

A·C·U·G·O

OFFICIAL CLUB NEWSLETTER

VOLUME 9 ,ISSUE 1

JAN, 1983

MEETING:

HOLIDAY INN - 1735 N. 35E FWY
TAKE VALWOOD EXIT OFF 35E NORTH
CONFERENCE ROOM 1

TIME : 2:00 P.M.

DATE : FEB 5, 1983

OUR NEW LOOK!



ATARI'S NEW DEFENDER

PRESIDENT'S PERSPECTIVE

You may have not noticed it, but we have changed the look of the newsletter. After two and one half years, this is the first big change in the newsletter. Bill Simpson, a friend and professional printer, offered his help and knowhow in preparing our newsletter. As you can see, it payed off. The cost to the group even went down by about 1/3. Also we now have bulk mail rate, so even the cost of mailing went down by 3/4.

So, now we are looking for more input from you in the way of articles and photo's of you and your ATARI.

As you know by now, ATARI has released the news of their new 1200XL computer. The current information I received from ATARI is that it will basically be an 800 stripped down. It will contain 64K of RAM, but the same amount as the 800, with 48K will be available. The only slot is the BASIC one. The unit has one big mother board with no, repeat, no expansion capability and no RF shields. As a mater of fact, the unit is said to be factory sealed. There are no fancy graphic chips other than the ANTIC and GTIA that is in the 400/800. The price tag is under \$1000. The unit I think should go for around \$500 to \$600 to compete with you know who.

There will be a product review as soon as I can borrow one because I'm not going to buy one. My 800 is, I think, still the best buy. ATARI you blew it again.

There has been some misunderstanding on the part of a few as to the role that dealers play at our club meetings. Now that we meet at our current location, we get a lot of calls from dealers, both store-front and out of their house, to come to our meetings. The guidelines are very simple: One. They must be a member of the A.C.U.G.D.. Second. They must pay a fee of \$5.00 per table to help cover the cost of the room. Three. During the meeting, if they are in the same area as the meeting, all sales will come to a halt until break or after the meeting. Four. Because they are there to support the group, a club card or current newsletter with purchasers name attacted, must be shown to make a purchase. And last, I must be notified at least one week in advance as to someone setting up.

Please remember, there is nothing in the Constitution that says it is your right to sell at the meetings. It is a privilege. So help us make the best of a good thing.

Happy Computing
Gary

COVER PHOTO: Tabitha Sewell, daughter of Gary Sewell, gives ATARI's new DEFENDER(r) a try. Photo by Gary Sewell.

ACUGD LIBRARY DISK NO. 3

There are a lot of great programs on this disk, especially if you like graphics. Atarican, MarkI, Playmiss, Byte1, Byte2, Pokedemo, Animation, and Encounter are all small graphics programs. If you chained them together, it would be an impressive demonstration for that neighbor of yours who is thinking about buying a computer.

Also on this disk are several games. Ricochet plays almost like the commercial version (I am told) while Trench (you are Luke Skywalker) is only enjoyable if the Force is truly with you. Anglecan, two cannons shooting at each other, will make you remember your highschool geometry.

The program I had most fun with however is Database. (But then I'm a sucker for useful programs.) Database is menu driven and therefore easy to operate. You start out by setting up the headings you want to use and the length of the longest heading. After that, a menu appears giving several options such as add a record, change a record, etc. Make your selection and go from there. When adding a record Database will ask for "field length." Through trial and error, I found that you cannot set a field length longer than 250.

I entered a small inventory program, including a field entitled "cost." Database would sort on any field, including "Cost," in ascending or decending order and print records either to the screen or to a printer. On my Epson MX-80 there was a delightful little surprise on the printout.

The only trouble I had with Database was after choosing the print option. A second menu appears which lists the headings you have established and adds as the last number "Begin." If you choose anything other than "Begin," Database asks for specific search parameters.

(1) <= (2) = (3) >= ?

