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July, 1984

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CURRENT NOTES

The Newsletter of the Washington D.C., Maryland, and Virginia
ATARI Compututer Enthusiasts

800 XL

600 XL

1200 XL

1010

Washington DC Group

1050

NOVATARI: Northern Virginia Atari Users Group

410

AURA: Atari Regional Association of Maryland

810

400

800

850

July, 1984

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August, 1984

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Current Notes

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Current Notes is available to other Atari User Groups on an exchange basis. Material in this newsletter may be reprinted by other Atari User Groups provided Current Notes and the author, if applicable, are cited.

The editor of Current Notes is Joe Waters, 122 N. Johnson Rd., Sterling, VA. 22170, (703) 430-1215. News items, short articles, original programs, product reviews, classified ads (free to members), and any other material of interest to the membership are eagerly solicited. Commercial advertising rates: full page, $40; half page, $25; quarter page, $15; 1/6 page, $10. Discounts are available for multiple ads. Submit photo-ready copy to the editor. Deadline date for both articles and advertisements is the 15th day of the preceeding month.

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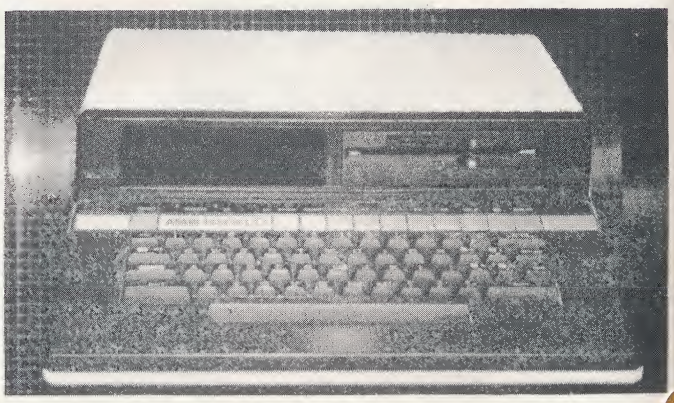
The new ATARI!!
(See page 9)



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DC Meetings

are held on the 3rd Tuesday of every month in Room 543 of the National Science Foundation offices, 1800 G. Street NW, Washington, DC. The closest subway stop is Farragut West, on the Blue and Orange lines. Take the 18th Street exit, and walk south (against the flow of traffic) down 18th Street for three blocks to G street. The building, on the corner of 18th and G, can be identified by a sign for the Madison National Bank on the corner. Parking is available in the building for a fee. The front entrance is on the west side of 18th street, between F and G. Meetings begin at 5:30 pm and usually last until 8 or 9.

Coming Events

By Art Corte

July 17: Our July meeting will feature a demonstartion of Krell Software's SAT practice program. This program, costing $300, is the Cadillac of such programs and has received very faborable reviews. The session should be of great interest to parents of college-bound kids and to such kids themselves. Our thanks to Pete Kilcullen for volunteering to deomonstrate the program. On the lighter side, Pete will also demonstrate the latest game from Electronic Arts, 7 Cities of Gold, a game simmulating the Spanish conquistadors.

A.U.R.A. : Atari Users' Regional Association
Longbranch Public Library -- Takoma Park, Maryland

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AURA Meetings

are held on the 1st Wednesday of every month at 7:00 pm in Room One of the Long Branch Public Library on Garland Avenue in East Silver Spring. Take the Beltway (I-495) to Exit 29-B South University Blvd. East, (Route 193). Follow University Blvd. East to the second light (Piney Branch Road). Turn right on Piney Branch Road and continue to the second light (Arliss Street). Turn right on Arliss past the apartments to Garland Avenue. Turn right on Garland. The Long Branch Library is on the corner. Park in the library's lot. Due to construction, please use the upper-level entrance.

AURA Minutes

By Rochelle Follender

Announcements: Next meeting is Tuesday, July 3 because of the July 4 hol,iday. For the next year, meetings will continue to be held at Long Branch library on the 1st Wednesday. Membership and library cards, along with a list of the archive disks were distributed. The library card must be left at Applied Computer Associates (ACA) when you borrown the archives. ACA will be moving to Gaithersburg shortly (Shady Grove and 355) so check before going. Be sure not to leave disks in the car during the summer. Printed documentation is available for borrowing for disks 1-29 except 19. ACA will be having a hardware and software moving sale from June 16 to June 23.

Basic ROM C cartridge is available from ATARI for $15. Shipment will takw several weeks. Current Notes will be publishing a list of dealers who give discounts to club members. Call Joe Waters (703) 430-1215 with the info. Bob knows where you can get RAM to upgrade the 600XL to 48K for $47.95 and from 48 to 64K for $36. See him for details. Dave Curry gave the Treasurer's report and made suggestions that a) there be some kind of dual membership for people who attend meetings of more than one area club and b) the club incorporate as a non-profit organization to avoid personal liability. Will be discussed when Bruce returns.

Presentations: Mo Sherman demo'd the **Tax Advantage** program by CONTINENTAL SOFTWARE which merges with **Home Accountant.** Chris (ACA) demo'd **Homeword** ($58.95), a word-processing program. One special feature is its ability to display 80 column format. Al Lerman discussed a TV/monitor he purchased from Sears Business Store.

NOVATARI: Northern Virginia Atari Users Group
Greenbriar Community Center -- Chantilly, Virginia

Club Officers

President.....Joe Waters.....(703) 430-1215
Vice President.....Steve Steinberg.....(703) 435-2962
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Secretary.....Jim Stevenson.....(703) 378-4093
Program Chairman.....* VACANT *
Disk Librarian.....M. Evan Brooks.....(703) 354-4482
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Novatari Meetings

are on the 2nd Sunday of each month in the Greenbriar Community Center on Stringfellow Road in Chantilly, Virginia. Stringfellow Road, also known as Route 645, runs south from US 50 a little more than two miles west of the Fair Oaks Shopping Mall (intersection of I-66 and 50). There is a traffic light where Stringfellow road meets route 50. The Greenbriar Community Center is on the left-hand side of Strngfellow Road, 1.4 miles south of 50. There is a small parking lot in front and a larger one just north of the center (that is, just before you get to the center). The meeting room is available from 5-9 PM. We also offer a monthly arcade tournament for the young at heart. A short business meeting starts at 6:45 and is followed by brief demonstrations of software. Each month, at least two of the demonstrated programs are givin away as door prizes. A formal presentation highlighting a specific software or hardware product begins at about 7:30.

Novatari Minutes
10 June 1984
By Jim Stevenson

Announcements: There will be no August Current Notes but there will be an August meeting. The Atari press release on the new 7800 game machine read. The most significant features of the 7800 are that it can display 256 colors on the screen at once (no mention of resolution), and that it can have "over 100 objects on-screen at one time". It plays all 2600 games. It is not compatible with the computers, but "Atari 5200 owners will have access to the 7800 Pro System library of software via a special adapter that also will play 2600 VCS game cartridges".

Potpourri: The monthly door prizes were awarded again. Curtis Sandler won Necromancer in the Novatari membership catagory, and Ed Davis won O'Riley's Mine in the meeting attendees category.

Program: Rene Hertz demonstrated his multi-user Atari system where several computers can share the same peripherals (1 or 2 drives and/or a printer). The system also includes the software switchable cartridge containing DOS. Included software provided support for activities typical of an educational environment, such as a cumulative total of how well students were doing on a test, and programs for authoring tests or lessons.

Coming Events

July 8: Rob Stewart of FUTURE TECH will introduce us to the ATR 8000. The ATR 8000 is a 4MHz, 16k RAM complete ATARI interface that, when you add 64k RAM, allows you to run CP/M programs on your ATARI 400, 800, 1200, or XL computer. It comes with an RS-232 port and software to allow you to run a serial printer or modem. You may run up to four 5 1/4" or 8" drives of any mixture, type and density. The 8000 has an 80 column wide display with 40 column moveable window or an optional 80 column software program that can be used with a black & white TV or monitor. And finally, by adding the ATR CO-POWER-88, an 8088 (16 bit, 5.33 MHz) co-processor with 128k (or 256k) RAM, you can also run most of the popular MS-DOS, IBM-PC software. I'm sure we'll all look forward to Rob's presentation.

August 12: GAMES ... GAMES ... GAMES!!! We are going to devote our entire August meeting to demonstrations of new and old ATARI game programs. If you have a particular favorite you would like to show off, be sure to bring it along and share it with the other club members. With the new line of ATARI games coming out, perhaps we can get an early look at potential Christmas presents.

President's Report
By Joe Waters

Although it would be great if every member could attend every meeting, I know that conflicts often come up and many members find themselves missing our normal monthly

NOVATARI: Northern Virginia Atari Users Group
Greenbriar Community Center -- Chantilly, Virginia

meeting. But I do have information I think it would be useful for the membership to have and perhaps this monthly "President's Report" can serve as an appropriate means of communication.

As most of you know, I have recently replaced Frank Potter, who is off in Europe on an extended visit, as president of the club. As your new president, I have only one major goal -- to make membership in NOVATARI worthwhile. What benefit is their to the members to joining this User Group?

As a member, you get this newsletter. Offering, of course, a biased opinion, I think the newsletter is improving every month and it alone should be worth the price of membership. But receiving the newsletter is not unique to NOVATARI members. What else can your club do for you?

We have meetings. As program chairman, I have tried to add a little more structure and consistency to meetings, but the format is still evolving. Currently, you can meet other members, attend tutorials, see products demonstrated, play games, and even win some software at our meetings. Last month we had a "swap meet" as part of our normal meeting. For those members who remembered and brought software or hardware to sell or swap, it was a reasonably successful event. I see no reason why we cannot provide a facility for a swap meet every month during our meetings. The meeting, afterall, provides an excellent place to find other ATARI owners who might be interested in buying, selling, or swapping computer stuff.

We have a library of public domain programs. At the moment the library is a weak element since it has received no significant expansion for a long time. I would like to correct this. During the summer, we are going to make a major effort to acquire public domain software and arrange the better examples on theme-related diskettes that we can offer to our membership. It is my hope that, by this time next year, our library will be one of the club's strongest points.

Club members may get discounts at various retailers. Through Current Notes, we are starting to list retailers who are willing to offer discounts to club members. I've asked our treasurer to look into getting membership cards printed so it would be relatively easy to identify yourself as a member.

