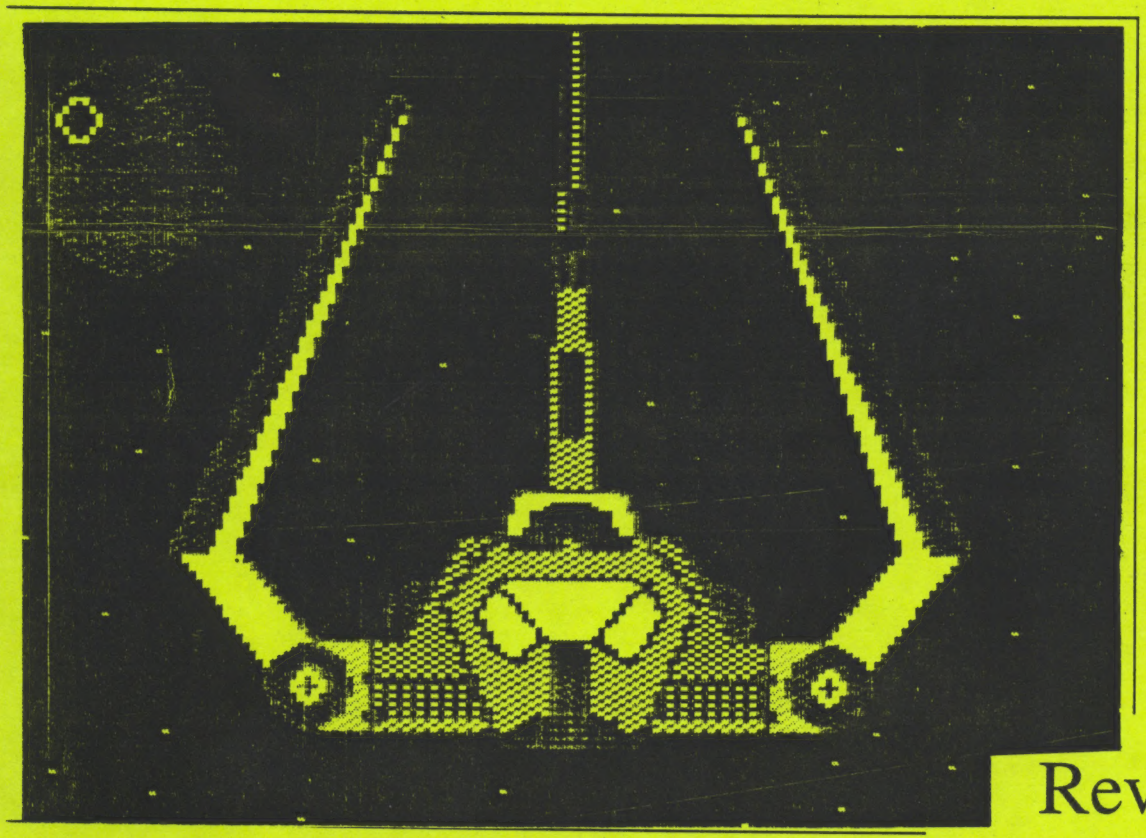
DAL-ACE

Volume 9, Issue 10 October, 1988
Dallas Atari Computer Enthusiasts



This month: All the latest Dal-Ace News

Reviews

Commentary, humor, the latest product info!

More Turbo BASIC from Eb Foerster!

Table of Contents

Cover art submitted by Michael Duke, artist unknown

Dollar $igns

Report by Rene Tucker, Treasurer

For those of you who were not present at the meeting on September 10, 1988, here are the highlights of the financial report for the month of August.

Receipts: $339.00
Expenses: 400.97
Total loss: $ 73.09

Remember, a full report is made at each regular club meeting and copies of the monthly, as well as quarterly, reports are available for inspection by any club member.

UNICOM 2 Coming Up!

Press release info from the North American Telecommunications Association

The North American Telecommunications Association (NATA) provides the Southwest's largest and most comprehensive forum showcasing system solutions, UNICOM Expo and Conference, for telecommunication and data industry professionals to preview and learn firsthand about new systems and applications.

UNICOM 2 will be held at INFOMART in Dallas, November 29 through December 1, 1988. The event features more than 800 exhibits from top voice and data companies throughout the United States and abroad, as well as a three-day seminar program for the 12,000 industry professionals expected to attend.

"Systems integration is the key for both vendors and users in the marketplace today," said Ed Spievak, NATA president. "NATA's UNICOM Expo and Conference addresses that concept by providing a forum for users to see the latest applications these partnerships produce."

Vendors such as AT&T, DEC, NEC, and Southwestern Bell demonstrated new products and concepts to more than 7,000 communications and computer managers at 1987's UNICOM.

"This year, UNICOM 2 has been designed to provide users with even more comprehensive exposure to new products in the voice/data market with expanded exhibit space and seminar programs focused on the structure and future marketing demands of the industry," Spievak said.

The press release packet will be available for your perusal at both the October and November Dal-Ace meetings. For attendee and exhibitor information, call 1-800-LET-NATA.

Dal-Ace Meeting Minutes

By Anita Uhl, Secretary

Board Meeting

August 27, 1988

Attending: Nolan Terrill, Dave Gramm, Donny Arnold, Rene Tucker, Anita Uhl.

Secretary reported 152 members.

Rene presented financials, reporting that for August the net loss was $73.

Federated at Town East has offered to allow Dal-Ace to hold SIG meeting during regular hours. This would give club more exposure.

Donny called for a budget meeting to be held on Tuesday, August 30th, at his house.

Budget Meeting

August 30, 1988

Attending: Donny Arnold, Anita Uhl, Rene Tucker, Dave Gramm, Nolan Terrill.

In summary, the income and expenses of the current year were analyzed and annualized to prepare the following budget:

Income:		**Totals**
All areas of income		**$4,512**
Expenses:		
Printing	**$3,017**	
Libraries	**845**	
BBS	**700**	
Postage	**462**	
Sales Tax	**137**	
Miscellaneous	**178**	**5,564**
Net profit/(Loss)		**$1,052**

Factors:
Income - Avg. per month for 8 mos. 376x12
Printing - 262 per month. 1st 6 mos. actual/est. last 6 mos.
Libraries - Double the 1st 6 mos.
Misc. - Adjusted for non-recurring items.
Cost of the newsletter is $14.60 per year per member.
Printing - $1.05. Mailing - $0.17.

