atari follows:

Fiscal Year	EPS*	Total Revenue	Net Income	Share Book Value
'86	1.06	258.1	25.0	2.31
'85	.62	141.9	(14.3)	.....

\* EPS = earnings per share

Atari's net income for 1986 was \$25 million versus a (\$14.3) million loss in 1985. As a result of this performance, the price for Atari common stock rose and appears to have settled in the area of \$25 per share, an increase of more than 60% this year. In comparison, the computer industry witnessed a rise of only 33%.

For those of you who believe Atari's low selling prices translate into below average financial returns relative to other firms in the computer industry, the following table should correct this impression:

Ratios	Atari Corp.	Computer Industry
Profit margin	9.7%	5.7%
Return on common equity	NE	10.1%
Return on total assets	18.1%	5.9%
Revenue to assets	186%	104%

Source: Dow Jones

As can be seen, Atari's profit margin is more than 40% higher than the industry average and look at the relationship of revenue to assets. The motto may be "Power without the Price" to the consumer but to the senior officers and stockholders the motto is more like "Power is in



the Profit Margin". Yes Virginia, Atari is a business and is very good at it.

Finally, when are people going to stop talking as if Warner Communications no longer owns any portion of Atari. The fact is Warner owns 30% of Atari with Jack Tramiel holding the controlling portion of common stock, roughly 54%.

## TIMeworks

In my last column, I pointed out how Timeworks' tax program, *Sylvia Porter's Swiftax*, was not recommended for purchase - a dog, to be explicit. Timeworks has another program which is a WINNER! This judgement is not mine alone, but many have found *DATA MANAGER ST* to be a program easy to use and flexible, permitting use in varied applications. You would think that Timeworks would do all to promote the sale of this product. Well, you are wrong.

Recently, a close friend of mine called Timeworks inquiring when they planned to introduce a utility that would permit transferring DIF files from other databases into *DATA MANAGER ST* (DIF stands for Data Interchange Format, a quasi industry standard file format). The response from Timeworks at the other end of the telephone was, "We have had hundreds of calls requesting such a utility. There are currently no plans to make such a capability available to the ST user."

A response such as this illustrates why so many software firms in the past went belly-up. What is amazing is that this attitude still exist today. With a program that could significantly add to total sales, Timeworks should tell the user where to go rather than to go to \_\_\_\_.

## ELECTRONIC ARTS

For all the "old" 8 bit computer owners, Electronic Arts (ECA) is a magic name. This company burst on the scene in 1983 with such outstanding software as *M.U.L.E.*, *Archon*, and *Pinball Construction Set*. All of these programs received critical acclaim, brought in substantial sums of money and made Trip Hawkins, the founder of ECA, something of a celebrity.

Trip, after making a good portion of his fortune selling software to Atari owners, abandoned Atari when hard times hit. Hawkins announced that Amiga was the home computer of the future and, by inference, Atari stood little chance, even with Jack Tramiel. So, Trip had ECA produce software for the Amiga. The Amiga has not lived up to Trip's prediction (one down). In fact, it's the Amiga that's captured only a small portion of home computer market sales while Atari's grew significantly.

Trip, seeing the error of his ways, recently began to produce such "outstanding" pieces of software for the Atari ST as *Skyfax* (two down).

Undaunted, Trip now believes *Starglider* to be the only really outstanding game for the ST (three down). Thus, he has contracted with Jez San of Argonaut Software to market future programs under the Electronic Arts logo.

Personally, I think Trip is on a trip and it may end abruptly. Given Trip's attitude, I have successfully and with little regret avoided buying ST software marketed specifically under the Electronic Arts logo. This guy must think we're all fools. What did Lincoln say about fooling people some of the time, but not all of the time? Unfortunately, he is taking over a company that produced some of the best software for the Atari - Batteries Included (BI). ECA is purchasing the rights to the BI brand name as well as the rights to market current products. This presents a moral dilemma which I have not yet resolved.

## USER HINTS

While using my ST for the past year and half, I have accumulated what I consider to be some very helpful public domain utilities/accessories. I was asked to name a few of the more important. They are:

SCRSaver.ACC - Blacks out screen without turning off CRT (monitor) switch. A great addition to whatever word processing or database program you may use.

Coldboot.TOS - Click on this little 56 byte program and it cold starts your ST without having to turn the computer switch off and on (from Dec., 1986 Compute ST magazine). Great for clearing accessories out of memory.

MOustrap.ACC - Controls cursor preventing drop down menus from accidentally appearing. To display menus, the right mouse button must be depressed (from Start Magazine, Vol.1, ). This accessory does not work with any program that requires use of the right button on the mouse such as FLASH.

DCOPY19.TTP - This is a shareware program (\$5). It copies, erases, hides, locks, renames, de-arcs files, formats disks and lots more. An all-in-one gem.

These programs are available either on your local BBS, CompuServe, Genie, or the Current Notes library.

See you next time and since I am going to take an extended summer vacation, it will be the September issue.



# BOOTING ATARIFEST '87

By Georgia Weatherhead

BOOT ERROR  
BOOT ERROR  
BOOT ERROR

After two successful years of Atarifest in November, we were told Atari Corp. was too tired after Comdex to participate with us. Change to October and they would come. We picked Oct. 17 first, but all high schools in U.S. give PSATs then, ruling out the use of Fairfax H.S. Also, the hotels were booked already. So we changed the date to October 24.

CRASH !

Atari said "No. That is Boston. And 'Real' fests are two days." With much effort we set up for Oct. 10 and 11.

CRASH !

The Boston group reads CURRENT NOTES and called Atari about the conflict of dates, because 9, 10, and 11 were their dates. Atari then notified us of their mistake.

CRASH!

After 24 hours of calls to high schools, hotels(9), members, vendors, Boston, and Allentown, the arrangements were again made to do the 24th and 25th of October in our old stamping grounds of Fairfax High School, where we will have lots of room using the cafeteria, auditorium, and rooms.

READY

And Boy! Are we ready! This is to be a two-day event, because 1,500 attended our '85 Fest, 4,000 came to our '86 Fest and who knows what the records will show for '87. ATARI CORP. should be showing us some hot new items. The Atari PC will be available by then. MEGA ST. Lazars?

ATARIFEST'87 OCT.24,25 FAIRFAX H.S. SAT. 10 - 5 SUN. 12 - 5
--

This is a week before COMDEX. Let's make the exhibitors know that it is well worth their while to display at our show.

This will be a WAACE effort. There are nine Atari User's Groups in the Washington area. Eight are official WAACE. Six of these are

actively planning the biggest and best Atarifest yet. ATARI USERS REGIONAL ASSOCIATION (AURA), Eastern Atari ST users (EAST), Frederick Atari Computer Enthusiasts (FACE), Northern Virginia Atari users (NOVATARI), Southern Maryland Atari Users Group (SMAUG), Woodbridge Atari Users Group (WACUG), along with several neighborhood groups and SIGS from NOVATARI began the serious planning in May. NCAUG, CPM, BACE, NAUG, and MACC are expected to join in the efforts also. They may be calling Georgia Weatherhead (703-938-4829) about their participation. Any non-WAACE group may register as an exhibitor with Palmer Pyle, 709 S. Concord Ct., Sterling, VA 22170.

ATARI - AT HOME and AT WORK. This 'Fest will be an experience for old users and possible new users.

Graphics is what has made Atari outstanding in performance. FACE will be demonstrating graphics on 8-bits and STs.

Personal productivity makes the ATARI useful for home, a justification for puritanic consciences. AURA will show many of the ways the various Atari computers, both 8-bit and 16-bit, can improve the functions of home life.

Computers can be the most useful if a printer or a modem (or both) are attached. WACUG will display printers. The TELECOM SIG of NOVATARI will show both sides of telecommunications, the sender and the receiver. An actual bulletin board can be observed with the Sysop managing the board and the attendees having a chance to send messages via modem.

The VAST and EAST will work together to show the ST as a business machine.

MagicSac, a MAC emulator, will be shown by Jeff Greenblatt, a wiz at it, in the room set up by the Sterling chapter of NOVATARI.

A chance to get economical software from the users groups' public domain libraries is the best bargain for attending an Atarifest and joining a users group. Come see the users in action.

The Fairfax County Adult Education is a co-sponsor with WAACE. They will have information on classes in the Fairfax Schools available to the public.

Many dealers and software publishers that support Atari will be there displaying and giving seminars.

(Continued on Page 14)



# I NEED WHAT? AN ATARI?

## A Musician's Search for a MIDI Computer

By Grant Slawson

Call me Confused. The number of ads in KEYBOARD magazine for computer software was staggering, but it told me one very important thing: The time had come for me to buy a computer if I wanted to survive the next decade in the field of modern music. Since my survival instincts are fairly strong, I needed to decide (and quickly) which of the many PC's on the market would best serve my particular purposes. This turned out to be a major problem, since very few people in computer sales know anything about MIDI, or the peculiarities involved in processing music. I was generally greeted with responses like; "I imagine this computer would do very well, but all I can play is the radio." I checked out quite a few computers, and I'd like to share with you the findings that led me to the Atari 1040ST.

First, let me say, that I realize most of the people reading this article are presently Atari owners, so I will try not to make this sound like a sales pitch. When I began looking for computers I was directed toward the Apple line, since they presently have the best assortment of music software, and in particular the Apple II GS. The salesman's lack of knowledge about MIDI became apparent very early in our discussion, so I really had to dig for information on the II GS's professional music features. This excavation revealed that the II GS can reproduce 4 voices at a time, but it has no internal MIDI ports. This lack of built in ports means an immediate outlay of cash to the tune of ~\$270.00 over and above the cost of the computer for the interface card and the conversion box to plug in your MIDI cables.

The next computer I considered was the new Amiga. This computer came highly recommended to me by a fellow musician who owned one. To check out this new wonder machine I read articles in Musician and Keyboard magazines as well as listening to my colleague's raving reviews. I had decided to buy an Amiga, and called a good friend of mine in Los Angeles named John Eganhouse, who is presently the manager of the keyboard department at West L.A. Music. When I told him about the "Amiga decision", he promptly let me know that the Atari was the way to go for the future in music. It turned out that John had just purchased a 1040 and was very excited about it. He was using the 1040 in the showroom to program his synthesizers and run sequences. He is also working very closely with Hybrid Arts, based in L.A., in developing software for the ST. John informed me that the software developers

were all scrambling to create music programs for Atari for a couple of reasons:

- 1) Atari truly geared their computer toward music since they installed MIDI ports in the computer during manufacturing, not as an afterthought.
- 2) The Atari is priced at least \$400 under the Amiga so it is much closer to the purchasing ability of most musicians.
- 3) Finally, the Atari 1040 has enough memory to make very large sequencing programs with intricate processing capabilities; as well as the ability to load a sequencing and a printing program into RAM at the same time, enabling very fast music writing.

I finally got my 1040 ST the end of November '86, and I am still in a state of confusion when dealing with some of the programs I have acquired. As a music sequencer, the 1040 is certainly heads and tails above the sequencer I had been using, and as I become more accustomed to the aspects of word processing, recording becomes easier all the time. Using the computer as a recording studio has a lot of advantages over tape machines. The most important feature of recording digitally on the computer is the ability to re-record the same passage as many times as you wish, without suffering the frequency loss and noise problems you do on tape. Eventually all the material is played back out of the computer onto a tape machine, but you now have a number of instruments being recorded on tape after they have been tried and tested on the computer, and all at once!

The problem of finding people in this area with a knowledge of the Atari products and their place in music is still a source of consternation to me. When I found out about WAACE I called Frank Sommers, and after a few minutes he suggested I write an article about my reasons for buying the 1040 ST, especially since my application was out of the ordinary.

Since my initial conversation with Frank, I have written articles on Dr. T software for this column, and I am becoming a great Atari enthusiast. It is rather frustrating to walk into a computer store and see a really neat game only to find out it is for the 8-bit Atari, not the ST; but more and more programs seem to be cropping up all the time. The music software  
(Continued on Page 14.)



## ANOTHER DAY AT THE OFFICE

By Dave Small

Some people have an intensely personal vision of Hell. For some, it's fire and brimstone. For others, freezing cold. For some, living in the big city. For others, a small town. Mothers-in-law usually figure significantly.

For me, it's Answering The Technical Support Line at Data Pacific. Yup, the Macintosh Emulator people.

Generally, I wake up around 7, and lie in bed staring at the ceiling. I think a lot while laying there. On the one hand, I could bounce out of bed, like in the Good Old Days when I was coding the Magic Sac. Or, I could lie there and put off the day's work.

So I lie there and think, "Do I really want to go to the office and field technical support questions?"

It's got to be the worst job since cleaning the Aegean stables.

Eventually, my wife brings me coffee (she says she can't stand seeing me suffer), I summon the dregs of my motivation, and drive the twenty or so miles to the office.

I get in the door, and Ring! "Dave? Tech question on line 1." comes in on the intercom. Nothing worse than a cheerful intercom voice in the morning.

And I haven't even gotten my first Diet Slice drink of the day. Okay. "Hi, can I help you?"

"Yes, I have a question.". (Really? What a surprise.) "I have a Magic Sac and I can't get it to start up. It just sits there with the smiling Mac. What's the problem?"

"What sort of Finder are you using?". (The Finder is the Macintosh operating system, which must be transferred to Atari disk format via a serial cable.)

"Finder? You mean I need another disk?"

I roll my eyes at the ceiling, and discover, yes, Yet Another User hasn't read the manual. The manual I deliberately made very short so people would read it.

"Well, you have to transfer a Mac disk..." and so on and so on.

After about ten of these questions, I usually get depressed. It's easier and uses less adrenalin

than getting angry.

"Hi, is this Data Pacific?" (I always have the urge to say, "No, this is the National Security Agency." Shake them up a little.)

"I have some EPROMs and I want to know how to copy the Apple ROMS onto EPROM. I don't want to pay for your board, since I have mine."

Right. Here's a guy copying Apple ROMS (highly illegal) and wanting advice. Sorry, I'm not giving any.

I will note that upon occasion, we've gotten other strange calls like this. The person leaves their name, I call up Apple Computer, and ask for that person, in the legal department. Bingo. How do you spell "set-up"?

Back to the phones.

"Hi, can you tell me if Revision B ROMS work in the Magic Sac?"

"Yes, they do".

"Well, it says in this magazine they don't."

(Now what am I supposed to say? Clearly, The Oracle Magazine has spoken.)

"Well, they do. Which magazine?"

"ST USER. From England."

"Oh. The guy who wrote that had a bad set of B ROMs, so he concluded that all revision B roms don't work. He didn't bother checking."

"Oh. Thank you."

By now it's noon. Lunchtime. I call upstairs to Marcia, the woman who runs point on the phone. "Please. No calls. I'm eating".

"That's fine, Dave, but could you take line 3 first?"

Sigh. I take a bite out of my sandwich, pick up the phone. I know I can get away with it, because most callers don't stop talking by the time I've swallowed that first bite.

"Hi, I hear that the Magic Sac blows up your printer."

"WHAT?!" Pieces of sandwich spray across the desk.



"Yeah, a guy at my user group says it blew up his printer. Says he clicked on the 'Parallel' button and it fried the circuits." (His tone takes on the lofty sound of someone passing on High Secrets). "He says that you're making some of the logic lines into outputs, and the printer can't handle it."

Breathtaking... blows up a printer.

"Well, it's not true. Nothing like that happens. I do know that plugging/unplugging the ST's printer while the ST is turned on can fry the printer chip; I have two friends that did that."

"Oh." Clearly, he doesn't believe me; I'm Covering Up the Big Secret. Count on it: the Hot Rumour that the Magic Sac can destroy your printer will be on BBS's and Compuserve soon, placed there by well-meaning Consumer Activists.

One more try: "I bet what happened is he blew up his printer, then wanted to the blame it on us. Everyone knows not to unplug it while the ST is turned on."

"I don't think so". Click.

Off to lunch, to Blessed Quiet. For awhile, the gal upstairs takes messages. She knows I hate tech calls.

I've considered getting a CO-2 powered pellet gun and a target for the office, so I have something to plink at while I'm answering questions. (When I visited Jerry Pournelle's office in Los Angeles, that's exactly the rig he has, target and all. Now I understand how he handles calls from pushy computer salesmen.)

Back to the salt mines.

"Hi, is this Data Pacific? Your clock setting utility doesn't work."

"What doesn't it do?"

"It doesn't set the clock. I put it in my AUTO folder. It doesn't do anything. And" (again, that same odd tone of someone passing along High Secrets) "I tried it on my Friend's Machine, and it didn't work either."

"Does the clock work when you set it by hand?"

"Yes."

(What we have here is someone who is making some fundamental mistake. They've done something gruesome to their AUTO folder or to the disk, and, of course, will Never Admit It. They can send in their cartridge and disk, and we'll check them, and they'll work. And we'll send them back. It's a no-win situation.) I mumble something about sending in the cart, and give up.

"Hi, I have Magic Sac 3.5 and it doesn't work with the RAMDISK."

"Did you look at the documentation? 3.5 doesn't work with the RAMDISKs."

"No, I didn't read it.."

(Yes, what does one DO with a file called README.DOC.?)

Okay, it's three o'clock. I've gotten easily five lines of code written since the morning on release 4.0, which I'm already two weeks late on. I wonder why it takes so long? But seriously, we haven't got the person trained fully who is going to answer these calls, so I still get a lot of them.

"Dave, START magazine on line 1."

(Well, now, that's interesting. I write for START. Maybe it's the editor or something.)

"Hi, can I help you."

"This is --- ----." (A name I won't pass along for legal reasons.) "I'm doing a review of the Magic Sac. What's your policy on review copies? And I have some questions."

(I know this guy well. His connection with START magazine is at best tenuous. He'd never written anything for them that I've seen, so it's probably a request for a free review copy -- this sort of thing gives all freelancers a bad name. Call up company Z, say you write for magazine X, and ask for free software. This is why most companies only send one copy of their product to a magazine, and only to a magazine's main office. Several people claimed to be from COMPUTE!, including one of their current columnists, tried this trick.)

But I know this fellow even better than that. I did some contract work for him way back in 1983, and never got paid. Just goes to show that you should never shaft anyone in this business -- for you may need them next year.

I put on my cheerful tone of voice. This is going to be fun. "Hi, ---. This is Dave Small."

Long pause on the phone.

"Oh, uh, hi Dave. How have you been. Listen, something has just come up here, and I'm going to have to run. Call you back later?"

(sure you will).

"Sure."

Never heard from him again. When I checked with



START, they had never heard of him, either. Surprise.

Okay, I've had it. My ear hurts, I'm sick of calls. I ring upstairs. "Look, I've got to get some work done. No more calls, okay? Please?"

Fine. Back to work.

I work on coding the double sided drives for the Magic Sac. Twenty eight things to remember; I'm juggling them all, moving over the code, making patches.

Just as the concentration really kicks in: "Dave, your wife is on line 2."

"Hello." (I am finding it hard to sound social).

Long pause.

"Bad day, huh?".. the wife always knows.

Another day, another call.

## MIDI (Continued from page 11.)

for the professionals is just starting to pick up steam with the Atari, and I'm finding more and more interest being taken in this fine computer by the "high-end" music market. Let's face it, a \$2000.00 budget for a computer can buy an Apple GS and some software, or a 1040 with an excellent printer, modem, and lots of software. Most musicians I know like to buy the greatest number of "toys" with the least amount of capital (WHO DOESN'T?). As the software manufacturers present more quality music programs for the Atari, I think you will see a switch from primarily Mac based studios, to Atari based studios. I couldn't be happier with my choice, especially since the interest on the part of my fellow users is very keen, and everyone tries to help each other.

I hope this article can help someone presently searching for a computer to use for music. I am thrilled with the capabilities of my ST, not only for music but for bookkeeping, word processing, graphics, and, since I bought the color system, the games!(Sundog anyone?). Anyone with any questions about recording from MIDI to tape, or anyone that could help me with my millions of questions, please feel free to call me at 301/258/8985. This is a local call from anywhere in the D.C. metro area, but please call after 11:00 AM;(I tend to keep vampire hours).

## ATARIFEST '87 (Continued from page 10.)

AND MUCH MORE!!! Yes, it is an old line, but we are working on more attractions in the way of speakers, games, seminars. Be watching for information about a banquet after the Show Saturday night. You just can't miss this.

Don Elmore, chairman of Atarifest '87, can be reached for decisions at 703-444-9053.

To leave or receive information on the present status of the Fest, call Randy Ingalsbe at 703-644-0159. Volunteer workers are needed in many areas of expertise from door watchers to electricians, from messengers to programmers. If you fit in anywhere in between, call Randy and leave your name, phone number, and time you would like to work. Many wokers are needed on Saturday when the user groups will be doing their 'thing'. Fewer are needed on Sunday when seminars in the auditorium will be the focus. Call Randy.

The next planning session with maps of the school layout will be at Nottoway Park, June 18, 7:30 pm. All chair persons, please note this.

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# TOP 20 ATARI PROGRAMS

APRIL/MAY, 1987

## ATARI XL/XE

RANK	PROGRAM	PUBLISHER
1.	BOP'N WRESTLE	Mindscape
2.	PHANTASIE	SSI
3.	AUTODUEL	Electronic Arts
4.	PAWN	Firebird
5.	ATARIWRITER PLUS	Atari
6.	WARGAME CONSTRUCTION	SSI
7.	221 B BAKER STREET	Datasoft
8.	TOP GUNNER SERIES	Microprose
9.	PRINT SHOP	Broderbund
10.	SYNFILE+	Broderbund
11.	RACING DESTRUCTION	Electronic Arts
12.	TRIPPLE PACK	Accolade
13.	LEADER BOARD	Accolade
14.	MAIL ORDER MONSTERS	Electronic Arts
15.	PRINT SHOP COMPANION	Broderbund
16.	SPY VS SPY I & II	Accolade
17.	SILENT SERVICE	Microprose
18.	CASE LIBRARY 1, 221	Datasoft
19.	HARDBALL	Accolade
20.	STAR RAIDERS II	Atari

## ATARI ST

RANK	PROGRAM	PUBLISHER
1.	FLIGHT SIMULATOR II	SubLogic
2.	WORD WRITER ST	Timeworks
3.	HARDBALL	Accolade
4.	ROADWAR 2000	SSI
5.	MICROLEAGUE BASEBALL	MicroLeague
6.	CHAMPIONSHIP BASEBALL	Gamestar
7.	CHESSMASTER 2000	Electronic Arts
8.	GOLDEN PATH	Firebird
9.	FASTER Vol. I, No. 6	Datafree
10.	DATA MANAGER ST	Timeworks
11.	GFA BASIC INTERPRETER	Michtron
12.	GOLD RUNNER	Michtron
13.	ULTIMA II	Sierra-On-Line
14.	CERTIFICATE MAKER	Springboard
15.	SCENERY DISK-7 FLSIM	SubLogic
16.	COLONIAL CONQUEST	SSI
17.	PUBLISHING PARTNER	Softlogik
18.	PRINT MASTER PLUS	Unison World
19.	SWIFTCALC ST	Timeworks
20.	CERTIFICATE MAKER LIB	Springboard

\* SOURCE: Computer Software Service.

## CLASSIFIED ADS

[Classified Ads are free to Current Notes subscribers and WAACE club members (\$5 to anyone else). Send your ad to CN Classified, 122 N. Johnson Rd., Sterling, VA 22170. No commercial dealers please.]

ST SOFTWARE FOR SALE. Hardly used packages complete with instructions (except user registration cards): *Flight Simulator II* (\$25); *Dollars and Sense* (\$35); *Hippo RAMDisk* (\$7); *Murra and Me* (\$15); *hippo Computer Almanac* (\$15); *Balance of Power* (\$25); *Typesetter Elite* (\$20); Writeor mail Walter Wagoner, 840 Elm St., New Haven CT 06511.

FOR SALE: Original ST software: *Time Bandit* (\$20); *Hippo Computer Almanac* (\$18); *Oo-Topos* (\$13); *J-Disk* (\$9); *TechMate* (\$22). Six-outlet lighted power strip + surge protector (\$15); Family Computing (Oct '84 - Dec '86) (\$16). Prices include postage. Kyle Alons, RRI, Box 17, Boyden, IA 51234.

FOR SALE: Atari 520 ST, color monitor, single disk. Much software including *Degas Elite*, *OSS Personal Pascal*, *Regent Word II*, *Flight Simulator*, *Printmaster*, more. \$600 or best offer. Call Don (703) 860-4440.

FOR SALE: Atari 800XL \$75, Atari 850 Interface, \$75, Atari 825 Printer \$95, Model 1702 Color Monitor \$140, Atari Touch Tablet, \$25, Atariwriter \$15, Atari 1030 Modem \$40, Atari 520ST (1Mb RAM), SF324 Disk Drive and SC1224 RGB Color Monitor \$690. All items in original boxes and in new condition. Call Jim, 1-205-793-3398.

FOR SALE: Atari 800, Rana 1000 DD drive, BMC monochrome monitor - \$350/negot. or will part out. Also joysticks, software, other accessories. Call Ed, Jr. at (301) 948-8110.

FOR SALE: Atari 850 inteface module used 6 hours also Atark Bookkeeper program with literature. Performs all business related reports and accounts. Prints ledgers, customer lists and balance sheets. Excellent for any small business. Reasonable offers. Charlie (301) 267-9245.

WANTED: New or used Goldstar 12" color \*composite\* monitor. This model is no longer being manufactured, but is similar in appearance to Atari's SC1224 monitor. If you have one for sale, or know of any dealers who have them in stock, call me collect. S. Smith (612) 874-7495 before noon CST.



# GOOD NEWS FOR PASCAL PROGRAMMERS

By J. Andrzej Wrotniak

After my review of *Prospero Pascal* (see the May issue), the Editor of CURRENT NOTES received a letter from Prospero. The answer, without doubt, deserves to be published in its entirety:

Dear Sir,

May I comment on the review of *Prospero Pascal* by Andrzej Wrotniak (May 1987). While no marketing manager likes to see his product criticized in the press, I would agree that many of his points are fair; the only technical remark that needs to be made is that 1 and 2-byte integer subtypes are exactly the same as pre-declared types (see *Pro Pascal* manual section 9.4.2). We give everyone 4-byte integers with the option for those who wish to save space at the expense of accuracy to declare either 1- or 2-byte sub-ranges.

The absence of 4-byte integers limits everyone's integer (i.e. totally accurate) arithmetic to +/-32767, which cannot be compared with the +/-2147483647 range we offer.

The good news is that we are producing a new version of Pro Pascal for the Atari which will meet all his criticisms; it will have a much improved user interface, it will have much improved documentation, and it will eliminate PRL.

The new version's user interface is based on a new four-window memory resident editor written (as Mr. Wrotniak suggests) in *Pro Pascal*. The editor uses either Wordstar keystrokes, or the mouse and menu technique of GEM. A function key definition feature replays useful words or editing sequences; there is intelligent tabbing for Pascal; there is cut and paste and search and replace; using the four windows you can easily combine sections of old programs into new code. Compiler error messages are directed to a window, so that they can be scrolled alongside the source code.

Compiler and linker options are set in menus; source code in the current top window can be compiled and linked with a single click. Options, function key definitions and disk directory defaults can be saved. The editor remains resident so that after compilation you come back to the source code you were working on with the cursor still on the last change you made.

The new version will also have the librarian Mr. Wrotniak liked; it will also have a cross referencer and a symbolic debugger with full source level program display; variables can be displayed and changed using source names. The debugger will break on any line, call or variable change. A screen-swapping feature helps to debug

programs using GEM. There are also provisions for syntax checking and batch file recording.

Pro Pascal has a useful execprog extension which enables one program to run a second program; the new interface uses this to run the compiled (or any other) program, so that the user can keep the editor in memory all day and run all his other programs from it.

On the documentation side we have undertaken a great deal of research on GEM and produced some 3-400 pages of new documentation on it. These include a complete functional description with definition of all parameters and example of every AES and VDI binding. We have produced the complete set with a Pro Pascal binding to correspond to each and every C binding. This documentation runs to a couple of pages on every binding and ten on the important ones -- and was written by the programming team which developed the user interface.

