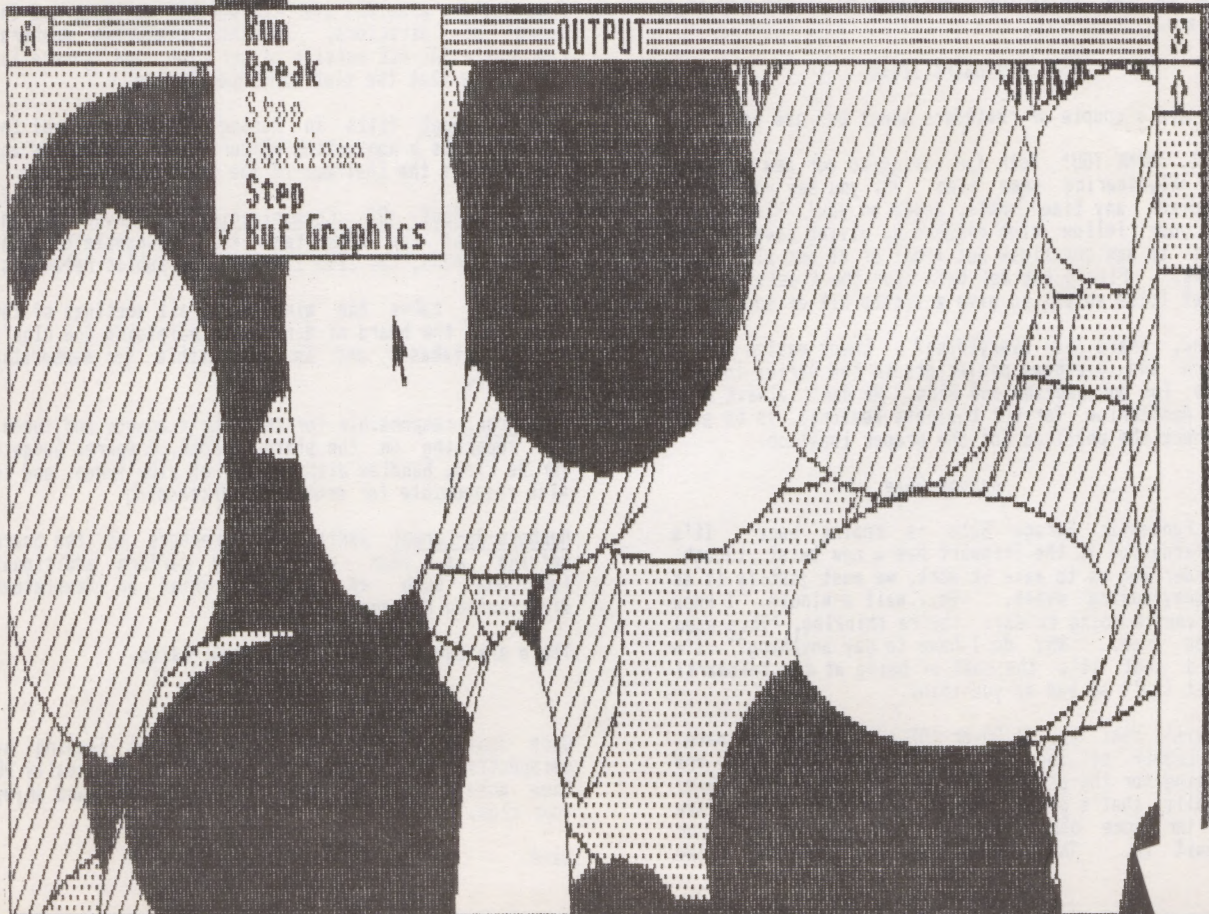


DAL-AGE

DALLAS ATARI COMPUTER ENTHUSIASTS

VOLUME 6 ISSUE 12 DECEMBER 1985

Desk File Run Edit Debug



President's Perspective
Dateline, Dallas: 23Nov85

Hello!

Season's greetings to you all. Here are the news items that I have to report to you this month.

Formal Business Meeting

We will have a brief business meeting during the December festivities. There is a formal piece of business that must be brought before the membership for voting. That is a proposal to purchase an Atari 520 ST, with color monitor and two double-sided, double-density disk drives. This system will be used for demonstration purposes and for expansion of our bulletin board.

Since the total cost of this system will exceed \$500, our bylaws require that a majority of the membership must approve the expenditure at a regular meeting.

Toys For Tots

It is our annual tradition to have activities that benefit the Toys For Tots campaign in the Dallas area. This year will be no exception. Following the business meeting and demonstration, there will be games and an auction in one of the meeting rooms. The cost to get in to the games/auction is one toy or 3 dollars.

Infomart Items

Here are a couple of reminders about our new home.

First, THANK YOU! Both for coming to our new home and for volunteering some time. Oh, you say you didn't volunteer any time? Well, shame on you! Please help out your fellow club members by giving some of your time: to man our kiosk out front or at our club sales tables. Please see Bob Dain (for the kiosk) or John Pellet (club sales) to give a little bit of your time.