Agreed to present for vote of membership that newsletter be bimonthly.

Other suggestions:

Sales promo on disk sales.

Raffles with donated software.

Sell Atari items from Best Electronics.

Increase ad sales.

Sell on commission basis peripherals from Wes Newell.

Sell Dal-Ace equipment not needed.

Board Meeting

September 10, 1988

Attending: Donny Arnold, Rene Tucker, Michael Duke, Dave Gramm, Nolan Terrill, Brenda Arnold, Anita Uhl.

Secretary reported there are currently 145 members.

Rene presented financial report and graphs to be used at main meeting.

Motion was made and passed to change the weight of the paper for the newsletter to 20# (inside only).

Mike Trombley has volunteered to write letters to vendors re: the club.

Michael Duke suggested getting an assistant ad manager.

Motion made and passed to offer members to purchase disks from the club libraries at 2 for $5.

Motion made and passed to have the ST BBS system checked and if repairs would run $100 or under to have it repaired.

John Winer has resigned as Member-at-Large and ST Librarian.

Main Meeting

September 10, 1988

Attending: 32 members

Rene presented the financial report.

The board members presented to the membership the findings of the budget committee meeting.

Motion was made that the newsletter be bimonthly. The motion was defeated.

Motion was made and passed that the newsletter editor be authorized to decide with each issue the number of pages per issue.

Brenda Arnold was elected Member-at-Large.

Donny Arnold will temporarily be ST Librarian.

Marc Salas volunteered to be assistant advertising manager.

The slate of nominations for the December 1988 election is as follows:

President -	Donny Arnold
Vice President -	Brenda Arnold
VP Communications -	Anita Uhl
Secretary -	
Members-at-Large -	Randy Randolph
	Dave Gramm
	Nolan Terrill
	Ralph Salmeron
	Jim Lewis

Dal-Ace Newsletter War Over!

Report by Angela Burns

Dallas, TX, September 10 - The Infomart meeting of the Dallas Atari Computer Enthusiasts was the scene today of an intense session of bargaining between two factions of that club. The issue was the Dal-Ace newsletter and its impact on the finances of the club.

The board of elected officers presented financial data for 1988 showing that:

- The club's expenses have been more each month than its income (**See fig. 1**),
- The costs involved in producing the newsletter constitute 53% of the club's expenses (**See fig. 2**), and
- Income produced by the newsletter (advertising revenues) constitute only 9% of the club's income (**See fig. 3**).

The board's position

The conclusion of the board was that Dal-Ace is living beyond its means, and since the newsletter is the largest expense we have, it is the logical target for cutbacks.

Their suggestion: reduce the weight of the inside pages to 20 lb. paper and make the Dal-Ace newsletter a bimonthly publication (every two months).

The negotiation phase

A number of members asked questions about the details of newsletter publication in an effort to ascertain whether the board's suggestion would be the most reasonable course of action, or whether there might be a way to cut costs and/or increase income while keeping a monthly newsletter.

Some members' suggestions: try to increase membership, work to increase advertising space sold, reduce the number of pages in the newsletter from 20 to 16 or even 12.

There was a great deal of discussion of the merits of different ideas. Of course, Dal-Ace has already been making efforts to increase the awareness of the club among local Atari users, and these efforts are just now beginning to pay off in the form of more visitors checking out the club (we hope, soon to become our newest members). The board had also already decided to try to increase advertising revenue and to decrease the weight of the paper used for the inside pages of the newsletter. I suggested that we combine those measures with a reduction in the number of pages to 16, then see how that worked out.

The end result

After the discussion was over, a motion was made and defeated to publish the newsletter bimonthly. Then, John Saunders suggested that the editor (moi) decide on a monthly basis just what length the newsletter should be, based on the amount of news and member-written articles available at that time. That motion was made and passed.

My two cents worth

I *think* I'm happy. After all, my baby is still a monthly publication, and I did like it that way. I'm not entirely comfortable with the final decision as to the newsletter's size resting with me. (Mainly because I worry about screwing up.) But, you want the buck to stop here. Okay. However, I'm passing a little of it right back to you. If you want a newsletter full of original articles, you're going to have to write them. I promise that your newsletter will be a minimum of 12 pages every month. But it can be 20, if you want it to be. All you have to do is:

- Write an article - programming tutorial, software or hardware review, humor, commentary, game hints - I don't care what, as long as it's Atari computer related. Compare something. Contrast something. Write a grumpy letter to the editor. My policy has always been to publish *anything* submitted by a member; it's not my place to reject a member-written article for any reason other than obscenity, and we've never had that problem (yet). And I don't care how lousy you write, either. You know I'll fix it if you can't spell or punctuate, as long as I can figure out what you're talking about! And if I can't, I'll call you and ask.
- Find advertising. Ray Burns and Marc Salas are our advertising people; they will contact all the Atari vendors and developers. But computer users do other things, too. They eat pizza and put gas in their cars and do everything else that "normal" people do. If you have a business, place a business card ad in the Dal-Ace newsletter. You're not doing it just for the good of the club; many members (I, for one) will make it a point to give their business to someone who supports their newsletter. Maybe the 150-odd members don't represent a whole heckuva lot of buying power in the larger scheme of things. Then again, neither does a $10 ad constitute a major drain on even a little advertising budget. And $10 is precious little to get some publicity for your product or service to 150 families.

That's it. That's all you have to do. 'Nuff said.