We accept our current documentation on GEM is insufficient; however, it has been possible for people to work with published books such as the Abacus and Sybex ones; the alternative (at the time) was shipping the product without GEM bindings.

It seems that the PRL concept has not found favour and we admit that the current licence is not clear about distribution; we assure all purchasers of Pro Pascal and Pro Fortran-77 that they may distribute PRL.PRG with their software free of charge.

The advantage of having the commonest 16K of code in the machine only once rather than having several copies in different Prospero programs is not worth the aggravation it clearly causes in these days of cheap memory.

Finally, all these improvements are also being made in Pro Fortran-77 for the Atari as well as our companion products for MS-DOS PCs using GEM such as the Atari PC and the Amstrad PC1512. One of our programmers commented that GEM on a Compaq 386 with EGA was really very nice to work with.

These new products will be available shortly -- certainly before the Fall, and we will of course rush you review copies of the Atari versions as soon as they are available.

Yours sincerely,  
Andrew Lucas  
Marketing Manager

It is a rare satisfaction for a reviewer to express three wishes (user interface, documenta-



tion, PRL -- maybe I should have included withdrawal of Soviet tanks from Eastern Europe, who knows...), and see them coming into reality the very same month. A coincidence, of course, but a nice one. If Prospero's promise comes true (and I have no doubts), we are going to have a very attractive package on the market.

With very strong modular features (I hope the possibility of using hidden global variables declared on the segment level will be documented -- I find it one of the nicest features of the "old" *Pro Pascal*), the compiler should be a very strong contender on the ST market. One particular sentence in the letter intrigues me: should we understand that the ST source code will be portable to IBM-compatibles working under GEM? This would create a very, very interesting situation...

As if the letter from Prospero were not enough, the very same day I received an upgrade offer from OSS!! Yes, finally, after missed deadlines of November and January, OSS is (or promises to be in 6-8 weeks) out with Ver. 2 of their compiler, currently undergoing beta tests.

In short: GEM-enhanced editor (up to three files processed at the same time), no 32K limitation for data types, more GEM-accessing routines and Turbo-compatible graphic procedures are, as OSS claims, just some of the new features (by the way, I would prefer more dry facts and less hype in their flyer, but their marketing people must know what they are doing). All this for \$90 (or \$30 as an upgrade for registered owners of Ver. 1), which seems to be a very reasonable price.

This is not all. OSS is also directly marketing the Tackle Box from SRM Enterprises (\$70). Putting aside all the sales talk about the \$150 value etc., this seems to be an extensive library of additional GEM, math and utility routines, accompanied by almost 700(!) pages of documentation. This basically means, that OSS *Personal Pascal* compiler will be (neglecting the formal aspect) available in two versions: basic and expanded -- with the difference in accompanying libraries.

Unfortunately, OSS does not mention any improvement in the modular structure of programs written in *Personal Pascal* (e.g. no hidden global variables on the module level, no selective linking of procedures from modules), but let me hope. Also, no library manager yet (they list it in the "Future Products" section, and this may mean anything).

Still, the Version 1 of *Personal Pascal* was already a very nice and well-documented product, and Version 2 should be better; the same (with the few exceptions corrected in Version 2) is true about the Prospero product, so the situation on the Pascal compiler market for the ST looks

very encouraging, indeed. As soon as the new compilers are out (hopefully August-September), yours humbly is going to give them a good workout, letting you know to what extent they meet his expectations.

One small but important point on my wish list, addressed to both Prospero and OSS. Is it really so difficult to include a command-customizing option to a program editor? Key bindings (not only the F1-F10 function key ones) may be stored in a small separate file and -- possibly with use of a simple, stand-alone program -- redefined by the user to suit his/her personal preferences. This is the approach used in some versions of MicroEmacs, and also in an excellent shareware editor, *ConTEXT* (by Don Milne from England).

Some of us use *Word Star*, some - *Microsoft Word*, *Perfect Writer*, *VAX/VMS EDIT*, *Script*, *MicroEmacs*, or whatever else, and the necessity to switch from one command convention to another and back is, to put it mildly, irritating. In one editor, for example, Ctrl-Y inserts or splits a line, in another deletes it, in yet another, sets the page length, and there are young ladies working in the office next to mine. Especially in the case of editors integrated into the programming environment, the possibility of redefining key bindings is very valuable. Please...

Finally, many of those who are reading this column will ask: "What about a Level 1 Pascal, with dynamic array parameters?". As everybody (well, almost everybody) learns quite soon, their absence is a severe flaw in the Standard Level 0 Pascal, and building general procedure libraries is hardly possible without this feature. OSS (or CCD) was reportedly "working on this problem" some six months ago.

As things stand now, neither Prospero, nor OSS mention them in their promises. Am I missing them? You wouldn't expect this answer: not at all. The reason is simple: from the very beginning the dynamic arrays are available as an undocumented option of both compilers (and, as a matter of fact, of most Pascal compilers for any machine, with the notable exception of *Turbo Pascal*).

More exactly, with use of a very simple programming trick (I am sure that zillions of Pascal programmers worldwide are using it, though I haven't met one yet), you may have the dynamic arrays -- and in the better incarnation than the one adapted for Level 1 (this being, of course, a matter of taste).

If our Editor finds me two pages in the next issue of our favorite Atari journal, I'm going to write about it. Until then, I'm anxiously checking my mailbox every day.



# ADVENTURES IN THE MAGIC SACDOM

## Desk Accessories and Other Goodies

by Jeff Greenblatt

Just recently, I received a newsletter from Data Pacific. The newsletter will be a welcome addition to those of you feel like your out in the cold to fend for yourself with the MAGIC SAC. Inside the newsletter is an order form for revision 4.0 (or is it really 4.2) of the Magic emulator program and a printer driver for Epson and compatible type printers. I highly recommend that you order a copy of revision 4.0 if you haven't done so yet. What??? You haven't received your copy of the newsletter. Did you remember to send in your registration card that came with the MAGIC SAC?

Incidentally, the print driver that Data Pacific is selling for \$45 is reported to be a modified version of EPSTART. EPSTART can be had for as little as \$19 plus shipping from some mail order houses. The version Data Pacific is offering will have a few more bells and whistles than normal and it's worth the extra cost.

### DESK ACCESSORIES

The Current Notes ST-Magic Library disk M8 contains 28 DA files and 2 useful utilities for testing and moving them. These utilities are Font/DA Mover 3.2 (the latest version is 3.4) and Font Tester 1.5.

Unlike the ST, The Macintosh system is capable of holding as much as 15 DAs at any one time. Some DAs can be very small in size (under 1k) and some can be very large (over 30k). When they are installed into the system file, they take up valuable disk space. Also, unlike the ST they don't consume RAM until they are invoked. As an example, if 15 DAs were installed with an average of, let's say 5k per DA, the System file would increase in size by 75k. In my first article of this column, it was pointed out that the minimum System Folder contains approximately 94k. Now the System Folder has grown to 169k leaving you with 230k of free space on a single-sided disk. The point is to install desk accessories sparingly.

In order to install(remove or copy) a DA, Font/DA Mover should be on the disk you intend to install DAs on along with the System Folder. Remember, DAs are normally installed into the System File.

The DAs themselves do not have to be on the this same disk, they could be on another disk in your other drive. Incidentally, the disk that contains Font/DA Mover and the System Folder can be in either drive, it doesn't matter.

To install a DA, invoke Font/DA Mover and hold the "alternate" key down as it boots up. If you don't hold this key down, the program will boot up in font mode and you will have to toggle the Desk Accessory button on the screen to get into DA mode. The left hand window will show you all the DAs presently installed in the System file while the right hand window will be blank. To install a DA, simply click on the open box under the right hand window. A new screen will appear which will list all DAs available for installing. As an example, let's install Big Ben as a DA on a MacWrite disk. Double click on Big Ben or click on it once and use the open box (figure 1). The first screen will reappear only

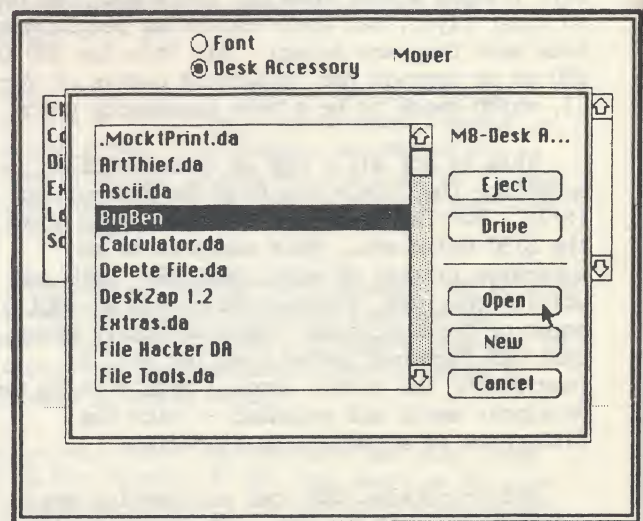


FIGURE 1

this time the right hand window will contain Big Ben. To install Big Ben, simply click on it once to highlight it and the copy box will turn from grey to black with arrows pointing toward the left hand window as illustrated in figure 2. This is the last chance to change your mind. Now click on the copy box and the installation process begins. The drive will run for some time, so be patient. When the drive stops, the left hand window will show Big Ben installed in the System file (figure 3). If you want



to install another DA, click on the close box under the right hand window and repeat the process until you are ready to quit. When you quit, you will return to the desktop and you can use the installed DAs accordingly.

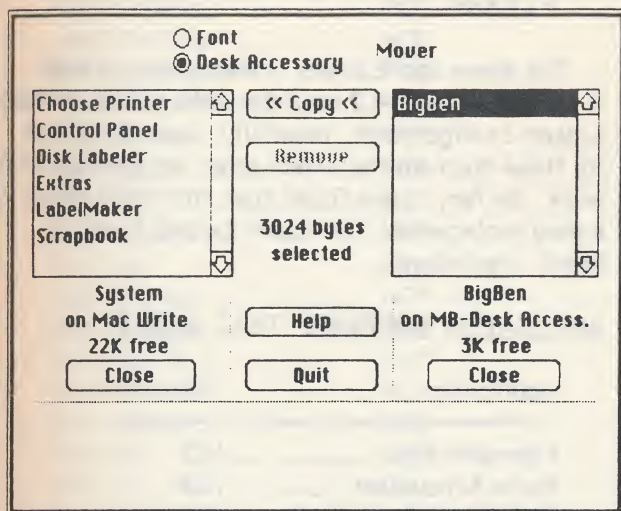


FIGURE 2

If you only have one drive, I recommend that the DAs to be installed be on the same disk as the System Folder and Font/DA Mover. Otherwise, you will be swapping disks several times to install each DA.

Removing a DA is a simpler process. Invoke Font DA/Mover the same way. Only this time, click once on the DA you want to remove in the left hand window (from the System file) and the remove box will turn from grey to black. Now click on the remove box and the drive will run a short time. When the drive stops, the left hand window will no longer contain the DA. This indicates that the DA has been permanently removed from the System file. Before removing a DA, make sure you have a copy of the resource file of it. Use the copy function to create a new resource file of a DA before removing it.

To copy a DA before removing it, use the same procedure as outlined above for installing a DA only this time instead of opening a DA on the second screen, click on new. When the name dialog box appears, type in the name of the DA file and click on save. The first screen will reappear with the name of the file under the right hand window and the copy box will change from grey to black. Click on the copy box and the DA will be copied to the file you named earlier and its name will appear in the right hand window indicating that the DA resides in the new file. You can repeat this sequence each time by toggling the open and close box, or you can save

multiple DAs in one file by clicking on the next DA after the first one is copied.

DA Tester is very handy for checking out DAs and that's why I included it on the M8 disk. The DAs on this disk are a mixed bag of text editors, utilities, and some games, graphics generators, and a terminal DA. Most of these DAs are very useful.

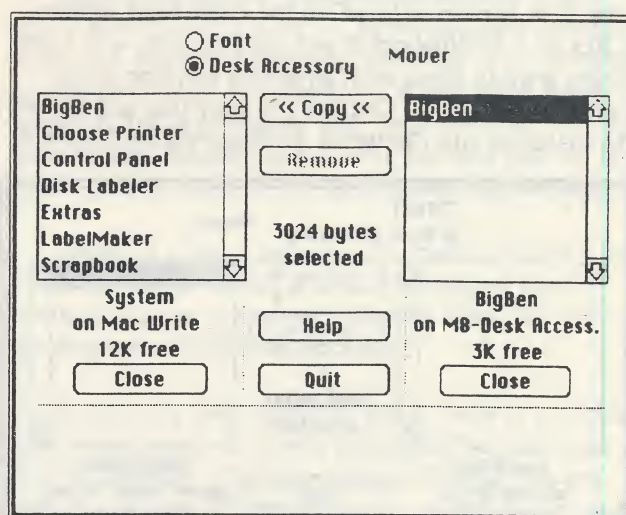


FIGURE 3

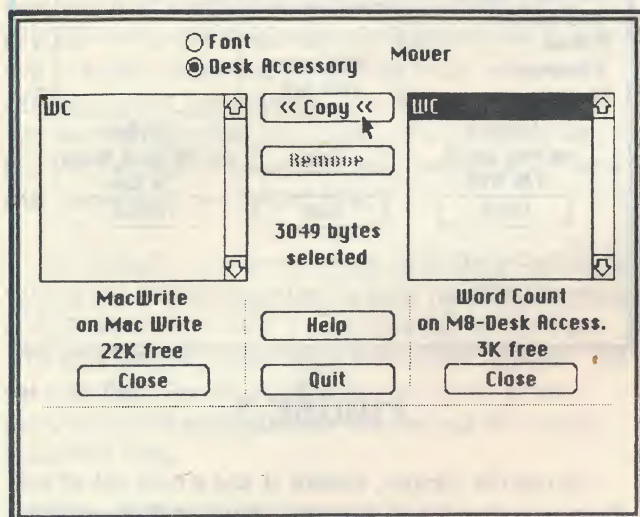
To use DA Tester, invoke it and a new set of pull down menu bars will appear. Next, pull down the file menu and click on "open dfile 1" or "dfile 2". You can temporarily test two DAs at a time. When you open either one a list of DAs on the disk will appear. Point to the DA you want to test and click once on it to highlight it. Then click the open box and the DA will be installed. You can now use the DA as long as you like. One word of caution!!! Make sure you quit the DA you are testing before you use the "close dfile 1" or "dfile 2" in the pull down menu. If you don't, the system may crash. Full instructions on DA Tester are available in the About DA Tester in the Apple pull down menu.

There are a couple of ways to get around the 15 DA limitation. One way is rather unique and I have used it even when I had only 5 DAs in the system. Instead of installing a DA into the System file, you can install a DA into an application. A good example of this is adding a word counter or a spelling checker to MacWrite. This way if the application is transferred to another disk, the DAs automatically move with it.

To install a DA, such as Wordcount (WC) into MacWrite, invoke Font/DA Mover as described previously. Only this time close the left hand window first. Then hold down the alternate key and at the



same time click on the open box under the left hand window. This time application files along with DAs will appear in the window of the next screen. Click on MacWrite and open it. The screen will return with MacWrite under the left hand window which will be blank. Now click on the open box under the right hand window and DAs on your disk will appear. Click on Wordcount and open it. You will return to the first screen with WC in the right hand window. Click on it to highlight it and the copy box will turn from gray to black with an arrow pointing to the left hand window. Click on the copy box and WC will be installed into MacWrite as illustrated in figure 4.



**FIGURE 4**

You can do this to just about any application. Using this technique will allow you to install an additional 15 DAs on a disk if you really need this many.

## **SOFTWARE THAT WORKS**

Reports are still coming in on software that works....and don't. A few application programs that were reported to work in last month's article have been found to crash when they are extensively used to their full potential. The following are some of the more recent bugs found:

### **MACWRITE 2.2**

- \* Type anything, your name is enough;
- \* Print it out;
- \* Click on the down scroll arrow twice;
- \* CRASH

### **EXCEL 1.0**

- \* Type numbers into cells A1 and B1;
- \* Insert a column between A1 and B1;
- \* CRASH

### **SWITCHER 5.0**

- \* Load in switcher;
- \* Click on "always convert clipboard";
- \* Load in 2 applications into switcher;
- \* Use arrows and switch between applications;
- \* CRASH

The above applications crashed using Finder 4.1 and the Magic 4.2 emulator with a 512k or 828k system configuration. Hopefully, Dave Small can fix these bugs and not affect other applications that work. So far, I have found that Microsoft Works is a good replacement for MacWrite and Excel; it hasn't crashed yet.

## **APPLICATION SOFTWARE THAT WORKS**

Application	Comments
Filemaker Plus.....	NCP
Home Accountant.....	NCP
MAC68000 Dev. System....	NCP
MAC3D.....	Note 1
MacBillboard.....	NCP
MacDraw.....	NCP
MacinTax.....	NCP
MacPaint.....	NCP
MacProject.....	NCP
MS Basic.....	NCP
MS Chart.....	Note 1
MS Multiplan.....	Notes 1 & 3
MS Works.....	NCP, Note 2
Mindwrite.....	NCP
Ready, Set, Go! 3.0.....	NCP
Reflex.....	NCP
Spellwell.....	NCP
StatView 512+.....	NCP
SuperPaint.....	NCP
TK Solver.....	NCP
Zork I.....	Note 1

NCP: Not copy Protected

Note 1: Unprotected Version

Note 2: Terminal program doesn't work

Note 3: Crashes on quit, but usable

As far as Note 1 is concerned, these applications are normally copy protected and were unprotected using a hard disk utility of some sort. Protected applications that don't work when unprotected in this manner may actually work when Data Pacific releases their translator disk drive interface. So far, there is no word on its availability and price.

The list of application software that works is getting larger, but so is the list of software that doesn't work.



APPLICATION SOFTWARE THAT DOESN'T WORK

Application	Comments
=====	
Ancient Art of War.....	Note 1
Comic Works.....	NCP
CalenderMaker.....	NCP
Cricket Graph.....	NCP
Dungeons Of Doom.....	NCP
Easy 3D.....	NCP
Fontastic.....	NCP
Fullpaint.....	NCP
GraphicWorks.....	NCP
MacDraft.....	Note 1
MacLightning.....	NCP
MacPlaymate.....	Note 1
MacWrite 2.2.....	NCP
MacWrite 4.5.....	NCP
Microphone.....	NCP
MS Excel.....	Note 1
MS File.....	Note 1
MS Word 1.02.....	Note 1
MS Word 3.0.....	Note 1
More.....	NCP
NFL Challenge.....	Note 1
Phoenix 3D.....	NCP
Smartcom II.....	NCP
Thinktank 512.....	Note 1
Thunder.....	NCP

I will continue to update both lists as long as readers continue to report new information. Don't be bashful, if you found a commercial software product that's not on the list, let me know. So give me a call at 703-450-6462 (between 7:00pm - 10:00 pm EDT Weekdays, or any reasonable time on the weekends) or drop me a card at 804 N. Argonne Ave., Sterling, VA 22170.

**NEW FONT DISKS**

Two new disks have been added to the Current Notes ST - Magic Library. These disks are M13 and M14 which contain approximately 40 fonts each in different point size. Many of the fonts are in a full range of size from 9 to 36 point; one or two even go as high as 72 point. Using a full range of font sizes will provide the highest print quality on a dot matrix printer.

These two disks will probably be supplemented by three or more other font disks in the future. I have a collection of fonts which consumes about 3 megs of disks. As I sort through them, I will continue to add them to the library. Each disk will have at least one good utility related to fonts. Disk M13 has Font/DA Mover 3.4 which is the latest

version. Disk M14 has Font Display 4.6, which allows you to view or print the entire 256 character set of a font including the "control" and "alternate" key combinations.

**TIPS**

You can keep your hands on the keyboard and move from field to field in all dialog boxes without using the mouse. Simply hit the "Tab" key to move to the next field. For example, in the "Page Range" boxes of the print dialog box, you can enter the beginning page number in the first box and then hit the "Tab" key to move to the ending page number box.

Finder 4.1 has a tendency to crash if you try to copy too many files at a time by dragging them while displayed "by name". Choose view "by icon" or drag only a few files at a time.

If you only have one disk drive, here is a handy tip. If you want to copy a group of files from one disk to another, you can speed up the copying process by placing all the files in a single folder and dragging the folder to the new disk. This saves time for single-drive owners by minimizing disk swaps. After the folder is copied, open it and drag the files back to the desktop and trash the folder.

The current startup (system) disk is always the disk icon in the upper right hand corner of the screen. You can force the Mac to change startup disks. Insert the new disk into either drive and open the disk (click on its icon) onto the desktop. Open the System folder and while holding down the "control" and "alternate" keys, double-click on the Finder icon. The Finder will open and the new disk icon will appear in the upper right hand corner of the screen. This one is handy to get to DAs not resident on the current startup disk.

\*\*\*\*\*

This entire article was produced entirely with the MAGIC SAC, using Ready, Set, Go! 3.0, Finder 4.1 and Magic 4.1 beta with a Star NX-10 dot matrix printer and an Epstart FX printer driver. In producing this article, I encountered a problem with RSG 3.0 when importing the MacPaint screen dumps for the illustrations. Importing the illustrations was very easy. However, in order to scale the graphics image, it must be compressed to fit the block. When this is done, the image lost all its resolution to the point that it was unusable. As a result, I had to resort to doing screen dumps to the printer and pasting up reduced photocopies. It's not the fault of the MAGIC SAC, it's RSG 3.0.



# ST UPDATE

## Latest News in the ST World

By Frank Sommers

### THE ATARI FAMILY

The Birthing Process -- When Dr. Jack became medicine man for Atari, he instantly diagnosed it as having a curious combination of maladies. While it had been amazingly fertile 18 months earlier, now its reproductive system was not working and it had money sickness. He immediately prescribed fertility pills, hoping for multiple new products to be born. As sometimes happens, the first born, the 520 ST, is still the favored child. But immediately, Medicine Man Tramiel called for quintuplets to come forth. The 80-column board, the CD-ROM system, the EST (enhanced ST), the blitter graphics and the midi music chip. These were to be born, we all assumed as fast or faster than the genetic marvel that the ST was, and would be strolling the stores immediately. This did not happen. And of the special spots on the shelf, long prepared for the arrival of each of these, now there are spaces reserved for only one or two. The blitter chip niche is still there but also still vacant. (See below).

Anguish -- When the family does not grow, and mature as planned, frustrations arise. These are now appear rampant in the Atari family, which is all of us. User groups are muttering, BBS's are sputtering, Atari fests are festering with talk that programmers are jumping ship for the shiny new Apples, that without a 32-bit machine to compete with the Amiga 2000 Atari will become a has-been or maybe a could-have-been, that it's desktop publishing effort to give it a toe hold up in the small business world is floundering. It short, the cry is, "It's 10 o'clock at night! Atari where are your children!"

ST Update tries, usually without consoling you about the family, at least to tell you where the "children" are, and when they can reasonably be expected to be in your homes. By combing the neighborhood in the U.S., Canada, and England and Germany, we get a sense of what's likely to be where, when, and what has miscarried. By adding our anti-hype factor (3-months) to all dates, we have been able to predict as accurately as most when a product will actually be up and running. But to write about Atari and its products is to be caught up in the same problems the Tramiel and Atari have. They want to give us the top of the available lines, charge us the least, are gambling that they can do it, running often on empty, driven by hope and fear (hopefully, increasingly less of the latter) that they can guess the market right and give you the best and

the shiniest. Now Atari's record on product delivery is admittedly not a Dun and Bradstreet triple-A. But ask yourself, tired of waiting though you may be, would you swap (not buy, just swap) your ST machine for any other machine on the market? Our "poll" indicates only a handful in a hundred answer yes. The projected product delivery we review below is not to our liking, and the object of considerable discussion and argument in the Atari community. But that does not mean that the head of the Atari family, the Atari Corporation, is not alive and well, if argumentative, not always sure of itself, occasionally seeming to change its mind and thus appearing to lack direction. Yet, if the new progeny, the Mega ST's, prosper then there will be others, exciting products in the offing, which will give us even more to complain about when it also takes so long for them to walk and talk.

So if we pause for a moment, and the thought of Atari floundering suddenly crosses our mind, floundering because ST sales in the U.S. are badly off in the last 90 days, and the solution is still 90 days off, then it's amazing how quickly our sharpest criticisms are quickly transformed from annoyance to earnest hope that the family can stay together.

### HARDWARE

Mega ST's -- September-October. Probably not before then will you be able to put your money down and take one home. Reports had them appearing in Canada last month. The only one that has been in evidence there is on a test bench in the CSA (Canadian Standards Association) where it is awaiting approval to go on the market.

IBM Magic for the ST -- Per Scott Kalish of Paradox, they hoped to show their new PC board, the Paradox for the ST at the Consumer Electronics Show at the end of May. (Booths within the Atari display area apparently are bestowed by Atari as openings occur). The turbo board has a selectable clock speed of 4.77 or 8Mhz with a NEC V-20 and 256K aboard, expandable to 640, with a color graphics adapter (CGA) and with a serial card. It uses the Atari ST's disk drive with IBM 3.5 disks, or just as easily the Paradox 5.25 drive with the bigger IBM floppies. There are six expansion slots in the box, which is approximately 3" x 5" x 14". Two of the slots are taken up by the CGA and serial cards. What does all this mean? For \$350 you can plug the Paradox into the serial port of your ST and



instantly have a PC clone that runs all IBM software, most of it three times faster than the IBM PC, on either your ST's color or mono monitor. Those of you who were worrying where you would put your Atari PC may cease fretting. Available by the end of June, Paradox is taking orders now. Paradox, 150 S. Camino-Secco, Suite 13, Tuscon, Arizona 85710, (602)-721-2023. (See the May issue of CN for word on Avante Guard's IBM software emulator.)

Tidy Desktop? — In mid-May Atari held a desktop publishing seminar at their headquarter's office. You might ask, "What were they using as a page or document description language (PDL or DDL) to drive the laser? Was there a font library to choose from? How fast would it generate a page of graphics and text? Could you change the size of the fonts?"

Whoa! We suggested last month that an Atari desktop publishing system wasn't likely until December. At the seminar they announced that the laser printer itself would be shipped to the dealers in July. Thirty minutes later the same individual reportedly was saying September-October. The latter date is more likely. At the seminar the printer was being run with GDOS and *EASY DRAW*. The printed product was judged to be very sharp and clear. They also had a program, *TERMINATE-AND-STAY-RESIDENT*, permitting you to use the laser with less than one or two megs of memory and with *STWRITER* or *1ST WORD*, i.e. on your 520. The program in effect turns the laser into a daisy wheel printer. It runs the printer in the Diablo emulation mode, using Diablo 630 codes. Read Bill Price's informative article elsewhere in this issue on the laser printer dilemma for a better understanding of why a laser printer isn't a desktop publishing system, and why in its current form GDOS is inadequate as a PDL driver for the laser printer. Both of Price's first two priorities for a functioning system, a high quality font library and a high level PDL, are still lacking in the Atari package. Obviously Atari is acutely aware of this and trying to do what they can to get a working product to us. But they appear to have miles to go before they sleep.

Prices are Dropping — If Atari's problem with the desktop package were not enough — how to get it to the market now and with an attractive price tag attached — then the parachuting cost of other laser printers must be an additional migraine. Hewlette Packard has announced they will be coming out with a board that contain both PDL and DDL drivers, and uses the Cadillac of PDL systems, Postscript. Their HP Laser Jet II Plus is now retailing for \$1795 and found here and there for several hundred dollars less. To be sure the board would boost the price, but Soft Logic has written a language interpreter which would let the HP run a

Postscript like language without a board and use Soft Logic's *PUBLISHING PARTNER*. Okidata's laser can now be purchased for \$1295. Epson also has a laser printer now at the same price. So Atari's \$1500 original proposed price for their laser is fast coming under competitive attack.

