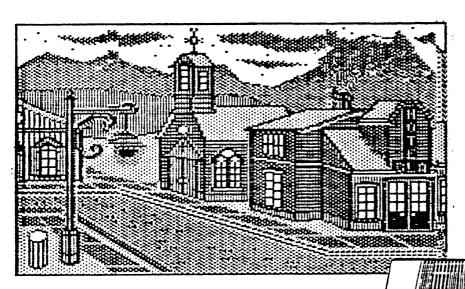


DALLAS ATARI COMPUTER ENTHUSIASTS

VOLUME 4 ISSUE 11

NOV 1983



NOTICE

NO DECEMBER MEETING....

ELECTRONIC PAINTBRUSH!

PRESIDENT'S PERSPECTIVE

ATARI USER BROUP SUPPORT

In the early days, when the computers they produced were young, Atari informed all user groups that they didn't need any help from groups in supporting their products. It didn't take them long to realize that it took more than a phone call to the toll free number to get: answers. So, about two years ago, Atari formed the USER GROUP SUPPORT (UGS) section headed by Earl Rice. We, the heads of user groups, saw this as a big step because we understood that Atari was the first to have such a section.

At first, things seemed to go well. We received some information in the way of the 400/800 Technical Manual. 26 copies of an early pre-release issue of DE RE ATARI, a source listing of the old "A" RDMs for the 499/800. and a subscription to the new ATARI CONNECTION. Things were starting to look up.

Then, the honeymoon suddenly ended. It didn't take long for the change to come. As the sale of computers increased, some user groups begin to "stand out" as perfect groups in the eyes of father Atari. At first you might ask, "was it the information that was given out, or the on-going classes, or the help in the area concerning sales of computers at local dealers?" Or you might ask, "was it the support that was given to Atari concerning their products?" NO! It didn't take Atari long to "pick" the groups it liked.

Now you ask "so what?". If Atari is suppose to have a UGS, then ALL groups should receive the same support. We, the presidents in the local states, know that information (such as demo disks/cassettes, video tapes, books, etc.) are sent to some groups and not to others. Does it seem right to withhold information from Atari users?

You might be asking "why are these SUPER GROUPS seen in such good light with Atari?" There could be many things. First, one of the favorites was the first club formed. DK, I can see where that might help. Could it be size? Ah, you say, then we should be near the top because we have over 450 members, right? Wrong! My belief, and that of others, is that these groups are YES MEN to Atari. If Atari came out with a coffee can with a data cable attached, they would inform Atari that it was the greatest thing around. Now I's sure that that gives Atari a nice warm feeling toward those groups.

To show you what I'm saying is true, a good friend of mine, who was at one time an officer of one of these groups, informed me that to get "on the good side of Atari, don't say anything bad".

Well, the purpose of our group is to inform its members. If we report a product as being good, when we know that it is bad, just to please Atari, it is doing an injustice to our members. Also, "not reporting" is just as bad.

In closing, I would like to say that what the UGS section should be doing is informing us of new updates on old products, new releases, changes, etc. To show that this is not being done, I have listed below a few things that were found out by having to call the toll free number, or from other group presidents. Mone of this information came from UGS. Come on, User Group Support, either &#I!, or get off the pot!

6TIA update BASIC Manual Undates Addendua to 496/856 Manual 499 Memory Update Demo Packages PILOT Undate Notes Christmas Disks (sent to 'certain' groups)

856 Manual 1200 Technical Notes 850 ROM Undate 1200 Translator Disks Assembler Undate Notes 1200 User Guide Lines

Happy computing.

Gary

ABOUT THE NEWSLETTER

All members are urged to submit articles, reviews, programs, or "whatever" for publication. We would like to have something for everyone in each newsletter. That goal is simply impossible if you, the members, remain silent! Please help us. Submissions will be accepted on any stable material not requiring lead protection or medical isolation! We prefer submissions on standard floppy disks (any DOS format). We will return your disk as soon as possible. REMEMBER, THIS IS YOUR NEWSLETTER! MAKE IT WHAT YOU WANT IT TO BE WITH YOUR CONTRIBUTION!

The newsletter is composed, edited, and printed by volunteers. Hardware used in composing the newsletter consists of the Atari 800 and an Epson MX-100 printer. The word processing program is WORDMAN which was developed for the Atari by Jim Chaney.

** DISCLAIMER **

The articles and advertisements contained in this newsletter reflect the opinion of the respective author. Members are encouraged to offer opposing opinions on any subject (relevant to computing) at any time.e we will not, knowingly, publish fraudulent or malicious material. The purpose of this newsletter is to present information for your consideration ... you, the reader, are the final judge on any product or advice presented.

NEWSLETTER ADVERTISEMENTS

Personal Classified ads will be published free of charge for current members. Commercial rates are \$35.88 per full page and \$25.00 for half a page. Commercial ads must be camera ready. The deadline for all ads is the 15th of the month. Mail or deliver copy to BAL-ACE Newsletter, 916 E. Berkeley, Richardson, Texas 75#81.

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It is important that we take time and space to acknowledge the services of our volunteers. We all know the officers of our club and the fine job that they do for us. But, how about the volunteers? Who are they? What do they do?

ERNIE RUNYON

In addition to serving as SYSOP (System Operator) for the club bullentin board, Ernie has volunteered his time and services to printing the Newsletter. Until Ernie stepped in, this was costing the club about \$256.66 a month (666 copies)! Now, the cost is limited to the price of the paper (less than \$86.66). MANY THANKS, ERNIE!

TABITHA SEWELL & ANN BADELL
Tabitha and Ann are the sales team for our Club Store (Disks, CP/M manuals, Disk Labels, etc.). Their efforts keep a steady cash flow headed into the club treasury! Keep up the great work, 6irls!

HARRY HAFELE
HARRY submitted last month's product review of the
Gemini-18% printer. If you are looking for a good buy
in a printer, be sure to read that article. Thanks for
sharing your experience with us, Harry.

NORN DRAPER

Norm's utility programs for converting BATA PERFECT files to the BOS format were printed last worth and they were great! Thanks, Korm! Norm is also our resident expert on PASCAL and has developed an implementation of that language for the ATARI. Call Norm (669-9485) for more information and price.

JOHN BLASCHKA

John is our club librarian and is doing a fine job with both disks and tapes. As an extra job, John volunteered to teach "Atari Basics" at the Mesquite Branch of the Dallas Public Library System. From all reports, John did a great job of introducing many people to the Atari. Many thanks, John!

[NOTE: The "Atari Basics" program is a DAL-ACE community service project in co-operation with the Dallas Public Library. This program will be expanded next month (November) to include four more library branches in Dallas.]

And a big THANKS to those that helped out with setting up for the meeting and the clean-up afterwards!! Let the Editors know about other volunteers for next month's HONDR ROLL! Sorry if I missed you in this one, catch you next month!

*** COVER ART ***

This month's Cover Art was submitted by John Henson. John used NICRO PAINTER (by DataSoft Inc.) and GRAPHIC NASTER (also by DataSoft Inc) to create and print this masterpiece in miniature. John is a Art Director for an Advertising Agency and has been programming with the ATARI for about a year and a half. John has also been a designer and actor with the Dallas Theater Center.

Submit your Cover Art work to the DAL-ACE Editors, 916 E.Berkeley, Richardson, Tx 75#81.

DUTSIDE ATARI by SANDY BADELL

INOTE: This column provides information about computer products which are offered by Atari's competitors and is intended to provide DAL-ACE members with additional knowledge to be used in making wise consumer decisions. OUTSIDE ATARI appears as a regular feature of the newsletter each month. Readers who would like to contribute information to this column are strongly encouraged to do so. Well-informed computer users are in a good position to influence Atari to continue to improve its products. This is an example of "User Power" in action, so send your suggestions to the Editors at the address which is listed on the back cover of the newsletter. I

APPLE SEEKS BIGGER PIECE OF THE PIE

Apple has recently made some serious efforts to regain its competitive position in the home computer market place. Three recent developments indicate that Apple is by no means out of the running.

For one thing, the Apple IIe is now being pushed as a home machine, and is selling for less than \$1,000.

Also, Apple has hired John Cavalier as Vice President and General Manager of its Personal Computer Systems division. Cavalier is a former President of Atari Products.

The third major development is the hiring of John Sculley as President. Sculley is the former President at PepsiCo., and brings a great deal of marketing expertise to the Apple group.

XEROX TO INTRODUCE COMMUTER COMPUTER

Xerox will shortly be announcing availability of its new portable computer with detachable drives. The portable will be carried in a briefcase which also has room for the drives. It is expected that the new portable will have special appeal to business people who are seeking a convenient way to carry work home from the office.

NEW SOCIETY FORMED TO SWEETEN THE BYTE

A computer group has recently been formed for the express purpose of helping personal computer users learn to make productive use of their computers even though there are deficiencies in the hardware and software. The group is calling itself The Lemon Byte Society, and offers assistance to users who are having difficulty getting manufacturers to support products which are not operating properly.