Dal-Ace Financial Data

Graphs by Rene Tucker

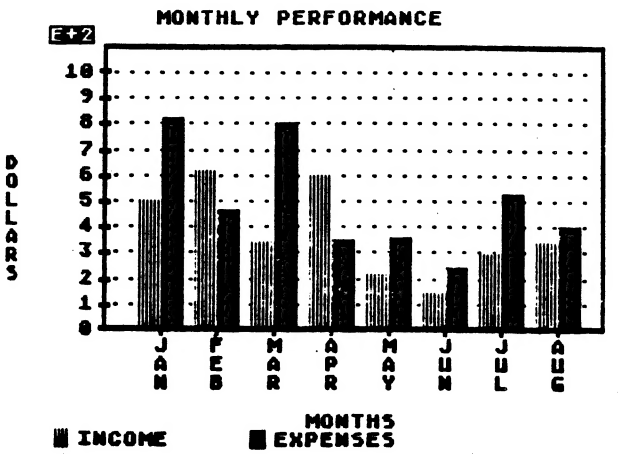


Fig. 1

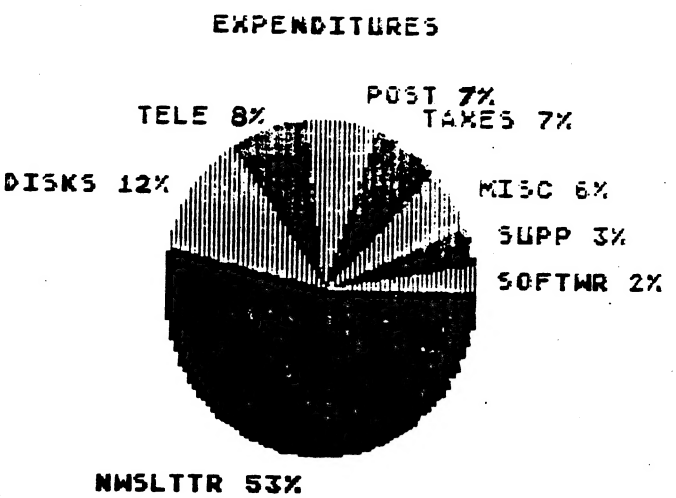


Fig. 2

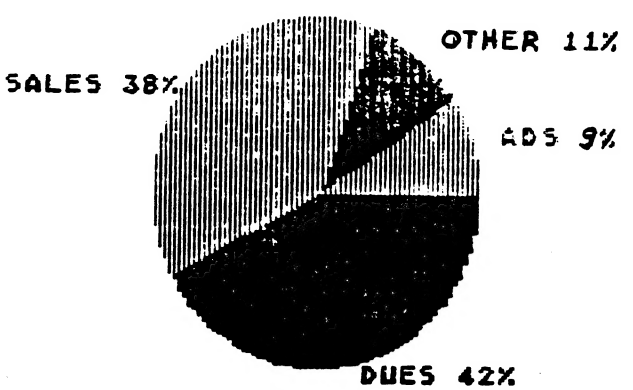


Fig. 3

The Grapevine

News, rumors, and product announcements from the world of Atari

Compiled by Angela Burns

News

Taking care of business (at last!)

Well, I guess by now everyone has seen those full page newspaper ads from Federated. Not a VCR or stereo mentioned anywhere in them - just computers! "ATARI MEANS POWER!" "ATARI MEANS BUSINESS!" I love it!

Long arm of the law reaches virus fiends

The first trial in Texas of a man accused of planting a computer virus began early in September. The man allegedly confessed to a friend a week after he had planted the virus, which waited a few days, then wiped out 168,000 sales commission records for his soon to be former coworkers. He was fired two days after planting the virus.

Atari does mean business

Even the sometimes pretentious business computer world seems to be taking a peek at the Atari alternative. Recently, the Star-Telegram's computer column in the business pages devoted a whole column to the Atari (and Amiga - boo, hiss) as a business machine. To quote, "If the mainstream, workaday, slightly dull world of MS-DOS leaves you cold, the flash-and-sizzle excitement of the offbeat Atari . . . computers may be what you need." Hear, hear.

Rumors

DS FMs

I heard that many of the 520STFMs at Federated have double sided drives in them. Atari says no way did they put DS drives in any 520STFMs, but some sources say that Atari just plain ran out of the single drives and slapped the DS drives in there to keep up production. Take a DS disk to Federated if you're in the market for an FM; you might luck into one.

Those 16 meg STs

I have been told that I've got it all screwed up - I merely read about 16 megahertz STs, not 16 meg STs. Well, I know what I read, but I don't know where I read it. So I stand by my first story, with the stipulation that whoever wrote what I read may have screwed it up before me. But the article I read told about the 16 megahertz accelerator boards, then went on to say the 16 meg *memory upgrades* were under development. So I guess we'll just have to see, huh?

Product Announcements

Prospero press release

In a press release/newsletter we recently received, Prospero Software reports that Prospero C "is progressing" and that the first implementation will be on the Atari ST. They have also completed GEM versions of Prospero Pascal and Prospero Fortran, which can be interlinked, allowing you to use Fortran subroutines in your Pascal programs. Prospero Fortran now allows (as an extension to the standard) names of up to 31 characters. The Prospero Pascal ST68881 Library and the Prospero Fortran ST68881 Library will increase the processing speed of an ST fitted with any 68881 coprocessor board up to 50 times when used with Prospero's Pascal and Fortran compilers. Also included in the newsletter, which can be found in our print library (see Dave Gramm), are a few technical tips for users of the aforementioned products. Retail prices as follows: Prospero pascal for GEM - $149; Prospero Fortran for GEM - $199; ST68881 (Pascal) - $96; ST68881 (Fortran) - $96.

Prospero Software Inc.
100 Commercial Street, Suite 306
Portland, ME 04101
Phone: (207)874-0382
Fax: (207)874-0942
Credit card sales: 1-800-327-6730

More clip art

Migraph Inc. announces the release of DrawArt Professional, a collection of high-quality object oriented graphics and illustrations specially selected for use in desktop communications. Over 150 illustrations are included in a variety of themes such as computer, office, photo, and animals, insuring that the user has just the right image when needed. Retail $69.95 from:

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Mike Fleischman, ANTIC, Sept. 1986

"Megamax C does more things better with its compiler than the others and is the obvious winner for performance."
David Stokes, ST Applications, Dec. 1986

"Megamax C just might become the C standard for the Atari ST."
George Miller, COMPUTE!'s Atari ST Disk & Magazine, Oct. 1986

"... the Megamax C package was by far the easiest and most noteworthy C compiler for the Atari ST I have seen..."
J.B. Wikert, Learning C on the Atari ST

What will they say now?