To help plan the direction of where the club is going, I have instituted regular monthly meetings of the officers. One of the things we have decided is to conduct a phone survey of the membership during July. This survey will help us determine more precisely who our members are and what it is you would like to see.

One final, but important, point. If you really want to see this club improved, you may have to do something to help achieve that goal. I think that there is a lot we can do for the membership and for the community. But, there is no free lunch! If things are going to improve, somebody is going to have to work at it. We need help. We need more volunteers, more officers. If you would like to contribute to making NOVATARI a success, give me a call and I will be more than happy to put you on the team!

Celebrity in Our Midst

By Evan Brooks

Novatari wishes to extend its congratulations to one of its members for an outstanding achievement. Daniel Greenblatt, a member from Sterling Park, VA, recently won the NATIONAL SPELLING BEE.

Competing in the finals against 150 other contestants, Daniel finally won when he spelled "towhee" (a sparrow) after the runner-up misspelled it, and then went on to correctly spell "luge" (a bobsled).

Among his prizes, Daniel went to California where he appeared on the "Tonight Show" with Johnny Carson and on the "Merv Griffin Show". On a seperate visit to New York, he appeared on CNN and on the CBS Morning News with Diane Sawyer.

Our heartiest congratulations to a NOVATARI member who made good!

Capital ATR Peripheral Micro-Users

By John Lauer

The ATR-8000 CPM group met on 26 June 1984, at the public library in Oxen Hill, Md. Further discussions of the organizational structure of the club took place in addition to the continued disscussion of possible dues and future meetings.

Currently, Bob Kelly has been in contact with Michael Detlefsen, disk librarian for the Austin ACE. It is reported that the Austin ACE now has 73 public domain disks supporting CPM operations. Michael Detlefsen will be sending a Catalog Disk to Bob Kelly which will be made available to the club through the club library. A nominal fee will be charged to members to purchase all CPM library disks at the meetings to cover operating costs. This matter will be discussed at the next meeting. One idea already presented would be to have a one time fee from the membership to establish the club library and then the library operating/maintenance costs would be covered by nominal purchase fees.

At the last meeting the PROMETHEUS Pro-Modem was demonstrated by Craig Smith. It was determined that the Pro-Modem is definitely in the same class as that of the HAYES Smart Modem. The ProModem has all the capabilities of the Hayes and then some. It is totally compatible with the HAYES and costs substantially less. At present, there is a possible group buy with reduced costs in the offing. This will be a topic of discussion at the next meeting. Frank Jones gave a very good demonstration of the CPM based "MODEM" program as supplied by SWP. He demonstrated its operational capabilities and as a result the members received some insight into the terminal programs unique handleing qualities. Frank pointed out a couple of areas that can be expanded on but further study needs to be conducted to determine if these enhancements are feasible (i.e. default values to be changed). At the July meeting there will be a demonstration of several CRT monitors working with the 80-column board evaluating individual resolution qualities.

The next meeting is scheduled for July 24, 1984 at 6:30 PM (4th Tuesday of month). The meeting will be held at the Public Library on Oxen Hill, Md. The site is located near the Woodrow Wilson Bridge just off the beltway. Take the beltway to Maryland exit #4 East, (St. Barnabas Road), St. Barnabus merges into Oxen Hill Rd.; proceed 1/4 mile and the library will be on your left. The meeting will be held in the Author Room. (Library phone number is (301) 839-2400)

At Last— The New Atari Computer

By Bob Kelly

At the June consumer electronics show in Chicago, Atari announced plans to introduce a wide range of new and, in my opinion, innovative products. Most importantly the long awaited worthy successor to its old 800 computer was shown. Specifically, the new products are:

* A new 64K computer, for the moment named the 1450, will be marketed under a new name and will be available in the fourth quarter of this year. The retail price will be under $1,000.

* The new computer will come with a built-in modem and disk drive that will permit operation at speeds up to five times faster than current Atari Disk Drives.

* The new computer will also have built-in software permitting access to the ATARI Grapevine -- a new data/communications base Atari is establishing for the public.

* An expansion system, titled the 1090, which will work with the current 800 XL and the new computer to be introduced in the fall. The 1090 will enable memory expansion up to 128K as well as permitting a degree of compatibility with other operating systems including IBM's.

* A new headband device which allows direct user interaction with video games without the use of a joystick. The headband will retail for $79. However, it will not be available for Atari computer owners until sometime during the first half of 1985. Initial marketing emphasis will be placed upon the "new" purchasers of the 7800 game machine during the 1984 Christmas season.

* A dozen new games with "super chips." Most video games currently have ROM chips with 4K to 8K of memory. The "super chips" will have 16K of memory (ROM). In addition, four new games will not only have 16K ROM chips but will also operate with another new chip dubbed "Sara." The chip is said to further enhance playability while introducing a degree of complexity not achievable in video games to-date.

* Several new educational games for small children from one to three years of age which will be sold with some sort of touch control pad.

All of these new arcade and educational games will be marked at a retail price of less than $30, according to the Wall Street Journal. Atari officials claim that this is below the cost of production. However, this pricing strategy is probably being adopted by Atari in the hope of revitalizing the market for video games. While one may initially doubt Atari's claim of selling at a loss, it may be close to mark if one assumes a relatively modest production run and the inclusion of development costs in their calculations not only for the games but the new chips as well.

I have been waiting for some time to write this article. Eight months ago, many thought I would never get the opportunity, given the poor financial condition of Atari at that time. In my columns, I have suggested that Atari needs to build and market a small business computer. It now appears that they will do just this (as well as maintaining the home entertainment component).

Before going further, I would like to reply to a comment made in the Wall Street Journal (WSJ) article concerning Atari's new computer. The WSJ stated "executives (Atari) said here yesterday, the product will be only 70% or 80% compatible with the IBM personal Computer, a limitation that will make it less attractive to consumers who want a business-oriented machine". In the quote above, I supplied the underlining to only and the Atari executives were only directly quoted on the 70% or 80% figures. The remaining comments by the WSJ are clearly misleading. I will now explain why the comments are factually incorrect in the manner they are reported in the article.

I am currently, in addition to my Atari, an owner of an IBM compatible computer, one which was rated by PC MAGAZINE as the most compatible to the IBM/XT (PC -- April 1984). I can assure you that if the Atari is 80% compatible, it is within a fraction, in terms of compatibility, to my present machine. All machines can only be so compatible to the IBM operating system in percentage terms, that is, if they want to stay out of court. If the Atari is as compatible as the WSJ stated, dBASE II and a host of other business programs should be available on the new computer. Thus, it should be an excellent small business machine. On the other hand, if the Atari executives were quoted incorrectly .....!

Having said the above, does anyone want to buy an IBM compatible -- cheap? I wonder if Atari will let me Beta test their new machine? Do I sound enthusiasitc -- you're right, I am! On the remote chance that Atari won't let me Beta test their new computer, I have opened a new Christmas savings account. I'm a little too old to believe in Santa Claus!

Battle Bytes

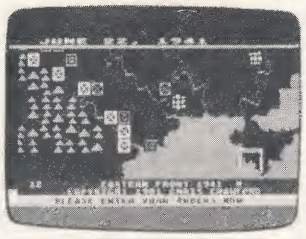
By M. Evan Brooks

This is the first in a series of articles covering one of the more interesting and esoteric sub-genres of computer gaming — computer wargames (or computer conflict simulations, as some prefer to call it).

Wargaming has a long history — the German General Staff popularized it during the nineteenth century, and it has been used extensively by most armies. However, the point to remember about wargames is that they reflect the designer's prejudices. The classic example is the Japanese use of wargames during World War II. Having successfully wargamed an attack against Pearl Harbor (including a minature replica thereof), the imperial Japanese Navy continued its use in a Midway simulation. The game was quite interesting; the Japanese Admiral playing the Americans caught the Japanese carriers with planes on their decks and crippled the Fleet. The opponent cried "Foul", and appealed to the umpire. He changed the rules in midstream, denying the potential for American victory. Of course, during the Midway campaign, the Japanese carriers were caught with planes on their deck, severly mauled, and the rest is history. Thus, one must remember that such a game, while capable of simulating history, must also be taken with a grain of salt; the designer's prejudices may not appear during the initial playings.

Many people are apprehensive about wargames. The major reason for this is the subject matter and the degree of complexity. Wargames recreate history; to discover the military reasons behind historical decisions is not immoral per se. But many wargames seem to require a Ph.D. in order to successfully play. The predecessor to the computer wargame, the board wargame, has taken this love of complexity to the ultimate degree. While there are simple wargames, such "monsters" as **War in Europe** or **Vietnam** require over 250 hours to play. The computer has alleviated many of the mundane tasks, allowing the player to concentrate on more strategic/tactical decisions.

Wargames may be divided into three types: tactical (small units, generally company or less), operational (mid-sized, generally battalion through division, covering a major battle or operation in its entirety), and strategic (corps through theater army, covering entire wars with potential for economic production and enough other factors to virtually make it a way of life).



This series of articles will take the more popular wargames, and attempt to analyze them -- both in terms of appeal and playability. Suggestions are welcomed by the author.

In playing wargames, there are basic principles applicable to all such games. First and foremost, remember the victory conditions. It is all too common to see a novice ignoring the conditions of victory merely for short-term gains, i.e. it is a lot of fun to wipe out units, but if possession of terrain and not unit destruction is the key to victory, then the player has been beaten by his own greed.

One of the earlier but more enduring wargames is Atari's own **Eastern Front** by Chris Crawford. An operational/strategic game of the Russo-German conflict during World War II, it is well-known, mechanically easy to play, but difficult to master. A scrolling map shows the area of operations, while the joystick is utilized in order for the player (German) to issue orders to his corps against the computer (Russian). Orders are issued, but not executed until the player is ready, at which time all orders (both player and computer) are executed simultaneously.

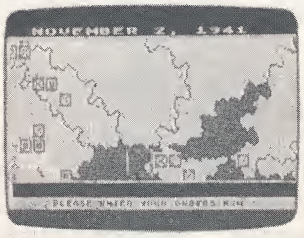
It is essential to avoid the infamous "Beltway" on the Eastern Front syndrone. If one merely orders units to "go east, young man", then corps will be delayed by massive traffic jams. Therefore, one must learn to stagger the corps orders; for example, if a unit is directly behind another, one might order it backwards for one move and then forward, this having allowed the traffic jam ahead of it to clear. Such considerations must be taken across the entire sphere of battle.