When the organization receives a complaint about a product, it documents the situation and contacts the manufacturer to attempt to resolve the problem. It also publishes a monthly bulletin describing the results of its efforts.

Membership in the group is available for an annual fee of \$32, and may be obtained by writing to The Lemon Byte Society, P.D. Box 55820, Miami, FL 33155

DAL-ACE

POWER UP by SAKDY BADELL

(EDITOR'S NOTE: Power Up is a regular feature in the DAL-ACE Newsletter and is included to provide information about the Public Relations activities of the club.)

USER POWER is now up and running, full steam ahead, and those of us who have been involved in implementing it are counting on everyone in the club to contribute actively and enthusiastically to its success. You'll recall from last month's meeting and newsletter that USER PDWER is our campaign to double the membership in the next six months.

This wonth we want to share some information about how this campaign drive came about because we're sure that you must be at least a little bit curious. In fact, you've probably been lying awake at night wondering who on earth would conceive of such a crazy idea, and why in the world whoever-it-was didn't sober up and forget about the whole thing.

After all, it appears that we have enough troubles as it is. As Betsy Simnacher's article puts it, "The Dallas Atari Computer Enthusiasts are in constant search of a new home." (See full story in the article entitled "DAL; ACE in the news.)

Since we always seem to be outgrowing our meeting place, it does seem strange that we are looking for more members. However, there are a number of advantages to having a large membership, and in this issue of the newsletter we want to share some of that information.

One of the reasons that we decided to launch this campaign has to do with what often takes place at the meetings of the Executive Committee. Basically, it's concerned with the financial resources of the Club. When the Executive Committee meets, the most commonly heard problem goes something like this: "Gee, if we only had more money in the treasury we could do ... X ..., "where X equals almost anything you can think of that would benefit the club.

One of the main things the Club would like to do is to be able to afford to rent a better place to hold the meetings. As you know, the Lion's Club is serving as a temporary home for us, and we're still looking for a place where there is adequate space for vendors and where our officers and members won't need to be responsible for the janitorial duties.

Also, we would like to have enough money to pay a printer for doing the newsletter, and we'd like to improve the format. Right now, in order to save money, Ernie Runyon is printing the newsletter and all we are paying for is the paper. This results in considerable savings for the club, and a lot of work for Ernie. (We all owe Ernie a huge bunch of thanks!)

Also, the club would like to become involved in some additional community service projects, but frequently this requires money, and we don't ever seem to have enough.

One of the most important reasons for having a lot of members is exactly what this column is all about—"User Power." Groups with large memberships have a great deal of influence with Atari and with software developers and dealers. We've already learned from some of our vendors that the size of the membership is what causes them to want to come to the meetings and to offer discounts. If we are able to double our membership, we'll be able to make some additional suggestions to the vendors about better ways to meet our needs.

The Michigan group has over 1200 members, and we've heard that when they speak, Atari listens. We'd like to share some of that influence as well.

Another reason for wanting more members is that we would be able to widen the range of services we provide. For example, when it comes to teaching classes, we have some excellent volunteers available at the present time, but we could offer a lot more if we had more instructors. Also, additional volunteers are always needed to help with the other activities of the club.

As you can see, there are many good reasons for increasing the size of our group, and we're counting on you to bring in lots of new members. Remember, we're giving away some good prizes, so be sure to tell our secretary when you bring a new member.



BEGINNER'S BYTES

QUESTION: What is a conitor?

- A. Night watchman in a computer factory.
- B. Electronic device that inversely coordinates the electrical power of your computer with your blood pressure and thus keeps the computer from blowing up while you are using it.
- C. A cheapo TV with only two channels, 400 and 866.
- D. Maybe one of the above, maybe not.

ANSMER: If you answered C or D, you were probably somewhere close to right. This test is so poorly written that even the teacher can't pick out the best answer. Actually, when computer freaks use the word sonitor, they usually mean the video part of your computer system, the part that you watch.

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** GAME REVIEW ** by C.P. DRADAT ***SPELUNKER***

SPELUMKER, by MicroBraphicImage, is an adventure/action game for a 48k, disk drive ATARI system. The objective is to navigate through about 3% continuous, scrolling screens of maze to reach the treasure pyramid. The maze is partitioned and barricaded by massive gates that must be unlocked by the proper, color-coded keys. Thus one must explore each partitioned area for those keys necessary to proceed.

Marning! Some of the keys needed in subsequent areas of the game must be collected in preceding areas, and one cannot back track between partitioned areas. Thus one never knows when he has collected all the keys necessary to continue unless he thoroughly explores each area.

At this point SPELBHKER may seem similar to the old ATARI VCS game "ADVENTURE", and to add to the similarity, SPELBHKER is complicated by nefarious ghosts that destroy life upon contact. Your only defense is to blow the ghost away with your electric fan. Unlike the VCS ADVENTURE, SPELBHKER contains an unlimited number of ghosts that continually haunt you as you proceed. In fact, the frequency of their haunting attacks increases as you explore deeper into the caverns. Of course, use of the electric fan seriously depletes your battery (mere existence uses the battery also) such that you must constantly search for recharging stations (which vanish permanently once used).

Considering that SPELBHKER is at least 10 times bigger than ADVENTURE, the game would be well worthwhile. But, we haven't scratched the surface.

SPELUHKER is complicated by the fact that our entrepid explorer must continually jump abysmal crevices, boiling hot laval rocks and steaming fissures. These jumps require careful timing, and sometimes our explorer must jump on to a moving conveyor or a dangling rope. Frequently, his way is bared by a pile of lava rocks which must be blasted away by dynamite which must be collected along the way. Sometimes the lava rocks, or other obstacles, are guarded by an erie bat, which drops death-dealing dung onto our explorer's head. The bat can only be driven away (temporarily) by shooting a flare into the air. Of course, flares must be collected along the way along with dynamite, keys and recharging stations. If survival seems difficult, you've got the idea. But, don't despair! Extra lives may be obtained by collecting magic dust! In addition to these artifacts, various forms of seemingly superfluous treasure can be collected for points. (But, is that treasure really superfluous?)

Each area of SPELUKKER centers around a highly entertaining, special-action device. For example, the cavern of the Falls requires the explorer to navigate an animated water fall. In my opinion, the best animation is in the cavern of the Shaft where the explorer must jump on to, ride, jump off of and survive a "Jorney To The Center Of The Earth" type boat ride on an errupting volcano! I've had SPELUKKER for about seven weeks at this time, and I've played it almost nightly, usually

several times each night. I finally finished the adventure, and I accumulated about 550,000 points when I finished. It would probably be possible to accumulate 501 more points and not finish!

SPELUMBER features high resolution graphics, color, sound and animation integrally woven with purpose (rather than distraction). This game is destined to become a best seller and a must for any serious ATARI enthusiasts.

AN OPPOSING VIEW to "User Power" By Dave Billen

I wish to take issue with an article printed in the October, 1983 issue of DAL-ACE. The article was entitled "Power Up With User Power".

The main gist of the article was a recruitment drive that the DAL-ACE User Group will be sponsoring over the next six months. At this point in time, I feel that such a drive would not benefit the existing DAL-ACE membership, nor would it do justice to any "vast numbers" of people that it would attract.

Lets look at it this way folks, I think we're presently pushing our resources to the limit and any SIGNIFICANT increase in the membership may make this User Group a thing to avoid!

For example, let's take a look at our meeting place. At this point, it's not too bad. Consider how long it took to find it. Could it support a doubling of the User Group membership? I don't think so. Could a place with the expanded capacity be located in a reasonable time? I seriously doubt it.

How about our classes? We don't have enough teachers right now to support the demand. If we suddenly double the membership with folks looking to learn, not to teach, where will we find the extra instructors?

With regard to the added "power" that a larger group might wield, I am very skeptical. As a body of over 450 organized, informed buyers, what have we been able to steer Atari to do? From my vantage point as "just a user", it appears as if Atari has taken little heed to anything we say, barely answering our telephone calls, and seldom acknowledging their problems.

Now, perhaps I am being a bit negative. Personally, I think that we should concentrate on quality and not quantity at this point in our growth. I laud the efforts of our officers and the sung (and unsung) volunteers. But can they (or their successors) handle such a large crowd? Do they really want to?

I offer this opposite 'viewpoint so that we don't rush off into something that may harm us for the long-term.

Besides, if we're really any good, people will come looking for us. We won't have to go looking for them.

THE UTILITY ROOM: Iowercase to UPPERCASE Conversion By DAVE BILLEN

Welcome to my Utility Room. In your utility room at home, you find tools and appliances to keep your house working. In mine, I hope to present routines and programs that you may use as tools for your Atari. Today's tool is, "lowercase to UPPERCASE Conversion". I often use both cases when I write or enter text on my Atari. Unfortunately, many of the programs expect only uppercase letters. They become confused when I press the CAPS/LOWR key. Well, I finally got tired of having to spoon-feed uppercase letters to my programs, so I wrote an assembly language routine to convert between cases.