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Benchmarks:	Laser C	Mark Williams 2.0
Compile&Link		
Sieve	:05	1:27
Hello	:03	1:15
Apskel	:08	1:40
Execution		
Sieve	2.45	2.78

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Turbo BASIC VI

An 8-bit tutorial by Eb Foerster

One of the primary functions of computing is the movement of data. Last month, we discussed the movement of data between the computer and an external device using Turbo BASIC's BPUT and BGET commands. This month, we will describe the movement of data within the computer using Turbo BASIC's MOVE command and give some practical applications with a simple database, Player-Missile graphics, and the use of the extra banks of memory in a 130XE.

Data may be moved one byte at a time in BASIC using the PEEK and POKE commands. If you need to move a block of data, these commands may be used in a FOR-NEXT loop. This technique is rather slow. A faster way of moving blocks of data is to place the data in strings and use string assignments. However, to move data to a specific location with this technique, you must change the address of a string. This is not an easy task and involves some meticulous programming to accomplish. Here comes Turbo BASIC to the rescue with the MOVE command.

The MOVE command has the form:

MOVE,SO,DE,BY
or
-MOVE,SO,DE,BY

- where SO is the address of the SOurce,
- DE is the address of the DEstination,
- and BY is the number of BYtes to move.

The negative form of the command is used when there are overlapping source and destination blocks and data must be moved starting with the last byte: when SO minus DE is a negative number and ABS(SO-DE)>BY. Let's illustrate with a simple example:

```
DIM A$(10)
A$="1234567890"
```

IMPORTANT NOTICE

Computer Discoveries has discontinued all USER GROUP DISCOUNTS, due to the increased cost of doing business.

MORRIS

and move data by each of the three following methods:

- 1. A$(DE,DE+BY-1)=A$(SO)
- 2. MOVE ADR(A$(SO)),ADR(A$(DE)),BY
- 3. -MOVE ADR(A$(SO)),ADR(A$(DE)),BY
-

If SO=5, DE=3, and BY=4, the following result will be obtained when A$ is printed:

- 1. 1256787890
- 2. 1256787890
- 3. 1278787890

Methods 1 and 2 yield the correct result.

If SO=3, DE=5, and BY=4, the following result will be obtained when A$ is printed:

- 1. 1234343490
- 2. 1234343490
- 3. 1234345690

Only method 3 gave the correct answer. The incorrect results are obtained when the source is changed by the destination before the source has been moved. One can move any block of memory between an overlapping source and destination if the correct form of the move command is used. This overlapping move cannot be made directly with string assignments when the movement is from a lower to a higher area of memory.

A Simple Database

The MOVE command can be used to move data in a database. For demonstration purposes, we will set up a very simple database which will consist of 100 items, each of which is 5 bytes long. We will generate these items in a random manner and insert them in string A$, such that they are sorted alphabetically. To insert each new item in the string, we will have to move data within the string to make room for the new data. The -MOVE command will accomplish this quite readily.

```
100 DIM A$(500),I$(5)
110 A$=" ":A$(500)=" ":A$(2)=A$
120 FOR A=1 TO 100
130     FOR B=1 TO 5
140             I$(B,B)=CHR$(RAND(26)+65)
150     NEXT B
```

```
160     ? A,I$
170     FOR B=1 TO 496 STEP 5
180         IF A$(B,B+4)="    " THEN A$(B,B+4)=I$:
            EXIT
190         IF I$<A$(B,B+4)
200             -MOVE ADR(A$(B)),ADR(A$(B+5)),496-B
210             A$(B,B+4)=I$
220             EXIT
230         ENDIF
240     NEXT B
250 NEXT A
260 FOR A=1 TO 100
270     ? A,A$(A*5-4,A*5)
280 NEXT A
```

The loop at lines 120-250 generates and enters new items in the database. The loop at lines 130 to 150 generates random sets of 5 characters. Lines 170 to 240 insert each item in the list. Lines 260-280 display the sorted list.

Player-Missile Graphics

The following program is an example of the application of the MOVE command to Player-Missile graphics. Its purpose is to demonstrate the speed with which PM objects can be manipulated by Turbo BASIC. I will not attempt to explain PM graphics. There are plenty of articles in magazines and books that do that much better. I have included Atari labels for memory locations to make it easier for you to follow the programming.

```
100 PMBASE=54279:RAMTOP=106:SDMCTL=559:
    GRACTL=53277:HPOSPO=53248:PCOLRO=704
110 GRAPHICS 0:SETCOLOR 2,0,0
120 X=100:Y=48
130 A=PEEK(RAMTOP)-16:POKE PMBASE,A:
    MYPMBASE=256*A
140 POKE MYPMBASE,0:MOVE MYPMBASE,
    MYPMBASE+1,2048
150 FOR A=8 TO 87:READ B:POKE MYPMBASE+A,
    B:NEXT A
160 POKE PCOLRO,88
170 DATA 0,24,60,126,24,24,24,0
180 DATA 0,24,24,24,126,60,24,0
190 DATA 0,0,0,0,0,0,0,0
200 DATA 0,16,48,126,126,48,16,0
210 DATA 0,56,112,104,84,10,4,0
220 DATA 0,4,10,84,104,112,56,0
230 DATA 0,0,0,0,0,0,0,0
240 DATA 0,8,12,126,126,12,8,0
250 DATA 0,28,14,22,42,80,32,0
260 DATA 0,32,80,42,22,14,28,0
270 SOURCE=MYPMBASE+8:Y=MYPMBASE+512+48
280 MOVE SOURCE,Y,8
290 POKE SDMCTL,46
300 POKE GRACTL,3
310 POKE HPOSPO,X
320 LOBJ=1
330 DO
340  OBJ=15-STICK(0)
350  IF OBJ
360  IF OBJ<>LOBJ THEN SOURCE=MYPMBASE+8*
     OBJ:LOBJ=OBJ
370  X=X+(OBJ$8=8)-(OBJ&4=4)
380  IF X>210 THEN X=40
390  IF X<40 THEN X=210
400  POKE HPOSPO,X
410  Y=Y-(OBJ&1=1)+(OBJ&2=2)
420  IF Y<45580 THEN Y=45684:MOVE MYPMBASE,
     45580,8
430  IF Y>45684 THEN Y=45580:MOVE MYPMBASE,
     45684,8
440  MOVE SOURCE,Y,8
450  ENDIF
460 LOOP
```

This simple routine uses the joystick to move an arrow across the screen. There are 8 different shapes for the arrow, one each for the eight different directions. The DO-Loop in lines 330 to 460 is the portion of the program that moves the object. Line 340 converts the stick position into an index which points to the data for each shape. This index is used in line 360 to calculate the beginning of the object shape (SOURCE). Lines 370 and 410 update the X and Y positions of the player. (We will leave the explanation of the "&" function for a future article.) Lines 380-390 and 420-430 wrap the player around the screen and, in the case of the Y position, erase the player in the old position. Lines 400 and 440 move the player in the X and Y directions respectively.