Hats Off Award — This month the award goes not to an outstanding product but to an idea that is now. In his article on publishing, Bill Price proposes a box, circa \$500, with 1.5 meg of memory, a font library and a page description language, called Postscript. What would be unique about this? Such a device could reside between any of the present family of computers and any of the existing laser printers and provide you with a complete, high quality desktop system. Price maintains that Atari has demonstrated their ability to produce such a device at such a price. A key ingredient would be to for Atari to convince themselves that Adobe's fee of 7% of sales is more than reasonable, in fact it could be their salvation in the business market. Current word is that Atari cries in outrage when they contemplate such a fee. Look again Atari. Price has given you Adobe's telephone number. Hats off, Bill Price. Our fingers are crossed.

Space on the Shelf — Blitter, blitter on the shelf, what makes you as elusive as an elf? That spot reserved for the blitter upgrade kit will have to wait until late fall. All available blitter chips are going into the Mega ST's. A further impediment is that the blitter chip in the Mega's is different in size and shape from the one that will be soldered in on top of the 68000 chip in your current ST. The Mega chip is smaller and square and the kit chip is larger and configured like the 68000 chip. Unfortunately, only the Mega chip is in production at present.

Scanning — Soft Logic hopes to have the IMG Scanner shipping by mid-June. This will be a tight schedule and presumes that the author's Gem interface for the software to run the scanner did not require any major revision. The unit will not be packaged with *PUBLISHING PARTNER* and is still scheduled to sell separately for \$99.95.

## SOFTWARE

WE ='s WP? — The word processor's word processor. Is it *WORD PERFECT* for the ST? *Regent* ITloyalists submit that little less than *WORD PERFECT* will draw them away from their current word king. Similar reactions are available from the faithful to *WORD WRITER ST*, *ST WRITER*, *1ST WORD PLUS*, *TEXT PRO*, and *HABA WRITER II*. What is the spell that this word processor casts over the cogniscenti of the word processing world, who insist a majority of people stay with the first word processor they learned, and if something shoved them on to a second, nothing can budge them into a third? Why is *WORD PERFECT* an



exception? What will it have? According to Jeff Wilson, Manager of ST Development for Word Perfect Corp., everything but sorting, multiple fonts and graphics capabilities. Are some of you faint of heart already returning to your current lady?

Pause and listen first. Full Gem support with desk accessories, hyphenation both automatic and manual when required, footnotes and endnotes with the former automatically numbered at the bottom of the page and the latter at end of the document; both renumbered if you edit any. Macro's with single key commands and consisting of almost anything you wish to pour into the macro stew, a document outlining feature, a 115,000 word dictionary, a thesaurus, a spell checker (not real time), table of contents and index with up to five levels for each. Multiple columns, up to 5, which can be displayed and edited on screen. Deletions can be restored up to three deep. Supports all popular laser printers, including limited support for Postscript (no graphics). Our best estimate is that it will be on the shelves by the end of July, barring no significant problems with the documentation. Street prices will quite possibly drop from the retail \$395 (IBM version is \$495) to \$150. Full file compatibility with IBM version 4.1. Updates would follow next year if market acceptance of this version warrants it, and provide for multiple fonts, sorting and graphics, and other facilities currently available in the IBM version 4.2. Word Perfect Corp. is planning on releasing their entire line of integrated products for the ST, including *LIBRARY*, *MATH PLAN*, & *DATA BOOK*.

**Atari Acquiesces** — In what the author of the 8-bit emulator for the ST, Darek Mihocka, says, "Was like a bolt from the blue for when Friday night (15 May) Niel Harris puts up a message for me on Genie, saying in effect, in the sum of our exchange, some 30 messages back and forth, that it's O.K. to go ahead and use Atari ROM's to put out my emulator. Why just two nights before he was up on Genie telling everybody that it was a lousy program." Darek is a student at a college in Waterloo, Ontario Canada. He has been calling, writing, both postal and E-mail, to Atari since January in an effort to get their O.K. to release his program which, as we noted briefly earlier, will permit you to run 8-bit Basic programs on the ST. He now also has it running MAC 65 (?) and *PAPER CLIP*. The program may contain the ROM's in the Atari operating system, in a stipulation by Harris, as long as it appears with the source code publicly. Darek hopes to have it in Analog or Antic soon. Part of Darek's frustration was that he intended to make no money on it, and intended to offer it free. He wanted to prove that it could be done and add a little more spice to the ST pot. Good news, Darek, and a wise decision by Atari. Improvement, additions, and modifications should

begin to appear almost immediately after the software emulator is out. Seeing the "Ready" sign on your ST is an eerie flash back for many of us who started out with the original Atari 800 with its 16K of memory, at price almost twice that of the 520 ST fully equipped. Who says Atari hasn't progressed?

## FUTUREWARE

**Executive Disaster** — Future ware is software that has "escaped"; it's out there being tried, but not quite in testing stage. Its origins are sometimes still vague, like the copy of *MISSILE COMMAND* that may have defected from the porting parlors of Hungry. The executive disaster waiting to descend on us is *ARKANOID* by Imagine Software. It looks like nothing more than a colorful version of 8-bit's *BREAKOUT*, that oldie, which goes back so far, few remember it as a successor to *PONG*. There the resemblance stops. Nobody has yet reported how many levels it has beyond 11. If *SHANGHAI*, *CARDS*, *WAR ZONE*, *MEAN 18*, *WORD FOR WORD* and your other favorites have a high addiction ratings, *ARKANOID* exceeds them. Variations like expanding paddles, shooting paddles, sticky paddles, and escape-to-the-next-level paddles are part of its compelling hold on the player. Corporate down time will increase, if Epyx's poll of 750 executives of major companies is valid, i.e. over 50% of them play games regularly. In the same category, is Proton's *METRO CROSS*. Nothing much. Just a little guy rushing along the metro platform, evading obstacles, and doomed to beat the clock to the next station, before it ticks "ZERO!", or be wasted. Level 5 of that leaves you sweaty palmed with a slightly accelerated heart beat.

**Two for the Skies** — Still orbiting the dealers, is *STAR TREK* with all of the original cast. The digitized sound and graphics give it an air of something different in the arcade adventure genre. All the main character's speak. Scottie's eyebrows even stand out. Spock describing conditions on a star you have elected to land on is a bit novel. Simon & Schuster will bring it out; its reportedly being done for them in Scotland. Miles Computing has just released *ST WARS*. Apparently just what our reviewer of *HARRIER STRIKE*, Roger Abrams, ordered

**Backups and Hard Drives** — Ed Bouve of Proco Products (P.O. Box 665, Chepachet, Rhode Island 02814) reports that version 1.40 of ProCopy was shipped on 19 May. ProCopy has emerged as the premiere copy program, with a policy of updating former customer's programs that is unequalled. Version 1.40 will backup all popular software except for *ALTERNATE REALITY* & *MERCENARY*. Proco Products is working on program to permit you to put protected programs on your hard drive. No release date in sight.



**SKELETON KEY** is out there and coming. It is a partial solution for hard disk owners. It simply deprotects the disk, and then you can place it on the hard drive. It reportedly can only do about 80 programs at present.

Further down the line, now only in bread-board status, and using a high tech gatorade chip is **ST HAPPY**. You 8-bit faithful will remember the Happy Drive for the Atari, which ran protected software. A cartridge that fits into the ST cart slot, it will allow you to make a mirror image of any disk you put into your ST drive, whether the drive is 3.5 or a 5.25 modified. Or in other words, your ST drive will be able to read and write any format, any size, any computer, and almost any program! Would that make you happy?

Ready for RSG -- Manhattan Graphics of NYC is porting Macintosh's hottest desktop program, **READY, SET, GO!**, to the ST in mid-September. And the beat goes on.

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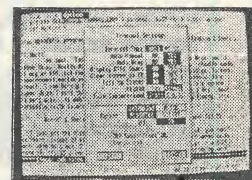
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# RECENT ST RELEASES

By Andy Nicola

Recently released ST software will be the only topic of this column. No "Vaporware" and no press releases. Only real titles that have hit the marketplace and that you can buy now! These titles will be new enough that neither you nor your dealer may have heard of them. Although all titles will appear on my "Official ST Software List" which is posted on CompuServe, the WAACE BBS, and in the CURRENT NOTES Disk Library (116), some of them will appear here for the first time. These CURRENT NOTES exclusives will allow you to be the first on your block...

**BACH III.** BACH III is a single entry accounting system, suitable for small businesses, clubs and the like. It stores complete records of all checks and cash paid out or taken in. It prepares a summary of accounts for any period, what is normally considered a treasurer's report. It prepares deposit slips for making bank deposits. It writes checks corresponding to the expense records. It will correlate its statement with the bank statement. It will produce summaries of groups of accounts for any arbitrary grouping of accounts. All these functions are performed in RAM which makes it quite fast. Keeping all records in RAM will allow about 5,000 transactions on a 520ST and 20,000 on a 1040ST. Andante Software (\$49.95)

**DBSENSE.** A text-based relational database program with its own programming language and word processor. Keyboard commands can be used to store, retrieve, edit, update, rearrange, display on the screen, and print out data. Programs can use information from any number of DBs to generate a spreadsheet, to create bills or other documents for a list of clients, to customize a letter to a list of clients (using the word processor under program control). Databases may have up to 255 columns of up to 254 columns wide, number of rows is limited to memory. Double precision floating point calculations (16 digits), and math functions supported include log, exp, sqr, sin, cos, atn, int, abs, and power functions. Sense Software (\$49.95)

**EDIT/BOOSTER.** This is a graphics based editor for creating programs in various languages. It has a built-in code generator which is accessible through the GEM environment using the mouse. Supported languages include BASIC, Modula/2, C, and Pascal. It operates with GEM and the selected programming language to provide code automatically for over 150 programming routines. Users may produce their own selection windows and insertion code. Omniware International, Inc. (\$48.00)

**DIGIDRUM.** Your ST becomes a high quality drum sampling machine. The samples have been digitized using the 'REPLAY' sound sampling system at a sample rate of 20hz. Samples can be loaded in 16 different positions turning the program into a mini sequencer. Defaults drums sounds include Bass drum, snare, closed and/or open Hi-hat, cowbell, low or high tom, low or high bongo, clap, etc. Sounds may be edited and saved to disk. MichTron (Microdeal) (34.95)

**GOLDRUNNER.** The Vaporware list is getting smaller each day! Finally, the long awaited and truly the fastest (to date) arcade game for the ST has arrived. The Earth is dying and can no longer sustain man. Migration ships are filled and ready the voyage to new worlds. But there is a great power which prevents the new hope. As an ex-space pirate, you are chosen to carry the hopes of a ravaged Earth. MichTron (Microdeal) (\$34.95)

[Author's Note: 1040 owners: Beware! Due to the heavy copy protection installed by Microdeal, GOLDRUNNER and some other programs, like DIGIDRUM, will not load in the internal drives of many 1040ST's. A call to MichTron netted an offer to replace the disk, but the disks are fine as they will load in external drives connected to 520ST's.]

**HHA\$AR.** The Professional/Home Accounting System and Register is a GEM based single entry accounting package. It allows 40 separate types of accounts on 130 different categories with up to 500 transactions per month. Reports may be sent to disk file rather than hardcopy. This allows data to be incorporated in external documents and letters. Tax forms may be designed by the user. Custom check printing, automatic transfers between accounts, easy budget setup and maintenance, and up to 250 name and address electronic roll-a-dex are some of the programs many features. The Catalog (Marksman Technology) (\$89.95)

**SIGSTAT.** This mainframe style statistical package will handle up to 80 variables on 100 million cases. 77 programs spread over 5 double-sided disks or 11 single-sided disks and a 300 page manual comprise the complete package. Descriptive programs include basic statistics, plot, histograms and cross-tabulations. Nonparametric applications are represented by over 30 techniques. Nine programs provide for univariate and multivariate analysis of variance and covariance. Regression techniques include multiple, stepwise, polynomial, periodic and



harmonic, logistic, maximum likelihood, non-linear least squares, and more. Multidimensional scaling, linear programming and statistical quality control programs round out the package. All programs utilize standard ASCII file formats and support HP pen plotters if present.

Significant Statistics (\$395.00)

**SALES-PRO.** A complete Point-of-sale and inventory control package. Features include perpetual inventory control, variable tax/non-taxable, wholesale or retail pricing, variable discounts, sales returns and deposits, end of day summaries, re-order lists generator, password security, inventory reports, vendor files and reports, merchandise labels, on-line help guide, user definable defaults, and salesmen reports. It will install on a hard drive and an optional cash drawer is available. Hi-Tech Advisers (\$299.00)

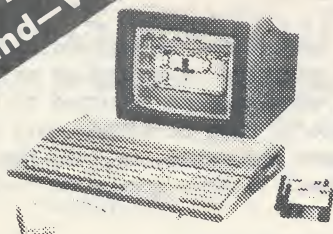
**ST-2392.** This emulator program turns the Atari ST computer into the functional equivalent of the Hewlett-Packard 2392A terminal. The ST2392 program may be used with any ST connected to any HP computers with which the HP 2392A terminal can be used. This includes the HP1000, HP3000, and HP9000 series computers. Supports block mode, format mode, modify mode and display modes. All

functions are user configurable and desired parameters may be saved to disk. Available in either Cartridge or Disk versions. Omniware International, Inc. (\$295.00)

**WRITE 90 degrees.** This utility was specifically designed to print text and VIP spreadsheet files down the full length of the paper. This allows files that are too wide to print across the page to be printed without having to be cut and pasted back together. The program is GEM based and all functions may be invoked by the mouse. Some features include printing on 5 different character sizes, on-screen preview of sideways printed file, and supports Epson, SMM804, NEC, Prowriter and compatible printers. Works with 520ST or 1040ST, color or monochrome. XLENT Software (\$29.95)

[Author's Note: The titles appearing in these articles are randomly selected from 30-50 new offerings I receive information about each month. All products named are the trademarks of their respective manufacturers. Their mention here is intended for informational purposes only and does not constitute either a recommendation or endorsement.]

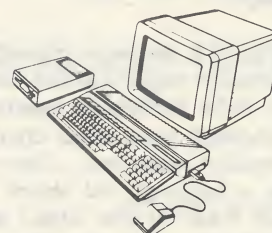
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# RELAX AND ENJOY

## Match Point and Wheel of Fortune

(c) 1987 Joe Kuffner

Two activities are synonymous with our humid summers here in the D.C. area. Being outdoors "enjoying" the climate, and being indoors (in air conditioned comfort) hiding from the climate. Why would anyone tolerate being out in our summer weather you ask? Well, as far as I can tell, its to get exercise playing various sports, one of which might be tennis. Then, after a gruelling match, and a shower, its off to watch TV and the game show of game shows, *Wheel of Fortune*. Now two new software programs may be able to accomplish all of the above from the comfort of your computer chair. *MATCH POINT* is a new tennis simulator published by MichTron, and *WHEEL OF FORTUNE* is my PD-of-the-Month highlight, written by Robert H. Pyle.

### MATCH POINT

This new release from Michtron, programmed by DL Research, advertises the following: "... completely realistic tennis game ... simulates every aspect of tennis ... with fantastic graphics ...". Well I am glad that they've made these claims because I sure won't! Let's take a look at why.

Opening the package reveals the usual program disk, warranty registration card, and an unusually thin reference manual causing thoughts to rush through your mind that this tennis game will be easily mastered. The manual has one page on making a back-up and which program to load (there are four on the disk) and two pages covering player options. Two minutes later, after reading this brief manual, you've booted up the program and are confronted with the option screen. Well, you have the choice of 0 (demo mode), 1 (computer opposition), or 2 players. You then select the level of play. Novice, Amateur, or Pro (more like slow, medium and fast!). Now you get to choose the controller: Keyboard, Joystick (port 0 or 1 depending on player) or mouse (the manual does not recommend using the mouse and joystick in the two player version). Then, you may input the names of the player(s) and start the game.

At this point, if you have selected the joystick option for yourself (player 1) against the computer opponent, you must remove the mouse and insert the joystick. A bit of bother when simple programming would have allowed player 1 to use the joystick port No. 1 in the one player mode.

Anyway, now you are ready to serve. Player 1 has service and pushes the button. The resulting

activity is the service. Sometimes the ball lands in the service area, sometimes not. The documentation states that you can control the direction your player runs and the swing of the racquet. It doesn't say a word about how to serve or to make changes in your serve. I have yet to figure out how to hit fast or slow, high or low! The computer opposition has, though!!! I've tried pressing the button during service, moving the joystick, and doing both together, without consistent results. It appears to be random! As for the return of service, if you happen to be near the ball and hit the button, a swing results and you hit the ball. Where does it go? Who knows? Again, I've tried several joystick maneuvers to see if it affects the path, velocity or elevation of the ball. Again, no predictable results. The similarity of this game to the real game of tennis seems to be only in the scoring. But it does score automatically! It also monitors the rules of tennis. *MATCH POINT* has all the features of *PONG*! What happened to the ability to direct your shot, or change the speed or to cause a lob or drill it. These features would make this "simulation" a little more realistic.

A couple of features worth mentioning are the ability to pause play and to quit play at any point. However, when you are returned to the option screen, you'll have to either pull the joystick and insert the mouse, or, use the shift/alt/arrow keys to move around to restart or change options.

The graphics used in this simulation are better than the game. But, that isn't hard! A light green court (in the color version) with the appropriate lines is used. The players are dressed in attractive tennis outfits. So are the ball boys and the referee and line judges are dressed in suits. The graphics are very detailed. And to spruce it up, the ball boys collect service fault balls. The line judges signal faults or "out" balls. A nice touch. But what about the tennis? Graphics can be good, but if you don't have a program to back them up, you have nothing!

The animation is fair. The players move, but as though they are skating (or something). The tennis players only face in two directions yet they run in all 8 joystick directions. Takes a bit of getting used to when trying to get the player near the ball for a return. As far as sound effects go you are treated to the standard computer "doinks" each time the ball is hit and



you get the roar of the crowd at each point. Marginal quality, equalled by the rest of the program.

My opening paragraph mentioned something about "realistic". No way! *MATCH POINT* is not realistic at all! "Simulates every aspect of tennis"? Missing are the necessary control of every shot including serving, strategy, effects of player fatigue and the ability to put spin on the ball, just to name a few. And as far as the graphics go, the 3/4 perspective and poor animation, don't rate a "fantastic" from me.

By the way, the four programs on the disk, that I mentioned earlier, are the monochrome and color versions, both in French and English. I think the programmers should have paid a little more attention to the game itself!!! Steer clear of this program. It doesn't deserve to be in your software library. It's no longer in mine!

### PD-OF-THE-MONTH

The release of *WHEEL OF FORTUNE* into the public domain is very welcome. I and many others are fans of this game show. Robert H. Pyle has preserved many of the games features in this computer version. Features include color, sound,

animation of the fortune wheel, 2 or 3 player option and some 312 miscellaneous puzzles to solve. Bankrupt, lose a turn, free spin and bonus spaces on the wheel, they're all here. In addition to this, he's added a hall of fame of all time high scorers.

This program is written in compiled GFA BASIC. It works only in low resolution. All program inputs are accomplished using the mouse and keyboard. The source code is not provided with the program but any suggestions are welcomed by the author. Additional puzzle files are also available from him at a nominal charge.

This program is well thought out and plays quickly and yet, still has all the suspense of the TV show. There are a few differences, but they are minor: No bonus round, No prizes, No cheering, No Pat, No VANNA (well maybe this one isn't minor)! A great programming effort. A must for your library.

Once again, it is time to part. I hope its becoming clear to one and all that public domain software rivals (or is superior) to commercial programs. Check out your club's PD library. There is entertainment galore. Relax and Enjoy and save money, too!

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## TIPS 'N' TRAPS

## Lots of Questions and a Few Answers

By Jim Stevenson

Thanks go this month to MaryLou White who sent in the complete solution to HACKER. We won't pass on the whole solution all at once since that would spoil your fun. We'll start with MaryLou's letter and a matrix for your Hacker worksheet. More next month. Thanks also to Del Whetter from Eugene, Oregon who sent a message about the column. Check it out under the ULTIMA IV section. Until next month...

The T'N'T Ring...

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## ALTERNATE REALITY

A. In the 8-bit, you cannot join guilds. After getting The Dungeon diskette, the sequel to The City diskette, you will be able to join guilds. Otherwise, there is no way to join it. I've heard the ST version of The City allows you to join guilds, but I know you can't with 8-bits unless you have The Dungeon.

-Del Whetter

## A MIND FOREVER VOYAGING

Q. Where's the court? I'm supposed to watch it in session, but can't find it.

-Diallo Evans

## BORROWED TIME

Q. I have the briefcase with the money and papers, but I can't escape from the thugs without dying!

-Diallo Evans

## BOUNTY BOB STRIKES BACK

Q. How do I jump to the higher levels using special keyed-in codes?

-Bill Godfrey

A. From 1 [Bob's morning calisthenics] to 4 (Get flower pot, then [1] & [START].) From 2 [Utility Hoist] to 22 (Kill mutants, get paint roller, then [3] & [START]). From 3 [Suction Tubes] to 15 (Get goblet, then [4] & [START]). From 5 [Jumping 101] to 8 (Get coffee pot, then [8] & [START]). From 10 [Gravity Lift] to 14 (Get pitchfork, then [5] & [START]). From 16 [Advanced Suction Tubes] to 19 (Turn arrow in

Suction Tube no.1 left, get pie, then [9] & [START].

-Neta Fillmore

## DUNGEONS OF MYTHOS

Q. Does anyone know where to get a magical sword other than the guilds? And where can I find the wizard Irata?

-"Flaming Carrot"

## F-15 STRIKE EAGLE

Q. Does anyone have the codes for the game F-15 Strike Eagle?

-"Raven"

A. CODES FOLLOW: 0:G, 1:A, 2:J, 3:G, 6:C, 7:H, 8:L, 9:H, 10:A, 11:P, 12:C, 13:P, 14:K, 15:E

-"Max Quordlepleen"

## FANTASTIC FOUR

Q. Does anyone know how to rescue the THING out of the tarpit?

-"Flaming Carrot"

## GOLDEN PATH

Q. How do you get the dragons tooth?

-Jeffrey R. Hand

Q. Does anyone know how to get past: A)The waterfall, B)The crocodile moat, and C)The background scenery?

-"Max Quordlepleen"

## HACKER

A. I love your column in CURRENT NOTES. It offers some great help with those adventure games. I read in the November issue a letter from Larry Franks who was having trouble completing one of my favorite games. Hacker. Since there was no response..., I assume you don't know the answer. However, help has arrived!

The secret to winning the game is not in beating the clock (which was also my original assumption). Also, being spotted by the satellites doesn't seem to have any effect. The real trick in winning is not to take more than a total of 173 steps from the start of the game to the finish at Washington. If you make even one wrong



step, it will add up to more than 173 steps so you must know the route and follow it carefully. You can take as much time as you like in playing the game. Speed is not a factor. Leave it to Activision to throw in a tricky ending. I am enclosing the entire solution to the game so you can have it for future reference. I made up the worksheet [see below. Ed.] to help me in winning. This solution is for the ST version, but the same rules hold true for the 8-bit. One thing I should mention is that you should always set the time zone the same each time you play. If you fail to do so, the items that the spies will accept may not always be the same.

Hope this helps answer some of the Hacker questions you get. And keep up the good work. I always look forward to reading your column.

MaryLou White  
Fremont, CA

ITEM:	AMT.	A	B	C	D	E	F	G	H	I	J	K
CASH	5,000	.	.	.	.	.	.	.	.	Y	.	.
ARTIFACT	1,000	.	.	.	.	.	.	.	.	S	.	.
GREEKIAN URN	1,000	.	.	.	.	.	.	.	.	S	.	.
KING TUT STATUE	1,000	.	.	.	.	.	.	.	.	Y	S	.
SWISS CHALET	9,500	.	.	.	.	Y	Y	.	S	.	Y	.
EMERALD SCARRAB	1,500	.	.	.	.	.	.	.	.	Y	S	Y
BEATLES ALBUM	400	.	.	Y	.	.	.	S	.	.	.	.
CHRONOGRAHER	200	.	.	.	.	.	.	Y	S	.	Y	Y
CROWN JEWELS	9,500	.	.	.	.	.	.	S	.	.	.	.
GOLD NUGGET	1,500	.	.	S	.	.	.	.	.	.	.	.
49'er SEAS.TICKET	200	.	.	S	.	.	.	.	.	.	.	.
STAR OF INDIA	5,000	.	.	.	.	.	.	.	.	.	S	.
JEWELLED LAMP	1,000	.	.	.	.	.	.	.	.	.	S	.
3 KT. DIAMOND	2,000	.	.	.	.	S	.	.	.	.	.	.
STOCKS & BONDS	2,000	Y	Y	.	.	S	.	.	.	.	.	.
SPANISH DOUBLOONS	500	.	.	.	.	S	.	.	.	.	.	.
TREASURE MAP	700	.	.	.	.	S	.	.	.	.	.	.
MING VASE	2,000	S	.	.	.	.	.	.	.	.	.	.
JADE CARVING	2,000	S	.	.	.	.	.	Y	.	.	.	.
CULTURED PEARLS	300	Y	S	.	.	.	.	.	.	.	.	.
35MM CAMERA	300	.	S	Y	.	.	.	Y	.	.	.	.

Key: (Y)=Spy will accept item; (S)=Spy will sell item; (.)=Spy will not accept item. Columns: (A)China, (B)Japan, (C)San Francisco, (D)Washington, (E)NY, (F)Caribbean, (G)England, (H)Switzerland, (I)Greece, (J)Egypt, (K)Egypt.

## HITCHIKER'S GUIDE TO THE GALAXY

Q. Once you get the drive running and you see all those strange things, what are you supposed to do? How do you walk without walking in circles with an all important towel wrapped around your head?

-Jim Digriz

A. You have to be by the monument before you put on the towel.

-Diallo Evans

## HOLLYWOOD HIJINX

Q. Does anyone know how to get the ladder of the ledge? I cant stand it I am so frustrated! It refuses to let me PUT the ladder against the cliff.. LEAN it... everything. And I'm pretty sure I need the ladder to cross the bridge.

-"Jack Flack"

Q. Does anybody know how to get around in Hollywood Hijinx? I would really like to know more about it. The farthest I've ever gone was to the beach below the cannon emplacement. Any and all help will be appreciated.

-"Zor Prime"

## KING'S QUEST III

Q. I have looked all over that island and cannot find the Stone of Unusual Color! Does anybody have any hints?

-"Stainless Steel Rat"

A. Search for a cavern and enter it, talk with someone or something inside.

-Jeff Hand

Q. Yes, I have seen the cave before (it's hard to miss). But next question is how to get past the web? I have tried throwing, cutting with everything including the knife, but with no success.

-"Stainless Steel Rat"

## LEATHER GODESSES OF PHOBOS

Q. I need a hint to the riddle the Sultanness gives you.

-Bill Mehojah

Q. Anyone know how to get the headlight from the Ford car? I can't figure out how to get the headlight from the bedroom.

-Del Whetter

## MERCENARY

Q. I know the basic game play, but I cant seem to find the briefing room at location 9-6. I get there, but what do I do then? Nothing happens!

-Bill Mehojah

## MINDSHADOW

Q. It seems I'm stuck on the first level of Mindshadow. I've been through the maze, been to the cave, other beach, etc., and collected everything I can find, but don't know where to go next, or how to get there.

-Neal Engledow

A. All you have to do, if I remember right, is to get the straw from the hut, the rock from in the



cave, and the steel from the wreckage, and it the steel with the rock, and make a fire. A ship of some sort will come and rescue you...hopefully.

-Jim Stevenson Jr.

## NEVERENDING STORY

Q. Does anyone know how to get into the Ivory Tower? Also, how do I get in the tunnel in the foothills of the Siver Mountains?

- "Raven"

## ONE FOR ROAD

Q. Does anyone remember how to get past the snake in One for the Road? Does anyone else have it?

- "Ekim"

## PAWN

Q. Does anyone know how to get past the dragon? I know about the dudes in the shadows, but can't find the correct terminology when I get past there, how can I not get killed by Kronos?