BASIC programmers fear not! Although the routine was written in 6522 assembly language, it was really meant to be used as a USR function in BASIC.

Let me briefly describe it for you. You may skip the next few paragraphs if you prefer not to know about the details. Anyway, being a USR function requires that you process the arguments passed on the 65\$2 stack. Failing to do so or doing a poor job will cause your Atari to lock up.

On entry to this routine (Listing #1, lines #866-1166) we remove from the stack the information passed by the USR function. If for some reason there aren't two parameters, we quickly run away! Lines 1126-1568 are the meat of the routine. Here each character is extracted from the string. Should the character lie between "a" and "z" then we convert it to an uppercase letter by subtracting the constant 32 (28 in hexadecimal).

"Why 32?", you ask. Well, if you whip out your trusty BASIC Reference Manual and turn to page C-2 (in the Appendix), you will see that the capital letters "A" through "I" are represented by the values 65 through 96. The small letters are 97 to 122. The difference? Why 32!

The final parts of the routine are for cleanup (1586-1766) and error handling (1726-2646). Under normal conditions, zero is returned. If a number greater than zero is returned, the wrong number of arguments were sent. Better go back and see that the USR function looks like the "Calling Sequence" model.

For those of you that skipped the mechanics of the routine, here is where you come in. Listing \$2 is a segment of BASIC code that builds a USR function in the string BASICUC\$. You should type this code in and then LIST it to a file. I use BASICUC.BSC for the filename (the command would be: LIST*D:BASICUC.BSC*).

To use this segment, you should write your own code and then ENTER BASICUC.BSC from disk (the command would be: ENTER"D:BASICUC.BSC"). Be sure not to use the line numbers that BASICUC.BSC uses, because they will be trampled by the ENTER command.

Your program should first do a GOSUB BASICUCSETUP to set, up BASICUC\$. Then use the USR function to invoke BASICUC\$. The ADR of your string with lowercase letters should be the second argument. The LEN of that same string should be the third argument. The uppercase letters will be placed back in the string. Check out Listing \$3 for an example of how to use this tool.

For those of you that hate typing in all of those little numbers (I know you're out there), these routines will appear in the club library sometime in the near future.

```
Listing #1:
#199 .TITLE BASICUC (#2Mar83,21:39)*
6126 ;
             BASICUC
6146 ;
#16# ;
$188 ; Takes a string of letters, converting the lowerca
#200; letters to uppercase letters.
6226 ;
6366 i
$320 ; Calling sequence:
#34# ; status = USR(ADR(BASICUC$), ADR(STRING$), LEM(STRI
NG$}}
$36$ ;
#38# : Parameters:
$496; status, Result of BASICUC:
6426 ;
         4. successful return
         <># insufficient parameters, value is the numb
6449 ;
er sent
$460; ADR(BASICUC$), Address of this routine
$486; ADR(STRINGS), The address of the string
$586; LEN(STRINGS), The size of the string to be conve
rted.
€52€ ;
         Range from # to 255.
$540 ;
#560; Expected stack ordering:
$588 ; (number of arguments passed)
$688; (address of string (HL order))
6626; (length of string (HL order))
$645; (return address (LH order))
$665 ;
$688 STRING=$86CB
                      ¡Easy pointer
5756 FR6=$66D4
                      BASIC rtn val
$728 ;
5748 t=$9668
                      ;Asm to page 6
676# BASICUC=+
6786 :
$856 ;... Determine if the caller really sent us any par
ameters.
9829 PLA
                      iNbr of parms
#84# BEQ UCENDSTR ; No work to do!
6846 :
$888 j... Are there enough?
9988 CMP #$62
                      ; Must be two.
8928 BNE UCERROR
                      ; Nope.
£94£ ;
$968 ;... Remove values from stack.
€986 PLA
```

```
1998 STA STRING+$61 ; High byte of string addr
 1929 PLA
 1848 STA STRING
                     ;Low byte of string addr
 1868 PLA
                     Blow away the high byte of the siz
 1686 PLA
                     ;Low byte of string length
 1166 BEQ UCENDSTR ; length string, no need to bother
 here
 1126 TAX
1146 ;
 1168 LDY #$66
 1186 ;
 1200 ;... Loop for the number of bytes in the string.
 122# UCNXTBYT=#
1248 LDA (STRING), Y ; Use this byte
 126# CMP #'a'
                     ;??? (a
128# BCC UC1
                     j ... yes
1366 ;
1328 CMP #'z'+$61 ;??? >z
1348 BCS UC1
                     j ... yes
1368;
1380 ;... Convert to uppercase.
1499 SEC
1429 SBC #$26
1449 STA (STRING), Y ; Replace in string
1468 ;
1486 :... Next byte please
1506 UC1=±
1528 INY
154# DEX
1568 BME UCHXTBYT ; Set another
1586 ;
1699 ;... All done
1628 UCENDSTR=+
1648 LDA 4$88
                    ;Flag indicating result is successf
ul.
1668 STA FRE
1688 STA FR8+$81
1788 RTS
1720 :
1748 ;... Error occurred. Exit, returning a status not
equal to f.
1768 ;... The value is the number of parameters passed.
1786 UCERROR=+
1888 STA FRE
1820 ;... Throw away the junk left on the stack.
1848 ;... Drop A=2 values from the stack.
1868 ASL A
                    fMultiply by 2
188# TAY
1988 UCERDROP=#
1926 PLA
1946 DEY
1968 BNE UCERDROP ; Drop another
1989 ;
2666 LDA $$66
2626 STA FRE+$61
                   High order is #
2646 RTS
```

2668 .END

Listing #2:

161 REM BASICUC (16Aug83) 121 REM This is commonly usable code to .. convert a string containing lowercase 141 REM characters to a string containing only uppercase characters. 161 REM 181 REM This routine consists of two parts: 261 REM 1. BASICUCSETUP which loads a string with the machine code USR 221 REM function. This must be called only once. 241 REM 2. A USR function string that perfores the conversion. This eav 251 REM be called several times. 261 REM 281 REM Calling sequences: 381 REM For part 1. 321 REM GOSUB BASICUCSETUP 341 REM For part 2, 361 REM status 361 REM status = USR(ADR(BASICUC\$). ADR(string\$), LEN(string\$)) 381 REH 461 REM Parameters: 421 REM BASICUCSETUP, variable set to value of 31996 441 REM status, any variable to receive the status result of the function 461 REM The value of status may be: 481 REM 5, if routine is successful 5#1 REM (>#, if an error occurred 521 REM BASICUC\$, string containing the USR function. Setup by BASICUCSETUP. 541 REM string\$, any string to convert 561 REM 641 REM 661 REM 761 BASICUCSETUP=31666 31999 REM (BASICUCSETUP) Sets up BASICUC \$ for later calling. 31#2# DIK BASICUC\$ (59) 31949 RESTORE 31198 31666 FOR II=1 TO 59: READ BYTE: IF BYTE=9 99 THEN RETURN 31986 BASICUC\$(I1)=CHR\$(BYTE); NEXT I1:RE 31160 DATA 164,249,36,281,2,268,39,164,1 33,284,184,133,283,184,184,248,22,178 31129 DATA 169,8,177,2#3,281,97,144,9,28 1,122,176,5,56,233,32,145,293,298 31148 DATA 262,268,237,169,6,133,212,133 ,213,96 3116# DATA 133,212,18,168,184,136,288,25 2,169,5,133,213,96,999

Listing #3: 166 REM BASICUCTEST (69Aug83) 1666 REM 1526 REM A sample program to show the use of BASICUC, a lowercase to 1646 REM uppercase function. 1968 REM 1989 REM Type this in exactly as shown, then do an 1166 REM ENTER "D:BASICUC.BSC" 1126 REM 1148 DIH A\$ (48) 1166 REM 1186 REM Now, setup the USR function. 1266 REM 1300 GOSUB BASICUCSETUP 1326 REH 1340 REM Build us a string with lowercase letters. 1499 As="A string with lowercase letters 1420 REM 1440 REM Keep us honest 1469 REM 1566 ?AS 1526 REM 1540 REM Convert to UPPERCASE with our function 1568 REM 1688 STAT = USR(ADR(BASICUC\$), ADR(A\$), LE 1628 IF STAT<>8 THEN ?"BASICUC failure, status returned was ":STAT 1640 REM 1668 REM And now for the results 1689 REM 1766 ?AS 1726 END

** PRODUCT REVIEW ** by STEVE SMEGNER *** ACTION CARTRIDGE ***

ACTION is a new language from DSS Precision Software. The language codes in a 'supercartridge'. This single cartridge contains a monitor, screen editor, compiler, and runtime support package. By using the companys new DOS/KL, the two work together by placing the DOS in RGM undermeath the ACTION cartridge. DOS is then always available from the cartridge and doesn't need to be reloaded each time it is accessed. The cartridge is a nice concept and provides more useable RGM memory than the EGSIC - DOS combination.