If you compile the above program, you will get very fast player missile movement. The speed of this movement is comparable to that found in the USR routines used in many BASIC programs. However, don't be fooled by this rapid movement. The above DO-Loop does not include much processing. If you add a few lines of calculations to the loop, the movement of the object will be slowed down considerably. If you need precise timing of PM movement which is independent of other processing, then you need to use vertical blank interrupts to move your object.

Using extended memory from BASIC

If you own a 130XE computer or have expanded the memory or your XL computer, you have extra memory available to you. Turbo BASIC's MOVE, BGET, and BPUT commands are ideally suited to make use of this extra memory. I will explain how this extra memory can be used from BASIC and provide some Procedures to simplify the use of this extra memory.

The Atari computer can address only 64K (65536 bytes) of memory directly. To access the extra memory individual 16K byte naks of memory are enabled. This is accomplished by making the bank of memory available at location 16384-32768. While this bank of memory is enabled, the main memory at this locaiton is disabled. Memory bank

switching is analogous to plugging in different game cartridges except the switching is done electronically. The switch for enabling the extra memory is called PORTB and is located at memory location 54017.

The following program segment contains three procedures to implement the movement of data between the extra banks of memory and main memory or an external device:

```
10 PORTB=54017:GOTO 50
20 PROC MOVE:POKE PORTB,225+BA*4:MOVE
   SO,DE,BY:POKE PORTB,241:ENDPROC
30 PROC GET:POKE PORTB,225+BA*4:BGET
   #1,DE,BY:POKE PORTB,241:ENDPROC
40 PROC PUT:POKE PORTB,225+BA*4:BPUT
   #1,SO,BY:POKE PORTB,241:ENDPROC
50 REM Your program starts here
```

Before executing any of these procedures you must set:

- BA to the desired bank (1-4),
- SO to the source address,
- DE to the destination address,
- BY to the number of bytes to move,
- and open channel #1 for GET and PUT procedures.

There are two precautions necessary when you enable one of the extra banks of memory:

- 1. The code that does the switching must be located outside of the 16384-32768 block of memory or the program will lock up the computer.
- 2. the source or destination of any data in main memory must be outside of this disabled block of memory.

The first precaution is best accomplished by placing the move procedure at the beginning of the program as in the example above. The actual location of these procedures will vary from program to program depending on the number of variables and the length of the variable names. To check if these lines are below location 16384, enter the following line:

```
45 PRINT DPEEK(138):STOP
```

Location pair 138,139 is a pointer used by BASIC to point to the current line being executed. Type GOTO 45 and the address of line 45 will be printed. If it is less than 16384 you are safe. It is going to take more than 150 variables in your program before this limitation is exceeded. If you should exceed this limitation, your program will be long enough that you can move the three procedures to the end of your program and be past memory location 32768.

If a direct address in main memory is used, the second precaution can be easily verified. However, when you use a string to store data, you must use the ADR(string) function to verify the address of the data in main memory. If your program is relatively short, you will probably end up right in the middle of the 16384-32768 block of memory. There is a simple solution to this problem. Dimension a dummy string immediately before the string to be used for the move command. The length of this string should be long enough to bring the address of the desired string past 32768.

Turbo BASIC compiler and the USR function

It's been brought to my attention that some programs with USR functions don't work properly when they are compiled. I have examined the code for the Compiler and Runtime programs and found the source of the problem and a solution. If you do not know assembly language, you will still be able to make the modification. However, you will have to wade through some difficult explanations.

Only programs that use the value returned by the USR function are affected by this problem. Most programs do not use the value returned by the USR routine and therefore need no modification. The USR function upon exiting from the machine language routine returns a number equivalent to DPEEK(212) to the BASIC program.

Let's take the following program as an example:

```
10 FOR A=0 TO 7:READ B:POKE 1536+A,B:NEXT A
20 FOR B=0 TO 65535
30 A=USR(1536,B)
40 ? A,B
50 NEXT B
60 DATA 104,104,133,213,104,133,212,96
```

The machine language program executed by the USR routine in the above program takes the number B and places it in location 212,213. Thus the value of A and B in line 40 should be identical. For you assembly language programmers the routine is:

```
PLA
PLA
STA 213
PLA
STA 212
RTS
```

When the above program is compiled and run, the value of A and B are not the same. The problem with the compiled program is that the value returned is the value of the A-register and Y-register (low, high byte). If you are writing your own USR routines, you should load location 212 from the A-register and location 213 from the Y-register.

There are two ways to change programs so that they will run correctly when compiled.

If there is enough room in memory after the USR routine, you can add the numbers 165,212,164,213 just before the 96 in the DATA statement:

60 DATA 104,104,133,213,104,133,212,165,212,164,213,96

and change the FOR-NEXT loop in line 10 to reflect this addition:

10 FOR A=0 TO 11:READ B:POKE 1536+A,B:NEXT A

In assembly language, this adds

LDA 212
LDY 213

before the RTS.

If there is not enough room to expand the machine language routine, you can make the following changes and obtain the same result. Search for numbers 212 and 213 close to the end of the routine and change them to 0 and 1 respectively:

60 DATA 104,104,133,1,104,133,0,96

Then modify line 30 as follows:

30 A=USR(1536,B):A=DPEEK(0)

The above modification changes the location where the returned value is stored. The second statement in the new line 30 then reads this value.

Perception Test

Author unknown

Submitted by Anita Uhl

The company for which I work sent us to an out-of-town conference recently. The first item on the agenda was to give us the following perception test.

Just thought I'd pass it along.

1. In 1963, if you went to bed at 8 o'clock at night and set the alarm to get up at 9 o'clock the next morning, how many hours of sleep would this permit you to have?

2. If you had only one match and entered a room in which there was a kerosene lamp, an oil stove, and a wood burning stove, which would you light first?