This is where it gets confusing. If you type "1" after the question mark you are asking Database to search for records less than or equal to the heading you selected; "2" would be equal to, etc. After you type in "1, 2 or 3," Database asks for "Value" and you enter either an amount or a word. This search technique worked great when using dollar amounts from my inventory, but seemed rather useless for alphabetical headings. Now the

screen blanks for a second and the secondary menu appears again with all the headings. At this point I thought I had lost it all. Not so. I finally discovered that Database had just been doing the search. When the secondary menu appears for the second time, type in whatever number corresponds with "Begin," and Database will print out the record(s) that corresponds with your search criteria.

Database is done in Basic and therefore slow. However, if you haven't sprung for **File Manager 800** or **Data Perfect**, this program is quite capable of holding your record collection inventory and just about anything else you want to put in it. And besides, it only costs \$4.

One last thing about Database. Don't forget to save your records to disk. Nothing's worse than setting up the headings, entering all the records and then shutting off the computer without saving it all.

ACUGD Library Disk No. 3 also has a little program called Digclock. Now digital clock programs are not extremely useful, but I added a little something to this one that makes it a lot more versatile. But I'll tell you more about that next month. Meanwhile, go mob the librarian and get this disk.

S. J. Henderson

**FOR SALE: Intro To Programming I,II,III. New - never used. Cost \$75.00 will take \$50.00.
My First Alphabet - APX Software, slightly used. \$17.50
Rick Richardson. 444-5383**

The ACUGD ~~Education~~ Special Interest Group will be reviewing computer based ~~education~~ programs at 7:30 P.M. Wed, Feb 2, at the home of Rich Greenlee, 512 Copher Ct., Euless, Tx. (817)-267-7428.

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FORTHought By Fred Sagor:

FORTH Classes, A Guide to FORTH Organizations, and FORTH on the Club Bulletin Board System

FORTH Classes
=====

FORTH classes will be held on Monday nights from 7:00 P.M. (sharp!!) to 10:00 P.M. for 10 weeks beginning January 17, 1983. The next section of this article outlines what FORTH is.

I will be the instructor. I have 2 years experience working with FORTH on the Atari, and this will be the second time I have taught FORTH for ACUGD. You can call me at 424-0291.

Classes will be held at the house of:

Jim Chaney, 916 E. Berkely, Richardson, TX 75081

Jim hosted the FORTH classes given by Harry Hafele in 1982. Jim has a large screen T.V. that makes it much easier for everyone to see. If you have access to good facilities and are willing to host classes for the club, please contact our Education Chairman, Tom Schaeper at 242-2483.

You may use any version of FORTH you choose. However, my classes will emphasize fig-FORTH, the common base of all Atari FORTH's. If you can afford it, I recommend valFORTH from Valpar International. all of the modules are very good to excellent, with a great deal of depth. As well as the main valFORTH module, I recommend the "General Utilities and Video Editor" module for this class.

A less expensive way to go is with Extended fig-FORTH by Pat Mullarky. Note that Extended fig-FORTH was the starting point for valFORTH and is very faithful to the fig-FORTH model. By special arrangement with Pat Mullarky, Extended fig-FORTH is available thru the club, for members only, in disk or tape form.

You should have at least 32K of memory to program in FORTH. A disk is very helpful, but tape is adequate.

"Starting FORTH" (outlined in a later section) is the required text. Costs for the class (in addition to your getting "Starting FORTH") are a one time fee of \$10 for refreshments and a one time fee of \$5 to reproduce handouts. The club normally mandates a \$5 fee to be paid by each student to the instructor. Instead of this, Jim Chaney and I request that each student select and perform a service for the club.

Please bring "Starting FORTH", paper, pencil, and a diskette or a cassette tape to each class session. You will be ahead of the game if you read chapter 1 and 2 before the first class.

The rest of this section is a set of directions to Jim Chaney's house starting from Central Expressway and Spring Valley in Richardson. Go east on Spring Valley. The road will fork at the second light. Bear right and the road will become Centennial Blvd. Go about one and a half miles on Centennial, across Greenville Ave. and Abrams. At first light after railroad tracks, turn left onto College Park and go one block north to E. Berkley. Turn left onto E. Berkley. Number 916 is halfway down the block on the left. I look forward to seeing you there.