The ACTION language is quite an improvement on BASIC and would rival most languages currently available for the ATARI. The language is structured and has rost of the features found in PASCAL and 'C'. The compiled code executes very fast and things impossible with BASIC due to speed are now possible.

The language was not difficult to learn but familiarity with PRSCAL or 'C' is definitely a help. Programmers accustomed only to BMSIC might find it somewhat difficult to convert to a structured language but this language has all the functions currently available to the BMSIC user.

ACTION supports many fundamental data types. There are four types of constants in ACTION. These include hexadecimal, decimal, character, and strings. Variables can be of the type byte, integer, or cardinal(unsigned integer). There are also some advanced forms of these types like arrays, pointers, and records. Variables declarations accept initializers and variables can be fixed in memory at any location. This is very useful when you want a variable to point to a hardware register or somewhere in the base page.

ACTION supports most operators. Arithmetic operators supported are add, subtract, multiply, divide, and codulus. Bitwise operators include and, or, exclusive or, left shift, right shift, and the 'address of' function. Relational operators are =, # or (),),)=, (, <=, ARD, DR.

Most of the basic structured statements are also included. These statements include IF-THEN-ELSE-ELSEIF, loops, EXII, FOR-TO-STEP, MHILE, and DO-UNTIL.

Procedures and functions are supported but disappointingly they are nonrecursive. OSS made them nonrecursive for high speed and very compact code. It would have been nice to have had a compiler switch to select either recursive or nonrecursive. Procedures and functions can be passed parameters and functions can return any defined data type. Byte, integer, cardinal, and pointer types are passed by value but records, and arrays are passed by reference only using pointers. Another small restriction is that function calls may not be used anywhere within a statement when that statement is used as a parameter in a routine call.

The compiler accepts 3 different directives. These are similar to the ones found in 'C'. They include DEFINE, INCLUDE, and SET. Define performs text substitution during the compile operation, include allows inclusion of text files during compilation and set allows memory to be altered during compilation. The set function does nothing during execution.

The compiler does not insert code for overflow, underflow, bounds checking or type compatibility. The compiler does perform type conversion in arithmetic statements. This is also similar to the language 'C'.

The language includes a set of functions similar to the ones that BRSIC supports. The supported functions include formatted I/D, files, note, point, setcolor, color, plot, drawto, fill, position, locate, sound, paddle, ptrig, stick, strig, string handling functions, peek, poke, block moves, error traps, and random numbers. DSS is also about to release a programmers aid disk but details are currently unavailable. Information from inside sources indicate that it will contain support for player/missile graphics and other advanced concepts.

Overall, the language and compiler gets a very high rating. I would recommend it for programming anything from business or text type applications and for games including arcade graphics style. The first release of the cartridge is in EPROMS and OSS promises to update EPROM users to the ROM version when it becomes available. The ROM version will include bug fixes and enhancements. Latest information from OSS states that all shipments after October 17 will be the new ROM version.

BENCHMARKS

To get some feel for the speed and performance of the new ACTION language, I ran some benchmarks. The routine selected is the well known and documented SIEVE. I started with the SIEVE routine as published in AUGUST 1933 BYTE magazine. The original routine was written in 'C' and was very easy to translate to ACTION. I then translated the same routine into ATARI BRSIC. The SIEVE benchmark primarily tests the compilers ability to perform loops, index arrays and handle variables. The results were very startling.

BYTE mapazine tested the sieve program on various 'C' compilers on both a. Ambz Z-86 CP/M machine and 10mbz 8005 generic machines. Five different 'C' compilers were tested on the Z-80 and six compilers on the 6005. The Z-80 compilers used were Whitesaiths, C/80, Aztec, BDS and Telecon. The compile times from disk ranged from 30 to 423 seconds and the execution times ranged from 60 to 87 seconds. The 800% compilers tested were Lattice, Mark DeSmet, Digital Research, Mark Williams, Computer Inovations, and Supersoft. The compile times from memory ranged from 3 to 8 seconds, compile from disk ranged from 20 to 32 seconds. Execution time ranged from 3.6 to 12 seconds. See listing 1 for the C language routine.

The next step taken was to test a similar routine in ATARI BASIC. The translated routine is shown in listing 2. It was not difficult to translate the program but one major stumbling block emerged. The C routine uses a number array from 8 to 8193 in size. BASIC only supports a maximum number array size of 5468. I ran the listed benchmark at a size of 5468. There was no compile time involved but the execution time was terrible(as was expected). It took the BASIC routine 1378 seconds to complete the sieve.

Since I am relatively new to the ATARI machine I wasn't sure how the 6502 really compared to the Z-80 world to which I was accustomed. I proceeded to the ACTION translation not expected miracles. The translation of the sieve routine is shown in listing 3 and was very easy to translate to ACTION. The compile time from memory was less than one second. I didn't have time to really punch the start—stop button on my stopwatch in time. The execution time was first measured with an array size if 8193 to match the BYTE benchmarks. I was completely amazed when it took only 22.5 seconds. That was approximately 1/3 the average benchmark on a 4mhz I-60. I then ran it again with an array size, of 5460 to match BOSIC and the execution time was only 15.0 seconds. This was approximately 1% of the time BOSIC took.

I now had new respect for the speed of the ATARI. Many of the sample routines listed in the RCTION manual deconstrate the power of RCTION. One of the most dramatic is the routine that paints a rainbow on the screen by changing the display list. Note that it doesn't use display list interrupts. Using only a loop in the program, it manages to cleanly change the display list 8 times per frame.

```
LISTING 1: BYTE benchmark in "C"
#define SIZE
                B198
#define FALSE 8
#define TRUE
Adefine NTIMES 18
              .. flag[SIZE+1];
main()
                 i, j, k, count, prime;
        printf("18 Iterations: "):
        for(i=8; i(=\TIMES; i++) {
                count=3:
                for(j=8; j(=SIZE; j++) flap[j)=TRIE;
                for()=0; )(=SIZE; )++) {
                         if(flag())=TRLE) {
                                 prime=1+1+3:
                                 for(k=j+prime; k(=SIZE; k+=prime)
                                         flag(k)=FALSE;
                                 count++:
        printf("%d primes. \n", count);
        exit(0);
LISTING 2: ATARI BASIC routine
18 DIN FLAC (5468)
28 PRINT "18 ITERATIONS: ";
38 FOR I=1 TO 18
48 DOUNT=8
58 FOR J=1 TD 5468
68 FLAG(J)=1
88 FDR J=1 TD 5468
98 IF FLAG(J) () 1 THEN 158
180 PRIME=J+J+3
110 FOR K=J+PRIME TO 5460 STEP PRIME
128 FLRS(K)=8
138 NEXT K
148 COUNT=COUNT+1
158 KEXT J
160 NEXT I
178 PRINT COUNT, " PRINES."
```

DAL-ACE

PAGE 10

CONTINUED FROM PRECEDING PAGE

LISTING 3: ACTION translation

```
DEFINE SIZE="8198"
DEFINE FALSE="8"
DEFINE TRUE="1"
DEFINE NTINES="18"
BYTE ARRAY flag(SIZE+1)
proc main()
int i, j, k, count, prime
       print("18 iterations: ")
      for i=1 to NTIMES
               count=8
               for j=8 to SIZE
                 do
                        flag(j)=TRLE
                 od
               for j=8 to SIZE
                        if flag(j)=TRUE then
                                prime=1+1+3
                                for k=1+prime to SIZE step prime
```

flag(k)=FALSE œ

count =+1

fi

ad

printi(count) printe(" primes.")

RETURN

ACTION EDITOR

The ACTION built in editor is one of the best general purpose editors I have seen on the ATARI. The ACTION editor is a screen editor that will edit any text regardless if it is an ACTION propram or not.

The editor uses the standard ATARI cursor and function keys. Special functions are invoked by using the control and shift keys together. Some of the functions include-

- TEXT WINDOWS- The screen can be used as one or two windows. Each with its own independent cursor and each can be used to edit a different file simultaneously or edit two places in the same file.
- TEXT LINES- Each text line can be up to 248 characters in length but only 38 of them are shown on the screen. The editor also allows blanks lines for seperating text or adding in white space. Lines may be deleted, inserted, combined or split. Lines may be recovered from the delete buffer if they are accidently deleted.
- FIND and SUBSTITUTE- The editor will allow you to search for a given string and optionally replace it when found with another string.