3. A man builds a house with four sides to it and it is rectangular in shape. Each side has a southern exposure. A big bear comes wandering by. What color is the bear?

4. I have in my hand two U.S. coins which are a total of 55 cents in value. One is not a nickel. Please bear that in mind. what are the two coins?

5. Take two apples away from three apples and what do you have?

6. An archaeologist found some gold coins dated 34 B.C. How old are they?

7. How many animals of each species did Moses take aboard the ark with him?

See answers on page 12.

You May Already Own the New, Enhanced ST BASIC!

ST product information by John H. Dean

Reprinted from the JACG Newsletter, 7/88

If your ST BASIC disk has 123984 bytes in the BASIC.PRG file and is dated 6/29/87 or later, it is probably an enhanced version. If your ST BASIC Sourcebook and Tutorial Manual was copyrighted in 1986, it is out of date, but your disk may have 33 new reserved words that have been added to the original ST BASIC.

I bought my ST in October '87. With it came an Atari U.S.A. Language Disk and a slim Quick Reference Guide. No manual. On the back of the Guide, reference was made to "The new ST BASIC Sourcebook and Tutorial (C026220 Rev B)." Atari dealers I contacted knew nothing about it. Off goes a letter to Atari in Sunnyvale, with no response. In the MARCH/APRIL '88 Explorer, there was an answer by the editor to a letter complaining about Atari's lack of response to users' letters. The editor referred to Atari's Customer Relations Manager, Diana Goralczyck's promise to answer all letters. Off goes another letter! Guess what? ***Atari came through!***

In the return mail I received the new, enhanced ST BASIC floppy, dated 6/29/87, with exactly the same ST BASIC that I already had, but including the new 322-page Sourcebook and Tutorial plus an exhaustive reference section for the advanced programmer.

New reserved words were included. These are: AREA, GEM_ADDROUT, PATTERN, ASK MOUSE, GEM_CONTROL, PEEK_B, ASK RGB, GEM_GLOBAL, PEEK_L, BIOS, GEM_INTIN, PEEK_W, BOX, GEM_INTOUT, POKE_B, CLEAR, GEMDOS, POKE_L, DRAW, GSHAPE, POKE_W, DRAWMODE, LINEPAT, RGB, ED, MAT, AREA, SSHAPE, ERR$, MAT DRAW, STATUS, GEM_ADDRIN, MAT SOUND, XBIOS.

A new syntax for GEMSYS and VDISYS that works more efficiently than the old syntax has been introduced. Programs using VDISYS and GEMSYS should be modified to use the new syntax.

There are ST BASICs out there dated 8/8/86 that. do not include the 33 new reserved words. Check out your original version by DIMming the new words, such as AREA, in command mode with the proper syntax. If nothing happens, the word you used is not reserved. If you get "syntax error," you probably have the enhanced version. If you want a copy of ST BASIC Sourcebook and Tutorial C026220 Rev B, I suggest you write to:

Atari Customer Relations
P.O. Box 61657
Sunnyvale, CA 90488
Attn: Diana Goralczyck, Mgr.

Berkeley Microsystems Hard Drives for Atari ST Computers

A hardware review by Paul Machiaverna, JACG

Reprinted from JACG Newsletter, 5/88

If you are looking for an alternative to the relatively expensive Atari 204 hard drive, then Berkeley Microsystems (BMS) has got what you are looking for. BMS is a small company located in Oakland, California that really knows how to give Atari users "Power without the Price." It is they who build the *BMS-100 Hard Disk Interface.* This interface connects to the DMA (Direct Memory Access/'Hard Disk Port') port on all Atari ST computer models. You see, the DMA is a multi-purpose, high speed parallel input/output port. It can be used to connect many different peripherals, such as the currently available hard drives and laser printers. So, this is where the *BMS-100* comes into play. It will interface the St's DMA to the standard SCSI (Small Computer System Interface) port used for many hard drive controllers. A battery backed up date/time clock is also part of the interface, for proper stamping of files without the need of setting the date/time every time you boot your computer.

With the *BMS-100,* you are able to connect any SCSI hard disk controller to your ST, thus allowing a very wide choice of hard disk systems. Once you choose a hard disk controller, you can choose a hard disk which suits your capacity needs. Just be sure that the hard drive is compatible with your controller. The hard drive controller recommended and sold by BMS is the *Adaptec ACB-4000,* and with good reason. This controller is capable of driving two compatible hard drives following MFM or RLL data schemes and ST506/ ST412 compatibility. So, let's say you buy a 20 megabyte hard drive now and decide to expand to 40 megabytes later. No problem for the *Adaptec.* Just connect your second 20 megabyte drive. You can combine any drive capacities, as long as both are either MFM or RLL. The *BMS-100* is compatible with the laser printers which use the DMA port. You can address the hard drive(s) to DMA port addresses 0 through 6. The clock is fixed at address 7.

The *BMS-100* comes complete with all necessary cables and software for use with all ST computers. The manual supplied is very clear and concise and has information about the *BMS-100,* the *Adaptec controller,* and many different hard drives. You will still have to buy a hard drive controller, the hard drive(s), a power supply, and a case to house the system. Is the *BMS hard disk system* for you? If you don't mind looking over specification sheets a little and shopping for the best prices on the hard drives, yes! Also note that you will also need to assemble the system. But, BMS will assemble and test a complete hard drive system for you, as long as you buy all the components from them (as I did). I must tell you that their prices are fantastic on all the components. I bought a Seagate hard drive from them and they beat everyone else's prices by at least $100.

There are a couple of things to keep in mind when buying hard drives for the Atari ST computers. First, it may be very tempting for a bulletin board system operator to buy a very large hard drive to handle a large base of messages and files. But, TOS will only recognize 64 megabytes of a hard drive. To correct this problem, you will have to obtain a software patch to TOS to get around this problem. BMS is working on one such patch, and it should be available soon. Second, on larger capacity hard drives it is advantageous to use many folders (sub-directories). But TOS has a limit of 40 folders. Again, a software patch is needed. Luckily, this patch is readily available on most bulletin boards at no cost. Lastly, when you buy a case and power supply, consider future expandability options. Is the case big enough to house another hard drive? Can the power supply handle the load of another hard drive?