In playing the game itself, one must remember not to get bogged down in the Pripet marshes. An infantry corps or two are sufficient to harass any Russina units lingering. While this is occuring, the German Army should split into the northern offensive (Leningrad) and the southern offensive (the Crimea). Maintain a semi-coherent line. If limited Russian units break through German lines, a reserve of two to four corps can handle them. But MOVE EAST.

Weather ... eventually the weather gets to the German Army. Howver, it is constant. One always knows that the first week in October is mud; German combat strengths are halved, and movement slows to a crawl. There-

ore, the key to victory is to preplan. Beginning with the last turn in August, decide what is essential for the current operation. Begin to develop a coherent line; by the third week of September, have the line virtually complete, and insure that it is complete by the end of the month. The line should actually retreat the last week in September. This will compel the Russians to move forward to attack, thereby limiting their offensive; each turn for the next few months, retreat one or two moves (the entire line). Do not go for cheap kills; the cheap kill could be reversed so that a gaping hole appears in the German line while hoardes of Russian troops pour through. Once the winter sets in (November), the mud turns to snow, allowing the frozen roads to once again bear traffic. German supplies and combat strengths increase; at this point, resume the offensive and drive east.

In terms of objectives and dates, Leningrad should be taken before the mud, Moscow can be taken, and the Crimea should be isolated (but not taken). While Moscow can be taken, it may be difficult to hold onto it; the earlier Moscow falls, the better since the Moscow militia cannot increase into the monster unit it later becomes. The Crimea can be attacked on a two-unit frontage until such time as entry can be made allowing a third unit access. At this time, use the third unit, and clean out the pocket. Maintain the drive east, but in a semi-coherent line; victory points are awarded for the number of Russian units destroyed and the eastern penetration of the German army.



It can be done. This writer has achieved a score of 255 (final) with only two Russian units remaining on the screen (both of which were surrounded). While a score of 255 can be achieved during the game, it is difficult to maintain such a score to the end unless these considerations are always kept in mind. Eastern Front is a game that stays playable; current versions have a SAVE option (a needed addendum), and expansions beyond 1942 are now advertised.

But where can I get these types of games? Your computer store should carry some of them, and the **COMPLEAT STRATEGIST** (in Falls Church, VA; 532-2477) has an extensive stock. The manager, Bob Bodine, is quite helpful and can steer the beginner on the path of glory; for an interesting response, ask Bob if he has any copies of Trivial Pursuit (back up while you await the answer).

SSI publishes the greatest variety of wargames, and the next article will delve into one of its offerings. Tentative review on **Broadsides**, the ship-to-ship simulation.

Fast Disk Input

By Jon Smith

Many data storage programs require the transfer of large files into strings in BASIC. This can be achieved in a variety of ways. In this article, I will present two methods of doing this. Each will load an entire file into memory, and then display it on the screen. Both programs assume that the file is no longer than 20,000 bytes (160 sectors). They will operate in the same fashion, inputing the filename into FILE$ and then GOSUBing to a subroutine at line 10000.

First of all, if you want to test out the two procedures on a dummy data file 20,000 characters long, run the following program:

```
10 DIM A$(20000)
20 A$(1)="1":A$(20000)="1":A$(2)=A$(1)
30 OPEN #1,8,0,"D:TEST.DAT"
40 PRINT #1;A$
50 CLOSE #1
60 END
```

Method 1: The GET Statement

This method is the simplest in operation, and it is also the slowest. It should not be used in programs if use of an alternative method is possible.

This method involves GETting one byte at a time and placing it into A$. At the end of file (EOF), the program closes the I/O port and RETURNs.

```
10 DIM FILE$(15):REM Filename,
remember to include D1:
20 DIM A$(20000):REM Initialize A$,
the file to receive data
30 GRAPHICS 0:? :? "What file to
read:;
40 INPUT F$
50 GOSUB 10000:REM File reading
routine
60 PRINT A$:REM Display file read in
70 END
10000 OPEN #1,4,0,FILE$:REM Open IOCB
#1 to read FILE$
10010 A$="":REM Clear A$
10020 TRAP 10050:REM At EOF error,
program continues
10030 GET #1,K:A$(LEN(A$)+1)=CHR$(K)
10040 GOTO 10030:REM Main loop of
subroutine
10050 CLOSE #1:REM Close IOCB #1
10060 RETURN:REM Return control to
main program
```

Method II: Using the XIO Get

This method is MUCH faster than method one. For example, a 20000 character array took 3 minutes and 34 seconds to read using method I. Using method II, the same array was read in only 27 seconds! The major difference in method II is that we read in 255 bytes at a time rather than only one byte.

```
10 DIM FILE$(15):REM Filename,
remember to include D1:
20 DIM A$(20000):REM Initialize A$,
the file to receive data
25 DIM B$(255):REM This routine
requires 255 byte buffer
30 GRAPHICS 0:? :? "What file to
read:;
40 INPUT F$
50 GOSUB 10000:REM File reading
routine
60 PRINT A$:REM Display file read in
70 END
10000 OPEN #1,4,0,FILE$:REM Open IOCB
#1 to read FILE$
10010 A$="":REM Clear A$
10020 TRAP 10050:REM At EOF error,
program continues
10025 B$(255)=" ":REM B$ must be
filled
10030 XIO 7,#1,4,0,B$:REM Do the XIO
call
10035 A$(LEN(A$)+1)=B$
10040 GOTO 10025:REM Main loop of
subroutine
10050 IF PEEK(856) THEN
A$(LEN(A$)+1)=B$(1,PEEK(856)):REM
Buffer length location for IOCB #1
10055 CLOSE #1:REM Close IOCB #1
10060 RETURN:REM Return control to
main program
```

This method revolves around the buffer length location. Normally, when reading in a 255 byte segment of the file, it will read 255. However, in the last segment read in, if EOF is reached before 255 characters are read, the buffer length location will contain the number of characters actually read. For example, if a file contains 270 characters, the first read would pick up 255 and the second read would find only 15 left. The buffer length location would contain the number 15. Note that each IOCB has a different location for this: IOCB #1=856, IOCB #2=872, IOCB #3=888, IOCB #4=904, IOCB #5=920

Classified Ads

Atari 820 printer, $220. Hardly ever used. No 850 interface required. Comes with everything you'll need. Ribbon and paper for 820 printer. Make offer. Call Scott Sheck, (301) 977-3792

* * *

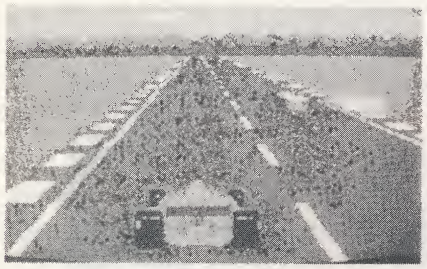
Anchor Mark II Modem (latest direct connect version) includes disk of most popular public domain software telecom programs as well as battery, — $65 — Call Bob Kelley between 6:30 and 9:00 p.m. (301) 839-7377.

Nibbles & Bits

By Jay Gerber

An increasing number of cartridge games are now appearing on the market. ATARI is releasing an incredible number of new titles, as is PARKER BROTHERS and ACTIVISION. Most of these new cartridges are home versions of coin-operated arcade games. This month I will review two of these new "plug in and play" games, one from ATARI, and one from PARKER BROTHERS.

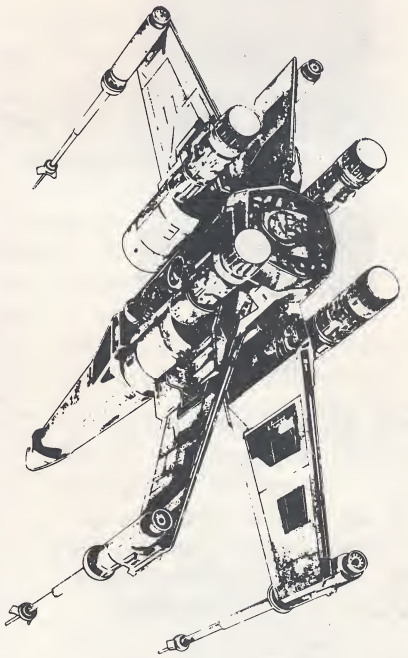
Pole Position has long been one of my favorite arcade games. Heaven knows how many quarters (dollars) I have spent on this driving game. ATARI makes both the arcade and computer versions of this action-packed game. The object of it is simple. You drive a speedy race car through a qualifying round for a major race. You must dodge other cars and be careful of signs placed adjacent to the most treacherous of turns. If you can cross the finish line in a qualifying time (under 70 seconds), you have a chance to win it all at the nationals.



Pole Position

The most striking aspect of **Pole Position** is the 3-D view you have of what is in front of you. The graphics put you at the cockpit, seeing what a real driver might see. The cartridge version graphics are almost exactly like the arcade. Beautiful scrolling mountains and realistic scrolling track truly put you in the action. The play is somewhat different, however. The arcade version has a steering wheel control, where the home version uses a joystick. This can be awkward, and at times, frustrating to use.

Despite the mechanics of the cartridge, **Pole Position** is really a great game, and it will hold your interest for a long time, as you strive for higher scores and lower times.

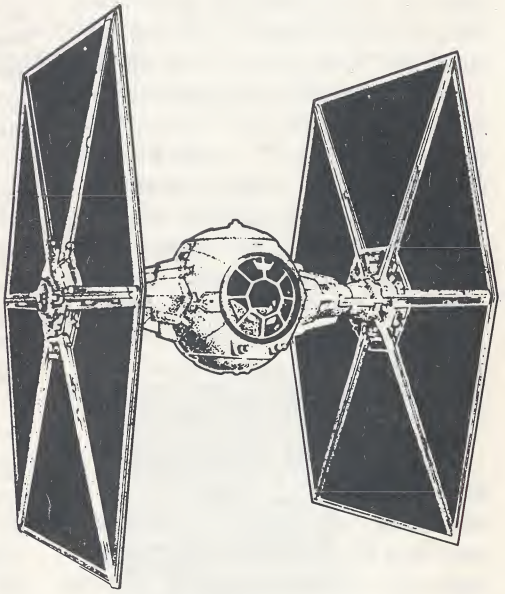


Star Wars: the arcade game by PARKER BROTHERS is an excellent example of bad programming. Most of the exciting features of the arcade game are lost, if not destroyed entirely, by the home version.