- MOVING or PASTING BLOCKS- Blocks can be easily copied or moved anywhere within the file.
- TASSING- There is virtually an unlimited number of tags that can be placed in the text. The only limitation is that they. are single keystroke tags therefore you are limited to the number of differnt ATARI keyboard characters. You can instantly return to the location of any tag by using the find command.
- SCROLLING- The cursor can be scrolled horizontally and vertically anywhere on the screen. Riso, the text window can be scrolled horizontally or vertically. Individual lines may also be scrolled horizontally without scrolling the whole screen. When editing single lines longer than 38 characters, the single line scrolls to the left to access the characters off the screen. When poving the cursor off this line it immediatly returns the line to the proper nustification.
- TABS- Tabs may be set at any point. This is similar to typewriter operation.
- INSERT MODE- The editor may be operated in either insert or replace mode.

Data may be read from or written to any ATARI device. If using a disk, directories are available in the editor without going to

ACTION MONITOR

The ACTION monitor is the bridge between the different modes of the cartridge. They are easily accessed with single letter commands. The monitor is accessed by using the ctrl-shift-H at any time.

- (C)cepile- This invokes the ACTION compiler. This function will compile programs that are resident in memory or from any ATARI device. The compiled code is left in memory ready for immediate execution or for saving to any ATARI storage device.
- (D)os- Takes you to DOS.
- (E)dit- Will return you to the editor. Any text is preserved in the editor.
- (D) ptions- This command allows you to change some of the operating parameters of the cartridge.
 - # DISMLAY- The display can be turned off for faster I/D and faster compiles.
 - # BOLL- The bell may be disabled. The bell usually indicates errors.

(CONTINUED FROM PAGE 16)

- * CRSE- This allows a distinction to be made between upper and lower case letters by the compiler.
- TRACE- This enables the trace function during program execution.
- LIST-This will list the program as it is being compiled.
- WINDOW SIZE- Allows you to define the size of the windows if multiple windows are used in the editor.
- # LINE SIZE- Sets the line length for sending text to the printer. Lines too long are truncated.
- * LEFT MARSIN- Sets the left margin in the editor.
- * EDL- Allows a character other than EDL to be used by the editor and compiler. Useful in editing text other than ATARI generated text.
- RUN- This will run a program already compiled and in memory or can optionally be used to execute from disk, tape, at any address, or execute by procedure or function name.
- SET- Sets musory to specified values.
- White- Used to save compiled programs.
- EXECUTE- This is very similar to the BMSIC direct mode. It can be used to execute ACTION commands in the immediate mode.
- ? Used to display memory locations one at a time.
- # This is a memory dump of multiple locations.

DAL-ACE OFFICERS OVERWHELMED BY RESPONSE TO CALL FOR BRAIN POWER

At the October meeting, a plan for providing a crew of volunteers to help answer user-questions was described, and the Executive Committee asked for DAL-ACE members to sign up to be a part of the "Ask the Experts" Committee.

Response to that request was terrific. Twenty-six people volunteered to share their expertise, and the Executive Committee is tremendously appreciative. Everyone on the Committee is aware that we have lots of know-how in the group, and the officers are extremely pleased to learn that people are SO willing to share their expertise with others.

Originally, the plan was to have a new set of volunteers each month or two, but these plans have been changed due to the fact that so many people have agreed to help out. Instead, we will publish the entire list in the newsletter each month, and will revise the list as circumstances change.

Members who have volunteered to serve will find their names listed on a repeating basis, unless they request to have their names removed. Anyone who would like to be added to the list will be welcomed with open arms. Please let one of the editors know about your interest.

Recently we have noticed a special need for people who have expertise concerning the ATR8888 and CP/M. Please talk to the editors if you are knowledgeable in these areas and would like to help out. (This includes people who are already listed below, as well as newcomers. We will try to identify these people more specifically in the next issue of the Newsletter.)

HOW TO USE THE "ASK THE EXPERTS" LIST

Select a name from the list below. In order to somewhat equitably distribute the workload, we suggest that you select the name that is closest in the alphabet to yours. You will notice that each listing includes a letter in parentheses, either a B or an I. The letter B indicates that the volunteer is willing to help users at the Beginning level, and the letter I indicates help for users at the Intermediate level.

Most of these people work during the day, so we suggest calling during the evening. Also, please don't call after 9:00 p.a. unless you have already made such an arrangement with one of the volunteers.

DAL-ACE RESOURCE EXPERTS

Bailey, Bill. 271-4784. (B) Chan, David. 495-8267. (B) Clarke, Tim. 968-7372. (B) Davis, Bo. 278-5544. (I) Dunayer, Adam. 688-9818. (I) Gillen, Dave. 245-2732, (I) Greenlee, Rich. 267-7428. (B). Hafele, Harry. 348-7745. (I) Maxham, Mark. 238-5949. (B) Mullens, Dow. 272-3664. (B). Newell, Wes. 423-1781. (I) Oradat, Cecil. 698-3155. (I). Parker, Travis. 846-9586. (B) Penn, Tandy. 276-8796. (I) Pennington, Jerry. 223-8132. (B) Rabinek, Ton. 681-2289. (I). Runyon, Ernie. (817) 485-\$871. (1). Rush, Jeff. 661-1289. (I). Sadow, Phil. 644-3325. (I). Sagor, Fred. 424-8291. (I) Scott, Ron. 436-\$297. (B) Sladecek, Joe. 276-1443. (B) Taylor, Frank. 242-459B. (B) Wiant, Jim. 696-4188. (I) Williams, Edmund. 341-9297. (I)

Zegub, Tos. 234-1956. (B)

DAL-ACE IN THE NEWS by Sandy Gadell

DAL-ACE received a considerable amount of good publicity from the press this past month. Articles about the activities of the Club were featured twice in the Ballas Morning Hens. The Club would especially like to thank Betsy Simnacher for the article which appeared in the October 18th issue. Betsy made two visits to the club as a part of her research for the article, and also brought a photographer to take pictures of the Club in action. Betsy's article is discussed in detail below.

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The October 3rd edition of the Ballas Norping news featured a story about the use of computers in the Dallas Public Libraries and mentioned that DAL-ACE members will be involved in teaching beginning courses at several branches. The article was included in the Discovery section, and discussed the way in which libraries are now viewing themselves as information handlers, not just as lenders of books.

The central library has had three computers for about six months, and librarians have been observing users to see what kinds of needs the computers are meeting. The computer resources at the central library consist of one Atari 486 and two Texas Instruments 99/4As. Apparently the only instruction that is taking place is that which is being provided by DAL-ACE members.

Margaret Warren, who directs the library program, has been coordinating the development of the courses through DAL-ACE officers Gary Sewell and Jim Chaney. At the present time, most users want instruction at a very introductory level. Additional volunteers are needed for future classes, and DAL-ACE members are encouraged to contact Gary or Jim to help out with this program.

All DAL-ACE members should take a great deal of pride in the club's initiative in getting this project up and running. This is the kind of thing we should all be getting involved in — it's good for the community, good for the club, and also good for Atari because of the potential for attracting new customers.

.

The Dallas Morning Hems devoted nearly half a page to describing the DAL-ACE club in the October 16 issue. This article, like the one described above, also appeared in the Discovery section. It was titled "ATARI GROUP BURSTS AT SEAMS: EXPANDING DAL-ACE SEEKS TO DOUBLE ITS MEMBERSHIP.

The article described the rapid growth of the club, and compared DAL-ACE to a nomadic tribe in constant search of a new home. It also described a typical meeting, and included some information about some of the members who have become vendors, including Chris Magid, Bill Bookout, Jack Withrow, and Rob LaMaster.

Also featured in the article were discussions of the DAL-ACE classes, our work with the library, and our upcoming Toys for Tots Benefit Computer Fair.

DAL-ACE THANKS MCP

DAL-ACE would like to take this opportunity to thank the folks at Metropolitan Computer Products for the excellent support which they have been providing the group. MCP always attends the meetings as a vendor, and places a full page ad in the Newsletter each month. Their financial support to the group has helped to make possible the expansion of the Newsletter into a much larger publication.

Metropolitan Computer Products is located in Plano at B#1 Avenue K. Although the store is not in a strip shopping center, as many other computer stores are, this apparently has not caused any problems for people who are seeking some good buys on computer hardware and software.

The store carries a full range of products, and seems to do an especially good business selling utility programs.

Officers of the MCP Corporation are Lee Kaplan, President, and Arthur Morgenstern, Vice President. Lee is a highly respected business woman in Plano and is active on the Chamber of Commerce. Arthur is quite knowledgeable concerning computer products, especially hardware, and has been very helpful in providing support to people who have purchased the ATR 8000.

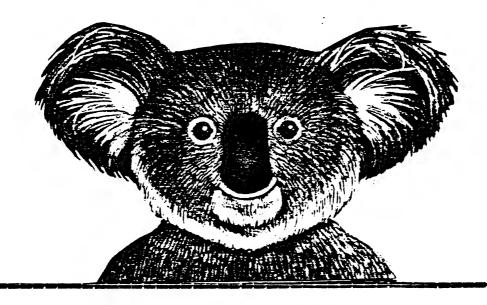
MCP may be reached by taking Central Expressway to Plano, and exiting at Plano Parkway. Go west on Plano Parkway, and then turn left at the first light. You will soon see the MCP store in a business strip on your left.