Second, Where is everything? Check easles on the floors and overhead projectors in the Atrium for the rooms for our meeting and SIGs. We don't always have the Auditorium for our business meetings, so be sure to check the postings for the proper location.

Garage Sale

Our Fantastic Garage Sale is coming back! It's reincarnation at the Infomart has a new twist, though. In order for us to make it work, we must justify it as a money-making event. So...wait a minute. I know what you're going to say. You're thinking, "This used to be free. Why do I have to pay anything?" I'm afraid that it's the cost of being at the Infomart! But it isn't as bad as you think.

It will cost you \$1.00 or 10% of whatever you make. The LESSER of the two. This is the fee we are charging for the privilege of setting up at the table. Actually that's pretty cheap! There will be a coffee can (or some other device) for you to make your deposit in. The table will be available during the

same times as our club sales.

PLEASE NOTE: We will resume the Garage Sale at the January meeting.

Classes

We are trying to arrange for a series of classes beginning in January, 1986. We are looking for teachers and classrooms. Some of the classes will be held here at the Infomart, some will be held in the homes of our members, and the rest will be held at some of the area stores.

A proposed curriculum appeared in the November newsletter. If you are interested in teaching or volunteering a meeting place, please contact Randy Ochmann. His home telephone number is 669-3325. Remember, we're calling for teachers, NOT students at this time.

1986 Elections

We are rapidly approaching our annual meeting in February when we elect our officers. The nominating committee is soliciting names for nominees. People like YOU! To be considered for the slate to be published in January, give your name to either John Olson, John Pellet, or myself.

If you're wondering about the duties of the each of the officers, here is a brief list.

President: presides over the monthly meetings and the board of directors, appoints committee members, represents DAL-ACE outside of our club, and (generally) makes sure that the club continues to run

Vice-President fills in during the absence of the President, is a non-voting member of ALL committees and SIGs, and is the Chairman of the Program Committee

Vice-President Of Communications: serves as the Chairman of the committees for the newsletter, the bulletin board, the club library, and public relations

Secretary: takes the minutes at all meetings of the club and the board of directors, maintains the club's roster database, and is responsible for membership processing

Treasurer: responsible for the club's assets and funds, for reporting on the state of both, prepares budgets for the club, handles disbursement of club funds, and is also responsible for membership processing

Members-At-Large: additional directors on the board serving as your voice, many perform additional functions such as Disk Librarian or Newsletter Distribution Manager

There are currently four Members-At-Large.

Closing

Once again, I want to thank you for reading my perspective of things. And remember, you really DO know more than you think! Be enthusiastic and enjoy your club.

Dave

COMING ATTRACTIONS by Morris Stephens

Assuming that this newsletter is finished by the time of the meeting, and assuming you are at the meeting, welcome. This meeting, of course, includes our annual Toys-for-Tots activities. In addition, if all went as planned, we should have some special guests from Philon, Inc. out of New York who will be demonstrating some of their new products for the ST: possibly a new basic language and a basic compiler.

Schedule for December meeting

11:00 - 12:00 Club sales - 1st floor
 11:30 - 12:00 New Member SIG
 12:00 - 12:30 General meeting
 12:30 - 2:00 Philon demonstration
 2:00 - 4:00 Toys-for-Tots Activities
 2:00 - 5:00 SIG meetings

Next Month:

Representatives of Megamax, Inc. from right here in the Metroplex, are expected to be at the January meeting to show off their new and exciting "C" language and compiler. Anyone who has experienced the excitement of blasting asteroids and enemy flying saucers in the classic game, "Asteroids", on one of the 8-bit computers, or on one of the arcade machines, can now experience the same excitement with "Megaroids" on the ST. "Megaroids" (now don't faint when you hear this) is an "Asteroids" type game written with Megamax's new "C", and placed in the PUBLIC DOMAIN. Some say this is the most exciting game available for the ST so far, so it's amazing that a game of this caliber would be made public domain, especially when software for the ST is still relatively sparse. At any rate, from experiencing this game, and from seeing some of the other features of this "C", I am optimistic that a good, full-featured "C" might finally become available for the ST. So I am hopeful that the Megamax people will be able to attend in January so we can all see just how good this product is.

Last Month's Program

Last month we had scheduled a demonstration of a new accounting package for the ST. Unfortunately, a conflict in schedules prevented the demonstration from being presented. It was just as well, however, since we were able to have more time to demonstrate some products for the 8-bit computers. Many thanks to Wes Newell and to Charles Marslett for their time and efforts.

A Note on Program Selections

We are attempting to provide equal time to both the 8-bit users and the ST users but it seems we have more ST people volunteering to do demo's than 8-bit people.

we are, of course, always looking for volunteers to put on demonstrations, so please step forward if you would like to demonstrate something or know someone who would. And whatever your opinions are on the programs scheduled for our meetings, please let me know (whether you like them, don't like them, etc.). Without some feedback, I have no way of knowing whether the programs are of any interest or not.