-Diallo Evans

Q. Does anyone know how to give the devil what he wants? I've killed Kronos, but what now?

-Diallo Evans

Q. I have got the Potion and the Adventurer. I can get past the dragon going in. How do I kill the Wizard without dying as soon as I enter the Workshop?

- "Stainless Steel Rat"

Q. I got the potion, and killed kronos. How do I get his soul to the devil? Am I supposed to kill him? Maybe I should blackmail him?

- "M.C. Fresh"

Q. Has anyone been able to save the princess and vote in the same game? And has anyone found the platform that Kronos uses? I haven't been able to do either.

- "Stainless Steel Rat"

Q. I've gotten the band off, but past the red line is just a void! What do I do with the Debugbits? Are they worth anything?

-M.C. Fresh

Q. Where's the morgue? Also, what do I do about the white void, past the red line?

-Diallo Evans

## SANDS OF EGYPT

Q. Does anyone know how to find the canteen after you've killed the snake? Also, what do you do with the camel and the pyramid? How do you get to the pyramid?

-Jeff King

## SORCERER

Q. Does anyone out there know how to get the identical scrolls in the cannon?

-Jim Digriz

## SPELLBREAKER

Q. What do you do in the Octagonal Room?

-Sam Wright

Q. Does anyone know how to get the cube off of the outcasting at the volcano?

-Sam Wright

Q. I have just gotten the key from Belboz. from there I'm stuck. Can anyone nudge me in the right direction? (and what about the ruins room?)

- "The Telecaster"

Q. What do I do with Belboz? Am I supposed to know the answer to his question or do something before he asks his question?

- "Stainless Steel Rat"

A. You're supposed to answer his question. Then, he'll give you something (which I haven't figured out what to do with yet).

-Sam Wright

## ULTIMA IV

A. WHEEL: The location of the wheel is not the area "Red Baron" talked about, which is a square of deep water surrounded by shallow water with an opening. It is the location of another object. The true location of the wheel is in the deep waters of the Cape of Heroes. The Cape of Heroes is the fork south of Trinsic and the moon gate of the gibbous waning, and west of the Isle of Deeds. You can't miss it. Search along the deep waters between the legs of the fork and the Cape.

INFO ABOUT THE SHEPHERDS: The shepherds cannot use magic, or any weapons or armor that are magic except for the mystic ones. They can use all plain weapons except for halberds, crossbows, bows, and of course, magic wands, and other magical weapons. Their armor is strictly limited only to cloth, leather, and mystic robes. They are the most limited characters in the game, but they are essential to the completion of the game, and they can help you gain enlightenment in Humility a little.

FUNCTION OF THE CANDLE OF LOVE: The Candle of Love, plus two other objects, forms a "three-part key". Each of the three objects must be used before being able to enter the Abyss.



**LEVEL SIX IN THE ABYSS:** This is a hard level to stay alive in. Use the Negate spell sparingly to ward off the sleep spells of the Balrogs. They can easily wipe out your entire party using sleep spells. Once in the sixth level, go to the corner with no doors, and face east towards the corner. Go through the secret door in the empty room, and go through the next door in front of you. This first room is just a passage to the south, with no monsters. Go south to the next room, which is another empty room/passage that goes west. Go west, into a room that has two Serpents. Go south from there into a room which has two Barlogs, and several bats. From there, go east. The next room should have a bunch of Twisters. Go north into another empty room/passage that leads to the east. Go east into a room with three Barlogs behind lightning fields, and Demons in the center. You must step on a square to make the south wall disappear so you can go south. To do this, you have to kill a Barlog behind a field in the upper-right corner. The square is where the Barlog used to be. After the south wall disappears, go south into a room with two lightning fields, and several Hydras and a Barlog behind each one. From here, you must go south. To do this, you have to step on the

square where the Barlog is, behind the lightning field to the east. This will make a square of the wall disappear behind the field in the south. Go there and step on the empty square, and this will make a bridge appear. Go across the bridge and go south. This room has a bunch of Headless monsters. Go east from there into a room with four Barlogs in each corner, behind lightning fields. In the center, is a bunch of Mages surrounding a campfire. From here, you have to go south out of the room. The altar should be close by.

-Del Whetter

Q. I have six runes, and need compassion and spirituality. I also have three mantras, honesty, valor, and sacrifice, and I need the other five. Any help would be appreciated.

-Tristan Heyn

### WISHBRINGER

Q. Does anyone know how to get the light source? Also, how do you get past the hellhound, Alexis? And finally, where's the castle?

-Diallo Evans

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# THE CHESSMASTER 2000

## Checkmate from The Software Toolworks

Review by John L. Crowl

The Software Toolworks (distributed by Electronic Arts) brings the ST owner a second serious chess program to vie for their hard earned dollars (the other being *PSION CHESS*, see March/April CN). *THE CHESSMASTER 2000* (\$44.95) is a very worthy opponent and definitely deserves consideration.

*THE CHESSMASTER 2000* is supplied on two disks. The 'Boot Disk' contains the program and the 'Games Disk' is an unprotected disk with data files pertaining to the board displays, 100 classic chess games, and any games the owner might wish to save. *THE CHESSMASTER 2000* will run from a hard disk and works on either a color or monochrome monitor.

DOCUMENTATION for this program is very good. The instructions for using *CHESSMASTER* explain all the options available. A very high quality booklet is also enclosed which explains how to play chess, provides some historical background about chess, and gives a listing with commentary about the 100 classic games. There are some interesting games in this collection and it's nice to just sit back and let the computer make all the moves.

GRAPHICS on the *CHESS-MASTER* board may be displayed in either a 2D or 3D format. While the graphics for both boards (as reflected in the playing pieces) are superb, the angle of tilt for the 3D board appears to have been selected more to show off the 3D effect than to provide a true presentation of a board in front of a player. I find this somewhat distracting when 'playing for blood' so I use the 2D board. However, this is a personal opinion and I don't consider it an important issue. On both displays, a clock keeps track of time counting up from zero and displays the most current two moves for both players. You may also enter your own name on the screen in place of the generic 'player' for a more personalized flavor. If you do not like the colors of the pieces or the board, there are options available which permit the changing of the colors by a modified Atari 'control panel'. Don't like playing with wooden pieces? Presto!! Metal pieces with the click of a mouse! Pieces are done in the Staunton design and are very detailed.

MOVEMENT of the pieces is accomplished by either typing in algebraic notation from the keyboard or using the mouse. When using the mouse, a miniature hand is positioned over the piece to be moved. The left mouse button is depressed and held, the piece moved to the destination square, and the mouse button released

to 'place' the piece. Although this process is straightforward, it does have the disadvantage of dropping a piece on an undesired square if your finger slips while holding down the button. One then has to force the computer to move and take back two moves so that the piece may be moved to the correct square. A much better method, in my opinion, would have been one click to pick the piece up and one click to place it on the board.

GAME ANALYSIS is facilitated with an alternate screen which may be displayed by depressing the 'ESC' key. This screen shows the pieces removed from play across the bottom of the screen. The right portion of the screen displays a complete list of moves played and may be scrolled through to view all moves. The left portion of the screen displays *CHESSMASTER*'s thinking process — previous move analysis, current move analysis, and best move analysis. Except for the 'save game' feature, this is the most important feature of any serious chess program since it allows us to look at the games we've lost to determine why we lost. The computer acts as a tutor and permits us to see its reasoning behind moves. This screen was not specifically designed for this function as there is a separate analysis feature available. However, this screen shows the changes in the thinking process versus the specific line determined by the analysis feature. Both are useful in their own right.

NOTEWORTHY FEATURES included in *CHESSMASTER* include the following: *CHESSMASTER* allows all special moves (en passant, etc...) and prevents any illegal moves from being made. You can save games to disk and replay them. *CHESSMASTER* will play against itself as well as act as referee between two human players or, of course, play against you. There are 12 basic levels of play which control the amount of time *CHESSMASTER* thinks per move. An 'Easy' mode will prevent *CHESSMASTER* from thinking ahead while the style of play can be set at 'Normal', 'Coffeehouse', or 'Best'. The 'Normal' mode will select a move from a variety of good moves while 'Best' always picks what is considered the best move. 'Coffeehouse' increases the probability of a weaker or downright poor move being selected. A 'Newcomer' mode is available which disables all the previously mentioned functions and plays the weakest game possible. The opening book of over 71,000 moves can be turned off or on. If one grows tired of waiting for *CHESSMASTER* to move at the higher levels of play, the computer can be forced to move. Any number of moves may be taken back in a game and an entire game may be replayed



move-by-move using 'CTRL R' for each move (faster than using the 'Replay' option on the menu).

In addition to all the board capabilities listed earlier, the chess clocks may be turned off and on, the board may be rotated in one-quarter or one-half turn increments, and board coordinates to help with the algebraic notation may be turned off and on. Music, a bell tone, voice, or silence may be selected to indicate a capture, check, etc... All the moves for a finished game can be printed or the moves may be printed as a game is underway.

Several major aids for game analysis are also included in this program. There is a 'Setup' option which allows any position to be created on the board for play or analysis by CHESSMASTER. A problem solving mode for finding mate in a specified number of turns by either white or black is available. The 'Analysis' mode can be used to analyze either one or both sides moves in a game. The results of its analysis will be displayed on the screen after a move is made and may display one or several moves that it has determined to be the proper line. The text of these analysis messages may also be saved to disk for reference at a later time. The CHESSMASTER will give a hint for your next move during the course of a game if asked and it also has a 'Teach' mode in which it will display all those squares to which a selected piece may legally move.

**PLAYING THE GAME.** Now that we've heard about all the goodies packed into this program, just how well does it play chess? The newcomer to chess or the casual player should probably stick to the 'Newcomer' mode if they desire to win more games than they lose. Mixing up the various levels of play with the various styles of play will dramatically increase the expertise of the program. Playing a half-hearted game at these combinations will more often than not lead to a victory for CHESSMASTER. However, it is through losing games that one really learns to play better, so these should be the combinations used for those seeking to improve their game. CHESSMASTER plays a very strong game but like all chess programs it lacks an intuitive understanding of certain types of board positions which no programming can ever provide. Sometimes the "best" move is not, in fact, the best. However, only tournament players are likely to be able to take advantage of this computer failing.

The opening book on this program is the best I've ever seen, going as deep as 12 moves on some openings — quite an accomplishment! Although I do not believe *THE CHESSMASTER 2000* plays at the rating level implied in the title, it definitely plays above an 1800 level and should prove itself a match for many a chess player. This product is well worth the price and I would recommend it for addition to any software library.

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## CURRENT NOTES S T L I B R A R Y

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## UTILITIES

- #18: UTILITY No.1. 34 misc. utility programs
- #25: DEGAS UTILITIES. fonts, pr drivers, conversion prgs.
- #30: UTILITY No.2. Assembler; Forth-83; printdir; Labels...
- #36: DESK ACCESSORIES. calendar, clocks, screen snapshot.
- #61: PRINTER DRIVERS. First Word, ST Writer, Degas
- #63: UTILITY No.3. WP desk acc, floppy indexer, file squeeze.
- #72: UTILITY No.4. Format/copy 400K/800K; proff; desk accs..
- #73: UTILITY No.5. archiver; disk lib prgs; disk speed x...
- #81: UTILITY No.6. dir l1ster; quick formatter; Font Editor.
- #94: UTILITY No.7. clipboard, banner, marque, analyzer, blast, plcdex.
- #95: UTILITY No.8. formatter, convert DEGAS fonts to D.Elite, Elec Circuits for Easy Draw.
- #102: UTILITY No.9. bulk erase, disk format acc, disk labels
- #107: ST RAM DISKS. 25 ram disks + 7 auto loaders
- #113: UTILITY No.10. TURTLE, HD backup; prog calculator; undeleter; format3; vidcol.prg
- #117: DESK ACCESSORIES NO. 2. acc load, eternal, format.acc, index, kalklock, modzd112, new word, startup1.1
- #121: UTILITY No.11. address bk, text browser, format.gem, arxx, gem font ed., font loading acc. start1.1.
- #126: PUBLISHING PARTNER UTILITIES. Helvetica + pr.driver
- #127: ST FONT EDITORS/LOADERS. Font loader, GEM FONT ed.
- #131: UTILITY No.12. Programmer's Utility Disk: uuencode, uuencode, bucket, kill scach, make, setinit, verily, volume, case, mase, 1 filepr
- #132: UTILITY No.13. Disk l1brary prg (DISKCAT), Editors (LESS & VIX), disk copy programs (AUTODISK, DCOPI), startgem, access, rocp.
- #144: UTILITY No.14: Alarm clock acc, a C shell, buffer stup program, coldboot.tos, display any res DEGAS on any res monitor, script for DEGAS slide show, save screen in Degas Elite format, harddisk auto boot program, multiple file printer, mouse editor, print utility for Modula-2 source code, spelling checker, rambuffr.acc - variable size ramdisk and print spooler.
- #145: UTILITY No.15: ASL (print out multiple documents), GULAM (command line interpreter), HDSCAN (selectively back up hard disk), LABELS (disk label program), STARTGEM (start GEM program from AUTO), MAKERSH (reads resource file and outputs C source).
- #150: FIRST WORD PRINTER DRIVERS

## G A M E S

- #21: GAME DISK #1. (Color/Mono) Megaroids, Mastermind, Othello, Backgammon, Ripcord, Target, Life, Journey
- #37: GAME DISK #2. (C) BASIC Games (Bomber, Scratch, Switchbox), Celestial Caesars, Ripcord, Score4, Battleship, Blackjack, Mad Libs, Maze Maker, Mylife, Box the Dragon, Mastermind, hints for SUNDG.
- #39: ARCADE DEMOS. JOUST, TIME BANDITS, and CRACKED.
- #54: MONO GAME DISK #1. PuzzlePuzzle
- #62: HACK. Dungeons and dragons like game
- #80: MONO GAME DISK #2. Monopool; Krabat Chess game.
- #100: GAME DISK #3. (C) Football, Break Out, Missile, 4 Adv. Games (Larn, Magnon, Twilight Zone, & Ogre).

- #101: GAME DISK #4. (C) Atartrek, Celestial Caesars (new ver.), Krabit (chess), Twixt, ST Aggravation.
- #112: GAME DISK #5. (C) Checkers, slot Machine; Warzone...
- #122: GAME DISK #6. (C) Haunted House, Monopoly, Backgammon
- #135: SHANGAI DEMO. (Color/Mono) Fascinating new puzzle.
- #139: MONO GAME DISK #3. Larn2, Ogre, Ataritrek, Maze Maker, Checkers, Battleship, Window Ball.
- #140: GAME DISK #7. (C) Pente, Sensori, Spacewar, Tripple Yahtzee, Wheel of Fortune
- #141: GAME DISK #8: (C) Azarian and DGDB (similar to SHAMUS).

## P I C T U R E S

- #40: TINY COLOR #1. 20 Pictures
- #41: TINY COLOR #2. 26 Pictures
- #42: TINY COLOR #3. 24 Pictures
- #48: TINY MONO #1. 17 Pictures
- #51: TINY COLOR #4. 29 Pictures
- #52: TINY COLOR #5. 21 Pictures
- #65: TINY COLOR #6. 22 Pictures
- #75: TINY COLOR #7. 16 Pictures
- #96: TINY COLOR #8. 17 Pictures
- #108: TINYPICS NO. 1. GHOST BUSTERS; RAIDERS
- #109: TINYPICS NO. 2. EMPIRE STIKES; SHUTTLE
- #118: TINYPICS NO. 3. SCI-FI
- #119: TINYPICS NO. 4. VEHICLES
- #120: TINYPICS NO. 5. CARTOONS #1
- #137: TINYPICS NO. 6. CARTOONS #2
- #138: TINYPICS NO. 7. ANIMALS
- #146: TINYPICS NO. 8. FAMOUS FOLK
- #147: TINYPICS NO. 9. CLIP ART

## T E R M I N A L P R O G R A M S

- #84: ST TERM DEMO DISK. Demo of V 2.1; 2 more term prgs
- #88: TERM PRGS #3. UNITERM VT100 EMULATOR, Version 1.7b
- #142: TERMINAL DISK No. 5: Kermit, QT, Zenith, ZModem, Forem Tutorial, Flash Download, GEM Terminal Prg.

## G R A P H I C S

- #7: GRAPHICS DEMOS No. 1. 32 graphics demos.
- #14: NEOCHROME. Program, docs, pictures.
- #50: GRAPHICS DEMOS No.2. SILENT SERVICE screens, bouncing FUJI symbol
- #64: DOLL ANIMATION DEMO. Spinning dolls demo, 1Mb-color
- #66: GLOBE DEMO DISK. Spinning globe + more... 1Mb-color
- #67: BALL/BIRD DEMO. Bouncing ball & flying bird demo
- #77: CAD 3D ANIMATION DEMO. Fractal Mountain
- #85: SOUND/GRAPHICS #2. stspeech, music player w/files
- #90: SHINNY BUBBLES. Color demo shown at COMDEX '86
- #104D: ALADDIN ST DEMO DISK. Stunning graphics.
- #105: CN MOVIE. Make It Move Demo
- #115: ANIMATOR DISK. Aegis Animator Player w/4 ARC'ed routines to play.
- #128: STEELY BOINK. Ray-tracing demo.
- #129: SPHERES DEMO (C) Another super animated ball demo.
- #136: MICRODEAL DEMO PROGRAMS. Demos of Goldrunner, Tanglewood, Airball, and Sprite Construction Kit.
- #151D: SPACE PROBE - A Cybermate Animation (DS & 1Mb)
- #152: PD3CTL - Motion control Language for use with CAD 3-D, Version 2.0.

## M U S I C

- #34: MUSIC ON YOUR ST. ST MUSIC BOX, Dix Piano Player
- #60: MUSIC STUDIO SONGS. 50 songs for MUSIC STUDIO
- #78D: SOUND DIGITIZER DEMO. by Print Technik, 1Mb, color
- #78D: DIGI SOUND DEMO #1 OXYGEN (By Hypnosis) 1Mb
- #79D: DIGI SOUND DEMO #2 FOREIGN AFFAIR (M.Oldfield) 1Mb
- #99D: DIGI SOUND DEMO #3 MATT'S MOOD (Matt Bianco) 1Mb
- #114: MUSIC STUDIO 'SNG' DISK #2. 40+ songs
- #134: ST-REPLAY. Digitized sound demo.



## LANGUAGES

- #8: SAMPLE "C" PRGS #1. 17 C programs w/source
- #9: SAMPLE LOGO PRGS. 30+ LOGO programs.
- #22: SAMPLE BASIC PRGS. 17 BASIC prgs, command summary
- #31: PASCAL & MODULA-2. OSS files, + various demo prgs
- #33: SAMPLE "C" PRGS #2. 12+ C programs w/source
- #49: SAMPLE PASCAL PRGS #1. 46 PASCAL files.
- #53: ATARI ST FORTH-83 MODEL. by Laxen & Perry
- #71: FORTHMACS Ver 1.1. (c) 1986 by Bradley Forthware
- #82: SAMPLE "C" PRGS #3. 13 C programs w/source
- #83: SAMPLE MODULA-2 PRGS #1. Shell for ARC.TTP +....
- #92: SAMPLE MODULA-2 PRGS #2. ST Speech Modules +....
- #93: SAMPLE PASCAL PRGS #2. spelling checker source...
- #97: LITTLE SMALLTALK. language, editor, manual, prgs
- #98: XLISP V1.7. language, manual, editor, C source ..
- #110: MODULA-2 SAMPLE DISK #3. AES Library modules.....
- #111: PASCAL SAMPLE DISK #3. source to ATARTREK...
- #123: SHAREWARE C COMPILER. C, editor, ramdisks, etc.
- #124: ATARI ST ICON LANGUAGE, V6.3. by Fonow & Nowlin
- #130: SAMPLE GFA BASIC PROGRAMS #1. GFA Run only ver., Terminal prg., Sprite ed., Torpedo game, Fractals, Archsell, Format2, Graphics Demos
- #133: SAMPLE C PROGRAMS NO. 4. Source code to uudecode, uencode, kermi.ac, citadel bbs & utilities and a spreadsheet program.
- #148: GEM TUTORIALS, COLUMNS 1-9
- #149: GEM TUTORIALS, COLUMNS 10-17

## APPLICATIONS

- #15: ST WRITER, Ver 1.71e. ST WRITER with all doc files
- #29: MICROEMACS. Ver 3.71. editor, ref man, tutorial
- #59: VIP TEMPLATES. 20 VIP templates
- #68: CAD 3D PICTURES. 12+ picture files for CAD 3D
- #69/70: GRAPHIC ARTIST DEMO. Ver. 1.52.
- #74: ST SAMPLER #1. Demos of Synsoft's Gen Ledger, SOLAPAK, and TechMate Chess prg; more ...
- #89: SPANISH ST WRITER. (c) 1985
- #91: BOFFIN DEMO DISK. demo of BOFFIN word proc prg
- #103: SKYMAP. 1,560 of the brightest stars.
- #106: SMOOTH TALKER DEMO. 5 talking educational prgs.
- #116: ST SOFTWARE DATABASE (by Andy Nicola)
- #125: GERMAN ST WRITER. (c) 1986
- #135: SHANGHAI DEMO DISK. Try and solve this fascinating new puzzle. Color or mono.
- #136: MICRODEAL DEMO PROGRAMS. Demos of Goldrunner, Tanglewood, Airball, and Sprite Construction Kit.

## CPM EMULATOR

- #86: CP/M-80 EMULATOR TOS DISK. CP/M-80 V2.2
- #87: CP/M-80 DISK #1. Disk in CP/M-80 format: 24+ prgs
- #C1: CP/M-80 TELECOM DISK #1. mexst & docs
- #C2: CP/M-80 UTILITY #1. 45 utility files
- #C3: CP/M-80 GAMES #1. adventure, allens, blkjak...

## MACINTOSH (MAGIC) DISKS

These disks contain Macintosh programs for use with the Magic Sac on the ST. Disks are already in Magic format and can be used directly.

- #M0: MAGIC SAC 3.5. (beta of ver. 4.0).
- #M1A: FINDER 4.1 STARTUP (BOOT) DISK. (for 1-Mb STs).
- #M1B: FINDER 1.1 STARTUP (BOOT) DISK. (520ST/1040ST).
- #M2: TELECOM DISK #1. Free Term, Termworks, Kermi
- #M3: UTILITY DISK #1. Switcher, Packit, Slicer, MacDump, RMover, Reverse Screen, DES, Font Doubler,...
- #M4: GAME DISK #1. Missile Command, Solitaire, MacLuff, Space Bubbles, BackGammon, Smile, Bash Big Blue, Munch, Meltdown, Maze 3D, Snow, Curves.
- #M5: DISK LIBRARIAN. Disk Librarian Ver 1.81 with complete Magic library listing.
- #M6: GAME DISK #2. Ashes, Wall Game, Wheel of Fortune, Black Box, Snake, Destroyer, Hex Puzzle, Office Attack, Symmetry Demo.
- #M7: GAME DISK #3. MacYahtzee, Wiz Fire, MacCommand, MacBUGS, GO, Break the Bricks.
- #M8: DESK ACCESSORIES #1. DA Tester, F/DA Move, MockPrint, MockTerminal, MockWrite, MiniWriter, Moire, ArtThief,

Ascii, File Hacker...

- #M9: UTILITY #2. File Hacker, ResEd, RamStart 1.3, Font Doubler, Change App.Font, Desk Acc Mover, MacTools 5.4, Convert Desk Acc.
- #M10: GRAPHICS #1. Painter's Helper, Moire 3.0, Living Art, Pattern, Nightmare, Rotations, Ball Demo, Hot Sex, Meltdown, View Paint 1.1, Curves, Fourth Dimension, Plcs:(bugs, amy, pisces, brooke, garf).
- #M11: PRINT UTILITIES. Chooser, Fast Eddie, Font Mover, Font DA Mover 3.2, Ink, MockWrite, MacWrite 4.5 to Text, MiniWriter, Disk Labeler, 3 fonts.
- #M12: MACBILLBOARD. Mac Paint Clone (Shareware). Includes docs and sample pictures.
- #M13: FONT DISK NO. 1: Athens, Boxle, Dover, Hood River, ImageWriter, LED, London, Los Angeles, Luxor, Monaco, Park Ave., Pica, Ravenna, Rome, San Francisco, Seattle, Steel Brush, Ultra Bodoni, and Font/DA Mover 3.4.
- #M14: FONT DISK NO. 2: Bookman, Courier, Coventry, Dall, Geneva, Hebrew, Manteco, Shadow Box, Sri Lanka, Times, Walla Walla, and Font Display 4.6 w/docs.
- #M15: GAME DISK NO. 4: Space Attack, Amps 3.0, Jago, Nim, Macheads, Canfield, Lets Get Tanked, Bricks.
- #M16: FONT DISK NO. 3: Alice, Avante Garde, Berkely, Broadway< Camelot, Cartoon, Centura, Chancery, Eoh, Exeter, Fallingwater, Fantastel, Future, Ham, Helvitica, Hollywood, Lachine, Lineal, Madrid, Pittsburgh, San Quentin, Silicon Valley, Stencil, SupFonts, Unicol.

## ANALOG DISKS

#A41 (Apr '86)	#A46 (Sep '86)
#A42 (May '86)	#A47 (Oct '86)
#A43 (Jun '86)	#A48 (Nov '86)
#A44 (Jul '86)	#A49 (Dec '86)
#A45 (Aug '86)	

## NEW DISKS FOR JUNE

- #140: GAMES No.7. (C) Pente, Sensori, Spacewar, Tripple Yahtzee, Wheel of Fortune
- #141: GAMES No.8: (C) Azarian and DGDB (similar to SHAMUS).
- #142: TERMINAL DISK No.5: Kermi, QT, Zenith, ZModem, Forem Tutorial, Flash Download, GEM Terminal Prg.
- #143: CITADEL BBS. PD BBS dating back to late 1981. Ported from CP/M to MS-DOS, and now to Atari ST.
- #144: UTILITY No.14: Alarm clock acc, a C shell, buffer stup program, coldboot.tos, display any res DEGAS on any res monitor, script for DEGAS slide show, save screen in Degas Elite format, harddisk auto boot program, multiple file printer, mouse editor, print utility for Modula-2 source code, spelling checker, rambuffr.ac - variable size ramdisk and print spooler.
- #145: UTILITY No. 15: ASL (print out multiple documents), GULAM (command line interpreter), HDSCAN (selectively back up hard disk), LABELS (disk label program), STARTGEM (start GEM program from AUTO), MAKERSH (reads resource file and outputs C source).
- #146: TINYPICS NO. 8: FAMOUS FOLK
- #147: TINYPICS NO. 9: CLIP ART
- #148: GEM TUTORIALS, COLUMNS 1-9
- #149: GEM TUTORIALS, COLUMNS 10-17
- #150: FIRST WORD PRINTER DRIVERS
- #151D: SPACE PROBE - A Cybermate Animation (DS & 1Mb)
- #152: 3D CONTROL - A PD motion control Language desk accessory for creating cybermate animation sequences with CAD 3-D, Version 2.0.

\*\*\*\*\*  
 \* PINFEED LABELS for your ST Disks like those used on \*  
 \* CN Library disks: 500(\$12); 1,000(\$24); 1,500(\$33); \*  
 \* 2,000(\$41); 2,500(\$48); 3,000(\$52); 3,500(\$57); \*  
 \* 4,000(\$61); 4,500(\$64); 5,000(\$66). Includes shipping.\*  
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# WHAT HATH DESKTOP PUBLISHING WROUGHT? THE LASER PRINTER DILEMMA !

By Wm. Price

Before the advent of SoftLogik's *Publishing Partner* and David Small's *Magic Sac*, making possible operation of *Ready, Set, Go!* (RSG) and *PageMaker* on the ST, life was relatively simple. For most of us, output was directed to an Epson compatible dot matrix printer. And there are a number of these available at competitive prices to produce near letter quality (NLQ) products. With graphic (bit mapped) type faces, attractive but "not near typeset quality" (NNTQ) is available from D.E.G.A.S., XLent's *Typesetter Elite*, *NEOchrome*, *Font Writer*, and a few of the ST word processing systems like *Word Writer*. Better quality is available from *Publishing Partner*, *RSG*, *Easy Draw*, and *Graphic Artist*, but their dot matrix output is slow and the quality does not approach that available from laser printers.