What is FORTH?

FORTH is one of the most powerful computer languages ever developed. Most computer languages have a fixed definition. FORTH does not. FORTH is a living, evolving language, like English.

FORTH starts you out with a good, solid set of pre-defined words. When you program in FORTH, you define new, more useful words in terms of older words. This lets you build up a language that is tailored to the types of problems you wish to solve. Finally, you define a word that is the solution to your problem.

The different versions of FORTH differ in terms of what words have been pre-defined. All FORTH's now available for the Atari are based on a set of words called fig-FORTH.

FORTH includes an assembler (written in FORTH) that can be extended to become much more powerful than a conventional macro-assembler. FORTH lets you move at will from the low level world of assembly language, peeks and pokes, up to the high level world of IF...THEN...ELSE, FOR...LOOP, CASE statements, recursion, and beyond to levels of control beyond conventional languages. FORTH is a structured, interactive language. This makes debugging much easier. FORTH also includes an editor and methods of taking over direct control of your disk drive.

Typically, FORTH programs run about 10 times faster than BASIC, 2 times faster than "C", and 2-3 times slower than pure assembly language. FORTH programs can be made to use much less memory than other languages (including assembly language) available on the Atari. Because of this, it has been used to develop ROM cartridges and Atari arcade machines.

The Atari FORTH Interest Group

The Atari FORTH Interest Group is a very informal group of members of the Atari Computer User Group of Dallas who like to exchange information about FORTH.

We meet once a month at 7:30 P.M. on the Thursday after the main ACUGD meeting. This is normally the first Thursday after the first Saturday of each month. The meetings are free (and fun!). Each month we meet at a different member's house. Refreshments are supplied by the host. The exact date and place of each meeting are published in the club newsletter and will be posted on the bulletin board system. New members are always welcome.

The founder and focal point of this group is Tom Schaeper. For more information, you can contact Tom at 242-2483, or call me at 424-0291. Our "agenda" is to talk about and demonstrate our FORTH activities until we run out of steam after about 2 hours. Then comes our world famous "Part 2". This is a free-wheeling "bull session" and demonstration of whatever anyone has gotten or built for the Atari. Part 2 has been known to run very late.

The next meeting of the Atari FORTH Interest Group will be held January 13, 1983 at 7:30 P.M. at the home of:

Don Care
 10209 White Elm Dr.
 Dallas, TX 75243
 Home phone: 235-6126

FIB: The International FORTH Interest Group
=====

The FORTH Interest Group is a non-profit organization dedicated to the promotion of the FORTH language. Most of the work of FIB is in the public domain. This includes Assembly Source Listings of fig-FORTH for several computers including our own 6502 (the CPU of the Atari 400 and 800). Other publications are the Proceedings of the FORTH Modification Lab (FORML) and the FORTH-79 Standard.

You can join FIB for \$15 per year. This gives you a 1 year subscription (6 issues) to FORTH Dimensions, the FIB technical and news magazine. Each issue of FORTH Dimensions is now about 34 pages long and always has excellent articles. Leo Brodie (the author of "Starting FORTH") is the editor.

The address is:

FORTH Interest Group
P.O. Box 1105
San Carlos, CA 94070
(415) 932-8650

They will take MasterCard and VISA on orders of \$10 or more. Be sure to request your free FORTH programmer reference card.

FIB runs a Conference Tree online bulletin board at (415) 787-1534. Use 300 baud, full duplex. Press "Return" twice to start. FIB has several U.S. and Foreign chapters including:

The Dallas/Fort Worth Chapter of FIB
=====

The local chapter of the FORTH Interest Group meets monthly, on the 4th Thursday at 7:00 P.M. at:

Software Automation
1005 Business Parkway
Richardson, Texas

For more information, call Marvin Elder (214) 231-9142 or Bill Drissel (214) 264-9680. Meetings cost \$1.50 each to pay for refreshments, mailings, etc.