Berkeley Microsystems deserves all the credit possible. Chris and Vance are the two people running the company and are very helpful. A phone call to them will provide you with answers to any of your questions concerning hard drive systems for your ST.

Berkeley Microsystems
360 Oakland Ave., Suite 5
Oakland, CA 94611
(415)465-6956

Answers to the Perception Test

1. 1 hour. Clocks in 1963 did not distinguish between a.m. and p.m. So 9 o'clock would be an hour later.

2. The match.

3. White.

4. A half dollar and a nickel. One is not a nickel, the other one is.

5. Two apples. You took two apples.

6. The coin is bogus. How would they know to date a coin B.C.?

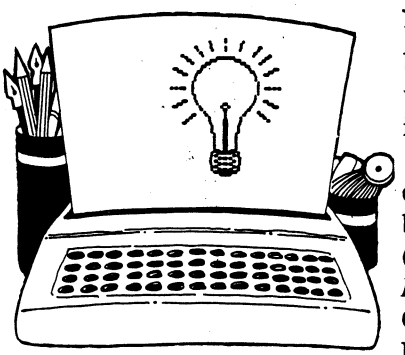
7. None. Noah took animals aboard the ark.

The Official Print Shop Handbook

An 8-bit book review by David E. Dvorin - JACG

Reprinted from the JACG Newsletter, 7/88

The purpose of this article is to present a review of **The Official Print Shop Handbook**, authored by Randi Benton and Mary Schenck Balcer. This book shows how to get more out of *The Print Shop* and its family of software add-ins (this includes *The Print Shop*; Graphics Libraries 1, 2, and 3; and *The Print Shop Companion*) regardless of what computer you are using. Although this alone does not qualify the book as a "must" for owners of *The Print Shop*, I believe its contents do.



The book is divided into four sections. The first section is a description of the book. In the description, it explains why the book was written, what information can be found, and the definitions of symbols used throughout the book. All in all, this section informs the reader how to get the most from the book.

The second section contains applications that can be created with *The Print Shop*, its family of software add-ins, and the handbook. The 100-plus applications are categorized by Home, Party, Learning Materials, School/Organization, and Professional. To make this section more valuable, the authors include the following information for each application:

- What software is used,
- What steps are taken to create the application,
- Design notes about the application, and
- Alternative ideas.

The third section illustrates new and modified icons. Over 60 are presented. To make it easier to create them, they are presented in the same grid used in the Graphic Editor found on The Print Shop program disk. For modifying icons, the illustrations clearly mark which pixels are to be changed. Each illustration indicates the software needed, ideas for applications, and examples.

The last section presents the planning tools. It was with the use of these tools that the authors were able to generate the various icons and applications. The tools consist of templates showing the various icon sizes in the various configurations allowed by *The Print Shop*. Coupled with the various sizes of various fonts, the user is able to get an idea of how certain designs will look before they are printed on paper. Additional information with the tools includes font and icon specifications and the art grid used in the book and Graphic Editor.

If one looks strictly at the example applications and the additional icons in this book, it is worth the $16.95. However, the authors' intentions for this book are more than just the material printed on its pages. They wish the reader to "find the ideas in this book useful - and inspiring." The real value of this handbook comes from the ideas the reader generates on his own.

This almost 300 page paperback can be purchased for $16.95 at most major book stores. If you use *The Print Shop* (regardless of whether you have only *The Print Shop* or the entire family), **The Official Print Shop Handbook** by Randi Benton and Mary Schenck Balcer is a must!

Reading IBM Disks with your ST

By Wm. Price

Excerpted from Current Notes, 10/87

Surprise! You can read PC disks under TOS. Here's how you do it:

Click on the drive icon and a directory will be displayed. Change from icons to text, or view by type, and it all works. Click on a text file and it will display on your screen or print.

Here is an example of the ST-IBM compatibility. I had trouble printing several DOC files from a PC disk magazine with DOS. The paper feed wouldn't advance, and when displayed to the screen, the text wouldn't scroll. A single line window was displayed at the bottom of the screen, and all text was scrolled through this thin window. Next, I tried TOS, but the same single line window was displayed. Then I loaded the DOC files into ST WRITER. It produced a perfect display, and all lines had terminating carriage returns. The text printed perfectly. These files were saved as STW files for future use.

You can bring home IBM 5.25" disks from the office and use them with your ST word processing software. This ST facility has been there all the time. Tsk, tsk Atari! You didn't tell us. But this will only work for ASCII files. The equality ends there because DOS is less catholic -- it cannot read TOS disks. However, you can drag ASCII files on the GEM disk directory to copy them to your DOS formatted disk. Take the disk to work and use it in your PC.

Why Doesn't America Love Atari?

Commentary by Andrew Lucas

Reprinted from Pro-News, Spring 1988 (Prospero software's newsletter)

One of the ways a small software house such as Prospero can survive is by developing niche markets. One of these is the Atari ST. In general, it rates as one of the best combinations of technology and production engineering in the micro field - it is both affordable and not stuck in the architectural doldrums of the 80x86 standard. The ST succeeds in being a lot of things to a lot of people - it is fast, it has superb color graphics, it has good music capability, it has a good user interface, it has good desktop publishing, it has good business software, it has good production engineering. Whereas it isn't outstanding in any of these fields, no other micro has the "width" - the Macintosh is better at DTP and in its user interface but has little color and is very expensive, and the same sort of criticisms can be levelled at the other contenders. In the electronic music field the Atari seems to be the only contender; it comes with a MIDI interface as standard so keyboards plug straight in; it seems to be reliable enough to travel with groups *(I should say so - the Pointer Sisters, B.B. King, and Peter Gabriel, to name just three! - AB)*, and there is lots of software. I saw an Atari "drawing" sheet music with a pen plotter - the effect was magical.

The only thing wrong with the ST is probably Atari - it doesn't seem to sell in the U.S.A. because the word "Atari" means "video games" to most Americans. In Germany the ST is a deadly serious technical computer - we have recently added 68881 mathematics coprocessor support to our compilers because of the demand from Germany, and of course in the UK the Atari is the centre of quite a lot of transputer development. Yet the Atari remains a niche machine. It has its own magazines, its own exhibitions, its own distribution network.