The game itself is excellent. You are Luke Skywalker, flying your x-wing fighter in the hopes of destroying the original Deathstar. Through your cockpit, you aim at imperial tie-fightrers, and dodge the enemy's energy bolts. This done, you head for the space station. On the surface, you must avoid energy bolts and enormous towers, while trying to knock out the canons at the top of them. After awhile of frenetic dodging and blasting, you are in the trench, flying toward the porthole, that when fired into, will destroy the Deathstar.

The graphics of the home version are breathtaking. They are very close to the vector graphics on the arcade version. The playability, however, is somewhat less exciting. The arcade version has a steering control, similar to that of **Pole Position**. Where as the latter moderately minimizes this problem, the former does not. Indeed, the steering controls in **Star Wars** are impossible at best. I, frankly, would rather have terrible graphics with good control, rather than excellent graphics and no control of the game.

In conclusion, I think PARKER BROTHERS could have done a much better (they couldn't have done any worse) job at this translation.



ATARI SCUTTLEBITS

By Bob Kelly

This month we will continue our examination of Atari-only or Atari-related magazines. Last month's article sets forth a set of criteria by which the individual magazines would be rated. To recap, the seven items which comprise our rating system are:

Criteria for Rating
Atari-Related Magazines:

A. **Instructional content for novice.**
B. **Advertisement diversity for Atari products.**
C. **Programming tutorials.**
D. **Game quality.**
E. **Professional uses/product reviews.**
F. **Utility program development.**
G. **Consumer awareness.**

Also last month, I listed the major magazines to be reviewed in this article. To that list I have added one -- InfoWorld. The reasons for the addition of this magazine will become obvious as we proceed. Finally, as noted last month, some of the magazines are not editorially designed to satisfy all the criteria by which we are judging them. As it was pointed out at that time, they are being reviewed in order to ascertain whether their coverage of a more highly focused area is superior to magazines more general in nature. If it is, they merit the additional expenditure by you, the computer user. If not, you may want to save yourself some money.

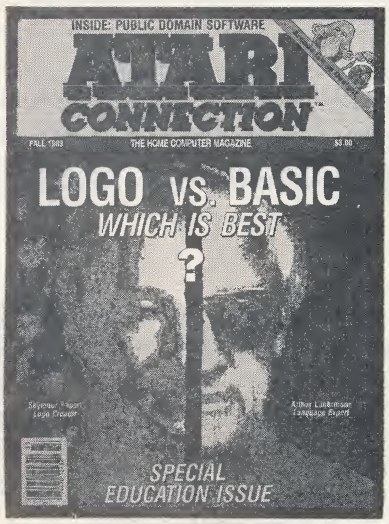
One final point before we start. Since my last article, reports concerning journalistic ethics were published by two prominent computer magazines. I recommend these articles be read (unfortunately, they came to my attention only recently). The articles highlight some troubling aspects of what we read - particularly the relationship between the manufacturers of computer equipment and the reporter or editorial policy of a particular magazine. By the end of this review you should be able to guess, if you don't already know, one of the two magazines which brought the ethics issue into public focus. Now let's get on with our review.

Antic

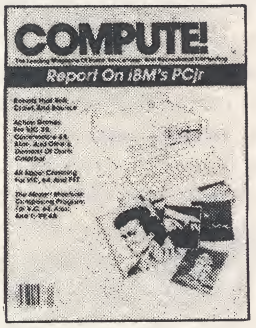
Antic has the largest circulation of the Atari-only magazines. It rates highly in instructional quality for novices and, on some occasions, so does its programming tutorials. For example, a series of tutorials that served me well dealt with Display Lists by Allan Moose & Marian Lorenz presenting this much-abused topic in a clear, concise manner. Product reviews are generally informative but tend to avoid critical comment. The new product section is interesting and timely. Utility programs are average, with the primary criticism being they are unimaginative - autoline numbering, etc. However, something strange is afoot in "Antic Land". Take the July issue, it had an article on the new Plato cartridge (a must read), connecting the Atari to a lap size business computer, a series on robotics, and short-wave radio use with the Atari. Over the past few months, each issue of Antic has improved in terms of the diversity of topics. While professional applications still are scarce, home applications have greatly expanded. At present Antic offers the best to be had in this area. The games offered by Antic play slow and, for the most part, lack creativity - only an average rating here. Consumer awareness is not Antic's forte. Antic is clearly widening its focus and it will be interesting to see if they can sustain this thrust.

Atari Connection

This is Atari's own magazine so I eliminated from our ratings the consumer awareness category - would they speak evil of themselves? This magazine has improved considerably over the last year - to such an extent that if the final category was not eliminated and one or two obvious steps were taken, it would significantly improve its rating. I was somewhat surprised with this outcome. Instructional quality for novices rated high. I particularly like the section on user-submitted programs, the monthly "can you find the bug" for the more advanced programmers, and "Dr. Wacko". Ad diversity is about normal or less (I may have rated this too high), as are their product reviews.



Professional applications remain consistent with most other magazines - virtually nil. Home applications concentrate for the most part on products produced by Atari (light pen, science lab, etc.). There is nothing inherently wrong about this but they could expand their horizon. They rate below average in game quality (when they have one, that is), and utility program development rates poor. This is a surprising omission given the talent available at Atari, Inc. The Atari Connection needs an advanced applications section which would, in my opinion, add to its readership.



Compute!

This is perhaps the most difficult magazine to rate in many respects. The quality of their articles has varied from absolutely brilliant to "the pits". Several articles which have appeared in Compute! have become classics. Among them are two utilities - MicroDos (1982) and recently, MacroDos (1984), plus Scriptor, a word processing program. If you program in Basic, these utilities are a must. Of all the magazines, the ad diversity related to the Atari is the best, but only by a slight margin. Instructional quality is average for beginners as well as Programming tutorials. Below average are Compute's games, product reviews, professional applications, and consumer awareness. I rarely read Compute's product reviews anymore for three reasons: (1) they are extremely hard to find (always tucked in among pages of ads), (2) they are always upbeat - nothing is a bomb, rather "this is the greatest since....", and (3) the reviews are generally published long after the product is introduced to the market. For example, the review of Atariwriter was published in the July, 1984 issue. How's that for a time warp!

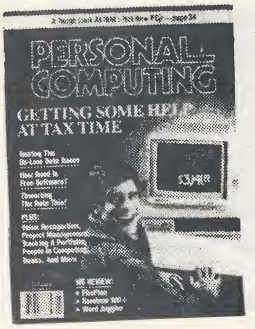
Compute! is the type of magazine that, depending upon the issue, you can either read in one hour or take three days on a few occasions. One column consistently of interest and high quality is Bill Wilkinson's Insight Atari (this is why I always spend at least one hour). In sum, you buy the magazine because you don't want to miss the one great program that may come along every so often. The downside of all of this is that you are constantly confronted by trivial articles on you, the computer, it's role in society, etc.

Creative Computing

This Atari-related magazine did very poorly in the ratings. Atari related coverage has declined over the past year. To judge for yourself, I suggest you scan the July issue. Enough said.

InfoWorld

This magazine is intended primarily for those interested in either a detailed view of what's going on in the computer industry or hardware and software business reviews and news. It is the "Time" magazine of the computer industry. It's product reviews have become the industry standard. Columns by Scott Mace (game reviews), Steve Gison (behind the screens - he is also the designer of the Atari light pen), John Dvorak (industry rumors and happenings), and John Gantz (Wall Street) are outstanding. Consumer awareness is the highest for any magazine reviewed. If you want objective reporting on what is going on at Atari, you must read this magazine. Finally, if you own a modem, the weekly reporting on telecommunications keeps you abreast of events whether you are a SYSOP or a casual user. In sum, I must read this magazine every week.



Personal Computing

This magazine does not provide game programs, programming tutorials, or utility programs for the Atari computer. What does it provide? It's ad diversity is below average for Atari related products. Professional applications for the Atari computer are less than average but are marginally above average for business uses of a more general nature. For example, the June issue had an article on how hard disks save space and improving your skills with spreadsheets. Product reviews are somewhat akin to taking your car to a mechanic. In other words, you are told how to operate the program but no comparative reviews are supplied nor overall rating given to objectively judge performance against the competition. As for me, I generally learn how to operate a program by reading the accompanying documentation. A below average rating here. Consumer awareness is not to be found in this magazine - buyer's guides without any ratings, they have. It's up to you to intrepret. What particularily bothered me was that in the June issue, some answers to readers questions about the Atari were either misleading or wrong. Since most of the questions can be classified as those beginners would ask, a below average rating for instructional quality.

Personal Software

Personal software is just what the name implies. It is a magazine devoted to software reviews of the home entertainment and small business/ home applications market. No software rating system is supplied with their reviews. Little critical comment is offered in many of their reviews. In most of those categories that are applicable to our rating system, they are either average or below average. An area where Personal Software does rate above average is in its buyers' guides. For example, recent issues have covered data base and communications guides. Furthermore, if you are interested in what's new on the market for the Atari, without critical review, this magazine's announcements of new software offerings are very timely. However, when considering the narrow focus of this magazine, one should give considerable thought to the value received in terms of the Atari computer.

Analog

What can I say but...the best has been saved for last. Programming tutorials - Analog is currently running a tutorial both on Basic (Basic Training) and Machine Language (Boot Camp). Both are well written and worth the effort. Instructional content for novices is good, but only slightly better than average. Games - simply put, they are the best computer games offered by any computer magazine. Fill-er-up is my all-time favorite which I still play, and as you may know, I am not a games player. Utilities - a virtual galaxy of utilities has been presented in Analog over the past year. Disktool and Memuse are two that I use in my programming efforts. Consumer awareness - Analog is the only solely Atari or Atari-related magazine, other than InfoWorld, that kept you, the reader, informed of the financial and planning crises that affected Atari over the past year or more. While some of the comments made by Analog were slightly off the mark (who said journalists make good businessmen), the direction was correct and I, for one, was glad someone spoke out. Atari, in the long term, will be better off for the constructive criticism. Ad content is average but growing as advertisers find out what us users' have known for awhile. The only below average area is professional use of the Atari - little effort is expended in this area (how about some creative applications of FILEMANAGER 800+, CP/M applications with the ATR-8000, etc). Product reviews are average.

In sum, my subscription to Analog is paid up through 1985. It, without doubt, is the best value going for Atari computer magazine purchaser.