About half the members of the Dallas/Fort Worth Chapter are professional FORTH programmers. About 15 different types of computers are represented (FORTH is one of the most transportable languages there is). At a normal meeting, there are 1 or 2 formal speakers. The meeting usually lasts about 2 and a half hours. You do not need to be a member of FIB to attend.

This group is associated with the international FORTH Interest Group (FIB). It is not connected with the Atari Computer User Group of Dallas.

Mountain View Press
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Mountain View Press, Inc.
P.O. Box 4656
Mountain View, CA 94040
(415) 961-4103

This is a profit making company, in some way associated with the international FORTH Interest Group (FIG). The phones for both organizations are answered by the same people. Mountain View Press publishes and distributes many FORTH related products, most of which are not in the public domain.

Two documents that I recomend are "Startin FORTH" at \$16 soft cover, \$20 hard cover (more about this in the next section), and the "FORTH Encyclopedia" at \$25. The "FORTH Encyclopedia" is an advanced book of about 336 pages defining in detail (including flow charts) all of the words in fig-FORTH, with references to FORTH-79. Checks, money orders, VISA, MasterCard, and COD's are accepted.

Starting FORTH

"Starting FORTH", written and illustrated by Leo Brodie.
Copyright 1981 by FORTH, Inc., Published by Prentice-Hall.

This remarkable and delightful book far surpasses all earlier books for the beginning FORTH programmer has been the required textbook for all of the FORTH classes held to date by ACUGO. This 365 page book has been enjoyed even by people who don't like FORTH. Locally, I have seen the soft cover version of this book at The Micro Store, Softwares, Waldenbooks, and B. Dalton Bookseller at about (\$15.95). The hard cover version at \$20 is available from Mountain View Press. The only problem with the book is that it is based on polyFORTH by FORTH, Inc., not fig-FORTH. However, the two versions of forth are quite similar. One help is a 3 page public domain document "Notes for the valFORTH User" available from:

Valpar International
3801 East 34th Street
Suite 105
Tucson, Arizona 85713
(800) 528-7070

Be sure to ask for a FORTH bumper
sticker!

FORTH on the Club Bulletin Board

Watch for the latest news about FORTH on the new FORTH file on the clubs Bulletin Board. Contributions welcome! Join the FORTHwriters!

PRODUCT REVIEW
RAMROD MMOS BOARD
by NEWELL IND.

Until now, one of the biggest problem with the Atari 800 was that you were unable to change any of the operating system program. First you may ask why do I want to change it in the first place? Well, as we all know, the boys (and girls) out in Sunnyvale are not perfect when it comes to programming. Wouldn't it be nice to correct some of their mistakes.

Also, think how you might re-write the OS to suit your needs, say..change the screen color, set the margins, etc.

Well, Newell Ind. has come out with a board that plugs into your 800 (yes I said 800 not 400) that allows you to install EPROMS in place of the OS ROMS. With these EPROMS you can modify the system until you are blue in the face (or screen). Note though, you must be carefull what you are doing. A wrong patch, and your 800 may fail to work again until you correct the problem, or install the original ROMS again.

On the subject of installation, all you do is remove the old board, remove the three ROMS on that board and install them in the same location on the new board. Make sure the switches are set correctly, and re-install the new board. Thats it.

To make changes to the OS, you must have an EPROM burner. I won't go into the process of burning the EPROM's or changing the OS here. There are people in the group to help you with that.

On the board you will notice two additional sockets. These are for installing either 4K of RAM or EPROM in that unused range at \$C000 to \$CFFF. With this available, you can place routines here for any thing you like. One side effect of this is, programs like Microsoft Basic(r), Visicalc(r), Letter Perfect(r), Data Perfect(r), and most forth programs can use it. These are only a few of the programs I have tried.

Newell Ind. is also including a monitor that will plug into this area that will do some of the features of DISKSCAN plus others. Both were written by David Young of the Dallas Group.