With new publishing software capabilities now available for the ST, many of us are on the horns of the laser printer dilemma. Some may think that the cost is a major consideration, but more important are the typesetting features available. A low cost laser printer that can only produce typewritten quality output is a fast but expensive daisy wheel printer. In essence you get daisy wheel, letter quality (LQ) print at or under \$2000. And this is the kind of option that is readily available from a wide range of laser printers. The limited flexibility and capabilities from this kind of choice will prove to be unsatisfactory for most of us that yearn for better typeset quality and font variety.

## WHAT YOU GET IS WHAT YOU SEE

An attempt will be made to solve this dilemma while being fully aware that it may only make matters worse for your pocketbook. The first advice is not to buy a laser printer -- regardless of low cost -- that can only emulate a daisy wheel device. The dominant emulation of these printers is Diablo 630, followed by Epson FX-80 and Qume Sprint II. Courier 10 is one of the most prominent typewriter faces emulated along with pica, Prestige Elite, and a proportional sans serif. Although a few drives will support proportional spacing, many are limited to monospace "typing" in 10, 12, 19, or 22 characters per inch.

With monospaced type, all characters occupy the same horizontal white space regardless of the letters' body size. For example, the vertical bar, the thinnest character, takes up the same space as the much wider capital "M" and "W". The quality of

monospaced type is dull, monotonous, and as some have said, it is a friction to reading.

Proportionally spaced type, ala daisy wheel, was an attempt to horizontally space characters based on their body width. However, for the 92 or so upper and lower case characters generated by a keyboard, there are only a dozen different width values. For typeset copy, some fonts may use 40 to 60 different width values for the same 92 characters. This variable spacing, the artistic style of the fonts, the variety of bold and italic faces, and the different sizes give typeset copy its elegance and quality.

Many vendors of plain vanilla laser printers will argue that their devices can produce high quality typeset copy. And they are right. Indeed the printers do have this capability. They are imaging devices, but can they produce? You must find special driver software and special (usually limited in variety) font libraries that are supported by your desktop publishing system. And because of this tailoring for a target printer, there generally will not be the flexibility to use other desktop publishing software or other laser printers. In this respect, uniqueness is a trap.

## EXPENSIVE QUALITY NOW AT LOW COST

Typeset quality has never been inexpensive, but with desktop laser printers, the costs are now drastically lower. Where a page set by hot lead can cost around \$70 commercially, desktop laser printers can offer the same page for 75 cents. Your page costs for home laser printing will range from 3 to 10 cents excluding labor and paper. It's not hot lead quality, but it is acceptable near typeset quality (NTQ).

Laser phototypesetting can work in ranges of over 2000 lines resolution to produce typeset quality whereas desktop laser printers operate at 300 lines per inch. Within a year, these devices will be operating at 450 lines like their more expensive cousins. But there are limits. Where photographic paper or film can hold a higher resolution, desktop laser printers are limited by their copier based technology.

Although laser beams can be made much smaller, there is a limitation in the granular size of the toner (black powder) that is attracted and fused to the paper to make an image. The paper must be fine grained and not porous. Laser printing may not be



the quality of phototypesetting, but it is superior to a dot matrix printer with much larger type forming pins roughly 1/72 inch in diameter -- four times the size of a laser beam. Although laser printers give acceptable resolution and speed for desktop typesetting, they are simply electrostatic or xerographic imaging devices. The type fonts are electronic specifications that intelligently drive the laser beam mechanism and produce graphic representations. The typesetting capability is measured primarily by the fonts, sizes, and type faces that are available to drive the laser engine. And how they are driven to the printer is dependent on the page driver software.

## BEWARE OF VOODOO MIRRORS

Electronic imaging of characters makes possible a wide variety of type styles. But, are they available for the printer you are considering? Voodoo salesmen may assure that the printer will do everything you want, and more! But getting from your ASCII text file to desired typeset copy can be a maze with more than one stop sign. For those who are entertaining the use of a font editor to design laser type, discard the idea immediately! Font design is for artisans more so than technicians, and production of a high quality font takes months and in some cases years. Buying a mallet, chisel, and a block of marble doesn't make a sculptor.

## FONT VARIETY AND QUALITY

The finest quality laser font libraries available are from Adobe Systems. They were copied and digitized from the classic hot lead type families and include Times Roman, Century Schoolbook, Bookman, Helvetica and a dozen other fonts licensed from the original owners -- Mergenthaler, International Type Corporation, Haas, Linotype, and Stempel -- who retained renowned artisans for the designs. The fonts chosen by Adobe are the bread-and-butter of the industry, the ones used for 70-80 percent of the publishing market. They are conservative, graphically pure, readable, and they are in many ways typographic standards of the publishing industry.

Other font producers like Casady, Century, and Image Club collectively have over 300 laser fonts also available for the Macintosh. In variety, they overshadow Adobe's offerings. However, they are very stylish and useful for an Oktoberfest brochure, a circus poster, or highly stylized display. They account for a small percentage of day-to-day publishing. What these companies provide is a wide selection of type to meet almost any need you may encounter. They have furnished spice at a reasonable price.

## WHICH FONTS?

For book or magazine publishing, the Adobe library of fonts is first class. As with other laser fonts, the marvels of electronics can turn these fonts into bold, thin, italic, outline, mirror, etc. However, the library fonts specifically designed for bold face and italic are higher in quality than those generated by mathematically skewing the normal type face. Electronics can also expand the font sizes from 4 points (you recall that there are 72 points to the inch) up to several hundred points. Some fonts are limited only by the size of the page -- how about a 500 point or 7 inch high character? Characters can also be offset from the baseline to produce true superscripts and subscripts. Special symbols such as an integral sign or a large two line Sigma are also included in some libraries. Designing type fonts is costly, and it is difficult to produce artistic quality and the variety needed. For the moment, my bets are firmly placed on Adobe. Over the past several months, the stock market has proved this more than once. After a two for one split, their stock has climbed back to its original price before the split.

## P.S. -- HOW TO MAKE A PAGE

The first requirement for your investment is therefore a high quality font library. This is a major part of the solution, but only half the loaf. How is the laser beam driven to produce typeset quality? At 300 lines resolution, there are 90,000 dots per square inch or 7,848,000 dots or pixels that fill an 8" x 10.9" page. A simplistic driver can lay down dots one at a time. Although the laser beam moves quickly, a full page may take an hour to produce! Additionally, one megabyte of RAM would be required to buffer the entire page image. For a taste of this turtle graphics speed, try printing output from *Publishing Partner* to a dot matrix printer. And remember that dot matrix is producing less than 25 percent of the pixels that are imaged by a laser printer. So the answer to this second part of the problem is a high level description language that in essence takes the font graphic information and its placement on a page and cranks it into a program that in turn drives the laser beam.

*PostScript* from Adobe provides this Page Description Language (PDL). Although there are others, Adobe's is the most prominent (more later). And although it has its quirks, it works and works well, and Adobe does provide significant enhancements. How does it work? Your desktop publishing software, like *Publishing Partner*, *Ready, Set, Go!*, and *PageMaker*, prepares the font and format information, along with your text to produce a *PostScript* output file for the printer. This file is then processed by the *PostScript* interpreter



in ROM. Encoded data for each font is fetched from the Font Dictionary to produce character drivers. This is compiled along with a series of commands into a program that resembles the FORTH language style. Commands can draw lines, curves, and fill areas that describe the size and shape of character graphics. In this manner, efficient paths are constructed to stroke information to the page. *PostScript* interprets the program to drive laser beam strokes. These strokes electrostatically charge the paper and attract black toner to produce type and other graphic images. A PDL like this can produce copy much faster than imaging dots.

The advantages of *PostScript* are that it is device independent, and gives you choices in output devices, it is becoming an industry standard to underpin your choice of this PDL, and it is supported by most of the desktop publishing software available for personal and micro computers including *Publishing Partner* for the ST. You have assurances of operability and flexibility in use with a range of software and printers.

This driver concept was pioneered by Xerox in 1970 with its *InterPress* language. However, *InterPress* has been limited for the most part to the Xerox line of office systems and floor standing laser engines. Others have been developed and fall into the category of either Page Description (PDL) or Document Description Languages (DDL). Adobe has been the leader in this area with the *PostScript* PDL. At the recent FOSE show (Washington, D.C. April 1987) most manufacturers of laser printers either had a *PostScript* compatible printer or were introducing one within months. These include Apple, QMS, Quadrum, Cannon, NEC, Texas Instrument, DEC, Diconix, Facit, ITT Qume, NBI, and Sun Microsystems. This should tell something about *PostScript* as a standard.

## MORE CONVERTS

Both IBM and Wang have seen the handwriting and signed licensing agreements with Adobe. Foremost among the reasons is that *PostScript* is not only spreading across the desktop printer market, but Adobe has been able to attract some of the larger phototypesetting equipment manufacturers like Allied-Linotron, CompuGraphic, and Agfa-Gevaert. More are bound to come as personal desktop publishing migrates into the office place, small business, and the cottage industry. A user or customer, with the device independent facilities of *PostScript*, can easily and quickly move from several desktop laser printers to higher quality phototypesetting at 1200 and 2500 lines per inch. Many of the quality publishing houses are producing typeset "proof" copy on laser printers,

and after correction and modification, are using the same *PostScript* file to produce higher quality camera-ready copy on phototypesetters. No other description language lets you quickly use these different levels of typesetting capability and no other product like *PostScript* makes it as easy to work in this market place.

An equally important factor in *PostScript*'s dominance is the desktop publishing software itself. Although Xerox was into PC publishing early on, their higher cost *Alto* or *STAR* system was confined to the office place. Apple teamed with Adobe to produce the Apple *LaserWriter*. Adobe provided the fonts, both downloadable and in ROM, and produced the *PostScript* interpreter software in ROM. The font and *PostScript* ROM's were built into Apple's *LaserWriter* which is itself a small but powerful computer. Then Aldus produced *PageMaker* for the Macintosh. To this day, this software is the standard against which all others are compared. Macintosh also attracted Manhattan Graphics with *Ready, Set, Go!* -- a contender. The *LaserWriter* with *PostScript*, Adobe's font library, and *PageMaker* formed the combination that put Apple into the cutting edge and forefront of desktop publishing.

This desktop publishing combo has been so successful in the marketplace that IBM and MicroSoft (*Windows* with mouse) have finally seen the high intensity light. Aldus has now ported *PageMaker* over to the IBM PC so that it can join this new race. Wang is also trying to move into this arena by developing a desktop publishing system. Rumors are that *PageMaker* may be ported over to operate on a Wang PC. But Wang doesn't have the full graphic screen capability nor does it yet have a mouse. So another enterprising vendor and systems integrator has stepped in with a solution. It consists of Macintosh workstations connected to Wang's VS series of mini computers. The VS host will give multiple access to Wang's *PostScript* laser printer. Their printer engine is from Xerox. The Mac will be able to take Wang Office files or ASCII files from an IBM PC and produce laser print or higher quality copy on a *PostScript* phototypesetter.

## QUO VADIS, ATARI?

Where does this leave the ST user and Atari? Both are faced with the same options and the same dilemma -- cost. *PostScript* compatibility and Adobe licensing fees increase the cost of a laser printer by almost \$2000. But the add-on boxes for *PostScript* compatibility are more expensive. QMI offers an interface box for \$3000.



## IS POST SCRIPT WORTH IT ?

*PostScript* is similar to our NTSC television broadcasting standard. And because there is such a standard, we are able to turn on our televisions and watch shows from all stations that follow the standard. Had any problems lately? If not, try a television broadcast made for the PAL or SECAM standard. Now you have problems.

*PostScript* is not an agreed to standard, but the large number of equipment manufacturers that have adopted it are making it a *de facto* standard. The message is clear, if you want to obtain quality and value for your software output, buy a *PostScript* compatible printer. A wide variety of font libraries will fall into place and you won't be forced into a narrow, inflexible, and possibly obsolete option.

Remember also that two versions of each font are required -- one for the printer and one for the screen display. The screen display font is mapped on less resolution than the printer version, but it is proportional so that it gives a "what you see is (almost) what you get" representation. Adobe fonts as well as other *PostScript* compatibles provide both fonts -- but at the moment they only exist for the Macintosh!

## AN EXCELLENT PRINTER -- BUT !

An attractive, high quality printer is the Hewlett-Packard *Laser Jet*. It is reasonably priced. But Hewlett-Packard is one of the staunch hold-outs against adopting *PostScript*. HP maintains that their Document Description Language is superior. It very well may be, but it does not yet have a market base.

In some ways, this is analogous to situations in weapons technology. For example, during our American Civil War (yes, this is another hobby shared with the ST) the Spencer repeating rifle was clearly superior to the muzzle loading musket. But it was only issued in limited quantities in 1863. It did not see wide spread use during the remainder of the war. Was the military backward? No, they were practical. The cost and logistics of manufacturing special ammunition (non-standard) and supplying it to the armies was overwhelming. Did Spencer make it in a big way after the war? No! A better weapon later came along and replaced both the older musket and the Spencer.

Hewlett-Packard uses the Cannon engine and has produced a superb printer in the *Laser Jet*. The output is amongst the best of laser printers. But, if *PostScript* PDL is not adopted (rumors say it will

be), HP will be the Spencer repeating rifle of the laser printing era. Their attack on the market without *PostScript* is reminiscent of an H. Allen White story about the Rose Bowl tournament. At half time, a spectator walked to the center of the playing field, reached under his coat and pulled out a pistol. Waving it at the jam packed crowd, he proclaimed, "Everybody stick-em up".

## NO SMOKING GUN FROM ATARI

Atari Corporation is trying to figure out what pistol to use, and we the users are cautious about raising our hands. *PostScript* along with a host of font libraries readily available from Adobe, Allotype, etc., would appear to be the logical choice. If there is any question in your mind, just pick up the phone, call (301) 424-3942, and order MacTography's *Laser Sampler II* for \$25. It is a loose leaf catalog of over 300 type fonts and faces that run under *PostScript* on the Macintosh. It was produced on a *LaserWriter* and this high quality publication, with over 350 page samples of styles and sizes for each font, is worth more than the cost. Or you can write to 702 Twinbrook Parkway, Rockville, Maryland 20851. Your first question after being dazzled by the quality and variety will be, "Why can't I have this capability?"

To a great extent, you can with the *Magic Sac's* ability to run *Ready, Set, Go!* and *PageMaker*. But you need a *PostScript* compatible printer. So, to provide one, it would appear that Atari realistically should go ahead and acquire access to Adobe's *Post Script*, it's Rodin, instead of hiring a chisel and marble block and trying to create their copy of this work of art, with the resultant immediately apparent lack of quality.

## IDEAS MUST PAY OFF

Atari's idea of a low cost printer using the intelligence and memory in the ST is a good approach. However, where is the intelligence -- the Page or Document Description Language and the variety of font libraries? The answer is available right now from Adobe. *PostScript* and the fonts shown in *Laser Sampler II* could be loaded from disk to the ST's expanded RAM along with desktop publishing software like Publishing Partner. However, is this the best approach? Would a hard disk make it faster, should multi-tasking be used, or would a two step process -- interactive pagemaking followed by batch PDL processing to the printer -- be an answer? Or is the best answer a ROM resident *PostScript* interpreter with basic fonts?

## WHO DRAWS FIRST ?

Somewhere, someone must draw the gun! Does



Atari or SoftLogik license the font library and *PostScript* software from Adobe? Or does Adobe port this to the ST and sell directly through Atari dealers? No one likes to pay licensing fees. It raises prices and cuts into sales and profits. Adobe takes the Prime Rib sales approach while Atari, McDonald's style, has demonstrated it can sell to hundreds of thousands of hungry Americans.

If I were an entrepreneur with the technical expertise of Atari, I would build the *PostScript* companion -- an interface box that would connect between any computer and any laser printer. It would have a mother board with *PostScript* interpreter and the Adobe fonts in ROM. In addition, it would have 1.5 meg of RAM to handle full page graphics and other downloaded font libraries. It would be equipped with serial, parallel and DMA ports and use fast 32 bit architecture. The price would be targeted at or under \$500.

Atari has demonstrated that from the parts and manufacturing perspective, this can easily be done. But would Adobe's licensing fee make the price excessive. Adobe is in the position to become for the laser printer world what MicroSoft is for the PC world. But will the demands for high unit returns for their inventiveness prevent this? Time and again, the fallacy of this approach has been clearly demonstrated. High priced products with wider market potential don't invite -- they beg to be cloned! The IBM PC's and the clones that undercut IBM sales are a good example. Also look at what happened to Epson with lower price competition.

The low cost *PostScript Companion* would have a wide marketplace -- any personal, micro, or mini computer owner who has or who wants a laser printer for typesetting. This could make Atari's low cost printer sit up and talk and give it an equally wide marketplace well beyond the Atari community. It is in line with Atari's idea for the powerful and low cost IBM PC clone. The "*PS Companion*" would be as good a bet as selling floppy disks or AA cell batteries. How can you loose?

Is Atari right? Is it cheaper to invent a wheel than it is to buy one? Until Atari figures out its direction, or until an enterprising person comes along, stick with a *PostScript* compatible printer! You will be able to generate the limited fonts available with *Publishing Partner*. And you will be able to access Adobe's font facilities by using the *Magic Sac* and *Ready, Set, Go!* or *PageMaker*. If Atari comes out with its PC clone, the IBM version of Aldus' *PageMaker* can be used. Atari wake up! Adobe's phone number is (415) 852-0271. In the mean time, we users must wait. Atari doesn't answer its phone! Hopefully Adobe will.

ATTN:  
PASCAL  
USERS

# MODULA-2

## the successor to Pascal

FOR  
ATARI  
520ST

- FULL interface to GEM DOS, AES and VDI
- Smart linker for greatly reduced code size
- Full Screen Editor linked to compiler locates and identifies all errors
- True native code implementation (Not UCSD p-Code or M-code)
- Sophisticated multi-pass compiler allows forward references and code optimization
- Desktop automates Edit/Compile/Link cycle
- FileSystem, RealIn/Out, LongIn/Out, In/Out, Strings, Storage, Terminal
- Streams, MathLib0 and all standard modules
- Directory search paths
- Supports real numbers and transcendental functions ie. sin, cos, tan, arctan, exp, ln, log, power, sqrt
- 3d graphics and multi-tasking demos
- CODE statement for assembly code
- 370-page manual
- Installs on Hard disk and RAM disk
- No royalties or copy protection
- Phone and network customer support provided

Pascal and Modula-2 source code are nearly identical. Modula-2 should be thought of as an enhanced superset of Pascal. Professor Niklaus Wirth (the creator of Pascal) designed Modula-2 to replace Pascal.

### Added features of Modula-2 not found in Pascal

- CASE has an ELSE and may contain subranges
- Programs may be broken up into Modules for separate compilation
- Machine level interface
  - Bit-wise operators
  - Direct port and Memory access
  - Absolute addressing
  - Interrupt structure
- Dynamic strings that may be any size
- Multi-tasking is supported
- Procedure variables
- Module version control
- Programmer definable scope of objects
- Open array parameters (VAR r: ARRAY OF REALS;)
- Elegant type transfer functions

Ramdisk Benchmarks (secs)	Compile	Link	Execute	Optimized Size
Sieve of Eratosthenes:	6.2	4.3	3.5	2600 bytes
Float	6.4	4.8	8.3	4844 bytes
Calc	5.5	4.2	3.3	2878 bytes
Null program	5.1	3.2	—	2370 bytes

```

MODULE Sieve;
CONST
  Size = 8190;
TYPE
  FlagRange = [0..Size];
  FlagSet = SET OF FlagRange;
VAR
  i: FlagRange;
  Prime, k, Count, Iter: CARDINAL;
BEGIN
  ('SS-SR-SA*')
  FOR Iter := 1 TO 10 DO
    Count := 0;
    Flags := FlagSet(); (* empty set *)
    FOR i := 0 TO Size DO
      IF (i IN Flags) THEN
        Prime := (i * 2) + 3; k := i + Prime;
        WHILE k <= Size DO
          INCL (Flags, k);
          k := k + Prime;
        END;
        Count := Count + 1;
      END;
    END;
  END;
END Sieve.

```

```

MODULE Float;
FROM MathLib0 IMPORT sin, ln, exp,
  sqrt, arctan;
VAR x, y: REAL; i: CARDINAL;
BEGIN ('ST-SA-SS-')
  x := 1.0;
  FOR i := 1 TO 1000 DO
    y := sin (x); y := ln (x); y := exp (x);
    y := sqrt (x); y := arctan (x);
    x := x * 0.01;
  END;
END Float.

```

```

MODULE calc;
VAR a, b, c: REAL; n, i: CARDINAL;
BEGIN ('ST-SA-SS-')
  n := 5000;
  a := 2.71828; b := 3.14159; c := 1.0;
  FOR i := 1 TO n DO
    c := c * a; c := c * b; c := c / a; c := c / b;
  END;
END calc.

```

### Product History

The TDI Modula-2 compiler has been running on the Pinnacle supermicro (Aug. '84), Amiga (Jan. '86) and will soon appear on the Macintosh and UNIX in the 4th Qtr. '86.

Regular Version \$79.95 Developer's Version \$149.95 Commercial Version \$299.95

The regular version contains all the features listed above. The developer's version supplies an extra diskette containing a symbol file decoder -- link and load file disassemblers -- a source file cross referencer -- symbolic debugger -- high level Windows library Module -- Ramdisk and Print Spooler source files -- Resource Compiler. The commercial version contains all of the Atari module source files.

### Other Modula-2 Products

Kermit	— Contains full source plus \$15 connect time to Compuserve.	\$29.95
Examples	— Many Modula-2 example programs to show advanced programming techniques	\$24.95
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# BATTLE BYTES

## Battle Cruiser, by SSI

By M. Evan Brooks

TITLE:	BATTLE CRUISER
PUBLISHER:	SSI
DESIGNER:	Gary Grigsby
PLAYERS:	0-2
PRICE:	\$59.95
RATING:	***

*Battle Cruiser* is the sequel to *Warship* (cf. QN, March 1987). Everything that was true of *Warship* may also be said of *Battle Cruiser*. However, this is not to say that this latest Grigsby effort is unworthy of acquisition. Since this product composes two full disks covering both World War I and World War II (Atlantic Theater), it may be noted that *Battle Cruiser* is in fact a better bargain.

The design parameters are similar for both World Wars, although differences do point out the tactical differentiations. Magazine explosions are vastly more common in World War I than in World War II, and these usually fatal events are much more common with British vessels (as was historically the case). It should be pointed out that German and British naval designs were quite different, and by World War II, the British had learned a lesson in naval warfare and damage control. However, an argument may be made that the British have forgotten the lessons learned. The destruction of the Sheffield during the Falklands War was caused by an Exocet missile. However, it is interesting to note that the missile did not explode; rather, it punched a hole through the ship and severed fuel lines. The loose fuel ignited and the design features of the modern vessel were such that damage parties could not reach or isolate the source of the fires. The more things change ...

If one liked *Warship*, then *Battle Cruiser* will be loved. Covering both World Wars, it is twice as much game for the money. However, with the design-your-own options, a single product would have sufficed to cover all the ground in both simulations. As the products currently exist, even ownership of *Battle Cruiser* will not permit one to design *Warship* scenarios. The inclusion of c. twenty-six gun types per disk yield just enough differentiation to prevent total duplication. Without *Warship*, no gun type is available to create the monster battleships of World War II (e.g. Yamato).

Of course, this is a deliberate action on SSI's part. With the design work already completed, this multi-packaging allows multiple sales. Most companies follow similar procedures; it is simply good business practice. Fixed costs have already been incurred, and the additional sales revenues will be mainly profit. This reviewer's objection is that both *Warship* and *Battle Cruiser* are too closely related. While MicroProse may redesign its Command Series (e.g. *Conflict in Vietnam*, *Crusade in Europe*, *Decision in the Desert*) and SSI may do Roger Damon designs ad infinitum (e.g. *PanzerGrenadier*, *Nam*, *Field of Fire*), these products covered different periods in new and novel ways. When they did not, they failed (as did Damon's *Nam*, since it was an obvious World War II design with minimal resemblance to Vietnam). *Battle Cruiser* and *Warship* cover their subject matter in the same fashion. SSI is to be commended for not trying to squeeze out both the World War I and World War II titles; however, in fact, both *Warship* and *Battle Cruiser* could have been released in the same package.

With the publication of *Battle Cruiser*, SSI has also begun releasing scenarios in its newsletter, Inside SSI. The first type-in scenario covers the pursuit and sinking of the Graf Spee (1939). Additional scenarios are expected in later issues.

There are certain historical inaccuracies in *Battle Cruiser* — not in the game as much as the documentation covering the World War I era. The BC Leutzow is in reality the Derflinger; the AC Blucher is in reality the World War II version; the AC Scharnhorst is in reality the Mackensen class. This coupled with historical references not available raise questions in the player's mind. Most of the World War I references are readily available, and it would seem that they are not here simply because of a "Rush to Publish". If that is true of the documentation, is it also true of the underlying game parameters?

The simulation does appear to mirror the reality of naval engagements in both World Wars. The graphics and the documentation covering strategic and tactical conceptualization are inadequate, as the review on *Warship* noted. For the naval aficionado, such omissions will not be

(Continued on Page 46.)



## ATARI'S SMALL MIRACLES

By Mark A. Brown

Welcome back to another month of Atari's Small Miracles, the only column on the market with a consistent source of type in programs for the Atari 8-bit computers. College finals have kept me from my true love -- my Atari -- this month, so instead of working out a theme and writing the programs or, the shorter method, writing programs and then finding a theme, all I could do was dig through my old library disks and see what might fit the column. So a mishmash of programs are here this month, all fun and/or useful in their own right, but don't try to see how one relates to the next.