My ratings are summarized below on the basis of 1 (poor) to 5 (excellent). I hope this makes your magazine purchases easier and wiser. Since this pen is just about dry, I think I will catch up on some of the excellent articles offered in the computer magazines - see you in September.

SUMMARY RATINGS

(1=poor; 5=excellent)

	A	B	C	D	E	F	G	TOTAL
1. Analog	4	3	5	5	2	5	5	29
2. Antic	4	3	4	36	5	3	1	23
3. Atari Connection	4	3	4	1	3	2	na	17
4. Compute!	3	4	3	2	2	5	2	21
5. Creative Computing	1	3	1	na	1	1	1	8
6. InfoWorld	na	3	na	na	5	na	5	13*
7. Personal Computing	3	2	na	na	3	na	1	9*
8. Personal Software	1	2	na	na	4	na	1	8*

NA = Not applicable for our rating system.

* Total is not useful overall measure of magazine content - examine individual items.

Musical Notes

By Jay Gerber

Before I continue my discussion of music, there is one rather distressing fact I must point out. The number of contest entries I have received to date total an overwhelming zero (0). I'm sure that many of you have music files that have been doing nothing but sitting on disks that are gathering dust. Those of you who do not have the **Music Composer** cartridge don't have an excuse, either. You can send in **Music Construction Set** files, APX's **Advanced Music System** files ... even BASIC programs that play music!! Just please — send something!

Last month we learned how to represent certain frequencies and durations by symbols placed on the staff of music. As a review quiz, see if you can identify the note values and names of the notes in figure 1.

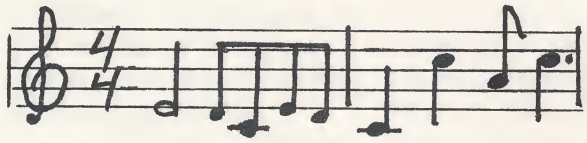


Figure 1

Now, what happens if you want to pause (stop playing) the music for a short time? The symbols that are used for this purpose are called rests. The durations of a rest are exactly the same as those for notes of music. Figure 2 shows note durations and their values and rest durations and their values. As you can see, a quarter note and a quarter rest take the exact same time to play.

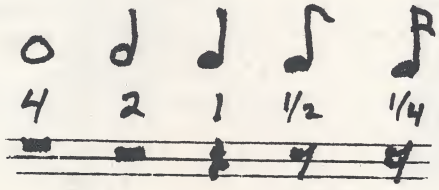


Figure 2

Since rests do not have frequency, they can not be named like notes are. For example, there is no "A" rest or "middle C" rest. So then, where do they belong, you might ask. Whenever there is a rest occurring in music, it is centered in the middle of the staff in which it occurs. Figure 3 shows the exact placement of the most used rests in music on the treble staff.

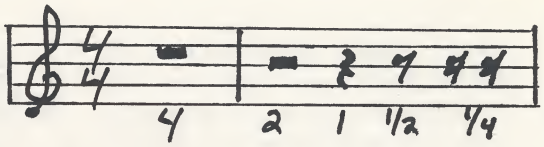


Figure 3

If you have ever looked at music, you might have noticed a pound sign and a funny looking lowercase "b" that was placed before some of the notes. The "b" is called a flat. It means to go down, or lower pitch, one half step. Similarly, the pound sign (called sharp) means to go up, or raise pitch, one halof step. The note names we learned last month were arranged in whole steps. Going from "C" to "D" is a whole step. Going from "C" one half step up brings us to "C#" (C sharp). Going down one half step from "D" brings us to "Db" (D flat). You might have already guessed that these two notes are one and the same. If you wanted to notate (put down in music) the note between "C" and "D", which one would you use? That depends on whether you are going down or up in music when this note occurs. WHenver you start from a low note and move to higher notes, you should use sharps to indicate the half steps. Likewise, flats are used for series of notes going from higher to lower pitches.

You might have also noticed when you looked at sheet music that there are sharps and flats next to the Treble and Bass clefs. A sharp on a note space means that all notes of that value in the entire piece of music are played one half step up. A flat next to the clef means that all notes played of that same value are to be played one half step down.

These sharps and flats occuring next to the clefs are what make up the key signature of the music. Every piece of music has a key signature. If there are no sharps and flats next to the clefs, the piece is said to be in the key of C. Later on I will further explain these "keys", but all you need to know now is that a key signature will tell you which notes will be played a half step up or down fro the entire piece of music.

After the clef and any sharps and flats, there will be a set of two numbers, one atop another. This set is called a time signature. It is used to tell how fast a piece of music is to be played. The top number tells how many beats there are in a measure. The bottom number tells which type of note gets a beat. A "2" is a half note, a "4" a quarter, an "8" an eigth, and so on. A measure is all notes and rests between two separating vertical lines. In figure 4, you see 12 sixteenth notes with all the sharps and flats listed. This is a measure in 3/4 time,

or 3 beats in a measure, with a quarter note getting one beat.

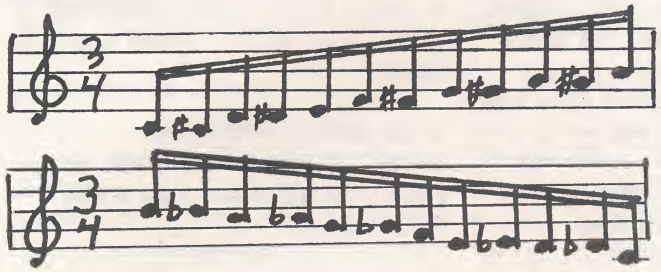
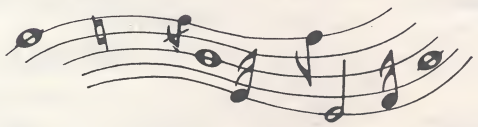


Figure 4

In the next issue, we will actually begin putting down music, find out how notes relate to one another, and generally have a great time! See you in September



ATARI

Retailers Offering Discounts to Atari User Group Members

[The following retailers have indicated that they offer discounts to members of ATARI Users' Groups. If you know of other stores we can add to the list, please let me know. Ed.]

Applied Computer Associates
16220 Frederick Avenue
Gaithersburg, MD 20879
(301) 948-0256

Future Tech
6230-10 Rolling Road
Springfield, VA 22152
(703) 644-0026

L & Y Electronics
13670 Jefferson Davis Hwy.
Woodbridge, VA 22191
(703) 494-3444

Softwaire Center
1701 Pennsylvania Ave., NW
Washington, DC 20006
(202) 342-1731

Software Center
8411 Old Courthouse Road
Vienna, VA 22180
(703) 356-3600

STS-Video Supply
1073 W. Broad Street
Falls Church, VA 22046
(703) 237-0558

Basic Beat

By Joe Waters

Can you program in BASIC? How about writing BASIC BEAT? When I started writing this column, I thought it would help force me to sit down and improve my proficiency in BASIC. It did do that! However, since I started the column, my ATARI-related responsibilities have increased dramatically. If I didn't already have a full time job, the work load wouldn't be so bad. However, I do and with the editorship of this newsletter and the presidency of NOVATARI, I just don't have enough time left to do a decent job of authoring this column. The question now is which of you will step forward to fill the void?

This month, I am presenting the second of the two-part series I started last month. A complete listing of the **Word Builder** program is provided below. The program assumes that you have already constructed a data file (see last month's article).

Word Builder helps you build your vocabularly. It can be used by any age, provided the dictionary is constructed for an appropriate level of difficulty. The main screen looks like this:

```
             WORD BUILDER
Time            GAME 1          SCORE
 14                               50

      A BEGINNER OR NOVICE

            1 - NEOPHYTE
            2 - RANGY
            3 - PROPRIETY
            4 - SUFFRAGE
            5 - PROMINENT
```

Under GAME 1, a definition is presented and you use the joystick to move among the five choices. When you think you know the answer, press the button. If the word blows away, you were wrong and you have to try again. If you got it right, you are presented with another definition. The points are based on which try you get the answer correct. You pick a given time limit in which you try and get as many points as possible. A timer in the upper left-hand corner shows you how many seconds you have used up.

I have included some brief comments in the code listing. This program, as well as the early **Data Dictionary** program, will be more fully discussed in the NOVATARI tutorials over the next several months.

[Note: the listing below is printed as it would appear when you list it on your TV screen.]

```
1 REM ******************************
2 REM      W O R D   B U I L D E R
3 REM           By Joe Waters
4 REM  Current Notes       July 1984
5 REM ******************************
6 GOSUB 12000:GOSUB TITLE:GOSUB RDATA:
GOSUB OPTION:GOSUB BEGIN:END
```

[Frequently called short subroutines are placed in the early lines of the program.]

```
10 REM TIME
11 SEC=INT((PEEK(18)*65536+PEEK(19)*25
6+PEEK(20))/60):IF SEC=SEC2 THEN RETUR
N
12 IF SEC)=TLEVEL THEN POP :GOSUB RESU
LT
13 POSITION 1,2:? SEC:SEC2=SEC
14 RETURN

15 REM ZEROTIME
16 FOR I=18 TO 20:POKE I,0:NEXT I:SEC=
0:SEC2=0:SCORE=0:RETURN

20 REM XCON
21 POKE CONSOLE,8:Z=PEEK(CONSOLE):IF Z
=7 THEN RETURN
22 IF Z=5 THEN GOSUB 8000:REM OPTION
23 IF Z=6 THEN POP :GOTO BEGIN:REM BEG
IN GAME
24 RETURN

30 REM  BELL
31 FOR VOL=15 TO 0 STEP -DECAY:SOUND 0
,PITCH,10,VOL:NEXT VOL:SOUND 0,0,0,0:R
ETURN

35 REM WAIT FOR FIRE BUTTON
36 POSITION 8,22:? "(Press FIRE to con
tinue.)":IF STRIG(0)=0 THEN RETURN
37 GOTO 36

40 REM QUIET: SHUT SOUNDS OFF
41 FOR V=0 TO 3:SOUND V,0,0,0:NEXT V:R
ETURN

45 REM WRONG: BANG SOUND
46 PITCH=20:SOUND 2,75,8,15:V1=15:V2=1
5:V3=15
47 SOUND 0,PITCH,8,V1:SOUND 1,PITCH+20
,8,V2:SOUND 2,PITCH+50,8,V3
48 V1=V1*0.7:V2=V2*0.75:V3=V3*0.8:IF V
3)1 THEN 47
49 GOSUB QUIET:RETURN

50 REM SCREEN: DRAW INITIAL SCREEN
51 GRAPHICS 0:SETCOLOR 2,INT(RND(0)*16
),2:POKE CRSINH,1
52 POSITION 14,0:? "WORD BUILDER":POSI
TION 0,1:? "Time":POSITION 17,1:? "Gam
e ";GAME:POSITION 34,1:? "Score"
53 POSITION 36,2:? SC;"  "
54 RETURN
```