IEditor's note: it is editorial policy to give special recognition to vendors who have been unusually supportive of the efforts of the group. If you know of others who have been helpful in this way, please provide the appropriate information to the editors.]

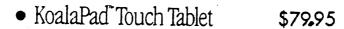
BEGINNER'S BYTES QUESTION: What does the break key do?

- A. The break key is an energy-saving device. If you get and at your computer, you don't have to jump up and down on it, and you don't have to set off a lot of explosives. Just push the break key and the computer will self-destruct.
- B. Atari installed the break key at the request of a militant group of spouses who insisted on having something they could push to remind their computer-freak marital partners that there really is life outside of the computer room.

AMSWER: On this test, you are wrong no matter what you do. We included it to remind you that in the real world there are actually very few right answers. The break key is a neat little device that allows you to stop a program that is running. It then returns control of the system to you. If you want to make a lot of money, you should invent a break key that works in real life. When you push it, it will stop the program that is running, and return control of your life to its rightful owner.



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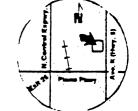


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HOW TO USE THE ARMUDIC CENTRAL COMMUNICATOR

by ERNIE RUNYON

A. Introduction for the Remote User.
To prepare for communication with an ARMUDIC Central Communicator, set your terminal parameters as follows:
Translation mode--light;
Duplex--full;

Send parity--none;

Receive parity--mark (ignore);

Stop bits-one; Baud rate-366.

After setting these parameters, call BAL-A.C.E. (498-1751) and sign on according to its instructions. The Main Menu will then display the options available to you. It is presented the first time in its full descriptive form, with a sentence describing each option. Thereafter, ARNUBIC displays only the initial letters of the Main Menu. Press (RETURN) or "?" (or any invalid Menu option) to display the full Menu at that time.

After you complete sign-on, press just (RETURN) in response to any ARMUDIC request for input to return to the Main Menu. (Exceptions are specifically noted during operation.) If you don't answer in a minute to an ARMUDIC question, ARMUDIC will say good-by and hang up.

B. User-to-User Messages.

- 1. BROWSE. There may be several user-message files (UMFs) available on ARNUBIC. The name of the currently active UMF is displayed on the same line as the time, preceeding the Main Menu display. To list the names and a brief description of the other user-message files, select Main Menu option "B". Activate any of the listed files by entering the associated number. The remainder of this Section describes the options available for use with each file.
- 2. POST. To send a user-to-user message, select Main Menu option "P". ARNUBIC will ask you to enter the addressee of the message, and then offer you two options: 1) to lock the message with a password so only a user knowing the password can read it, and 2) to establish a password with which the message can be deleted. If you select either option, you will then be asked for a three-letter password. In any event, the next requests will be for the message title and text. Indicate the end of the message by two successive (RETURN)s. ARNUBIC will then display the message to you as it would be sent, and will give you the choice of either sending the message, redoing it, or cancelling it.
- 3. ENTER. To read the user-to-user messages, select Main Menu option "E". ARMUDIC will present you with a series of choices. Pressing "S" or "R" in response will display the full headings or full headings and text respectively, of all messages beginning with the most recent entry. Alternatively, entering a digit from 1 to B (as indicated) will specify the message elements you want displayed. If you pick this option, you will be given the option of reading forward or backward or picking specific messages (or headings) to read, and then asked which message number to begin with.

You can return to the Main Menu at any time while ARMUDIC is displaying user messages or headings (or other files, as indicated in C1 and E, below) by pressing "Control-C". ARMUDIC will pause if you press "Control-S", and re-start when you press "Control-Q".

- 4. KILL. You can erase messages for which you know the erasure password by selecting Main Menu option "K". After you indicate the number of the message you want erased, ARNUDIC will display the time and date the message was sent, and its addressee and sender. You will then be asked to enter the three-letter erasure password established when the message was sent. If you correctly enter the password, the message will then be erased.
- C. Sending and Receiving Files on the Download Menu.

 1. RECEPTION (Download). To select the Download Menu option, select Main Menu option "D". There may be more than one group of download files; if so, after selecting "D" you will be shown a listing of available download file groups and asked to select one. After making that selection, to then download any listed file, enter the number preceding its name. Any file name preceded by an "a" contains inverse-video characters and can be successfully downloaded only with a terminal set up to receive in "ATASCII" (no-translation) mode. Other files must be downloaded in light-translation mode.

When ARMUDIC is ready to send the selected file, it will send "Hit (RETURN) to begin download". If you want to store the file, set up your system at this time to save received text. (Note: The ATARI Telelink I cartridge cannot save files to disk or cassette. Use another terminal program if you wish to save downloaded files.) When you have done this, press (RETURN) and the download process will begin. During download, you can use Control-S, -Q and -C (as described in B.2, above) to pause, restart, and terminate the download. When download is complete, store the file to disk under a convenient name or to a cassette, according to your terminal program's instructions.

To run a downloaded program, sign off ARMUBIC, type NEW, and use the BASIC ENTER command to get the program into the computer's memory. Error messages may appear as the program ENTERs. If the text shown with an error message is not a numbered BASIC program line, the error probably indicates that material was stored on your disk or cassette in addition to the program. BASIC will ignore such material, and so can you. RUN the program at this time. If the program RUNs successfully, SAVE (or CSAVE) it to disk or to cassette, using either the original file name or tape (to overwrite the LISTed version of the program) or a new file name or tape (to keep both the LISTed and SAVEd versions).

2. TRANSMISSION (Upload). You can upload either programs or other files to make them available on a Download Menu. Since the garbling in transmission of a single character in a SAVEd program can make it totally inaccessible, programs to be uploaded should be in LISTed form. To put a program into this form, type NEW

and then LOAD (or CLOAD) the program into the computer. Then LIST the program to a new cassette or to the disk under a new name. Since many terminal programs do not have the "ATASCII" mode needed to receive inverse-video characters, if at all possible prepare the program so that it does not contain inverse-video characters. Place machine language code segments in DATA statements rather than strings, for example.

If your terminal program can upload only from memory, before calling ARNUBIC follow your terminal program's instructions to load from disk or cassette into memory the program or other file you want to upload. After signing onto ARNUDIC, select Main Menu option "U". ARNUBIC will then tell you the maximum file length you can upload, which will be the smaller of its available. internal memory and the memory remaining on the Download file disk after allowing for possible user-message file: growth. On request, indicate the name (an upper-case letter followed by up to seven numbers or upper case letters) under which you want the file to be listed on the Download Menu, and whether you want the program to be available to everyone, only to those knowing the club password, or only to SYSOP.

To upload a program that contains critical inverse-video text, so inform ARMUDIC when asked, and set your terminal program to "ATASCII" (no-translation) mode when you are so instructed. In any event, when ARNUBIC tells you to begin, start sending your program promptly; if you don't start within one minute ARMUBIC will terminate the upload. After you begin, ARMUDIC will assume a pause of 15 seconds to indicate that you have finished, and will begin the process of storing your program to its Download file disk.

If your file was longer than the buffer or disk space available, you will be told, and provided the last few lines of text accepted by ARMUDIC. If more disk space is available, upload the rest of the file in a separate upload. If "Upload save error" is reported, it means that ARMUBIC failed in its attempt to save your programprogram-- probably because of a bad disk. The message will also be sent to SYSOP's log.

D. Leaving a Message for SYSOP.

To leave a message on SYSDP's printer, if the ARMUDIC system you have called has one, select Main Menu option "L". After selecting "L", enter the message, ending with two (RETURN)s. This will send the message to SYSOP's printer and return you to the Menu.

E. Other Menu Options.

Menu option "6" signs you off ARKUBIC. Other Main Menu options may specify information files that ARMUDIC can send to you. During receipt of these files, use Control-S, -0, and -C (as explained in B2 above) to pause, restart, and terminate receipt of the file.

F. Password Access.

Password holders can gain access to password-protected files and programs by entering your member number, ex. \$123. Hit return, then enter your three letter password. ARMUDIC will respond to a correct entry with "Welcome Member.". Any password-protected Main Menu entries, Download Menu files, and user-message files will then be accessible.

B. "Talking" with SYSOP.

SYSOP may interrupt your use of ARMUBIC at the end of any menu selection to communicate with you directly. To respond, merely enter your responses normally through your keyboard, and you will be able to see SYSOP's comments on your screen.

LEDITORS: We hope that this article has answered some of the questions about the DAL-ACE bulletin board system (BBS). If you have specific questions, please contact the EDITORS (231-4482) or our resident expert, ERNIE RUNYON (817-485-6871). In addition, you say want to attend the Tele Communication SIG (Special Interest Broup) meeting. This SIG meets at the Lion's Den, just prior to the regular DAL-ACE monthly meeting.]