## HEXTABLE

This program prints a table of binary, hex, and decimal numbers for instant conversion. If the first line is printed at the top of an 8.5 x 11 inch sheet of paper, the table will neatly fit onto one sheet for easy inclusion into a notebook or simply hanging on the wall next to the computer. When the prompt "Output?" is seen, type in either "Printer" (just the capital letter P will do) or anything else you want the table to go to, such as a disk file (Dn:FILENAME.EXT), the screen (E:), or even an 80-column board (V: from the old Compute!, for example). I hope you find the table as useful as I have.

```
10 DIM HEX$(2),H$(16),BINARY$(8):H$="0
123456789ABCDEF":POKE 201,5:? "Output
to ?":INPUT HEX$:OPEN #1,8,0,HEX$
20 FOR X=0 TO 63
30 FOR DEC=X TO 255 STEP 64:V=DEC:GOSUB
B 50:V=DEC:GOSUB 60:? #1;DEC,HEX$;" ";
BINARY$;" | ";NEXT DEC
40 ? #1:NEXT X:END
50 FOR I=2 TO 1 STEP -1:T=INT(V/16):R=
V-16*T:HEX$(I,I)=H$(R+1,R+1):V=T:NEXT
I:RETURN
60 FOR I=8 TO 1 STEP -1:T=INT(V/2):R=V
-2*T:BINARY$(I,I)=STR$(R):V=T:NEXT I:R
ETURN
```

## GR10FUN

This program is from John Moon of Alexandria, Virginia, and he has shown us the value of a classic programming formula: the simple graphic display that (coincidentally?) keeps showing up in this column. Just type in the program, RUN it, and watch. I'd like to point out a useful programming technique at this point: everybody knows about the color shifting the Atari computer does if left along for a couple minutes. This is done so that no one image can "burn" itself into the phosphors of the television (an improbable occurrence, but not an impossible one). This can

be controlled by the programmer with the use of location 77. If you are planning to leave a program like GR10FUN on display for awhile (to subtly show off your Atari computer during a party, perhaps), simply put a line in your program that will execute fairly often a POKE 77,0 statement to prevent the color shifting. On the other hand, if you WANT it to shift for a little variety, change that statement to POKE 77,128 to make it shift without having to wait the seven or so minutes. Either way, YOU are in control.

```
100 GRAPHICS 10:FOR X=704 TO 712:READ
A:POKE X,A:NEXT X:DATA 96,22,70,38,70,
79,104,120,120
110 FOR I=1 TO 70:C=C*(C<8)+1:COLOR C
140 T=I/5:PLOT 50+T,T:DRAWTO 75-T,T:DR
AWTO 75-T,55-T:DRAWTO 50+T,55-T:DRAWTO
50+T,T
150 PLOT T,T:DRAWTO 25-T,T:DRAWTO 25-T
,55-T:DRAWTO T,55-T:DRAWTO T,T
160 PLOT 35,1:DRAWTO 70-I,189
180 D=D-0.25:NEXT I:A=95
190 Z=PEEK(712):FOR D=712 TO 706 STEP
-1:POKE D,PEEK(D-1):NEXT D:POKE 705,Z
200 A=A+1:POKE 704,A:IF A=255 THEN A=1
210 FOR I=0 TO 15:NEXT I:GOTO 190
```

## CIRCLES

This program may not be a whole lot of fun, but to some (like myself) it is invaluable. What CIRCLES does is draw circles on the screen. "So what?" I hear you say. Once again, this is a program that is worth far more for HOW it does what it does, not WHAT it does. The circle algorithm is a nice, fast way of drawing circles using only addition and subtraction. In BASIC this doesn't amount to much, but in Action! or machine language this could be a very useful addition for any drawing program.

```
5 CLOSE #6:OPEN #6,12,8,"5:"
10 TRAP 60:POKE 710,0:COLOR 1:A=PEEK(5
3770)+32:B=PEEK(53770)-32:R=PEEK(53770
)/4:PHI=0:Y1=0:X1=R
20 PHIY=PHI+Y1+Y1+1:PHIXY=PHIY-X1-X1+1
:PLOT A+X1,B+Y1:PLOT A-X1,B+Y1:PLOT A+
X1,B-Y1:PLOT A-X1,B-Y1
30 PLOT A+Y1,B+X1:PLOT A-Y1,B+X1:PLOT
A+Y1,B-X1:PLOT A-Y1,B-X1:PHI=PHIY
40 Y1=Y1+1:IF ABS(PHIXY)<ABS(PHIY) THE
N PHI=PHIXY:X1=X1-1
50 IF X1=Y1 THEN 20
60 IF PEEK(53279)=7 THEN 10
70 GOTO 5
```



## RING

Finally, yet another graphics 10 demo. This program is from Atari itself, an old public domain program and one of the first written to demonstrate the GTIA chip. I simply added a SOUND command to create a spaceship-like effect. Type it in, RUN it, and enjoy.

```
10 DIM C(22,2):GRAPHICS 10:FOR Z=704 T
0 712:READ R:POKE Z,R:NEXT Z:DATA 0,17
,34,51,68,85,102,119,136,153
20 LIM=22:T2=3.1415927/LIM:GOSUB 2500:
FOR V=1 TO LIM:T=T+T2:GOSUB 2500:NEXT
V
25 FOR R=1 TO 8:T6=R:GOSUB 1520
30 NEXT R:FOR R=9 TO 15:T6=16-R:GOSUB
1520:NEXT R:FOR R=16 TO 23:T6=R-15:GOS
UB 1520:NEXT R:FOR R=24 TO 30
40 T6=31-R:GOSUB 1520:NEXT R
50 FOR X=1 TO 8:Z=PEEK(704+X):Z=Z+17:I
F Z>255 THEN Z=Z-256
60 POKE 704+X,Z:SOUND 0,Z,10,5:NEXT X:
GOTO 50
1520 COLOR T6:V=0:GOSUB 2000:PLOT X,Y:
FOR V=1 TO LIM:T=T+T2:GOSUB 2000:DRAWT
O X,Y:NEXT V
1521 V=0:GOSUB 2000:PLOT 80-X,Y:FOR V=
1 TO LIM:GOSUB 2000:DRAWTO 80-X,Y:NEXT
V:RETURN
2000 X=(30-R)*C(V,1)+40:Y=(60-R)*C(V,2
)+80:RETURN
2500 C(V,1)=SIN(T):C(V,2)=COS(T):RETUR
N
```

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Atari's Small Miracles is eagerly looking for programs to publish. If you have a program you are especially proud of and would like to see published, send a listing of it (if short) or put it on a disk (if long) and send it to:

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The last few months have been rather hectic for me, resulting in what I feel is a general decline in the quality of the programs I write to put in this column. I thank all of you who have contributed to the quality of the programs here, but since I write most of the programs, my lack of time was reflected in the column. Next month I plan to reverse that trend with a topic untouched by this column thus far: business programs. Since the programs I have in mind tend to be short, I hope to have more than the usual number of them here next month. But until then, enjoy your summer!

---

#### BATTLE CRUISER (Continued from page 44.)

missed; for the average gamer, they will prove semi-fatal.

Because of the product's treatment of both World Wars, the rating is acceptable. However, likewise, the rating of *Warship* should be reduced to two stars (\*\*). Due to coverage, *Battle Cruiser* is the better bargain. Recommended for the naval aficionado, and not for the Sunday afternoon gamer.

From the Trenches: After a two-month hiatus, Battle Bytes returns. I would like to apologize to the readership for the absence (but then again, maybe it was cause for jubilation?); however, new wargame releases for the Atari 8-bit machines seem to be releasing at an ever-slowng pace. With the dearth of new material combined with a two week military commitment plus other writing demands (particularly as wargaming editor for *Computer Gaming World*), little time and materials were available.

However, there does seem to be a dim light on the horizon. SSI has recently released *Rebel Charge* at Chicamauga and MicroProse will soon be releasing a *Bucaneer/Pirate* simulation (a cross between *Seven Cities of Gold* and *Broadsides*).

Given CGW's reservation of first publication rights, reviews may well be slower than heretofore. However, in lieu thereof, future columns may address milieu and winning tactics.



# DAISY DOT and FONT MASTER

## Two Public Domain Winners for the 8-bit Ataris

Review by John Godbey

One undeniable fact about the Atari 8-bit computer is that the supply of new innovative commercial programs is drying up. But this does not mean that there is no new worthwhile software for these computers — a number of interesting products are entering the public domain. These programs, however, often remain "hidden" from users: they are neither advertised nor reviewed in magazines which Atari users depend upon for Atari news. Even a program as superb as *Turbo Basic* has not even been mentioned in *ANALOG*, and just mentioned in the June 87 *ANTIC* (but see *CURRENT NOTES*, February 1987, p. 26).

In this note I want to describe two worthwhile products for 8-bit Ataris which are available free, and are as well done as many expensive commercial programs: "Daisy-Dot" and "Font Master" both of which are available on various BBS.

### DAISY-DOT

"Daisy-Dot" is a program that will make an ordinary Epson or Star printer produce near letter quality (NLQ) printing. It is a compiled Turbo Basic program written by Roy Goldman of Denver, CO. Even though it was written in Turbo Basic, it is a stand alone program; however, because it was written in Turbo Basic, it will only run on the -XL and -XE computers.

The program is quite simple to use. Take any file and "print" it to a disk — for example, with AtariWriter Plus or PaperClip. Load Daisy-Dot and the font you desire and the program will print the file in either standard, condensed, or double-size print. The program prints a line, advances the page slightly, and prints it again. The results I get on my Epson RX-80 printer are amazing. The letters no longer look like a bunch of dots, nor do they look wide and smeared as in the normal double-strike mode. They look nearly as good as a typewriter.

Simply put, this is a program that delivers on its promise. It takes an ordinary Atari and an ordinary printer and produces NLQ printouts. If you need NLQ print, then get this program.

(As an added bonus the disk comes with a font editor to allow creation of new NLQ fonts. I haven't tested it extensively, but it seems satisfactory for the job.)

### FONT MASTER

"Font Master" is another printer utility for the 8-bit Atari. It was written by Mike Fulton of Cypress, CA, in Action! It is a stand alone program that will run on all 8-bit Ataris with at least 48k memory.

The "Font Master" Disk has three parts. The first is a program that will print out files, including graphics characters, along the lines of "MegaFont." If you don't have a program which does this, this one certainly has the right price. The second part — at least on the version I downloaded from CompuServe — is 35 different fonts which can be used for the print outs. I haven't tried them all, but they seem to encompass the standard varieties of fonts.

The final part — and to me by far the most interesting and useful — is a part of the program called "Sideways" which allows you to print out SynCalc files, as you might guess, sideways. (It should also work on Visicalc, but I haven't tested that.) The SynCalc file must be saved with the Text option. The program will then print it out, sideways, as long as the total file size does not exceed 18,000 characters, and over 40 lines vertically. There is no limit to the width of the file as long as it doesn't exceed the total character limitation. That is, you could have a spread sheet that was 6,000 lines wide as long as it was only 3 lines deep, and this program would print it.

According to the documentation, this program works with Epson compatibles and "Star Micronics Gemini series printers." I have only tried it on the Epson, and can report that on that printer it works as advertised. This is certainly not a program which you will use every day; but if you do many spread sheets, you will sooner or later need to print out a wide one, and when that time comes this is the program that will save your life.

If you need these kinds of printer utilities, I highly recommend these programs. They do their job, and they do it efficiently. They are both shareware programs — the authors ask for a donation if you like them. Both can be gotten from DL3 on CompuServe, but I warn you, they are long programs. Look for them on a "free" BBS. Perhaps they will soon be in your club library.



## MATH TALK

## First Byte's Talkie on the Operations Table

Review by Bill Moes

Say the word *math* to any group of kids and you'll hear some groans. Math is exact. It's inflexible. It's demanding. All reasons enough for complaints from those looking for status as one of life's easy riders. Yet, with proper foundations, math may also be exciting and fascinating and unlike any other type of challenge. But before the excitement, the exertion. The basics, we know, must be mastered.

*MathTalk*, using software synthesized speech, offers guidance to students in the elementary grades willing to make the effort. The program is direct in presenting help with addition, subtraction, multiplication, and division of whole numbers. It all starts with a math page. Enter up to 24 problems of one operation. Save and close the page you've created. Then it's time to find solutions.

There are two ways to use the program's help. The first, *Solve It*, offers a grid and step-by-step instructions. If you make a mistake, the solution will be shown only after you've finished the whole problem. It would have been much more useful if the program had interrupted work with the first incorrect entry to offer help. If you become totally confused while working on the problem, a click on "Help Me" will also display the solution. The more difficult steps, particularly in division with a 2- or 3-digit divisor, may still require work on your own paper.

*Scoreboard*, the second guide, simply shows the problem and waits for you to enter the final answer. This may be useful to check a previously completed school assignment. Only when all problems on a page are completed will incorrect answers be noted. There are two ways to do the corrections. The first shows each step in the solution. The other, a calculator, may be used to enter the problem and see the answer. The calculator, though, is not perfect. If you make a couple of mistakes in entering a division problem with that calculator, the program directs you to "enter the divisor" while it highlights the dividend. And the reverse happens when it comes time to actually enter the divisor ("enter the dividend"). Whoa, folks! It's tough enough getting the kids to learn the correct term without this program mixing them up!

*MathTalk* offers two games for drill in the basic facts. *Table Talk* presents randomly selected problems. You enter answers by using the number keys or clicking on the screen's calculator. A fact table is filled as the answers for that operation are given. *Mystery Number* asks for the missing digit in an equation (ex.:  $7 + ? = 10$ ),

either for one operation or for a mixture. While both games may be useful to students first learning facts, they could be frustrating to those looking for the chance to build up speed and show off some skill; the input is accepted very slowly.

Other negatives also exist. The quality of speech may be unpleasant to some. Although it becomes much more acceptable with use, you may want to sample the voice first (CN ST Library disk 106). The medium-res screens are presented only after a pause of 5-10 seconds. The \$49.95 disk is copy protected, using the key-disk method.

Unfortunately, the PRINT option is nothing more than a screen dump. Four pages are used to print the 24 problems from a full *MathTalk* page. Since having children work math on unlined computer paper will not lead to much neatness, why wasn't a printed grid included with those problems? The sound effects are reminiscent of computer sounds found in SF movies of the 1950's. Those sounds may turn irritating.

The allowed size of each problem is probably sufficient for most. Addition (up to three numbers) and subtraction permit up to eight digits in each line. Multiplication goes with four digits each. Division includes up to four digits in the dividend (inside the box, First Byte) and three in the divisor.

The documentation is a solidly-presented 22-page booklet which offers ideas to parents on using the software in the most beneficial way. It also suggests additional computer and non-computer activities.

First Byte is well-regarded for its excellent support, including a toll-free telephone line and a periodic newsletter. The company has published several other ST learning programs, including *Speller Bee* (CN May 1987).

*MathTalk*, sadly, is a disappointment. Synthesized speech may have much to offer, but not with negatives which seem so dominant. When work does not immediately stop with the first mistake in solving a difficult problem, a valuable learning junction is bypassed. The slowness of the two games will prevent many from using the software to build up speed and confidence with those critical basic math facts. Unlike *Speller Bee*, speech seems not so essential a part of the program. And *MathTalk* seems not so helpful.

[First Byte, 2845 Temple Avenue, Long Beach, CA 90806 (800) 523-8070; in CA (800) 624-2692]



# BUZZWORD

## A Strategy & Learning & Word Game

Review by Bill Moes

*What can you say about game documentation that terms the lowest and easiest game level, the level I live in regardless of the game, as Bright? Me? I'll say "Thanks!" Others may belong in something better, like Nimble, or perhaps even Gifted. But, well, I can live with being merely Bright, thank you very much.*

The naming of those three levels says a lot about this game. There is a kind of pleasantness here. And this feeling radiates from a game that is challenging and entertaining for a wide range of players and in a variety of situations. In words direct, *Buzzword* is very good in all the right ways.

Your goal in this Atari ST game is to name nine words belonging in one of 200 categories. Those categories are grouped into five very general sections: fun, learning, leisure, play on words, and word connections.

While the first four categories ask for a word related to a specific topic, *connections* asks you to complete a word or phrase beginning with the given word. For example, name something beginning with *French*. Yes, the word you're thinking of is there, along with 28 others.

The three game levels refer to how well-known the words are in that category. They'll range from the obvious to the obscure. Each category has up to 50 words available on the disk, with most having 30-50. As you play one of the two upper levels, words from that level as well as words from the level(s) below will be used. Not all categories include words in the top level.

In addition to selecting the category, you will set one of 32 option levels. These levels determine how much help you'll have. Your choices include showing four clues: the first letter in the word, the word length, the individual letters of all nine words in that round, or the total letter count for the words. A 30-second timing clock for that round of nine words may be used (about three seconds per word!). *Buzzword* may be played as a singles or a doubles contest.

To play, select one of the three word levels. Next, determine the challenge's difficulty by picking a game level from the 32 options available. Finally, type in a category number. Quickly, the game's afoot.

*Buzzword's* single screen is well-designed. It includes areas for all clues you may select, a typewriter illustration for your entries, and a

score section. No use of GEM or the mouse is made. Sound effects are minimal. Game play consists of three rounds and a bonus. In the timed bonus round, you need to unscramble words.

The 32 options provide a rich variety of play. It's surprising difficult to name the word in a favorite category even while knowing the first letter, the number of letters in the word, and seeing a list of all letters in the nine words for that round. Yes, even that beginning level may be touch difficult. So, think about the challenge you face in naming nine words from a tough category when the only item for a clue is the total number of letters for all words. And then add in the 30-second clock winding down and a competing team commenting snidely while waiting for your next miscue.

The game plays as much more than a simple wordguessing game; there are strategic moves to make. Perhaps you'll go for more points by naming a second or third word in the same column and/or row of the three-by-three puzzle. Maybe you'll take those bonus points with a *pass* or, *daredevil*, will it be a grasp for even more with a correct next entry, knowing that a mistake will erase that beckoning bonus.

With the large number of words in each category, it's possible to replay a category numerous times. Many players will enjoy the chance to go for a big score from a familiar list of words, being neither bored nor dumbfounded. And the challenge of a totally mysterious list awaits for 200 plays.

The 24-page documentation booklet does the necessary: guides and encourages and suggests. It's well-done. A set of 200 cards is also included, listing the words in each category and offering other helpful information and game variations. The cards permit a little pre-game study and may be used to handicap players of different ability. In addition to this ST version (\$42.95), *Buzzword* is available for the Atari 800/XL/XE series (\$39.95).

Designed by Paul Granchelli, this is one to enjoy, even by those merely *Bright*. It's easily played and offers a wide variety of interesting categories and numerous styles of play. The game is as valuable to children as adults. A solitary thinker, a family, a party of gamers: all will find that *Buzzword* is a ... (begins with W... six letters ... you've got three seconds).

[The Buzzword Game Co., 5582 S. Zeno Court, Aurora, CO 80015 (303) 693-GAME]



# RAM DISKS AND HARD DISKS

## How to Make Them Play Together

By Stephen D. Eitelman

### HARD DISK VS RAM DISK

Hard disks such as the Supra 20MB drive permit the drive to be partitioned into as many as four separate drives, identified as C, D, E, and F. Even if only one drive (C) is selected, the controller still appears to allow for the remaining three to be selected at a later date. If a RAM disk is installed that utilizes drive identifier D for the RAM disk, there will be a conflict between the RAM disk and the hard disk, regardless of the partitioning. The result will be a dialog box warning that the drive does not exist when an attempt is made to access drive D. Since many RAM disks use identifier D, it would seem that the only recourse is not to use a RAM disk. After all, the hard drive is at least as fast, and maybe faster on occasion, than the RAM disk. However, when using a compiler that requires many trips through the Edit-Compile-Link-Run cycle to get the bugs out, it would seem desirable to avoid the wear and tear on the hard disk by just shuffling electrons around in a RAM disk.

Well, there is a solution. The essence of it is a file from CompuServ that allows a RAM disk to be used with the hard disk. The procedure is (more or less) done this way:

Download three files from DL-3 in the Atari 16 bit forum: RAM1MF.ARC, ARC.TTP, and ARC.DOC.

The .DOC file contains complete instructions for using ARC.TTP. (The ARC stands for archive, a compression technique for more efficiently storing files.) The task here is to use ARC.TTP to decompress RAM1MF.ARC into usable files. Basically, just double click on ARC.TTP, then type the following on the command line: `xh ram1mf.arc *.*.`

This command tells the program to extract all the files from ram1mf.arc and hold the results on the screen. This operation will create the following files: RAM1MF.PRg, RAM1MFX.DOC, RAMDSK1M.PRg, RAMDSK1M.DOC.

With the two .PRg files on one disk in drive A, run RAM1MFX.PRg. It will create a new program from RAMDSK1M.PRg called RAMDSK<drive identifier>.PRg. This file should be placed inside the AUTO folder on the boot disk used to start up the hard drive. Or, it can be placed in the root directory of drive C and called up only when needed.

When the RAM disk drive designater is being selected, drive G avoids any possible conflict

with existing or subsequent hard drive partitions, so "G" is the preferred designater. *[For those wishing a shortcut, the file RAMDSK1G.PRg on QV Library Disk 07 is configured to give you a 500K ramdisk on drive G. Just move it into your AUTO folder on hard disk drive C and follow directions below. Ed.]*

After the RAM disk is created and stored in the AUTO boot folder, the RAM disk must be installed. Click once on one of the disk drive icons. Under the Options drop down menu, select Install Disk Drive. Change the Drive Identifier to G. Then tab to the Icon Label and change it to RAM DISK. Then click on Install. Move the RAM disk icon to wherever is desired on the desktop. Drop down the Options menu again and click on Save Desktop. Now there is a 500K RAM disk available for saving the aforementioned wear and tear.

This procedure has only been performed on a 520ST with 1MB of RAM. It should work just as well on the 1040ST. It probably will not work on a 512K machine, although there may be a way to reduce the amount of memory allocated to the RAM disk.

### A SAD STORY

The March 1987 issue of CURRENT NOTES contained an article on RAM disks. Part of the discussion concerned autoloaders, that is, a program that automatically loads a RAM disk with a list of previously specified files upon booting the computer. When ye olde 16-bit editor tried to do it, it wouldn't work. He was completely unable to load *ST Writer* from his hard disk onto the RAM disk automatically (using RAMDLDR). [ST Editor Comment: I wouldn't have tried, had I not edited the author's article and been intrigued about "how to get it on, your drive, all together"]. So he called this author, whose immediate reaction was, "Oh, well, what do editors know besides deadlines, number of words per page and grammar?" [sic]. After about three hours of work, I concluded that RAM disks, autoloaders and hard disks do not coexist very well at all. Then how on earth did my original boot disk with ETERNAL and RAMDLDR work so well? After a lot of deep thinking, I realized there was a very subtle answer: plain, dumb ole beginners luck.

### HOW TO DO IT

What follows is an explanation of how to create a boot disk for the Supra 20MB hard disk containing the RAM disk ETERNAL, and the auto-



loader RAMDLDR. The steps MUST be done in the order given. No file deletes or other alterations are permitted; if something goes wrong in the creation of the boot disk, start over. The object is to create a boot disk that will boot the hard drive, create a RAM disk and then load it with files of your choice from the hard disk -- all at boot-up. The steps are as follows:

1. Format a disk. DO NOT SKIP THIS STEP!! If there is anything already on the disk when you begin loading files, the boot disk may not work.
2. Create an AUTO folder.
3. Load the following files into AUTO IN THE ORDER SHOWN. The order is very important: ETERNAL.PRG, SUPBOOT.PRG, RAMDLDR.PRG
4. Load CONFGAM.TOS.TOS onto the root directory.
5. Run CONFGAM.TOS. This will create a file called RAMDISK.DAT.
6. Copy RAMDISK.DAT into the AUTO folder.
7. Create an ASCII file called FILE.LST. This file must be an ASCII file and cannot contain any extra spaces at the top, sides or bottom. This is another point where it is easy to go astray. Although ST Writer is alleged to be capable of producing an ASCII file by printing to the disk, it likes to put lots of margins around the file. I found that 1ST Word in the non-WP mode works fine. A typical FILE.LST looks like this:  
E:  
C:\SIWRIR.170\SIWR170.PRG  
C:\SIWRIR.170\XYZZX.DAT

There must be NO carriage return at the end of the last line in the file. What the above sample means is that E: is the destination file (the RAM disk). Then each of the successive lines begins with the drive where the file is to be found (C: in this case), followed by a back slash, the folder name, another back slash and the name of the file. I type with the CapsLock key on, although this is probably unnecessary. The last line of FILE.LST should not have a <RETURN> after it. Then save this to the root directory of Drive A.

8. Add your favorite accessories to the boot disk.
9. Load the DESKTOP.INF file onto the boot disk. Note that if you remove accessories and the DESKTOP.INF file from the hard disk, drive C, and put them on the boot disk, each boot disk can have its own unique desktop configuration and accessories. This means that the RAM disk desktop can automatically come up with a RAM disk icon, for example, while another boot disk with no RAM disk boots up with no RAM disk icon. The hard

disk controller apparently first looks on drive C, and if it does not find the DESKTOP.INF file, it then looks on the boot disk, in drive A.

10. Do NOT write protect the new boot disk. ETERNAL likes to write to the disk during the bootup process and then appears to delete whatever it has written.

11. Now try the new boot disk. Based on a statistical sample of two (the author and the ST Editor) it should work if you have followed this procedure faithfully.

## EXPLANATION

Perhaps the most critical portion of this procedure is the order of the files in the AUTO folder. First of all, ETERNAL (for reasons known only to its author) must be the first file in the folder. RAMDLDR must follow both SUPBOOT and ETERNAL because they must be open when RAMDLDR tries to open a file to the RAM disk for the destination and to the hard disk for the source. Thus ETERNAL, SUPBOOT and then RAMDLDR must be in the AUTO folder in that order. If any file deletions occur or other disk editing is performed, TOS is quite likely to store the files in some other order, based on available disk space. It also seemed that the AUTO folder should be the first item placed on the disk, although I'm not sure this is really required. TOS ought to be able to find AUTO wherever it is on the disk. But better be safe than sorry! So use a clean, newly formatted disk, and if you have to start over, please format it again.

## ERROR MESSAGES

If you get an error message that a file cannot be opened, it means either that the order of files in the AUTO folder is wrong or that FILE.LST has something wrong, generally extraneous characters or misspelled file or path names. After a lot of weeping, wailing and gnashing of teeth, I found the best procedure in these cases, to repeat, is to format the boot disk and start over. Even if you find the error, editing the disk is liable to wreak havoc with the order of files. If the autoloader loads all the files, then stops with the word COPYING on the last line and locks up the keyboard, there is probably a carriage return as the last character in FILE.LST. Remove it, save FILE.LST somewhere so you won't have to re-create it and then (sigh) start over.

Lest you think the challenge of doing this simple task, is not all consuming, we offer a free subscription to QN for a year to the first person who reports he was able to do it on the first try. May the Force be With You.



# ARC, ARC, ARC, ARC

## How to Handle Those ARC Files

By Dan Rhea, (c) 1987

Being a SYSOP on CompuServe Ataril6, you would imagine the most common question the users ask would be "How do I download?" Well, it's probably the second most-asked question... The first, I hope to deal with in this article, is simply "How come my .ARC files don't work?!" Nothing in life comes easy, so I'm going to run you through ARK, beginning with the hard way, followed by the detailed way, and then, if you have the patience to stay with me, the easy way (i.e. lazy).

First off, let's define an ARC file -- It is a collection of individual files, in alphabetical order, and in most cases, compressed in some way, and collected into one file with the extender ".ARC". Additionally, each file has a CRC attached to it (so we can confirm its integrity), noting what type of compression was used on it, its new and old sizes, and a date and time stamp. The advantages gained are approximately 55% size reduction for text files, 30% reduction for most programs, and as much as 55% reduction for pictures (better than TINY, usually).

Now, on to that most common problem -- Our user, Suede Onym, who has been downloading files for years for his 8-bit machine, has finally made the obvious choice and stepped up to an Atari ST. After wandering around the Data Libraries for a bit, he spots several programs he wants. He chooses, for example, MONOP.ARC, GNUMAC.ARC (and LOOKSE.ARC? Nah!). Now down come the files, much larger than the old 8-bit ones, he will probably note. The download is finished, and he dutifully double clicks on MONOP.ARC, and is faced with the choice [List] [Print] [Cancel] (A particularly irritating one, since it's not in the manual). After filling the screen with trash, and watching his printer do things he never thought it capable of, he will normally rename the file (i.e., MONOP.ARC to MONOP.PRG).

With a happy smile on his face and the confidence that he has finally wrestled this beast to the ground, he double-clicks on MONOP.PRG, only to get the dreaded "TOS ERROR NO.35"! For those of you not in the know, TOS ERROR NO.35 is the ST equivalent of "Huh?" or "I have no bloody idea what to do with this". Suede is, by now, quite miffed. He has downloaded a "large" file that he can't do anything with. Fortunately he does the obvious (at least I hope this is what most of them do!), he calls back, and leaves us a message "I downloaded MONOP.ARC and ..."

What Suede is missing, of course, are probably the first two files anyone on CompuServe, a

BBS, or any other service should download. The files are ARC.TTP and ARC.DOC (both in DL3 of Ataril6 by the way). At this point, a thorough reading of ARC.DOC is in order, though rarely done. So let's skip all the details for now, and let Suede get on to playing MONOPOLY.

First off, you will note that this is one of those dreaded ".TTP" programs. All we really need to do at this point is "extract" all the files from MONOP.ARC. Here are some examples of how to do just that -- On the OPEN APPLICATION line type:

```
xh MONOP.ARC *.*
```

Roughly translated, the "x" means extract all files. The "h" means hold off going directly back to the Desktop when we finish, so you can see any errors (also if used by itself, it will give you a quick HELP screen). The MONOP.ARC tells where to get the files. The .ARC extender is optional here, but I suggest you use it anyway. Finally, the "\*.\*" tells where to put the extracted files. This is also an optional default, but one I again suggest you use. Hopefully, Suede has plenty of disk space on the disk that MONOP.ARC is on, since that is where all the extracted files have been told to go, but just to make his life even more difficult, we will assume that he doesn't. No problem ... TTP to the rescue. Suede can now type the following:

```
xh A:\MONOP.ARC B:\.*
```

Now all the extracted files will come from the A: drive and go to the B: drive. We've been nasty enough to poor Suede so far, so we'll let him have a dual drive system and save him all those disk swaps! It is also possible to extract to and from a Ram-Disk as well, and save lots of time, if you have the space for it!