[Respond to joystick, check answer if joystick button is pressed. If correct, go back and get another problem. If incorrect, try again until only one answer is left.]

```
300 REM XANS
310 ANS$="THE ANSWER IS ":ANS$(15)=STR
$(CNUM)
320 POSITION LEFTA,2*NUM+5:? CHR$(ASC(
STR$(NUM))+128)
325 REM --- READ JOYSTICK HERE ---
330 JOY=STICK(0):TRIG=STRIG(0):GOSUB T
IME
335 IF TRIG=0 THEN TRY=TRY+1:GOTO 370
340 IF JOY=14 THEN POSITION LEFTA,2*NU
M+5:? STR$(NUM):NUM=NUM-1:GOTO 355
345 IF JOY=13 THEN POSITION LEFTA,2*NU
M+5:? STR$(NUM):NUM=NUM+1:GOTO 355
350 GOSUB XCON:GOTO 330
```

```
355 IF NUM>HNUM THEN NUM=LNUM
360 IF NUM<LNUM THEN NUM=HNUM
365 NTE=120-5*NUM:GOSUB BELL:GOTO 320

370 IF NUM=CNUM THEN 445
375 REM --- WRONG ANSWER ---
376 PITCH=20:SOUND 2,75,8,15:V1=15:V2=
15:V3=15
380 POSITION 15,YP+2:? "W R O N G":FOR
 I=1 TO SHIFT+1:POSITION LEFTA+I,2*NUM
+5:? " ";:NEXT I
385 GOSUB WRANS
390 POSITION 15,YP+2:? "         "
395 IF TRY<4 THEN GOTO 330
```

[This section shows last remaining answer as the correct choice. Make noise, flash answer.]

```
400 IF GAME=1 THEN FOR I=1 TO LEN(WORD
$):POSITION LEFTA+1+I,2*CNUM+5:? CHR$(
ASC(WORD$(I,I))+128);:NEXT I:GOTO 410
405 IF GAME=2 THEN FOR I=1 TO LEN(DEF$
):POSITION LEFTA+1+I,2*CNUM+5:? CHR$(A
SC(DEF$(I,I))+128);:NEXT I
410 LO=57:HI=45:NT=HI
415 FOR I=1 TO 6:POSITION 12,YP+2:AF=0
420 IF I/2=INT(I/2) THEN AF=128
425 FOR J=1 TO LEN(ANS$):? CHR$(ASC(AN
S$(J,J))+AF);:NEXT J
430 FOR WT=12 TO 0 STEP -2:SOUND 0,NT,
10,WT:GOSUB TIME:NEXT WT
435 NT=LO:LO=HI:HI=NT:NEXT I:SOUND 0,0
,0,0:RETURN

440 REM --- RIGHT ANSWER ---
445 POSITION 14,YP+2:? "R I G H T !"
450 FOR I=250 TO 10 STEP -5:SOUND 1,I,
10,8:NEXT I:POSITION 36,2:? SC+I;" "
455 SOUND 1,0,0,0
460 SC=SC+PTS(TRY):RETURN
```

[Main controlling loop. Allow up to 50 problems, although time constraint will most likely expire before getting any where close to 50. Set clock, draw screen, get problem components, and then go check answers in XANS.]

```
500 REM BEGIN GAME
510 GOSUB ZEROTIME
530 FOR PROB=1 TO 50
535 GOSUB SCREEN
540 GOSUB TIME
550 GOSUB GDATA
560 IF GAME=1 THEN ANS$=DEF$:CHAR=WCHA
R
570 IF GAME=2 THEN ANS$=WORD$:CHAR=DCH
AR
574 POSITION LEFTQ,4:? ANS$
576 FOR I=LEFTQ TO LEFTQ+QSIZE:POSITIO
N I,5:? "";:NEXT I
580 FOR I=1 TO 5:GOSUB TIME:Y=5+2*I
590 I1=SHIFT*(I-1)+1:I2=I1+SHIFT-1
600 IF GAME=1 THEN ANS$=WORDS$(I1,I2)
610 IF GAME=2 THEN ANS$=DEFS$(I1,I2)
630 POSITION LEFTA,Y:? I;"-";ANS$
640 NEXT I
650 LNUM=1:HNUM=5:YP=18:TRY=0:NUM=1:DU
R=1
660 GOSUB XANS
670 NEXT PROB
680 STOP
```

[At end of time limit, show score and compare it with high score.]

```
800 REM RESULTS
805 GRAPHICS 17:POSITION 5,2:? #6;"TIM
E IS UP!"
810 POSITION 2,4:? #6;"YOUR SCORE = ";
SC
820 IF GAME=2 THEN GOTO 850
825 IF SC>HIGH1 THEN HIGH1=SC
830 POSITION 7,8:? #6;"GAME 1":POSITIO
N 2,10:? #6;"HIGH SCORE = ";HIGH1:GOTO
860
850 IF SC>HIGH2 THEN HIGH2=SC
855 POSITION 7,8:? #6;"GAME 2":POSITIO
N 2,10:? #6;"HIGH SCORE = ";HIGH2
860 POSITION 0,19:? #6;"(PRESS SELECT,
START)"
870 GOSUB XCON
880 GOTO 870
```

[All the data are in DICT$. Total words available=TWORD. Pick 5 random numbers between 1 and TWORD and get corresponding word/definition. Pick one random number between 1 and 5 to determine which will be the "correct" answer.]

```
7000 REM GDATA
7010 DEFS$(1)=" ":DEFS$(5*DSIZE)=" ":D
EFS$(2)=DEFS$
7020 WORDS$(1)=" ":WORDS$(5*WSIZE)=" "
:WORDS$(2)=WORDS$
7035 REM PICK 5 RANDOM NUMBERS AND COR
RESPONDING WORD/DEFS
7040 FOR I=1 TO 5:GOSUB TIME
7045 IF GAME=1 THEN J1=WSIZE*(I-1)+1:J
2=J1+WSIZE-1
7050 IF GAME=2 THEN I1=DSIZE*(I-1)+1:I
2=I1+DSIZE-1
7060 NUM(I)=INT(RND(0)*TWORD)+1:IF I=1
 THEN J=1:GOTO 7090
7070 FOR J=1 TO I-1:GOSUB TIME:IF NUM(
J)=NUM(I) THEN GOTO 7060
7080 NEXT J
7090 IF GAME=1 THEN L1=(WDSIZE)*(NUM(I
)-1)+1:L2=L1+WSIZE-1:WORDS$(J1,J2)=DIC
T$(L1,L2)
7094 IF GAME=2 THEN L1=(WDSIZE)*(NUM(I
)-1)+1+WSIZE:L2=L1+DSIZE-1:DEFS$(I1,I2
)=DICT$(L1,L2)
7120 NEXT I
7130 J=INT(RND(0)*5)+1:CNUM=J
7140 K1=(WDSIZE)*(NUM(J)-1)+1:WORD$=DI
CT$(K1,K1+WSIZE-1):DEF$=DICT$(K1+WSIZE
,K1+WDSIZE-1)
7150 RETURN
```

[This routine allows user to press SELECT button to alternate between GAME 1 and GAME 2.]

```
8000 REM OPTION
8010 POP :DUR=3:POKE CONSOLE,0:DECAY=1
8020 GRAPHICS 2+16
8030 POSITION 4,1:? #6;"word builder"
8040 POSITION 7,5:? #6;"GAME ";GAME
8044 POSITION 2,7:? #6;"find the corre
ct"
8048 POSITION 5,8:? #6;"  WORD  "
8050 POSITION 0,11:? #6;"PRESS SELECT,
 START":GOTO 8120
8060 IF GAME=3 THEN GAME=1
8070 POSITION 12,5:? #6;GAME
8090 IF GAME=1 THEN POSITION 5,8:? #6;
"  WORD  "
8100 IF GAME=2 THEN POSITION 5,8:? #6;
"DEFINITION"
8110 PITCH=10*GAME+80:GOSUB BELL
8120 IF PEEK(CONSOLE)=6 THEN GOTO 8150
8130 IF PEEK(CONSOLE)=5 THEN LL=100:GA
ME=GAME+1:GOTO 8060
8140 GOTO 8120
8150 IF GAME=1 THEN SHIFT=WSIZE:LEFTQ=
INT((40-DSIZE)/2):LEFTA=INT((40-WSIZE)
/2):QSIZE=DSIZE
```

```
8155 IF GAME=2 THEN SHIFT=DSIZE:LEFTQ=
INT((40-WSIZE)/2):LEFTA=INT((40-DSIZE)
/2):QSIZE=WSIZE
8160 GOTO BEGIN
```

[Draws title page. Border of screen gradually fills with random letters of the alphabet while title and author appear in center of screen.]

```
9000 REM TITLE PAGE
9010 GRAPHICS 2+16
9020 DECAY=2:LL=INT(RND(0)*26)+1
9030 FOR X=0 TO 19:GOSUB 9200:POSITION
 X,0
9040 ? #6;ALPH$(LL,LL);:GOSUB 9200:POS
ITION 19-X,11:? #6;ALPH$(LL,LL);
9050 IF X=6 THEN POSITION 6,2:? #6;"W
O R D"
9060 IF X=12 THEN POSITION 3,4:? #6;"B
 U I L D E R"
9070 IF X=18 THEN POSITION 9,7:? #6;"b
y"
9080 NEXT X
9090 FOR X=10 TO 1 STEP -1:GOSUB 9200:
POSITION 0,X
9100 ? #6;ALPH$(LL,LL);:GOSUB 9200:POS
ITION 19,11-X:? #6;ALPH$(LL,LL);
9110 IF X=6 THEN POSITION 5,9:? #6;"jo
e waters"
9120 NEXT X
9125 POSITION 2,10:? #6;"INSTRUCTIONS
?"
9130 OPEN #2,4,0,"K:":GET #2,K:CLOSE #
2
9140 IF CHR$(K)="Y" THEN GOSUB INSTRUC
T
9150 RETURN
```

```
9200 REM LETTER
9210 LL=LL+5:IF LL)26 THEN LL=LL-26
9220 PITCH=10*LL:GOSUB BELL:RETURN
```