I will do a review of the monitor next month because it will take a whole page just to cover it.

The price on the board varies with the way you buy it but the base price is \$159.95. For current price information, contact Newell Ind. at 1-214-423-1781.

by Gary Sewell

CREATIVE FIRMWARE

ATARI 800/400 EPROM DEVELOPMENT SYSTEMS

Finally there is an inexpensive way for you to develop your own custom software in ROM!

CREATIVE FIRMWARE EPROM PROGRAMMER

The CREATIVE FIRMWARE EPROM PROGRAMMER runs from the joystick ports on your ATARI computer and permits programming of 2716 and 2532 EPROMs (2732 and 2732A programming adapter optional). Simple commands permit you to READ, VERIFY and PROGRAM these EPROMs as well as SAVE and LOAD programs to cassette or disk and LIST these programs to the printer. The software is all in machine language resulting in the fastest possible programming time. Disk and cassette SAVE and LOAD formats are completely compatible with the DOS binary files. In addition, the CF EPROM Programmer permits you to read 2K and 4K mask programmed ROMs. Program editing is also an included feature. The CF EPROM Programmer is supplied in kit form only. Specify disk or cassette based system.

CREATIVE FIRMWARE CARTRIDGE EPROM BOARD

This board fits into the cartridge slot(s) on ATARI computers and permits up to 8K of EPROM space. Simple strapping options on the board permit the use of one or two 2716s, one or two 2532s, or one of each! The CF EPROM Cartridge Board is supplied in kit form only.

PRICING

- | | |
|---|---------|
| 1. CARTRIDGE EPROM BOARD (kit w/all parts less EPROMs): | \$12.89 |
| 2. EPROM PROGRAMMER (kit w/all parts less case): | \$79.00 |
| 3. Programming adapter for 2732 and 2732A EPROMs: | \$17.50 |
| 4. 2716 EPROMs (2K): | \$4.00 |
| 5. 2532 EPROMs (4K): | \$8.00 |

NOTE: The Cartridge EPROM Board has gold plated connectors.

Add \$2.00 shipping and handling per order (Texas residents - add 5% state sales tax).

For more info or to place order:

CREATIVE FIRMWARE
707 Auburn Drive
Richardson, Texas 75081
(214) 699-8571 after 6PM

BASIC COMPILER

It's here--a compiler for ATARI Basic is about to be released by DATASOFT. You can use it for your own applications, on commercial products you have bought elsewhere (APX's XREF is a prime candidate), or for software that you develop for sale. In the last case, there will be no run-time licence fee, but you will need to insert a credit referencing the compiler and DATASOFT.

SPEED--this is the objective, and you will find the compiler can increase the speed of your programs by about 15 X.

CODE PROTECTION--since the output is machine code, it is much easier to protect your programs against piracy.

EASE OF DEVELOPMENT AND DEBUGGING--yes, now you can develop your programs in a high-level language, using all the powerful commands, especially in the Graphics area, and do your debugging in interactive mode with BASIC. Then when the program is complete and tested, switch to Machine Code for speed and code protection.

TWO FLAVORS--that's right, you have the choice of selecting the floating point option at compile time, and getting around 3 X the speed, or the 2-byte integer option and getting the full 15 X.

An update that is expected to be released later will allow 4-byte integer for around a 5 X speed increase. The FP option is most suited to scientific and mathematical applications. The 2-byte integer option is most suited to utilities and games. The 4-byte integer version will be the preferred option for business applications, but until it comes out, use floating point.

LARGEST PROGRAM--the largest program that you can compile will be around 150 sectors.

DOUBLE DENSITY DRIVES--yes, it works fine with the PERCOM drives. In fact, the largest program compilable increases to around 160 standard sectors (80 DD sectors) with these drives.

MEMORY--you will need 48KB. A compiled program will be larger than the BASIC version--ballpark is about 20% larger. This is so of most assembler programs, since BASIC is actually a form of shorthand, which is expanded, one line at a time, when the program is run (this is also why BASIC is so slow).