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WATER WORKS by JEFF RUTHERFORD

IEDITOR: The following program is a <u>very</u> attractive illustration of GRAPHICS mode 9. This mode allows 16 shades (also called "luminances" or "brightness'") of a selected color and has a screen resolution of 86 dots (pixels) across and 192 dots vertically. For those with the patience to type in this program, there is a nice surprise maiting at the end of the program. The program listing is for a 46 character wide screen (PDKE 82,6).]

1 REM WATER WORKS by Jeff Rutherford 2 REM a GTIA mode 9 demonstration 6 REM NOTE: TYPE THIS LISTING EXACTLY 9 REM PRINT TITLE & CALC. TRIG TABLES 16 GRAPHICS 1+16:POSITION 6,9 20 ? #6;* WATER WORKS" 36 ? 46; by* 40 ? 46; " JEFF RUTHERFORD" 5# DEG :60SUB 5009 59 REN INITIALIZE & DRAW TUBE 69 R=16:X=8:C=1:A=2:GRAPHICS 9:SETCOLOR 4.1.5 80 FOR I=95 TO 185 98 IF C(1 THEN C=1 118 COLOR C:PLOT 5, I:DRAWTO 55, I 128 C=E+A: IF C=9 THEN A=-2 138 NEXT I 139 REN DRAW SHADED SPHERE OVER TUBE 146 FOR Z=1 TO 15 156 FOR I=# TO 366 STEP 3 168 X=8.25+R+C(I)+35:Y=R+S(I)+188 17# COLOR Z:PLOT X,Y 248 MEXT I:R=R-1:NEXT Z 264 REM DRAW PIXEL-WIDE VALVE COLLAR 276 C=6:A=1:FOR I=85 TO 115:COLOR C 28# C=C+A: IF C=15 THEN A=-1 298 PLOT 29, I: NEXT I 389 REH DRAW KNOB AND SHAFT 31# FOR I=75 TO 85 32# COLOR 3:PLOT 34,1:COLOR 7:PLOT 35,1: COLOR 5: PLOT 36, I 350 NEXT I 368 FOR 1=76 TO 74 37# COLOR 1-69:PLOT 27, 1:DRAWTO 43, 1:NEX TI 39# FOR I=1#2 TO 115 466 COLOR 3:PLOT 48.1:COLOR 7:PLOT 49.1: COLOR 5:PLOT 50.1 436 NEXT I:C=1:A=1 450 FOR I=0 TO 10 476 COLOR C:PLOT I, 8: DRAWTO I, 191 48# C=C+A: IF C=6 THEN A=AD-1

498 NEXT I

5€5 COLOR 5 519 PLOT 49, I+2: PLOT 49, I+1: PLOT 49, I 546 COLOR 6:PLOT 49, I+2:PLOT 49, I+1:PLOT 49, I 55# PLOT 49,187:PLOT 49,188:PLOT 49,189: PLOT 49,196 56F INC=INC+4: I=I+INC 578 IF I>=198 THEN I=198:60T0 788 584 GOTO 545 766 FOR J=86 TO 166 STEP 26 715 SOUND 6,286+J,16,16:NEXT J 746 SOUND 6,6,6,8:SOUND 1,6,6,8 75# FOR DELAY=1 TO 200: NEXT DELAY 77# GOTO 495 5898 DIM C(368).S(368) 5188 FOR I=8 TO 368 STEP 3 5266 C(I)=COS(I):S(I)=SIN(I) 5366 NEXT I 5466 RETURN

495 INC=3: I=119



"THANK YOU"

A big "THANK YOU" goes to SUSAN HENDERSON for the outstanding job she is doing as our club secretary. We may forget to say it, sometimes, but we really do appreciate your contribution to the club, Susan. Keep up the great work!



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by E.R. KOBUS ***JUICE***

There I was, my first day on the grid and the job looked like it would be a piece of cake. My user was out there controlling my movements with a joystick, you know how that goes, left, right, up and down, and I was busily completing the circuit. All of a sudden POW, old fumble fingers out there ran me, Edison, the kinetic android, right into a Nohm. I mean that Nohm seemed to appear out of nowhere and it turned me into a pile of blackened bits. Needless to say, I was totally surprised and tremendously upset. Fortunately, I had four lives left so I still had a chance to complete the circuit even though the joystick hot rod seemed to be working against me.

I watched as the Wohms moved down the grid when suddenly a Capacitor appeared at the top of the board. That offscreen surrogate of mine didn't have the decency to tell me that this job had its hazardous moments. Well, I side-stepped that Capacitor critter as he too moved on down the board and I kept on building the circuit. Out of the corner of my eye I noticed that the Capacitor had stopped as if he was waiting for something to happen. Sure enough, just as the last Nobe left the grid that Capacitor turned into a Killerwatt and guess who he wanted to kill. I began to be moved toward the edge of the board, fumble fingers seemed to have noticed the peril or maybe he even read the instructions. I jumped onto the transporter with ole Killerwatt one step behind me. I appeared on the other side of the grid just in time to watch as Killerwatt reduced himself to wandering electrons by following me onto the transporter, neat huh? Incidentally, this action increased my score by 500 points.

I figured that whats-his-face out there had finally gotten a grip on the game when you guessed it, some new antagonist appeared. This new boy on the grid was Flash and he proceeded to undo what I had just done. There he was methodically disconnecting each part of the circuit that he stepped on. Let me tell you, I was really starting to get mad and I guess ole Johnny-joystick was too because we chased Flash down, ran into him and collected the tidy sum of 360 points.

About this time I figured that I could complete the circuit at a leisurely pace but you know the name of that tune as well as I do. More Nohes, more Capacitors, more Killerwatts and even a Flash thrown in now and then.

There I was moving up, then back, stepping left and then right jumping here and leaping there, a truly amazing sight. The points were continually increasing as me and you-know-who gained experience. Then it happened, Recharge appeared. Recharge is about the only friendly character in the game so I ran to him as fast as I could. I bumped into him rather rudely but I collected an extra 300 points and miracle of miracles the Nohms and the Killerwatt and Flash froze instantly. Of course, this only lasted temporarily but it was time enough to finish that circuit.

I completed two more circuits and found syself on the bonus board. If I could complete the bonus circuit within the alloted time I would receive 2000 points. I tried but I just couldn't do it so it was on to the next level.

I'm certain that with enough practice I will be building circuit boards like an automated assembly line does, fast and error free. That's about all I have to say so I'll turn it over to my user.

JUICI is a Qubert-like game that is quite colorful and enjoyable to play. I mean that it's enjoyable for a while because I got bored with playing the same screens over and over. For me, there's just not enough variety in this game but then you are not me are you? There are four different game options and these allow you to exclude or include certain characters, kinda neat. If you press the 'Escape' key during play it freezes the action and pressing it a second time does the obvious.

Before you buy the game borrow it from a friend or go to your favorite software store for a demo. I'd really hate to see you buy a disk full of boredom. Thanks to Bruce at Software Access in Irving, Tx for providing the review copy.

ESOFTWARE ACCESS IS LOCATED ON THE EAST SIDE OF BELTLINE ROAD, JUST ABOUT HALF A BLOCK NORTH OF HOWY 183. IN ADDITION TO A FINE LINE OF ATARI SOFTWARE, THEY CARRY ABOUT THE BEST ARRAY OF BOOKS AND MAGAZINES IN THE METROPLEX! AND OH YES, BE SURE TO PRESENT YOUR BAL-ACE MEMBERSHIP CARD FOR THE "DISCOUNT". ONE OF THE EDITORS DRIVES ALL THE WAY FROM RICHARDSON TO BROWSE THROUGH THEIR "LIBRARY".]



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THE PUZZLE PAGE by TABITHA SEWELL

I have been going through the newsletters from other' user groups, and most of them have a page just for kids. Some of them have cute little cartoons, or they have word searches, crosswords, and mazes. I thought that we needed one, too, but it will not be just for kids.

In the months to come, I will offer you games, puzzles, and, of course, as in this month's newsletter, a word search. In this word search, you will have to find some of the Atari BASIC keywords. NOTE: The words can be upside down, backwards, etc.

The main reason for presenting this column is to get kids interested in reading the newsletter, but it is also designed so the rest of us can have some fun!

If you have any ideas of some things we could use, or if you would like to submit a cartoon, maze, etc., we would be glad to use them. Thank you for your time.

HAVE FUN! Tabitha

P.S. Solution (where the WORDS can be found) will be published in next month's PUZZLE PAGE.

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**** WORD LIST ****

NEXT CLOSE ON COLOR DPEN DATA PEEK DIM FLOT DOS POKE DRAWTO PRINT END PUT ENTER READ FOR REM GET RETURN GOSUR RUN GOTO SAVE GRAPHICS SETCOLOR IF SOUND INFUT STATUS LET STEF LIST THEN LOAD TO NEW TRAF BASIC



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SPECIAL ANNOUNCEMENT

DECEMBER MEETING UPGRADED TO EXTRAVAGANZA STATUS DAL-ACE TO SPONSOR COMPUTER FAIR

BENEFITS GO TO

TOYS FOR TOTS

MARK YOUR CALENDAR NOW! DECEMBER 17 IS THE DATE! 11:00 TO 5:00 IS THE TIME

ATTEND UPGRADE '83!!