[Print out game instructions if requested.]

```
10000 REM INSTRUCT
10010 GRAPHICS 0:SETCOLOR 2,0,0:POKE 7
52,1
10020 POSITION 8,1:? "W O R D    B U I
 L D E R"
10030 ? :? "This game will help you bu
ild your    word power.  There are two
 game"
10040 ? "ootions.  In each game, you t
ry to    identify as many words as oos
sible in"
10050 ? "a one to three minute time li
mit."
10060 ? :? "You receive points for eac
h correct    answer.  (ist try=100, 2nd
=50, 3rd=25,4th=15).":?
10070 ? :? "GAME 1 - Find the correct
word for a  given definition from a li
st of five  possible answers.  "
10080 ? :? "GAME 2 - Find the correct
definition  for a given word from a li
st of five  possibile words."
10090 GOSUB WAIT:? CHR$(125)
10100 ? :? "Use the joystick to select
 the WORD    or definition you think is
 right.":?
10110 ? "When you think you have the c
orrect    answer, press the FIRE button
.":?
10120 ? "If you are correct, a new pro
blem is  presented.  If you are wrong,
 you"
10130 ? "can make another selection."
10140 ? :? "Press the SELECT key to ch
oose (or    change) the game at any ti
me."
10150 ? :? "Press the START key to beg
in the game."
10160 ? :? "Before you begin, you will
 be asked toselect a dictionary (1-9)
and to      specify your time limit."
10170 GOSUB WAIT
10180 RETURN
```

[Read word/definition data in from disk data file. First record has total number of remaining records. Each record has a 10 character word followed by a 36 character definition. Data files are called "D1:DICTIONA.RYx" where x can be any number from 1 to 9. Data files are constructed using DATA DICTIONARY program presented in June issue of Current Notes.]

```
11000 REM RDATA: READ IN DATA
11005 TRAP 11005
11010 GRAPHICS 0:CLOSE #1
11020 POSITION 3,2:? "WHICH DICTIONARY
?":POSITION 3,3:? "ENTER A NUMBER (1-9
)";:INPUT DLEVEL
11030 FILE$="D1:DICTIONA.RY"
11035 FILE$(15)=STR$(DLEVEL)
11060 OPEN #1,4,0,FILE$
11070 INPUT #1,TWORD
11075 ? :? :? "DICTIONARY ";DLEVEL;" H
AS ";TWORD;" WORDS.":? "ONE MOMENT WHI
LE I READ THEM IN ..."
11080 FOR I=1 TO TWORD:INPUT #1,WDEF$
11090 DICT$(46*(I-1)+1)=WDEF$
11100 NEXT I:CLOSE #1
11190 TRAP 11195
11195 POSITION 2,9
11200 ? "HOW MANY MINUTES WOULD YOU LI
KE TO SETFOR A TIME LIMIT (1, 2, OR 3)
";:INPUT TLEVEL
11210 IF TLEVEL(0 OR TLEVEL)3 THEN GOT
O 11195
11215 TLEVEL=TLEVEL*60
11220 RETURN
```

[Initialize variables to appropriate dimensions and values. Program assumes 10 character words and 36 character definitions up to a maximum of 100 records.]

```
12000 REM INITIALIZE
12005 REM WSIZE=MAX.WORD SIZE
12006 REM DSIZE=MAX.DEFINITION SIZE
12007 REM MAX=MAXIMUM NO. WORDS
12008 REM DICT$ HOLDS ALL WORDS AND DE
FINITIONS
12010 WSIZE=10:DSIZE=36:MAX=100
12020 WDSIZE=WSIZE+DSIZE
12030 DIM ALPH$(26):REM ALPHABET
12035 ALPH$="ABCDEFGHIJKLMNOPQRSTUVWXY
Z"
12040 DIM WORD$(WSIZE),WORDS$(5*WSIZE)
12050 DIM DEF$(DSIZE),DEFS$(5*DSIZE)
12060 DIM WDEF$(WSIZE+DSIZE)
12070 DIM DICT$(MAX*(WSIZE+DSIZE))
12080 DIM FILE$(15):REM INPUT DICTIONA
RY
12090 DIM ANS$(40),NUM(5),PTS(4),BL$(4
0)
12100 BL$(1)=" ":BL$(40)=" ":BL$(2)=BL
$(1)
12110 PTS(1)=100:PTS(2)=50:PTS(3)=25:P
TS(4)=15:REM POINT VALUES FOR SCORE
12120 GDATA=7000:OPTION=8000:TITLE=900
0:INSTRUCT=10000:RDATA=11000:BEGIN=500
:XANS=300:RESULT=800
12130 TIME=10:ZEROTIME=15:XCON=20:BELL
=30:WAIT=35:QUIET=40:WRANS=45:SCREEN=5
0
12140 CHBAS=756:CONSOLE=53279:CRSINH=7
52:GAME=1:HIGH1=0:HIGH2=0
12200 RETURN
```

Basic XL

By Kirt Stockwell

[Reprinted from ACE (May, 1984), the newsletter of the Atari Computer Enthusiasts of Eugene, Oregon.]

I don't impress easily. A product has to be quite good for me to give it the green light. In the case of **Basic XL** ($99 OSS). I am impressed all over myself. I received my computer programming training on mainframe computers. Most of these have extremely good editors and very powerful versions of BASIC. Needless to say, I was rather shook when I bought my ATARI and found many of the high level commands I was used to were missing. And while the ATARI editor is the best of the home computers, it still lacks many features.

The first thing the programmer will notice is the improved editor. Automatic line numbering, built-in renumber, and block line deleting make it much easier to modify programs. Another powerful aid to programming is the TRACE function. The trace function is not particularly useful in graphic programming, as it kills all graphic modes and functions only in GR.0. On the other hand, if you are going buggy trying to find just where the extra characters crept into that string, this is the ticket.

There are other nice features to the editor, and some which are usable through the editor OR in deferred mode in programs. First, and probably the most desirable is the DIR(ectory) command. If you are like me you probably don't update your disk labels often enough. This makes it fun trying to find which disk has what. Also accessible are most of the standard DOS commands, which saves PLENTY of time. If the program you are developing does any file manipulation, such as creating data files. All in all, the editor is among the nicer I have seen. The only more powerful editors are those on larger machines which COMPILE the basic programs prior to running them.

One thing you will notice about **BASIC XL** right away is it runs FAST. Without any modifications to existing programs, any largeish program will run noticeably quicker. As an example, I booted **Master Type**(tm) with **BASIC XL** in the computer. While the program was thinking it was running at 25 WPM, I counted 34 WPM. Again, this is with absolutely NO changes to the program. On top of this, there is a nifty command which comes in very handy. "FAST" tells the computer to do a basic pre-compile on the program. I won't take the time to explain its operation here, but it can make a very significant differance in speed.

One of the things that bothered me the most when I got my ATARI was the lack of string arrays. Once I got used to building my own string arrays, I felt better and found that if I worked at it I could do anything other Basics could do. BUT, it took a lot of extra programming. **BASIC XL** has all of the string handling features of the best microcomputer basics. Not just string arrays, but MID$, LEFT$, and RIGHT$. Also included is the FIND command, which makes string searching quite a bit easier. This does not force you to use these commands, as the normal ATARI string handling features are also available.

Not being a mathematician, and avoiding number crunching as scrupulously as possible, I couldn't see any changes in the math functions. So I compared the command lists in the ATARI BASIC and BASIC XL manuals. Sure enough, no changes. (At least none I could find).

For people like myself who just LOATHE mucking about with the details of setting up and manipulating PLAYER MISSILE graphics, there are a whole flock of commands to simplify the process of using PMG. This should open the use of PMG to many programmers who have avoided it in the past.

Let's not forget the error codes. ATARI BASIC simply gives you a number when it encounters an error. **BASIC XL** not only gives you a number, but a short explanation of the type of error encountered. Those of you who don't goof up enough to have memorized all of the error codes (like I have) will appreciate this feature. It will save you from looking everything up in the manuals.

Those of you who intend to do any serious programming in BASIC should strongly consider picking up **BASIC XL**. Not only do the features make programming easier, but the increased speed in many cases is enough to make the difference between a clunky game and a fast, smooth one. Those of you writing application-type software will find it faster and easier. I have used all of the enhanced Basics that I have seen for the ATARI. Of them all, **BASIC XL** is the best. In my opinion, this is a must for BASIC programmers.

Now, is anybody listening at ATARI. I have talked with Bill Wilkinson at OSS. He assures me **BASIC XL** could be implemented in the new 1450XLD (if there really is to be such a thing) without making any mods to the operating system OR the circuit boards. If you plan on putting out an advanced personal computer, you should use the most advanced implementation of BASIC available. I seriously believe the search fror a better Basic ends here.

Turbo Pascal

By Mike Richardson

[Reprinted from DAL-ACE (May, 1984), the newsletter of the Dallas Atari Computer Enthusiasts.]

Those of us who have ATR8000's are very fortunate: we can use our ATARI as a computer and let the ATR8000 function asn an intelligent controller for high capacity disk drives, print buffer, and modem port or we can have the ATARI operate as a terminal and use the ATR8000 as a Z80 computer running CP/M 80.

However, you soom find out when running CP/M on the ATR8000 that yhou can't do much without having some kind of programming language. ATARI computers have an excellent version of BASIC that allows us to use the graphics and sound abilities that sold so many ATARI's (I wonder how many of us decided that ATARI was the computer to buy after seeing a demo of Star Raiders?).

What we need for the ATR8000 running CP/M 80 is a language system that makes programming easy by providing:

1. Build-in editor (a full-screen editor with some WORDSTAR commands would be nice)
2. A powerful yet easy to program language
3. A compilable language which would give us very fast and compact code
4. Excellent documentation and support
5. A low price for all the above like $49.00

Such a language does exist and it's called **Turbo Pascal** by BORLAND. When I saw an add in the November issue of BYTE magazine, I was skeptical as it sounded too good to be trune, but I send in my money anyway. I have been using their version of PASCAL for several months now and can say that it is a professional implementation of PASCAL that outperforms other versions of PASCAL which cost up to 10 times the price that BORLAND is charging! This is no exaggeration as Digital Research is selling their PASCAL MT+ with an editor for a list price of $600.