Is a niche market a good thing or a bad? We can put development effort into the Atari ST because we know it will not be swamped by competitors, and the same must apply to everyone else in the ST industry. In the PC market things are very different - there are lots of users, lots of distributors and lots of competition from all round the world, and only the big guy wins. I suppose it is the classic choice of being a big fish in a small pond or a small fish in a big pond.

Glossary of Computer Terms

Humor, Author Unknown

Originally from the Hughes Aircraft BBS in CA(?), via the ACORN Kernel, 7/88

A

Abort: When the bus is full, the conductor shouts, "All abort!"

Absolute error: To buy a computer.

Accuracy: Something impossible for programmers to attain.

Adder: The part of a cow that counts how much milk is left.

ALGOL: What you sneak into the punch at hacker parties to liven them up.

Algorithm: An unsteady gait as the result of drinking too much algol.

Alphabetic: A blood condition resulting from the use of too many acronyms.

Ambiguity error: When something is definitely wrong or maybe not.

ANSI: A hacker who can't sit still.

Array: Spontaneous exclamation by a hacker when something works for a change; rarely used.

Automatic check: The one you write every month to your software supplier.

Auto-repeat: A key which when held down, when held down, when held down...

B

Backward recovery: Reaganomics.

Banks: Quiet, air conditioned places where your salary is automatically transferred to peripheral salesmen.

Bar code scanner: A bouncer who checks the crowd for jackets and ties.

Barrel printer: The guy who writes XXX on whiskey kegs.

BASIC: Something so "simple" you need a computer to understand it.

Bell labs: Large black retrievers that go "ding-a-ling!" instead of "bow-wow!"

Binary: A little yellow bird that waves instead of whistles.

Block moves: What happens when a hacker rents a house on a street.

Burst speed: The velocity at which a hacker's ego pops when confronted by a 12-year-old micro-kid.

Byte: Short for "buy it." Refers to how many peripherals you'll have to purchase to support a computer, e.g., there are 8 "buy it" and 16 "buy it" computers.

C

Chain printer: Someone who can't give up printing.

Cold boot: What a programmer puts on feet in winter.

CPS: Refers letter reader to postscript.

D

Dirty power: Rallying cry of militant pigs.

Disk drive: A popular address in Cupertino.

Most Wanted List

Dal-Ace Experts

Donny Arnold ..... 289-6746 ..... call before 10 p.m.
8-bit general knowledge

Joe Camblin .... 221-7825 ... call from noon to 2 a.m.
MIDI & desktop publishing

Larry Dineen ... (817)668-7296 ..... call during day.
ST general knowledge

James Duke 557-2892
BBS, ST programming

Eb Foerster ..... 357-7602 ..... call from 7 to 10 p.m.
Turbo BASIC, SynFile, SynCalc, Assembly

Ron King ..... (817)283-0674 ..... call from 5 to 10 p.m.
8-bit hardware

John Saunders ..... (817)566-0318
C and Assembler languages

Michael Trombley 429-6134
8-bit general knowledge

Ralph Tenny ..... 235-4035 ..... call from 7 to 10 p.m.
ST general knowledge and hardware

Rene Tucker 223-6176
8-bit general knowledge

Wally Wilinsky ..... 506-0352 ..... call from 6 to 10 p.m.
MIDI

John Winer 907-1348
Systems programming and general knowledge

Infomart Directions

From North Dallas, take either Stemmons (I-35E) or the Dallas North Tollway south. From Stemmons, take the Oak Lawn exit, turn east, and park at the Infomart. If you are using the tollway, exit right on Wycliff, go left on Harry Hines Blvd. to Oak lawn, and turn right. From the south, take Stemmons north, then follow above directions. Infomart is the big, white, steel and glass building south of the other 'marts. GUESTS ARE WELCOME!!!

Editorial Policy

The editor(s) of Dal-Ace reserves the right to edit your submissions for spelling, punctuation, grammar, clarity, and for reasons of space limitations.

Newsletter Submissions

Submissions are welcome in any form. It is requested of any 8-bit user that s/he upload articles to the club BBS or furnish a hard copy to the editor.

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Commercial Rates

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The purpose of this newsletter is to present information for your consideration. Neither the editor nor Dal-Ace make claims for the validity or usefulness of this material. The reader is the final judge of any product or advice presented.

Infomart Meeting Dates

1988

October 15, November 19, December 17

Dates are only guaranteed to be accurate for 60 days into the future; those later than 60 days are tentative at this time.

Meeting Information

10:00 - 11:00 ..... 8-bit SIG
11:00 - 11:30 ..... Disk Sales
11:30 - 12:00 ..... Main Meeting
12:00 - 12:30 ..... New users SIG
..... Newsletter Exchange SIG
12:30 - 2:00 ..... ST SIG

Dal-Ace Officers

President ..... Donny Arnold 289-6746
Vice President ..... Joe Camblin 221-7825
VP Comm ..... Terry Borchardt 296-4699
Secretary ..... Anita Uhl 492-8682
Treasurer ..... Rene Tucker 223-6176
M.A.L. ..... Brenda Arnold 289-6746
M.A.L. ..... Michael Duke 739-3116
M.A.L. ..... Dave Gramm ..... (214)370-7143
M.A.L. ..... Jim Lewis 492-4450
M.A.L. ..... Nolan Terril 255-8357

Dal-Ace Volunteers

Editor ..... Angela Burns 368-4725*
Ad Manager ..... Ray burns 368-4725*
BBS ..... Michael Trombley 429-6134
..... Gary Fuquay ..... (817)267-2510
8-Bit Library ..... Tim Mixson ... 356-4725
ST Library ..... John Winer 907-1348

Due to personal circumstances, you must call Angela or Ray between 7 p.m. and 7 a.m., no Fridays.

Dal-Ace Bulletin Board

Metro (817)429-6134

Dal-Ace

Dallas Atari Computer Enthusiasts

Dal-Ace is an independent user education group not affiliated with the Atari Corporation. This is the official newsletter of Dal-Ace and is intended for the education of its membership as well as for the dissemination of information about Atari computer products.

Dal-Ace membership is $20 per year. BBS-ONLY membership is $10 per year. This newsletter is written, edited, and published by volunteers. Its availability and/or distribution may, at times, be subject to circumstances beyond the control of the club officers. A pink address label indicates that your membeship expires this month.

Other users' groups may obtain copies of this newsletter on an exchange basis.

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