IN DECEMBER WE WILL NOT BE HAVING OUR USUAL EXCELLENT, MARVELOUS, FANTASTIC MEETING, INSTEAD, WE ARE UPGRADING IT TO A BENEFIT COMPUTER FAIR WITH ALL PROCEEDS GOING TO "TOYS FOR TOTS". THIS EVENT WILL BE SO SPECTACULAR THAT THE EXECUTIVE COMMITTEE HAS USED 18 MEGABYTES OF MEMORY IN THE FIRST STAGE OF PLANNING!!

ADMISSION: 1 TOY

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(SEE INSIDE BACK COVER FOR MORE DETAILS)

BULLETIN BOARD NEWS by ERKIE RUNYON

I'll start off this month by defining what the ters "Bulletin Board" means. First, a little background information on telecommunications, then I'll get to the definition. In this column, (I'll try to make it a monthly affair) the term "Bulletin Board" (or BBS) is applied as; an electronic means via use of computer equipment consisting of a CPU, Peripheral Interface and a Modem, to communicate with other computers. Don't get flustered, I'm about to explain each of these one at a time.

For those of you new to computerese or bazzwords as they're called in Data Processing, the terms I used are probably confusing to you. I'll start with the CPU. The CPU is the 'Central Processing Unit' in your Atari computer. All it is, is one little microprocessor chip called the '6562' processor. That's all you need to know for now.

On to Peripheral Interface. It is an external box, not part of the actual computer. It, too has it's own micro-processor but we'll save that discussion for another time. If you know about the 85% Interface then you already know what an interface is. If you have an ATR-86%, you are indeed lucky. We'll discuss the possibilities of this Interface next month. What an interface does, or should do, is provide the user with a means to attach other equipment to an already existing computer (CPU), such as a printer, disk-drive, modem or any other RS232 device (I know, what's RS232 mean right? Again, in a later issue).

Ok, last but not least, we have the Modes. Hase, strange word 'modes', where does it come from? Well, Modes is actually an acromyn for 'Modulator-Demodulator' (This—is not the gun that the martian chases Bugs Bunny with). What a modes does is enable Digital data to be transmitted over Analog transmission facilities (over the phone lines).

Now, back to "Bulletin Board", a BBS is a message center for many types of messages. Something like the Bulletin Board you may have at work, school or at home. You put a message up on it and it stays there until the messages is recieved or removed. It works the same may on a computer BBS, It can be a public message describing an item you want to sell, or it could be a message asking for help on string variables or thousands of other topics. Most BBS's have a section for sending and recieving programs. This is called 'Uploading/Downloading'. This enables people to trade public domain software through a database. DAL—ACE sponsors such a BBS. The number of which is always posted here in the newsletter. Call it up! Once a month the download files are changed.

For information on how to access the system, see instructions in this newsletter.

I hope I managed to clear up some Myths about telecomputing. If you have any questions feel free to call me or 'chat' with your SYSOP on the BBS.

** BAME REVIEW ** by JEFF RUTHERFORD *** ARCHON ***

Are you tired of the same old arcade shoot-em-ups? Would you be interested in a game that combines the thought-provoking strategy of Chess with one-on-one arcade combat? If so, then ARCHON will surely be an excellent addition to your software library.

In ARCBON, two sides (the Dark Side and the Light Side) are pitted against each other in a contest of action and strategy. ARCBON is played on a screen similar to a chess board. Like chess, both sides are equal in number and balanced in strength. The two sides, however, are not identical.

The object of the game is the conquest of the five "power points" on the playfield or the elimination of the opposite side. Each side has a number of creatures of varying strengths and abilities called icons. These icons pictorially represent the "pieces" at your command. Icons are moved in order to gain a strategic advantage.

Unlike chess, however, moving onto an occupied square does not automatically remove the enemy icon. The screen changes to a combat area where the icons must do battle until one is destroyed. Weaker icons, when skillfully used, may defeat or weaken stronger adversaries. The strongest icon on each side also has the ability to cast spells (only once) that may revive a defeated icon, teleport an icon across the board, exchange two icons, heal an injured icon, imprison an icon, or shift-time.

To make things even more interesting, some of the squares on the playfield are called "shifting squares" because the luminosity of the squares changes from light to dark gradually and regularly during a game. Since light icons are stronger on light squares, and dark icons are stronger on dark squares, attacks must be carefully timed to take advantage of favorable shifting squares. The shift-time spell I mentioned earlier will reverse the shift pattern of the sifting-squares.

ARCHON has be played by one person against the computer (a formidable adversary), or two persons playing against each other. I am especially pleased with ARCHON because of a quality in software that I call "depth." This is a game that does not lose its play value after a period of time. ARCHON has provided me with many hours of entertainment. My only minor complaint is that the computer is too good, and is nearly impossible to beat. This is a game to be enjoyed by two players. ARCHON is a first-rate software package that I would recommend as an excellent game.

REPORT CARD: ARCHON

IMPLEMENTATION	+
USER INTERFACE	A
GRAPHICS	A
SDUND	A
PLAYABILITY	A+
DOCUMENTATION & PACKAGING	A+

"SIG" is the acronym for "Special Interest Group". These groups are composed of members having a common interest in a specialized area of the general computing field. These specialized areas range from languages, to applications and special features of the ATARI. Join in with one of the groups listed below and get more out of your computer! If you would like to start a new SIG, send your name, phone number, and a description of the subject to BAL-ACE Hemsletter, 916 E. Berkeley, Richardson, Tx 75#81. The information will be published in the next newsletter... you may find that you are not alone in your special computing interest! Beadline for all SIG information is the 15th of the month.

--> FORTH <--

The next FORTH language SIG meeting will be held Nov 16th at 7:36 P.M. in Dave Gillen's home, 3626 Country Squire, Apartment 2234, Carrollton. Dave's phone number is 245-2732.

--> BUSINESS <---

The BUSINESS applications SIG is currently looking for more members. If you are interested in applications such as Word Processing, Bookkeeping, Spreadsheets, Accounting, or Other business applications; call Rich Greenlee at 267-7428 (Metro Number) for more information on this SIG.

--> EDUCATION <--

The next meeting of the EDUCATION SI6 will be held the Wednesday prior to the regular BAL-ACE Saturday meeting at 6:36 P.M. at Software Etc., 14486 Dallas Parkway (across from Ewing Buick).

--> YOUNG PEOPLES <--

The YOUNG PEOPLES SIG meets at 2:00 P.M. (prior to the regular DAL-ACE meeting, Lions Den in Garland). This group is composed of our younger members (from B to 16 years of age). Contact Chris Magid, 241-7320, for more information.

--> BRAPHICS <--

Members interested in the GRAPHICS SIG, please contact Sandra Stephens, 827-8493. This group is just getting started and welcomes all interested parties.

--> CP/M <--

The next meeting of the CP/M SIG will be held Tuesday, Nov 8th, at 7:38 P.M. in the home of Jim Chaney, 916 E. Berkeley, Richardson, Tx 75881. Jim's phone number is 231-4482. Bring your disk drives and/or system, if possible, to facilitate copying of the CP/M library (Public Domain Software).

-->TELE-COMMUNICATIONS <--

This SIG meets on the same day of the DAL-ACE meeting and at the same location (can't miss it) 12:00 noon. Contact Ernie Runyon (817)485-0871 for additional information.

POWER UP!



COMPUTER FAIR DEC 3, 1983 LIONS DEN - 666 N FIFTH ST - GARLAND, TEXAS

DIRECTIONS: From LBJ (635), take the Garland Road exit north; Garland Road will make a "right-hand" turn (about 3 miles north of LBJ) and cross N. FIFTH ST; turn left on FIFTH (going North again); the LIONS DEN will be on the right (about one and a half blocks north of Garland Rd). Guests are WELCOME!!

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DON'T MISS THIS FAIR!

VENDOR RESERVATIONS

Vendors may reserve table space prior to the meeting by calling Bary Sewell, (1-727-6567) in Allen, Texas. Fee collections and table assignments will begin at 12:86, after which the vendors may begin to set up their areas. Those tables which have been reserved but not yet claimed by 12:36 may be purchased by other vendors at that time. Prepaid reservations will not be released. Space assignments will be on a "first come, first served" basis, unless prepaid. The current meeting facility allows for approximately 36 vendor tables.

DAL-ACE COMPUTER FAIR

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DAL-ACE membership is \$16.66 per year. This newsletter is written, edited, and published by club volunteers. Its availability and/or distribution may, at times, be subject to circumstances beyond the control of the club officers. Hembers will note that their membership renewal month appears as the first three (3) letters on the address label.

Other ATARI user groups may obtain copies of this newsletter on an exchange basis.

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