FORMAT--the compiler takes your program, in tokenized mode, and generates assembler code from it in PASS 1. PASS 2 builds a symbol table from the generated assembler code. PASS 3 assembles the code from the compiler and the appropriate run-time library into an executable machine language program. The Run-time library is assembled beginning at \$2400 (decimal 9000). The program itself is assembled beginning at \$3200 (decimal 12500). PASS 4 gives you the option of listing to the screen or the printer a BASIC statement #/memory address cross-reference. This is very useful, since if you get a system error in program execution, you can abort the run, continue from the point of error, restart your program at the beginning, or start it at any other point (aren't you glad you took a hard-copy of the addresses?).

You can also immediately execute the program you just compiled while in PASS 4.

RESTRICTIONS--I know this question was high in your mind. The news is excellent. ALL OF ATARI BASIC IS IMPLEMENTED, with the exception of commands that deal with program files (SAVE, CSAVE, LOAD, CLOAD, LIST, ENTER, RUN with an argument--RUN by itself is OK), and the commands DOS (yeah, I wish that one was there too!), NEW, BYE, and CONT. None of that is too hard to live with (well, DOS would have been nice, and without arguments after the RUN command, you can't chain programs). You can only terminate a FOR/NEXT loop with a single NEXT (no NEXT's in IF statements--use GOTO's to the NEXT), you can't use variable line #'s (but you can use ON GOTO/GOSUB to get the same effect), and you can't PRINT CHR\$(155) (use PUT #n,155 instead).

You must DIMension arrays in your program before any line that references them--not just before in the logical flow of the program, but in a line with a lower line #!!! Also, all DATA statements must be at the end of the program. There is also a restriction on the way strings and substrings are handled that means you will avoid having substrings on the left side of an "=" sign, or assigning to any string variable a literal that contains a character with the decimal value 155 (since this is the RETURN code in BASIC, you would have had to POKE this into the literal in the first place, so do it to the string instead). The restriction on substrings on the left side of an "=" is handled with PEEK's and POKE's, so you can still do what you need to do in your program, just do it in a different way.

INTEGER OPTION--you can't use the transcendental functions (SIN,COS,ATAN,CLOG,LOG,EXP,SQR), of course, or any fractions, since the only numbers supported are integers. And, being 2-byte integers, the numbers range from -32767 to 32767 (you can, however, PEEK and POKE up to 64K and the compiler will generate workable code for you). When using RND, instead of saying 4*RND(0) to get a number between 0 and 3.9999999, you say RND(4) to get an INTEGER between 0 and 3. To use the smallest amount of memory possible, use GOSUB's liberally (isn't it wonderful to be able once again to follow the precepts of Structured Programming, and Top-down systems design & programming & testing--much better programs should result, with fewer bugs, clearer documentation and more reliable maintenance), while minimizing the use of SUBSTRING's, ARRAY's or a variable as the step size in a FOR/NEXT loop.

Since your programs will now run faster than excrement through a goose, you will have to stop using FOR/NEXT loops to build delays into your program (you shouldn't be using them anyhow, since they are dependent on position in your program)--instead use:

```

.....
nnnnn D=60:GOSUB 20000
.....
20000 POKE 544,D
20010 IF PEEK(544)>0 THEN 20010
20020 RETURN
.....

```

to give delays measured in "jiffies", or 1/60 of a second. The preceding example gives a one second delay. Since you can POKE any number up to 255, you can have any delay up to just over 4 seconds. If this is not enough for you, use the following:

```

.....
nnnnn D1=88:D2=2:gosub 20000
.....
20000 POKE 544,D1:POKE 545,D2
20010 IF (PEEK(544)+PEEK(545))>0 THEN 20010
20020 RETURN
.....

```

to give delays of up to just over 18 minutes. D1 is # of jiffies and D2 is # of 256 X jiffies. The preceding example gives a delay of 10 seconds.

MY COMMENTS: This product is HOT!!! Look for ATARI to explore this as a program product in the near future.