Ok, we have now made Suede Onym an expert in ARC file extraction, and it's now time to see what this incredibly powerful program is really capable of! Back to CompuServe, to pick up the file ARC.ARC, in DL3 of Ataril6. This gives you two additional ARC utilities (ARCM.TTP - Archive Merge and ARCX.TTP - Archive Extract), and a new ARC.DOC file. This is the one with the real meat in it.

The general format of the ARC command line is:

```
{amufdxerplvtc} [bswnh] <archive> [filename]
```



Below is an alphabetical list of the various options available:

- a : Add files to archive, ignoring time and date information.
- b : Retain a backup of the archive you are working on, that is unaltered and has the extension .BAC, not .ARC.
- c : Convert an entry to a new packing method. This is used if a newer compression scheme comes along and you suspect you could obtain a better compression percentage.
- d : Delete files from archive (forever), and recombine the files to remove unwanted data.
- e : Extract files from the archive.
- f : Freshen files in archive, keeping the "newest" files, but not adding any that did not already exist.
- g : When used as the last option supplied, it can be followed by a key (password) that will encrypt or decrypt the data in the archive (i.e. xhgBOOT MONOP.ARC \*.\* , where BOOT is the key).
- h : Hold screen before returning to Desktop, and if supplied alone, produces a short "HELP" list of valid commands.
- l : List the names of the files in an archive.
- m : Move files to archive, ignoring time and date information, and delete the file from its previous location.
- n : Suppress notes and comments generated (also not usually a good idea).
- p : Print a file from archive, i.e. copy a file from archive to standard output.
- r : Run a file (with arguments), from the archive (TTP, TOS, or PRG and if named the same, the .RSC file is used as well).

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- s : Suppress compression. This keeps the file in exactly the same form it was supplied in.
- t : Test archive file integrity to make sure it contains no bad files.
- u : Update files in archive, keeping the "newest" file and adding any file that does not already exist.
- v : Verbose listing of the files in an archive that includes name, compression method, CRC, new and old sizes, the percentage saved and the date and time stamp.
- w : Suppress warning messages (not usually a good idea).
- x : Extract files from the archive.

Now that I have buried you under all that information, let me show you a few examples of how to use it (or abuse, as the case may be), and we will move on to making ARC simple again.

Ex. 1: ah a:\swill.arc c:\mydocs\\*.\*

This will create a file on drive A: called "swill.arc", and fill it with all the files in the folder "mydocs" from drive C: (usually the hard disk or Ram-Disk).

Ex. 2: mhARGH b:\source.arc a:\cprogs\\*.c

This will create a file on drive B: called "source.arc", that contains all the files with the extension .c, in the "cprogs" folder on the A: drive, and encrypted using the key "ARGH". By the way, if you encrypt your files, you had better remember the key!

So much for the silly examples, on to more important things, like how to make this stuff simple, so I don't need to read the documentation every time I need a file! Once again, it's back to Compu-Serve for another .ARC file, and this one is called ARCSHE.ARC. This archive, once you extract the files, gives you ARCSHELL.PRG and ARCSHELL.RSC. These were written in MODULA2 by Jerry K. LaPeer, and provide you with a very clean GEM interface to all those options. It also provides file selector boxes to help you select what to archive or extract, and where to get or put the files. Once I ran across this little gem, I typed my last TTP OPEN APPLICATION command line for ARC.TTP (note, you still need ARC.TTP since Jerry's program is simply a shell).

Files are stored in alphabetical order. The header has the following format:

```
Filename: 13 bytes null (0) terminated (char)
Size: 4 bytes (long int)
Date: 2 bytes (int) (IBM/Intel format)
Time: 2 bytes (int) (IBM/Intel format)
CRC: 2 bytes (int)
Length: 4 bytes (long int)
```

The ARC file is fully compatible with ARC files used by IBM and Amiga (and in some cases CP/M). That, of course means data compatible, not program compatible. An example would be for me to download a bunch of IBM files, archive them on my ST, and then send them to a friend with an IBM. He will be able to extract and run the files, as if they came directly from an IBM system ARC program.

Compression methods used by ARC.TTP:

1: No conversion, listed in verbose as "---", no longer used.

2: No conversion, listed in verbose as "---", superceded 1 in that the original file length is retained.

3: Repeated character compression, listed in verbose as "Packed". In very simplified terms, "AAAAA" is treated as "A5" although the "5" is stored as a binary number, not an ASCII 5.

4: Huffman Encoding, listed in verbose as "Squeezed". The method all those SQUEEZE programs used. Converts characters into smaller bit strings depending on frequency count of appearance in file.

5, 6, and 7: Lempel-Zev Compression, listed as "crunched" in a verbose listing.

8: Dynamic Lempel-Zev Compression, listed as "Crunched" in a verbose listing. Any other types (perhaps the next generation), would be listed as "Unknown!" in a verbose listing.

Now that you are again burdened with more information than you care to know about, it's time to give credit where credit is due. ARC, was developed originally for the CP/M and MS-DOS industry, based on the work of Huffman, Kunth, Knott, Welch and several other scientists. The Atari ST version is based on the IBM version, originally done by Thom Henderson. The Atari ST version was created by Harvey Johnson (see the doc file in ARC.ARC for Harvey's address and such). The majority of the technical information contained in this article came directly from Harvey's documentation in the file ARC.ARC. When I mention credit where credit is due, if you download just one file that has been processed with ARC.TTP then Mr. Henderson has saved you 30 to 50 percent of what it would otherwise have cost you to download the same file(s), not processed by ARC.TTP!



## TWO BY TWO OUT OF THE ARC

By John Barnes

There is a nifty little utility called ARC that is every bit the life-saver that Noah's original was. Those of you who are into telecommunications have been forced to learn about it because most downloadable packages of any consequence are found in ARC'ed form on BBS's. This saves the SYSOP a lot of effort and space and the customer a lot of time. Put briefly, ARCing is a way of compressing files and combining many files into a single file, called an archive. The result is a tidy package containing everything related to a particular application.

Run-time images, documentation, resource files, source codes, and any related data files can all be kept and shipped together. Naturally, you must be able to separate all of these components when you go to use your download, and the ARC utility does this too. In a certain sense an ARChive is like a folder.

The ARC utility on the ST, however, does one thing that TOS does not. It preserves the creation date on the files that it puts into the archive. Better yet, it uses this date as the creation date when it extracts the files. Those people who have to move files between disks a lot

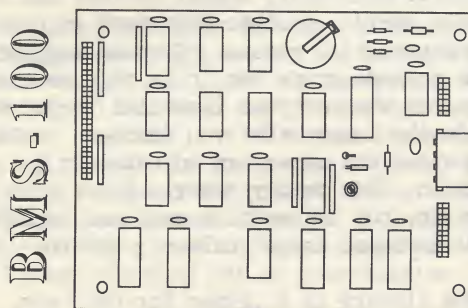
will immediately appreciate the virtue of this. On the other hand, those who think that changing the date when you copy a file from one disk to another is a "Feature" should rethink the importance of keeping track of the history of files.

Because of this handy feature I have started to ARC all kinds of collections of files. Obsolete correspondence, spreadsheets, and software packages were the first to be gathered up. I have found that the time involved in creating an archive is not burdensome. It is easy to add a couple of files at a time. I am now starting to back up some of my more important software packages this way and I have freed up enough disks so that I may be able to avoid a trip to my disk supplier for quite a while.

In short, I urge everyone to try this handy utility for purposes other than the obvious ones. Meanwhile, I would still like to hear (1) if anyone has a utility for changing a file date, and (2) is Atari going to fix this bug in TOS?

I notice that the 8-bit roundtable on GENie contains a lot of ARCed stuff and I would appreciate it if someone in the 8-bit world would let me know if the utility is available for their machines, because it would help a lot in maintaining our disk libraries.

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# YOUR FINANCIAL FUTURE

## A Great Tax Deduction!

Review by Donald C. Lyles

Have you recently sat down to contemplate your wealth or lack of it? Somehow I find that my time is inordinately spent doing so and to no end. Enter *Your Financial Future* from Michtron.

*Your Financial Future* keeps track of such information as investments. For instance, loading the investment file, you can record information concerning stocks/bonds: the name of the stock, the number of units, purchase price and date, valuation date and current price, maturity date, and yield. You are encouraged to record your assets in this file and then, whenever you want a review, you can either re-display the assets on the screen one window at a time as you put them in originally, or drop the same to a printer. By displaying it to the screen, you are allowed to delete an item, make changes to existing information (for example, updating the current valuation, and the date) and finally going on to the next item in your portfolio. But something is missing: a total function so you could see at a glance the value of your securities. Perhaps this function will be added in a future update.

Have you ever wondered what your own personal net worth was? *Your Financial Future* will help you calculate it. Under the heading of assets is a section called "show net worth" where you list by name each of your assets (such as home, car, boat, airplane, value of existing insurance policies, securities, etc.) and their dollar value. You are provided with 13 lines for entry of this information. In the next column, you list all of your liabilities (mortgage on your home, note(s) on your car(s), boat and airplane.) After inputting this nasty bit of business, totals are calculated in each column, i.e. the total value of your assets and your liabilities. Your net worth is equal to the difference between total assets and total liabilities. You have the option of dumping this information to the printer for a hard copy which makes a good presentation medium if you intend to go to the bank for that additional loan to finance your dog's hot tub. When you exit this section, your data is automatically saved to disk. This facility provides a great answer to that often asked question, is it really worth it?

The next thing you might want to know is how much it will take, at some point in the future, to live in a style which you feel accustomed to but currently lack the means. Well here you go! Take your monthly salary (for example \$1,200), guesstimate the rate of inflation as a percentage (5%), and select some future point in time (25

years). You can then find out how much money it will take (25 years from now) to be equivalent to today's earnings at that point in the future (\$4,064). This may be a shocker for those of us idealists who are at an age when we have to say, "Well, all I'll need at retirement, 25 years from now, is a mere four times what I am making today!"

Of course, the "easy" standard calculations, such as loan analysis, are also available. Given three known values such as principal, length of time and interest rate, your payment is calculated. Here, as before, you can display the information on the screen or printer.

With the advent of the new tax reform and the end of writing off the interest payments on automobiles and luxury toys such as that longed-for yacht, the complex question, "To lease or not to lease", arises. Not to fear; *Your Financial Future* has the answer under the section entitled "purchase or lease".

If you care to know what your life expectancy is, that can be forecast as well, for a single person or a couple. Values are calculated based upon 1986 IRS tables. *Your Financial Future* can also make short- and long-term projections on what your retirement savings will grow to, given a specific principal, annual savings and a specific yield. Another important section is that of potential income. I would suggest this is the coup-de-grace for it is this section that determines whether your financial target will provide the income that you desire. Don't forget to consider the necessary adjustments for inflation, that deadly beast. Other less important, but informative sections include annual savings, target balance, and the library.

The library is a primer for the care, feeding, and maintenance of the IRA. It contains such diverse information on such subjects as one's eligibility, contributions, premature distributions, how divorce affects the IRA, etc. As with anything else, information contained therein is subject to change by "our good friends". As might be expected, the information here is not intended to supplant any qualified legal opinion.

The documentation is written in a clear easy to understand manner. *Your Financial Future* is a powerful program. It is well worth the investment and according to recent interpretations of the IRS rules, is tax deductible.



## HIGH ROLLER

Review by Roger Abram

Last month we had a look at *Harrier Strike Mission* (HSM) by Miles Computing, a game involving the Harrier Jump Jet where you took off from the deck of a carrier, flew straight for a few miles to attack the enemy on an island, and then returned to the aircraft carrier for a cup of coffee while you waited for new orders. All pretty straightforward and simple.

Well, your new orders have arrived. If you thought your next assignment was going to be as uncluttered as the one in HSM, think again. This time your mission is to fly 500 miles through enemy territory and destroy their headquarters. This is no easy task considering that in the operational area there are 3,000 mountains, 3,500 SAM sites, over 1,000 tanks, and an unknown number of enemy aircraft waiting to pounce on you. Since you can't make it to the headquarters on your initial supply of fuel, you'll have to set up your own ground sites along the way to rearm and refuel your jet. Who could blame you if you told the commanding officers that you had the flu and had to stay in bed?

*High Roller*, by Mindscape, Inc., is another Harrier combat simulation game for the Atari ST. Two of the items that I found lacking in HSM (graphics and overall scenario) are not factors in this program. Graphics are top notch and the many steps and situations you experience on your flight add depth to the game.

You must first learn how to handle your jet. The program comes with a practice mode where you can learn to get the plane off the ground (no easy feat at first) and then switch back and forth from horizontal, vertical, or 45 degree thrust. Each change will result in you having to make adjustments in speed and pitch. Since landing and establishing new ground sites is an integral part of the game, it's best to learn these procedures first before starting off on your mission.

Also included is a combat practice mode. Here you start off airborne at 10,000+ feet in pursuit of several enemy aircraft. Although this is called a "combat practice" mode, be forewarned, the enemy planes fire back at you! You'll return to this mode several times before you successfully learn how to evade one of their missiles. Once you know a missile has been launched you can turn towards it and make a drastic change in heading at the last second. Another option is to use a flare or chaff pack (you get nine of each). Unlike some other simulators, timing is extremely crucial in using a flare. It has to be dropped at the last possible moment before the missile reaches you. Getting hit by a missile ends the game and is the most frequent cause for having to start over.

The Harrier jet you're piloting is a combination of different types of aircraft used today. It is also equipped with FOFTRAC (Friend Or Foe Tracking Radar) which is unique to *High Roller*. FOFTRAC is a radar display covering approximately 24 miles by 12 miles of your immediate area. It shows all mountains, ground sites, SAM sites, tank and aircraft movements, missiles in flight, and your flight path. There's only one hitch -- in order to get FOFTRAC to display information on any new area your plane moves into, you must first climb to 16,000 feet so that your wing cameras can photograph the area. Of course, when you climb above the clouds you're usually not alone.

In addition to the FOFTRAC display, there are many other indicators in front of you on the cockpit. Fuel indicator, compass, altitude, vertical speed, air speed, pitch, thrust vector, thrust level, landing gear status, flaps, brakes, and damage indicator need to be monitored. An additional air attack radar informs of the position of enemy aircraft within a radius of five miles and 5,000 feet above or below you. There are also warning signals when one (or more) of your four ground sites come under attack.

After you've had enough of the practice modes, there are three levels of difficulty under which your mission can be flown: Pilot, Commander, and Ace. Pilot is the basic level and the latter two require greater accuracy in using your weapons and more careful control of your jet when diving or climbing. Climb too quickly and you'll black out as the blood rushes away from your head. Dive too steeply and you'll red out as the opposite effect happens.

I've been playing this game on and off for a couple of weeks and I wish I could report that I've made it to the enemy's headquarters and unleashed my bombs on it. I haven't. Truth is, I've only had nominal success in establishing new ground sites halfway to the headquarters. I don't even know what I'll find or if the effort will be worth it once I do get there.

If you decide to purchase *High Roller* be prepared: the program requires a lot of practice and investment of your time. However, the superb graphics and fun in flying the jet overcomes any initial frustration as you learn the mechanics of the game. My only real gripe with this otherwise fine game is the lack of a save feature when you decide to quit in the middle of a mission.

*High Roller* is available from Mindscape, Inc., 3444 Dundee Road, Northbrook, IL, 60062, (312) 480-7667. The list price is \$49.95.



# THE ART GALLERY

By David Mumper

The new picture disk for this month is *Famous Folks* where you will find pictures of people such as Mona Lisa, Madonna, The Terminator, Magnum PI, as well as Movie, TV and Book personalities. [We also are releasing a TINY picture disk of "CLIP ART" for those budding publishers out there. Ed.] If you have some pictures you'd like to see on a disk in the CURRENT NOTES library, please send them in, we're always looking for nice pictures to add in. Once again, these are all color pictures.

Now, as most of you know, it would be worthless to have a program that let you draw pictures, but not save them. Many hours would go into something that is highly ephemeral at best. This is why Paint programs give you the option to Save you work, whether to resume editing it later, or to distribute it to friends and fellow graphic addicts. But how does the program save you masterpiece?

We now know that there are special areas in the computers' memory that are used to hold a binary representation of what is being displayed on the screen. Because the program knows where this area of memory is, it can have the computer put it out to disk. Just saving the graphic area would be the easiest thing to do. This is what Doodle does, saving only the area of memory displayed on the screen. But then, what happens if you wanted to have a specific set of colors used? Working with Doodle, you would have to set the colors each time you decided to load that specific picture (assuming that you remember what they were each time.) A better way to handle this is to save the color palette with the picture area. But wait, even there you would have troubles if you drew the picture in Low resolution, and then tried to load it back in while the computer was in Medium resolution, or worse yet, on a Monochrome monitor. So once again, the computer has another area of memory that says what resolution the screen is set at. Now, if we add these values all up, we find that the total size of a file saved with these three components would be 32034. 2 characters for the resolution, 32 characters for the color palette, and 32000 characters for the screen display area. Lo and Behold, that's just what Degas uses!

But still, why does Neochrome take 32128, and the Degas Elite files 32066? Well, these three parts aren't the only things that you may want to save as part of your picture. In addition to these, you may also want to have color rotation information. In Neochrome, you can specify a starting and an ending color and have all the colors between, and including, the start and end, rotate from one to the next to produce some

simple animation effects. This is also true of Degas Elite, but Degas Elite allows you to choose four Start and End colors, and rotates all four sets independently. Now, in Degas Elite, you have a separate word (remember that's 2 bytes) for each of the start and end colors, and then one for each set of colors to specify the direction, and one more to represent the speed of the rotation. This adds up to 8 characters for each set of rotating colors, and that means a total of 32 extra characters. There is now a total of 32066 characters in the Degas Elite file.

Now for Neochrome, there is a total of 128 characters over and about the 32000 required for the screen memory. Neo uses a long (that's four characters) to represent the pictures resolution, then 32 characters for the color palette, but then that leaves 92 extra characters. Well, then there's always the characters used for the rotation. Neochrome is a little more efficient than Degas, it combines the Start and End colors into one character, and the speed and direction information is also combined into one character. Neochrome also adds two characters representing the duration of the rotation. This is used to let the display program hold the picture on the screen for a specific amount of time. This comes in handy for pausing on certain pictures so the user gets a chance to read any writing and similar mundane things. In addition to these four characters, Neochrome also adds two characters to use to determine if there actually is rotation information saved with the file. If these two characters aren't a specific value, then the rotation info isn't used. But wait, that still leaves 86 characters extra! Well, it seems that the folks at Atari were thinking ahead. There is extra room left at the beginning of the picture file for other things to be added in (hopefully) at a later date. As of now, if you were to look at a picture file made with Neochrome, you'd find a lot of zeros, with one area that looks like it's to be used for a filename of some type. But those 64 zeros are all available for other things. (It seems like Audio Light/Activision used some of those characters in their N-Vision/Paintworks program.)

Now, looking at most pictures, it's easy to see that a lot of the area of the picture is devoted to large areas of just one color. If a picture could be processed to shrink these areas into counts of how many times it repeats, you could get a much smaller file. There are many programs available that do this, and next month's column will cover a little about this type of screen save.



## MONITOR MASTER

Review by Robert M. Birmingham



Being one of the many ST users who owns both a color and monochrome monitor, I am constantly having to remove and connect cables from the back of my machine because the program I wish to use will not work with the monitor I currently have connected. What a pain! But not anymore!

**Monitor Master** is a device which you connect to the monitor output jack of your 520 or 1040ST. It is a small box (4 1/2 inches wide, 1 1/2 inches tall, 3 inches deep), the same color as the ST, which has a push button switch, four output jacks and a cable to connect to the ST.

To install the Monitor Master all that needs to be done is first, turn off your ST and remove the monitor cable from the ST's monitor jack, then, plug the Monitor Master cable in it's place. Finally, connect both the color and monochrome monitor cables into the back of the Monitor Master. You may now re-boot your machine and it's business as usual until you find a need to switch to monochrome from color or vice-versa. With the Monitor Master now installed all you need to do is press a button. The computer will then reboot the system with your alternate monitor active. (Note: the rebooting process when changing monitors is a limitation of the ST itself and not the Monitor Master.)

This process has already made my life as a programmer much easier since I must constantly make changes to my programs and ensure that they work in all resolutions! It is also my guess that many of you who have purchased one of the several ST workstation housings available could benefit from this device after I have seen what changing from one monitor to another entails!

In my opinion if this were all the device did I would still be pleased, but, guess what folks ... there's more! In addition to the above, Monitor Master also has two additional outputs, VIDEO and AUDIO. VIDEO provides composite video output for those of you fortunate people who have a 520 or 1040ST with an RF modulator. The AUDIO jack lets you connect your ST to the input of your stereo amplifier, the sound will not be in stereo but it should be an improvement over the internal monitor speaker.

All in all, I'm pleased with this device. I've had no problems attributable to the Monitor Master. It's a solid and dependable device. Considering the prices of many other hardware attachments for the ST who's dependability is questionable and price is Astronomical, I think that the manufacturer, "Practical Solutions", should be commended for thier pricing of this item! (\$49.99 suggested retail). Practical Solutions, Inc., 1930 E. Grant. Rd., Tucson, Arizona 85719.





## FLIGHT SIMULATOR II

### A TOUR OF SCENERY DISK NO. 7

Review by John Lauer

SubLOGIC, Corp. of Champaign, IL. produced *Flight Simulator II*, which by itself, is a masterful work of programming. Since the release of *Flight Simulator II*, several Scenery Disks have been released that are designed to expand the 'flying environment' by adding to the database which *Flight Simulator II* uses. The Scenery Disks are designed to work with SubLOGIC's *Flight Simulator II*, Microsoft's *Flight Simulator*, or *Jet*. There are a total of 12 separate Scenery Disks that cover the Continental United States. There is also one Scenery Disk that covers the area between Tokyo and Osaka, Japan. These Scenery Disks are developed from the National Oceanic and Atmospheric Administration Sectional Aeronautical Charts and Airport/Facility Directories. The Scenery Disk Databases were digitized from these charts.

Scenery Disk No. 7 is comprised of four sectionals. Washington, Charlotte, Jacksonville, and Miami. There are enough radio-navigation aids located in these areas to navigate anywhere within the sectional areas covered. In addition to the navigational aids, the database also contains topographical and geographical information that is in more detail than previous Scenery Disks.

After loading *FltSim II* and replacing the *FltSim II* disk with Scenery Disk 7, select POSITION SET and enter the north and east coordinates of the airport or area that you would like to start from. Log the new Scenery Disk in by striking the 'E' Key and *FltSim II* will place you at the selected coordinates. (To better appreciate the full capabilities of *Flight Simulator II*, check the review on *Flight Simulator II* written in the February Issue of CURRENT NOTES.)

The graphics of Scenery Disk 7 are improved over previous Scenery Disks. There is more detail shown in the buildings as exemplified by the U.S. Capitol Building. Of course the resolution decreases as distances increase. One aspect of the database that I was hoping SubLOGIC would improve was the mapping of the aerodromes. The runways of all the airports are depicted correctly except for one. Runway 13-31 at Lakeland Municipal Airport is closed and is no longer used, which may have been an oversight when this airport was digitized into the database. I was hoping that taxiways and airport structures were to be included in this database.

This lack of detail is most probably a trade-off for a more concise database that will fit onto one single-sided disk.

Scenery Disk 7 and all the rest of the Scenery Disks are well-tailored to simulate cross-country flying. I have not found any discrepancies in the navigational information as provided by SubLOGIC. This probably is due to the fact that the Scenery Disks are digitized from existing charts.

SubLOGIC has provided the charts and documentation necessary to navigate inside the sectional areas covered. They have also provided The ILS approach plates that are necessary to fly an instrument approach to landing at the airfields with designated ILS approaches. This is a big plus over the documentation provided with the original FltSimII Scenery. You can collect all 12 Scenery disks and place their associated documentation in a note binder that easily organizes all of the charts and 'plates'.

I find flying *Flight Simulator II*'s Scenery Disk 7 to be most enjoyable and as challenging (almost!) as the real world that I fly in. I tend to lean toward the Cessna instead of the Lear Jet when flying *Flight Simulator II* as it offers me a better opportunity to sight-see. It's a Busman's Holiday for me.

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## GIST

Review by Ed Seward

*GIST* is by Gary Levenberg and Lee Actor. This is the product whose prototype was the basis of their column in the Winter *START* magazine. The purpose of *GIST* is to provide an easy means of designing better sounds and then including them in your programs.

The package comes with the GEM-based sound editor, 50 sample sounds, and the code necessary to use *GIST* for five C-language systems: *Alcyon C* (and thus *Mark Williams C*), *GST C*, *Lattice C* and *Megamax C*. After some begging, pleading and grovelling, I learned that ANTIC will be adding the code for using *GIST* with OSS' *Personal Pascal*. This addition will be placed in the public domain as it will be useless without the *GIST* package itself.

The *GIST* disk contains folders for each of the four C's that contain the code for using *GIST*. There is a folder with the code from the demo program and another folder containing the 50 sample 'SND' files. The three files are the *GIST* program, resource and documentation.

The first thing I tried was the sound editor. The screen comes up with three boxes on the left side of the screen and the menu bar. The boxes allow you to play a sound or sounds in a continuous cycle and to vary the length of you cycle, to set the duration of a sound, and to change the note being used for the sound or sounds.

The menu bar has four main headings: FILE, EDIT, PLAY and MISC. The FILE heading is pretty standard. The EDIT offers you a reminder on quick commands on editing the volume, frequency or noise. Besides the quick commands, you can also just double-click on the appropriate part of the display for a sound and you will be shown the editing screen for the volume frequency or noise.

The first thing I did was to load in you of the sample sound files. You should allow a LOT of time to waste with this. There isn't any problem -- the sounds can be modified so easily that I spent hours just fooling around with various combinations. Although there are 50 sound samples included, I must mention that through the monitor speaker about 15-20 of them (variations of a piano) sounded so alike as to be indistinguishable. The reason for this is that it makes it much easier to know which parameter to change. I found the editor to be very friendly and simple to use. Within the editor, you can load in up to three sound files at any you time. The sounds can be played


either individually or 'ganged' so that all of them are used. *GIST* will accept input from a MIDI keyboard and play the sounds back through the MIDI also.

When a 'SND' file is loaded, a window pops up displaying the ADSR (Attack, Decay, Sustain and Release) envelope, the LFO (Low Frequency Oscillator) for both frequency and volume, the frequency curve and the noise settings. All of these can be very easily edited using the mouse. *GIST* makes use of three ADSR envelopes and three LFO's per sound channel. This replaces the single envelope generator that is burned into the sound chip.

Now, what would you use *GIST* for? Well, I sure hate to construct the code for sounds from scratch. Also, as I mentioned above, *GIST* reprograms the sound chip and helps provide programmers with NSQ - "Near Synthesizer Quality". If you are designing a game, then you can easily get away from the 'Asteroids' type of sound effects common in the public domain and some commercial products.

The disk is not copy-protected and the package works in both medium and high resolution. In my opinion, most people working on adding sounds to a program they are writing will benefit from using *GIST* both in time savings and the resulting quality of the sounds.

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# WORD 400

## A Text Editor as a Desk Accessory

By F. Gregory Schneller

WORD400 was born in one of those awful silences occurring in every user meeting when someone asks, "Does anyone have anything to present next month?". I, fresh from reading the documentation for Personal Pascal which I purchased two weeks before, and successfully opening one interactive GEM window, raised my hand, inserted my foot, and quietly stated I could wax philosophic on GEM and OSS Personal Pascal. Later, after recovering my somewhat dazed senses and realizing I had again bitten off more foot than I could chew in a sitting, I went in search of a project to teach myself with. Some where during the search it occurred to me it would be extremely handy if I had a text editor that could be accessible in any program or without having to swap, fumble with disks to find the one with the processor on it. A Desk accessory would be perfect -- so I searched through my disks to see if I could find any information on OSS & DA's and the quest for WORD400 began.