What exactly do you get for the low price of $49? Well, you receive a disk containing the **Turbo Pascal** compiler and editor. The disks come in a variety of formats for CP/M 80 systems. I choose the Morro Micro Decision format since it can be read by the ATR8000 by using the disk definition program. Copying from the Morrow disk format to a disk formatted for the ATR8000 was no problem.

Also on the disk is an installation program which allows the full screen editor to work with a variety of terminals. All you have to do is to choose one of the terminal types and you're done. Since the ATARI operates as an ADM3A terminal, just select that terminal type and you are ready to use the **Turbo Pascal** system. All very easy.,

The PASCAL compiler and editor work together to allow you to write PASCAL code quickly. By typing the word TURBO you start the **Turbo Pascal** system operating and are presented with a menu of options. You can edit a PASCAL program (or any other kind of text file for that matter), compile a PASCAL program, run a program that has already been compiled, or find a run time error when a program is running.

Compiled PASCAL programs can be run without the **Turbo Pascal** system as the compiled programs have the "run time library" with them. That's a fancy way of saying that all the special functions that the PASCAL language contains (like trig functions, logical operators, floating point functions) are all contained within each compiled file.

The manual that comes with **Turbo Pascal** is very complete and well written. It is not a tutorial on PASCAL but it does a nice job of pointing out how to use the **Turbo Pascal** system effectively.

What about user support? Well, when I had some difficult with writing and reading some files to disk, one phone call was enough to solve my problem. And it turned out that my understanding and not the software needed some help.

A complete review of **Turbo Pascal** would be a lot longer than this one so if any of you are still curious, see the February issue of Microsystems magazine for a longer and more detailed review.

To summarize: BORLAND has produced an excellent PASCAL compiler and editor that is worth many times what they are selling it for. I have found it a joy to use in writing PASCAL software. The system is well documented and supported. I am very glad that I bought it when I did and recommend it for anyone who wants to program in a powerful version of PASCAL.

You can order **Turbo Pascal** by mail or phone directly from BORLAND:

Borland International
4807 Scotts Valley Drive
Scotts Valley, California 95066
(800) 227-2400 x968

CPM (Continued from Page 8)

Also at the July meeting: Craigh Smith will demonstrate dBASE II. ATRSIG Officers: Bob Kelly (President), John Lauer (VP for Programs), and Bob Danson (VP for Communications).

In the Adventure Corner

By Michael Detlefsen (with apologies to Infocom)

[Reprinted from AACE (April, 1984), the newsletter of the Austin Atari Computer Enthusiasts.]

You are in a room lined with bookcases and desks, facing a deadline (and a CRT, glowing softly with an amber light). To the north is an exit, leading to a closet. An exit is east, where you can see a dim north/south hallway. A closed and shuttered window is west. There are no other exits.
You see: an Atari computer
a pile of rubble on the desk

)Look in the rubble
You sift through the rubble and find an INFOCOM game.

)Read the package
(taken)
The cover says "Sorcerer"

)Yell. Jump up and down.
Arrrrrrrgggggggghhhhhhh!
Are you having fun?

)Open the package. Take the disk. Put the disk in the drive. Take the phone off the hook.
You open the package. There is a disk inside.
You put the disk in the drive. The drive makes loud snarking noises.
You take the phone off the hook. The phone makes lound snarking noises.

)Play the game.
You begin to play the latest INFOCOM game, discovering quickly that hellhounds don't like wandering adventurers (except for lunch). You play for a few hours deciding that this latest game is far more entertaining than the last one. You are once again the novice enchanter who destroyed Krill in **Enchanter**, the first game of the series. This time, you must find Belboz, your mentor, who has disappeared off the face of the whatever. You carefully explore the premises of the Guild of Enchanters (everyone has disappeared!) finding clues and items you will need on your quest. You journey to a far-off land where you explore a magical amusement park, get killed forty-seven times by a magical mine field, explore the ruins of the once-great castle Egerth, and explore a secret cave. You also find a three-dimensional glass maze (you can't see any of the walls, ceiling, or floor), with a nasty surprise at the end.

)More. More, more, more, more.
I can't use the word "more" here.

)Tell me more.
Sorcerer is the tenth game released by INFOCOM, and the second (if my data banks haven't crashed on me) by S. E. Meritsky (Get Meritsky to work on the sequel to **Planetfall**, guys).
There is a magazine here.
There is an Infotater here.

)Take all
magazine: taken
Infotater: taken
everything else: don't be greedy

)Read magazine. Examine Infotater.
The magazine is this month's issue of Popular Enchanting. It dropped out of the game package, along with the Infotater. You open it and read the ads for discount spell scrolls. You find you still can't afford them.
You look at the Infotater. It has a wheel you can turn with little pictures that show in two little windows. The pictures are of Grues, Dryads, Gnomes, Brogmoids, and other beings. The second little window carefully explains why you should not loan money or a close friend to any of these creatures.

)Play the game.
You can't. You are stuck.

)Look at the ending.
++++GAME INTERNAL ERROR 8539++++
---END OF SESSION---

* * * * * * * * * * * * * * * *

Creating a Different Disk Directory

[The following is reprinted from ACCT (April, 1984), the newsletter of the newsletter of the ATARI Computer Club of Toledo. Author unknown.]

Thanks to Fred Choske for an answer to last month's question, "How can you create a disk directory for your programs other than in the standard location of sectors 361-368?" He referred us to a book from ALPHA SYSTEMS by George Morrison called ATARI Software Protection Techniques. Basically, the method is as follows:

1. Back up your completed disk.
2. Copy the directory to a new location.
3. Alter DOS to point to your new directory. DOS is stored in memory. Location 4226 normally contains 105, which tells DOS to look to sector 361 for the Directory. Compute the new value = 105 + (new directory sector number - 361). Then POKE 4226, new value.
4. Write the altered DOS files to your disk.
5. Destroy or change the old Directory, VTOC and DUP.SYS file.

The book, although small, contains a number of ways in which software is protected, and some small programs to enable you to accomplish this protection.

Books Received

Stimulating Simulations (Atari Version), 2nd ed., by C. W. Engel, 2nd ed., Hayden Book Co., 1979, $7.50, 128 pp.

Twelve BASIC "simulation programs," which are actually game programs. Each of the programs is presented with a listing, sample run, instructions, and program documentation, including a flowchart and ideas for variations. Art Auction, Monster Chase, Lost Treasurer, Gone Fishing, Space Flight, Starship Alpha, Forest Fire, Nautical Navigation, Business Management, Rare Birds, Diamond Thief, The Devil's Dungeon.

The ATARI Playground, by Fred D'Ignazio, Hayden Book Co., 1983, $9.95, 130 pp.

ATARI in Wonderland, by Fred D'Ignazio, Hayden Book Co., 1983, $9.95, 150 pp.

Both of these books provide a simple, entertaining introduction to the world of the ATARI for youngsters. Both include nearly two dozen exciting short stories and original programs to teach children word and number skills in an easygoing, friendly style that children love. In Playground participate in a Spelling Bee, draw with a Computer Crayon, chase wild letters, watch ghosts appear and disappear, and play games against the ATARI. In Wonderland, learn how to write a book report, learn angle measure while "riding" a 3-D roller coaster, create songs, test reflexes, appear on a Quiz Show, and learn to count in French and Spanish.

Both books contain instructions for using the ATARI graphics keys. Suggestions in each chapter explain how to modify the programs to make the adventures even more exciting. The programs are listed in the book and can be easily typed into the ATARI. A cassette tape is also available containing all the programs ready to run.

Basic ATARI BASIC for the 400, 800, and XL computers, by James S. Coan and Richard Kushhner, Hayden Book Co., 1984, $15.95. 340 pp.

This book is a complete guide to ATARI BASIC and takes the reader from beginning concepts, such as entering data and obtaining output, to more advanced topics, such as numberic and string arrays, sequential and random-access files, sound generation, and the use of either tape or disk. Both low-resolution and high-resolution graphics are discussed.

The approach of this book is simple and direct. Start with short computer programs, master them quickly, add a new command, and watch as the desired effect on the program is created and illustrated. Move on to another capability. Test your knowledge with the various problem sections.

Programmer's Corner sections at the end of each chapter focus on special ATARI features or advanced programming ideas. The book also includes a handy program index and solutions to all even-numbered problems.

I Speak BASIC to My ATARI, by Aubrey B. Jones, Jr., Hayden Book Co., 1984, $9.75, 234 pp.

A field-tested computer literacy course that introduces students to BASIC language programming. [Note: entire book consists of a series of what might be suitable slides to use in teaching a course in BASIC. Contains assignments and practice problems. However, this format really does require a teacher to expand on topics highlighted in slides. Ed.]

* * * * * * * * * *

Define Time

SINGLE BOOT - item purchased at a half-off snow show sale

LOADING ADDRESS - trucker's directions

WARM START - love at first sight

SOFTWARE - comfortable clothing

POKE - a sharp jab in the ribs

PEEK - steal a look at

CHARACTER SET - police line-up

REDEFINED CHARACTER SET - no positive identification the first time

ASSEMBLY LANGUAGE - " ... ladies, gentlemen, and honored guests ..."

[Reprinted from Computer Squad News (February 1984)]

BECOMING A MEMBER

Membership dues for the groups are $15.00 a year, which includes a subscription to Current Notes. Dues are payable at the beginning of each calendar year. Dues for new members joining during the year are reduced $1.00 for each month which has passed since the first of the year. For example, if you join in June, your dues would be $10.00. Dues may be paid at any meeting, or sent to the treasurer of the club of your choice.

DC USERS GROUP: Allen H. Lerman, 14905 Waterway Drive, Rockville, MD 20852, (301) 460-0289

NOVATARI: Curtis Sandler, 7213 Idylwood Court, Falls Church, VA 22043, (703) 734-9533

AURA: Richard Stoll, P.O. Box 7761, Silver Spring, MD 20907, (301) 946-8435

To enroll as a new club member or renew your membership, please return the card below to the treasurer of the club of your choice. The treasurer will pass your name and address on to Current Notes and you will be placed on our mailing list.

A T A R I U s e r G r o u p
Membership Form

Name _____

Address _____

_____

Phone: (_____)_____

Check the Group you wish to join:

DC_____ Novatari_____ Aura_____

I wish to receive (continue to receive)
CURRENT NOTES free of charge as a member
of the above group.

_____ _____
Signature Date