(P.S. While you can run this product on a single density, single drive system, it is easier with two single density drives, and easier still with one double density drive. H & W has a good price on PERCOM double density drives, and I can speak from experience that they are great--I have two of them)

EDITOR'S NOTE

I want to welcome everyone back from the holidays and hope that each of you had a very merry one. Since the December meeting I have read several articles which have given a glimpse of what we can expect in the future from Atari. One was from Datamation. To provide a super condensed version it goes something like this.

In the beginning was Pong. Then came Warner Communications which makes movies and records and publishes MAD magazine and DC comics. Is this any way to develop a computer? You bet! Atari has grown by a factor of 22 in four years and doubling every eight months, and generated nearly half on Warner's projected \$4.2 BILLION revenue. WOW!! Information processing in the office and in the home is upon us and in the next 3 to 5 years more than half of the homes in the U.S. will have computers. Warner, with its interactive cable, will be very involved in that as will the Atari computer. Alan Kay, the chief scientist for Atari, has been given a very large budget to insure that Atari not only keeps pace with the future but sets the pace. He is building a team that will plot this course. With a deal signed with Lucasfilm, Atari not only has the right to create games based on the movies (RAIDERS and Revenge of the Jedi) but a plan to incorporate Lucasfilm's highly advanced interactive graphic capabilities into its future line of products. The technologies that will be incorporated into the next generation of Atari products are likely to include voice synthesis, artificial intelligence, interactive graphics, animation, and 3-D. Along these lines Atari has acquired most of the consumer-oriented holographic patents in the U.S. and today Kay's group is experimenting with holograms as well as alternate means of incorporating 3-D into future products.

Of an more immediate nature, I read where a bank in NY has been trying a pilot program of "banking at home". A person could do most of their normal banking from their home computer, transfer of funds, paying bills, inquiry into the balance of their account, and other common banking functions. For this program they used Atari computers! The plan worked very well and other banks across the country are going to be starting their own similar services.

Have you heard about tuning into your favorite computer station on the radio? NO? Well it is just around the corner. A pilot project was recently run in the D.C. area, where computer programs and articles were broadcast to subscribers. All you need is a radio modem. It is just like a phone modem except not limited to 300 baud and it picks up its signal from the air waves instead of a phone.

ELECTION NOTICE

As you know, at the February meeting, the A.C.U.G.D. elects new officers. It is the duty of the Executive Committee to appoint a slate of perspective candidates for this election. Other nominees from club members, can be given (in writting) to any officer before the elections. Nominations will be taken from the floor before the actual voting.

The offices are: President; Vice-President; Secretary; Treasurer; and two(2) Members-at-Large.

The current slate is as follows:

President : Gary L. Sewell
 Vice-President : Tom Schaeper
 Secretary : Susan Henderson
 Treasurer : Ed Kobus
 Member-at-Large: Jack Withrow
 Member-at-Large: Jim Chaney

NOTICE! NOTICE!

This is the last newsletter you will receive unless your dues are paid up! Be sure to send in your payment of \$16.00 before 1 February!!!!

MEETING AGENDA

1:00 TO 2:00 SALES
 2:00 TO 2:30 BUSINESS MEETING
 2:30 TO 2:45 GENERAL QUESTIONS
 2:45 TO 3:15 TECHNICAL QUESTIONS
 3:15 TO 3:45 BREAK, NEWSLETTERS AND SALES
 3:45 TO 5:00 DEMOS ETC.

ADVERTISING RATES:

Personal classified ads: FREE

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Deadline: 15th of each month

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c/o A.C.U.G.D.

ATARI COMPUTER USER GROUP of DALLAS
(A.C.U.G.D.)

...an independent user education group not affiliated with ATARI, INC. This is the official newsletter of the A.C.U.G.D. and is used for the education of its members as well as dissemination of information concerning ATARI computer products.

Subscriptions are \$16.00 per fiscal year, beginning in January and prorated each quarter. Other user groups may obtain free subscriptions with exchange of newsletters.

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