First of all a few word about what WORD400 is and is not. It is a text editor -- reading, writing and editing ASCII files. It provides block move, save and copy commands and will allow you to insert blocks of text from disk into your current file. It is NOT a word processor except in the most limited sense. The present version does not allow you to set margins, Bold or Under-score text, or any of the many other features found in a full-featured word processor.

The major uses of WORD400 fall basically into the following categories: (1) As a text editor that is always there. (2) Printing files inside other GEM based programs (Like Personal Pascal by OSS). (3) A Print spooler. (4) An Alarm Clock. [(5) A Note Pad/Pads to eliminate that rat's nest of notes around your computer. Ed.]

There are a large number of other commands and on-line help is provided. Help was one of the first improvements I made simply because I found I could not remember the commands.

### A TEXT EDITOR

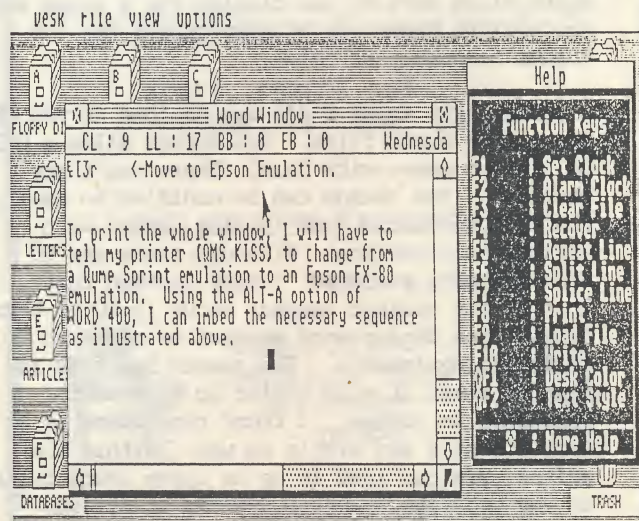
This was its first and still primary use. I have found it especially handy for development of small programs simply because it is always there. I can compile, link, and test -- say a 68K Assembler program and, if I did not Mung the machine, click on Word Window and the text I was just editing would still be there. This is

especially important in one drive systems where the developer must not only run his text editor, and load his source code, but must find the disk on which it is located.

Of secondary use is the ability to write notes inside another GEM application. I had initially thought this to be my primary use, however; it turned out not all GEM applications are as tolerant of desk accessories as others. While I can use WORD400 with impunity inside PSION Chess, I must use caution inside OSS Personal Pascal and Publishing Partner. I use it in PUBLISHING PARTNER to type my text, save the file, run the IMPORTER desk accessory and load the file into a PP DOC, however; I must be careful not to re-size my window or do any thing else that would cause GEM to generate a redraw message which will cause PP to draw its page all over my window. In Personal Pascal I must be careful to CLOSE all my windows before it chains to either the linker or compiler.

WORD400 is also very handy for typing 1-inch labels. Just reduce the window to its smallest vertical size, the hit Control-D until your last line is 5. Then type your label and hit F8 -- it should print one label and position the paper at the top of the next one. Just keep on pounding F8 until you have the number you want.

Another useful feature for those comfortable with printer control codes is the Enter ASCII feature. I use this frequently with letters and labels to insert escape sequences into a





document changing from draft to NLQ or condensed. To do this I position the cursor where I wish to make the change and hit Control-A, type 27 (decimal esc), and click on OK. Then I repeat the process for each additional control character.

## A PRINTER DRIVER

WORD400 will allow you to print files inside other GEM programs. This can be accomplished in two ways. First by loading the text file into WORD400 's buffer (why is it I can never escape this word!!) and using F8 to print it. This has several drawbacks -- it locks up the system, and it only work with a short file. The WORD400 spooler is the other solution. Simply hit ALT-S and select the file you wish to print. It too has a drawback, in order to conserve system resources (WORD400 chews up a great deal and the program you're running also chews up some), the spooler works directly from the disk file using a very small buffer (4096). So DO NOT remove the disk or attempt any other operations with the printing file. The spooler will also allow you to QUEUE files if you wish to print more than one and will continue to function in any other program (or from the Desktop) regardless of the program it was started in.

## AN ALARM CLOCK

This one saves me from a whole weekend of "You said you'd be up in 15 minutes". As I consistently lose track of the space time continuum while interfaced with my machine, I am constantly being prompted to remember the rest of the universe does, in fact, exist and perhaps I ought to participate in a somewhat limited fashion. After having been yelled at for a significant length of time I simple hit F2 -- click on EVERY and enter 00:05. After about an hour my head will hurt enough that I am forced to retire from the machine.

These are a few of my uses of Word Window although I'm sure there are many more (some people have used it to compose upload messages during conferences when using a GEM based terminal program). I would encourage you to fiddle with it and contact me at CIS (73637,556) if you have any suggestions or BUGS. I regret that recently I have not had as much time to work with it as I would like, but rest assured I there will be newer versions coming out.

[NOTE: The latest version of WORD 400 can be found on CN Library disk 117: Desk Accessories. Ed.]

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# COLOURSPACE

## The Light Synthesizer for the ST

Review by Bill Moes

Trails of glowing colors form geometric patterns. Random streaks of various hues flash from a starfield. A touch of hellish reds is seen ... and then it's gone like wispy smoke. Dazzling bright yellows rush, rapidly creating and chasing their own tails. Eerie points of darkened blues slowly track about the screen.

Ladies and gentlemen: welcome to *Colourspace*!

With little overstatement, *Colourspace* does for ST graphics what a musical instrument does for music. A light (pixel) synthesizer: that's probably as correct a description as you're likely to find. Like a musical instrument, *Colourspace* has its own complexities and challenges. More so than most graphics programs, you'll spend time pondering the possibilities.

### LIGHTFORMS OF SYMMETRY

The software stores 20 presets, which are combinations of color and pattern and special effects. The presets are called by pressing one of the function keys or a key on the number row directly below those function keys. Other keys offer choices and changes and give you the flexibility to set up the presets with the effects you want.

Eight lightform shapes are available. These are the actual shapes used to light up (draw on) the screen. Four of these, called local lightforms, can be different for each of the 20 presets. The other four, global lightforms, will be the same for all presets. The lightforms are designed on the screen, using up to 36 pixels in a selected and editable color range. Fewer pixels used will usually offer a more useable and effective lightform. Lightforms can even be duplicated, combining them into various formations. In addition to the color range you set with the original lightforms of a preset, it's possible to define up to nine other color ranges for that preset. With these 10 color ranges for each of 20 presets, a total of 200 color sets.

As your light streaks onto the screen, you could include, among other effects, explosions, implosions, and horizontal and vertical expansions of those lightform lines. The lightforms, used to create screen designs, can be symmetrically enhanced. Have symmetry on an x or y axis or on both axis, or create a spiral or four-way quad symmetry. Each form of symmetry may also be *augmented*, which has the effect of further increasing the reflections, allowing you to easily

develop sophisticated geometric forms as the light is played.

Lightform shapes on the screen are usually curved. A straight line, called a vector, is created by holding down both buttons while the mouse is moving. It will take a bit of practice to become proficient at vectors, but they are quite dramatic when used.

Colors can rotate (cycle) as they're put to the screen and that rotation is definable. Or set a strobe and its color and length of on/off time. Strobe once or .... (My six-year-old was having a great time exploring *Colourspace* until she hit the continuous strobe key and figured the whole thing was about to blow.)

*Colourspace* has two screen resolutions. Its high resolution, the usual one, is the ST's low resolution (320 x 200 pixels per screen). When it's running in low resolution (160 x 100), graphics are quite blocky. Although it may be useful for unusual effects, the primary purpose of low resolution is for an easy view when using the program's editors. Switching resolutions is easily done with a keypress. All *Colourspace* selections, including access to various editors, are made with a keypress or two. There is no use of GEM.

### STARLIGHT EXPRESS

Moving starfields can be shown along with the lightforms. Set the starfields to motion vertically or horizontally (each in either direction), or radiating from the screen's center. The radiating starfield can be randomly set or switched to one of several symmetrical patterns. Change the rate of star creation and star drift. And the screen's center, the place from which stars radiate, may be moved. It's even possible to switch the gravity, so that rising stars are pulled down very quickly. Also, streaks of colored light may be included in those radial starfields, generally following the same patterns as the stars. And the length of those streaks can be varied. You can also limit the radial starfields to one half of the screen, or even one quadrant.

If that's not enough, perhaps you'll be interested in editing the screen curvature so the stars will follow a curved path as they cross the screen. The lightforms will also follow that screen curvature. Options allow either a standard or a reflected curve. You may also want



to change the initial speed of those stars. Or the acceleration rate.

## NEO AND THE RECORDER

Light shows are then developed after you've set up your presets for the various color/pattern/effect combinations you want. The mouse lights the screen and, like that musical instrument, you press the keys, playing new colors and lights and effects while moving the mouse. Watch lines and patterns filled with hues as they fade on or off or burst forth. Devise your own visions in those patterns. Your colours in space. Perhaps as music is playing on your stereo.

Up to about 10 minutes of a light show can be recorded. Then it, along with the presets and other changes you set up, could be stored to disk, creating a file of about 100K. When playing a recorded lightshow, it will usually be necessary to set the playback speed to the fastest available for an effective show. Playing it at a slower speed, however, gives you the chance to do additional graphics while the recorded show is presented. (Interactive fireworks?)

Use *NeoChrome* screens as background and/or foreground for the *Colourspace* shows. Once loaded, those Neo files may be turned on or off (hidden). It's also possible to reshape the screens for several different effects. Maybe you'd like to bend the illustration to follow the screen curve you set up earlier. Or add a slightly squashed look. Perhaps include its reflection in the x or y axis.

It's possible to take a snapshot of the pixels from a running light show, painting them onto the current screen. This may be repeated as often as necessary. Then save that changed Neo screen to disk for use in a paint program or slide show.

## WORDS, BUT NOT ENOUGH

The documentation is a 20-page text-packed booklet written by Jeff Minter, the author of *Colourspace*. A very helpful command summary paper is also included. The booklet, however, is not completely acceptable in explaining the complexities of the software. With around 100 various keystrokes or keystroke combinations possible, I found that additional examples and more detailed explanations would have been quite helpful. The 20 pages could easily have been 200 for this program. I needed several readings of the booklet to figure it all out; it's a tough read. The documentation does, though, seem to at least mention everything and it includes a few helpful suggestions and ideas. It won't be any surprise to you that the keys used almost never have a mnemonic reference.

## THE WHERE-FROM AND WHY-NOT AREA

*Colourspace*, available from the publisher in England, is priced at 19.95 pounds plus 1.50 pounds for airmail. At present exchange rates, this totals out to \$35.00 - \$40.00. It may also now be available through U.S. sources.

Negatives do exist, although each will be of more importance to some than others: the disk is copy protected ... the documentation could be improved ... it's possible to crash the program, especially when using the recorder ... the recorder may not always play back your lightshow with the same intensity you remember in its creation ... the use of backgrounds and foregrounds is not supported with the *Degas* format.

## SO WHAT IS IT?

Some will call it a toy. Others, noting the unusual effects possible on Neo screens, will see it as a graphics tool and use it in conjunction with paint programs. There will be those sensing a new art form. Perhaps all of them are right. One thing *Colourspace* is, is amazing. I repeatedly found my jaw dropping as I watched the ST do those wondrous tricks with pixels and I would often make the call all family members dread hearing ("Hey, look at this!"). The program may be used on several levels. Those who've waited the past 18 months or so, wondering about its availability and reading about this program's delayed release, will not be restrained. The less-determined, meanwhile, will enjoy the original presets and the effects from just playing around.

## FINAL EMBERS

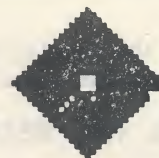
Now we see that this instrument of light, this philanderer of pixels, is not an easy instrument to master. (Jeff Minter writes in his documentation: "I'm still learning....") And we know that there will be time spent developing the keypress to create the otherworld design we're after. But it's also important to realize that it's far from an impossible task. A little effort. A little muddle-through. We'll get there. This is, indeed, a unique graphics challenge. There will be lines trailing and burning. Geometric patterns formed. Rainbow roads emerging from mere dots ... then dissolving. Snakes coiling. Stars exploding. All of this to create previously unseen sets on that magical stage of light called *Colourspace*.

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**BBS fee information:**

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NEW MEMBERS: Dues are \$20/year which includes  
 a subscription to CURRENT NOTES. Join at the  
 main meeting, chapter meeting or by sending  
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 821 Ninovan Road SE, Vienna, VA 22180.

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**LOCAL NOVATARI CHAPTERS**


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Mt. Vernon / Hybla Valley meets the first Thursday of each month at 7:30. Contact Ron Peters at 780-0963.

Sterling meets in Sterling Library from 7:30-9:30 on the 1st Wed. of the month. Contact Wayne Wilt 437-6159.

Vienna meets in room 10 at the Vienna Elementary School, 128 Center St. SW from 7:30 - 9:00 on the third Wednesday of the month. Contact Dave Heagy at 281-9226.

NOVATARI MAIN MEETING is at the Washington Gas Light Building, 6801 Industrial Road, Springfield, VA. Meetings are usually held the second Sunday of each month. Take 495 to east on Braddock Rd (620) to south on Backlick Rd (617). Left on Industrial Rd (by a light with a Texaco station on the corner). Washington Gas Light is the second building on the right (big parking lot, go right in the front door).

TIME PER.	BIG AUDITORIUM	SMALL AUDITORIUM
5:30-6:00	Beginners SIG	Telecom SIG
6:00-7:00	Speaker or Demo	- N/A -
7:00-7:30	Business & Open Forum	- N/A -
7:30-8:30	8-bit SIG	ST SIG (VAST)*

\* ST SIG also meets at Washington Gas Light from 5:30 - 9:30 on the fourth Sunday of the month.

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**PRESIDENT'S REPORT**


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**DOOR PRIZES!!!** Novatari will again be giving door prizes. VAST has the Perfect Partner for the fourth Sunday meeting. 8-Bit will be having a special prize in June and July.

June 14 Program: Mike Gibbons will have returned from the CES show in Chicago and will give us an update on the computer scene. This meeting should be the unveiling of a better meeting procedure. Come see June 14!

July 12 Program: GENie with the low cost and Atari SIG and Email.

May Program: John Baum of Computerland Service Land gave us that memorable quote, "If it aint broke, don't fix it." Most of us will never open up the insides to look anyway, so it was very enlightening to see the insides of the disk drives and mother boards. For the 800 drives the only thing one can do is adjust the speed (288 rpm with a leeway of 2 either side) and clean the head (with ethyl alcohol). The 1050 has parts that should never be touched. VR2 can adjust the speed (everybody else is 300-only Atari is 288). ST drive cannot be fixed. It must be exchanged. He told us about the weaknesses of the various computer models and passed out schematics to update the 600s to 64K for \$7 in parts. I remind you that for \$35 you can get your 600 exchanged for an 800XL. I didn't know mother boards could have daughter boards. Who's the father?

**VISITORS:** Ned Borden from the South Carolina UG came to the May meeting to see what was new with users in the Washington area. He was exulting in his stop at L&Y. Nothing like that is available in his area. Jack Durre, editor of The Atari Journal, a Miami newsletter, exchanged information with us also. Visitors are welcome from all areas, even our own neighborhood. Y'all come, y'hear.

**OCTOBER 24 and 25:** See article about ATARIFEST elsewhere in this issue. This is the last time the date changes, or I quit. (There's an opening!)

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**ATARI USERS REGIONAL ASSOCIATION (AURA)**


---

President.....	John Barnes.....	301-652-0667
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Meetings June 87 - 2nd Thursday. 7:00 pm (library sales). 7:30-9:00 pm (Program) in the Temple Israel Social Hall. Temple Israel is located in



Silver Spring, MD at 420 E. University Blvd. between Colesville Rd (Rt 29) and Piney Branch Rd (Md Rt 320).

**Correspondence** All correspondence, including membership renewals, changes of address, etc. should be sent to: AURA, P.O. Box 7761, Silver Spring, MD, 20904. AURA cannot guarantee CURRENT NOTES subscription fulfillment unless the member provides written confirmation of address changes, renewals, etc.

#### AURA REPORT FOR APRIL '87

**Meetings.** Our next meeting will be June 11th (2nd Thursday). The July meeting will be on the 2nd. All other meetings for the rest of the year will be on the first Thursday. At the moment there are no plans for an October meeting because the temple is not available and the AtariFest is so close to the meeting date.

**Meeting plans.** Vice President Barry Marcus is responsible for coordinating meeting agendas. Please contact Barry to get on the agenda. Whenever possible we will coordinate demonstrations so that similar 8 and 16 bit products will be featured. The June meeting will feature telecommunications demos (850 Express for the 8-bit and FLASH for the ST). July will feature desktop publishing.

**Member Survey.** Barry Marcus is conducting a survey of hardware owned by AURA members. The results of this survey are being used to assist in program planning. Please contact Barry if you have not yet participated.

**8-bit Library.** The May library disk featured a series of pictures submitted by Joe Russek. We are still working on the "starter kit". More submissions are needed for the reference manual on disks 41 to 80.

**16-bit Library.** Jeff Kellogg has order forms for members who want to obtain material from the 16 bit library. Jeff now has almost all of the Current Notes Disks. Send Jeff an order form for the disks you want and then pick them up at the next meeting. There are too many disks in the library to allow us to provide anything better than pot luck for spot sales.

I have submitted AURADISK.001 as an AURA library release. This disk features software catalogs for GENie and the WAACE BBS, a survivable RAMdisk, a transparent print spooler, a batch startup processor, and other useful software. Check it out and bring us a disk with your own favorites. Make sure that everything is adequately documented.

We will try to have a modest inventory of the latest releases on hand. Try to get your submissions to Jeff Kellogg well before the meeting. Members of other groups are welcome to order AURA library disks by mail (send your order to our P.O. Box). The doc file on the disk is available on the WAACE BBS as file AURADISK.001.

**DEMONSTRATIONS.** Beginning with the June meeting we will set up the 8-bit and 16-bit demos at opposite ends of the room to allow more time for the demos and to allow better audience interaction. This is an experiment to test methods for reviving interest.

**8 bit demo.** Bill Frye demonstrated some of the techniques available with RAMBRANDT. He also demonstrated the OKIMATE 10 color printer.

**16 bit demo.** John Barnes demonstrated DEGAS ELITE, which appears to be the leading paint program for the ST line.

**Courses.** We hope to start a course on ST Basics as soon as we can find a classroom. Please contact me if you have any ideas. Other possible topics include desktop publishing, telecommunications, and graphic design tools.

**BBS's.** In checking the user log for the WAACE ST BBS I find an increasing number of AURA members. The wait to get on is usually minimal and I make it on the first try about 80% of the time. I have also been spending a good bit of time on GENie lately, and I strongly recommend it. There are over 2500 software titles in well organized libraries and there are something like 300 discussion topics.

**MEMBERSHIP.** AURA dues are now \$20 per year for Regular Members and \$5 for Library members. Regular Member dues include 10 issues of Current Notes magazine. We are discontinuing the practice of sending out one copy of Current Notes past the expiration date. We mailed 198 copies of Current Notes for May 87.

All members are hereby reminded that subscribing to Current Notes is NOT a prerequisite for membership in AURA. If you do not want the magazine you can join for \$5 without losing any privileges.

We are attempting to institute a reminder system for membership renewals.

**AURA Roster.** Copies of the AURA roster are available at meetings or by written request to Richard Stoll (enclose a self-addressed stamped envelope).

**Treasurer's report.** Mo Sherman reports that we have a balance of about \$2100. 8-bit Library income is below previous typical levels and the 16-bit library has been slow to generate income. Our rental contract for the Temple comes up for renewal soon. Additional potential sources of income include advertising sales and AtariFest revenues. Please contact John Barnes if you can help in any of these areas.

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**MEETINGS:** 3rd Tuesday, 5:30 - 8:30 pm, room 543, National Science Foundation offices, 1800 G St., NW, Washington, DC. Closest subway stop is Farragut West on the Blue and Orange lines. Building is identified by sign for Madison National Bank on the corner. Front entrance is on west side of 18th between F and G.



NEW MEMBERS may join at meeting or send \$20 check, payable to NCAUG, to Allen Lerman, 14905 Waterway Dr, Rockville, MD 20853. Membership includes CURRENT NOTES subscription.

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MEETINGS: 3rd Tuesday 7-10PM, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. ST SIG meetings: MON JUN 22nd 6-10 PM. Entering Woodbridge from either North or South on Route 1, proceed to the intersection of Route 1 and Opitz Blvd. (opposite Woodbridge Lincoln-Mercury). Turn West on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building.

NEW MEMBERS: Initial membership fee is \$10/yr plus \$1 monthly dues. Join at meeting or send check, payable to WACUG, to Frank W. Bassett, 15313 Blacksmith Terr, Woodbridge, VA 22191.

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 Bulletin Board..... 301-865-5569

MEETINGS: 4th Tuesday, 7 - 9:30 pm, Walkersville H. S., MD Route 194, 1 mile north of MD Route 26 (Liberty Rd).

NEW MEMBERS: Dues are \$25/year/family. Join at meeting or send check, payable to FACE, to Buddy Smallwood, PO Box 300, Keedysville, MD 21756.

SECRETARY'S REPORT: For the May 26th meeting of FACE, Chris Bigelow demonstrated 850-Express for the 8-bit and 300 baud. Buddy Smallwood showed Genie on the 16-bit, and 1200 baud. Buddy also showed us 'SDI' for the 16-bit machine.

For the June 23rd meeting we plan to have Buddy show WORD WRITER, a word processor. John Maschmeier will show QUIK PIX for the 8-bit.

#### MARYLAND ATARI COMPUTER CLUB (MACC)

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Treasurer..... John Cromwell....  
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MEETINGS: MACC meets on the last Tuesday of every month at the Pikesville, MD library. Meetings will start at 6:30 pm. Directions: Baltimore Beltway exit 20 east (Reisterstown Rd) 1 mile. The Pikesville Library is on the left next to the Maryland State Police Barracks. Please feel free to call for information on the club's monthly 8-bit and ST demos.

NEW MEMBERS: join at the meeting or contact Jim Hill (301) 461-7556. Membership fee is \$20/yr pro-rated from June to end of year.

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 Treasurer..... Samuel Schrinar.. 301-843-7916  
 Newsletter Ed.... Leroy Olson..... 301-743-2200

MEETINGS: 2nd Thursday, 7:30 pm, John Hanson Middle School in Waldorf, MD. Take MD Route, proceed about 1/2 mile East of the intersection of Route 301 and take first left past the Kinney show store to school.

NEW MEMBERS: join at the meeting or send \$20 check, payable to SMAUG, to Sam Schrinar, 2032 Alehouse Court, Waldorf, MD 20601.

#### NAMELESS ATARI USERS GROUP (NAUG)

President..... Dana O'Hara..... 301-798-0566  
 Bulletin Board... California BBS... 301-263-8776

MEETINGS: 2nd Sun. each month unless otherwise specified in Davidsonville, MD (suburb of Annapolis) 1:30-4:30 pm at residence of Dana O'Hara (3475 Manassas Ct.).

NEW MEMBERS: Join at meeting. Dues, \$20/year, include a subscription to CURRENT NOTES.

#### CURRENT NOTES REGISTERED CLUBS

The clubs listed below have registered with CURRENT NOTES. This means that any of their members may receive a user group discount when subscribing to CURRENT NOTES (\$17/year rather than \$20/year). To become a registered club, your club should send in an initial subscription list of 10 percent of the membership or 6 members whichever is less. For more information, contact Joe Waters, 122 N. Johnson Rd., Sterling, VA 22170.

PIEDMONT TRIAD ATARI USERS GROUP, Greensboro, NC. Contact: Hardy Hall, Rt. 9, Box 274C, Reidsville, NC 27320.



## NOVATARI XL/XE LIBRARY

We are introducing 4 new (\*) disks this month. Music disk No. 5 has 12 rock songs with the AMS II player. Music disk No. 6 has 14 movie or video theme songs with the AMS II player. Utility disk No. 17 has more print shop icons on both sides. We are replacing the Utility Disk No. 4 which was a programmer's database that wouldn't load or list with a new disk labeling and directory printer. With Utility No. 4, you can print labels in a variety of formats and you may create disk jackets or directory inserts for your existing disks. Three months from now in the September issue we should have more new disks available in each of the categories. If you know of any good public domain material, we should include in our library please write to Roy Brooks, PD Librarian, 4020 Travis Pkwy., Annandale, VA 22003.

Price for WAACE members and CURRENT NOTES subscribers is \$3/disk plus \$1 for postage and handling for every 3 disks. Otherwise, cost is a flat \$5/disk (includes postage and handling). Send checks, payable to NOVATARI, to M. Evan Brooks, 4008 Patricia St., Annandale, VA 22003.

### GAME DISKS

- 1 TEXT ADVENTURES
- 2 GAMBLING
- 3 SIMULATIONS
- 4 MAZES
- 5 PARLOR GAMES
- 6 GRAPHICS
- 7 ACTION! Games
- 8 ARCADE LOOK-A-LIKES
- 9 TEXT ADVENTURES 2
- 10 TEXT ADVENTURES 3
- 11 SURF'S UP!
- 12 SKI KING with slope editor.

### TELECOMMUNICATIONS DISKS

- 1 850 INTERFACE
- 2 835/1030 MODEM
- 3 MPP MODEM
- 4A AMODEM 7.2
- 5 1030 EXPRESS and 850 EXPRESS

### EDUCATION DISK

- 1 MATHEMATICS
- \*2 PRIMARY LANGUAGE (English reading drills, letter recognition, etc.)
- \*3 TEACHER'S TOOLBOX (Letter to parents can be modified, grades and rolebook database.)

### MUSIC DISKS

- 1 TV/MOVIE THEMES
- 2 ROCK
- 3 JAZZ
- 4 BASIC MUSIC PROGRAMS
- \*5 AMS Player: 12 Rock Songs
- \*6 AMS Player: 14 Movie/Video Themes

### LANGUAGE DISKS

- 1 FIG-FORTH version 1.1
- 2 ACTION! GAMES. Source code Games No.7
- 3 ACTION! GRAPHIC DEMOS
- 4 ACTION! UTILITY PROGRAMS
- 5 ACTION! MODULES No. 1
- 6 ACTION! MODULES No. 2
- 7 BASIC XL REF-BASE
- 8 ACTION! MODULES No. 3
- 9 ACTION! TELECOM KERMIT source code.
- 10 TURBO BASIC/COMPILER

### UTILITY DISKS

- 1 MISC. UTILITIES
- 2 PRINTER UTILITIES
- 3 DOS 2.5
- \*4 DIRECTORY AND LABEL PRINTER.
- 5 GRAPHICS TRILOGY
- 6 COPYMATE 130
- 7 SECTOR COPIER
- 8 TRANSLATOR DISK
- 9 256k RAM UPGRADE for 800XL
- 10 MEMBERSHIP DISK for of NOVATARI
- 11 DOS 2.6
- 12 MACHDOS 2.1
- 13 PRINT SHOP EDITOR
- 14 EASH FIND
- 15 PRINT SHOP ICONS 1
- 16 TEXTPRO 1.1
- 17 PRINT SHOP ICONS 2

### DEMO DISKS

- 1 ANIMATION DEMOS
- 2 MOVIEMAKER "Clips"
- 3 HEAVY METAL ART
- \*4 GRAPHICS PICTURE SHOW



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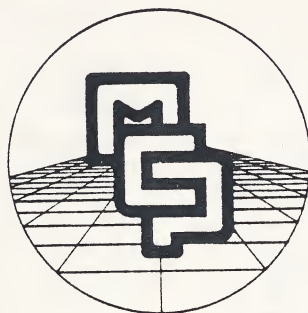
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