A Semi-personal Note

With the demands upon my time required by business and by being V-P, I am reluctantly having to give up the position as Newsletter Advertising Manager. I believe this position is a very important one and, for me, it has been a rather rewarding one. It requires relatively little time to make a couple of phone calls and write a couple of letters per month, but can be of great benefit to the club. I hope someone will quickly step forward and take over these duties, for, without an advertising manager, we may well lose our advertisers, and hence, our advertising revenue and the other benefits derived from the advertisements.

*** DISK PRICES REDUCED ***

Nov. 20, 1985, Dallas,

The DALACE board of directors voted today to reduce the price of our public domain software by 40%.

The consensus of opinion held that we could better support our members, particularly our junior members, with more affordable software prices.

The minority opinion held that we might not be able to support the bulletin board in the manner in which it has become accustomed. This opinion was countered with the idea that, with lower prices, we might sell twice as many disks. The disk librarian will have to work twice as hard, but he doesn't mind, and it will serve him right, since he brought up the idea in the first place.

Time will tell who was right. In the meantime, get them while they are hot. The low prices might not last forever.

All of our regular public domain disks are now on sale at three dollars apiece. This includes the ST disk.

The multiple disk discounts have been discontinued, and the price of MYDOS, on which we pay a royalty, will remain at ten dollars. Disk catalogs are still three dollars.

The new low prices are just in time for stocking stuffing at Christmas. You will be hard pressed to find any other worthwhile toy that costs less than \$3.01, tax included.

Incidentally, the disks are still worth as much as they were last month, when they were a great buy at \$5.

Thanks to member Charles Marslette, the author, we now have the latest version of MYDOS in the library. This version comes with documentation on disk, and has two sides. The price is the same as before, ten dollars.

For those of you who have purchased the earlier releases from the club, we will provide one last update to what we expect to be the last release of MYDOS. Please bring in your original purchased club disk and we will exchange it for the new release.

See you at the meeting -- Jeff Golden.

COMMUNICATIONS COLUMN

by John Pellet

MERRY CHRISTMAS!

First, the newsletter news. Look at the new staff listings on the back page. We also have tentative production meeting dates there. All of you budding authors should enjoy the longer lead time. Please call me if you've got something to say.

The disk library is changing. Disk prices have been lowered - see the Board Actions column. There should be another ST disk (#2) also at this meeting. Check with Jeff for full details.

The BBS is still growing. The Board, as noted elsewhere, is asking for authorization to buy an ST. While right now this will be used for demonstration principally, we hope to use it as a second BBS as software becomes available.

That's about it for this month - see you at the meeting - if not then:

HAPPY NEW YEAR!

BOARD ACTIONS

November 20, 1985

- * The Board authorized postage for a special mailing on Toys for Tots to give final details before the December meeting.
- * The next Board meeting will be on Saturday, December 14, at 4:30 PM at Computer Discoveries.
- * The Board proposed that the club buy an Atari 520ST, with color monitor, and 2 double-sided disk drives, for demonstrations and possible future use as a second BBS from the lowest local bidder. Club approval will be requested at the December meeting.
- * The Board set new prices for club disks. New prices will be \$3 per disk (for either 5.25" or 3.5"), except MYDOS is still \$10.

Basic XE

Reviewed by Bill Sheppard

Optimized Systems Software has been known since the early days of Atari computers as a top-notch company producing high quality programming languages, as well as alternative DOS's. Basic A+ was a powerful, if not terribly popular, upgrade to Atari Basic. However, because of the inconvenience of having to load in a lengthy disk file each session, it was never widely accepted. OSS reworked Basic A+ and came up with Basic XL, until now the most powerful Basic available for the Atari, encompassing the best of Atari Basic, Basic A+, and Microsoft Basic. Basic XL added many new commands, including most DOS commands, as well as support for player/missile graphics, and enhanced string operations, while maintaining complete compatibility with Atari Basic programs.

Basic XE is the latest chapter in OSS's quest for a better Basic. Complete compatibility with Atari Basic and Basic XL has been maintained, while adding still more new commands, and allowing full use of the additional 64K of memory present in the 130XE.

Basic XE consists of a Supercartridge (16K bank-selected to occupy only 8K of memory space), as well as a disk containing extensions to the language and sample programs. The manual is 144 pages and while not in the convenient 3-ring binder used for prior OSS products, it is still relatively easy to handle. The manual is fairly well-written, with few typos and a full index, although it has not been designed for those with no prior experience programming in Basic. For the newcomer to programming, one of the many books on programming Atari Basic should be purchased.

Commands available in Basic XE not present in Atari Basic are as follows: BGET, BPUT, BLOAD, BSAVE, ERASE, DIR, PROTECT, UNPROTECT, RENAME, RPUT, RGET, BUMP, HITCLR, HSTICK, VSTICK, MISSLE, MOVE, PEN, PMADR, PMCLR, CALL, DPEEK, DPOKE, ELSE, ENDF, ENDMHILE, ERR, EXIT, PNCOLOR, PMGRAPHICS, PMMOVE, PMWIDTH, EXTEND, FAST, FIND, HEX\$, INVERSE, LOCAL, LOMEM, LEFT\$, MID\$, RIGHT\$, LVAR, NORMAL, NUM, PROCEDURE, RANDON, RENUM, SGN, SORTDOWN, SORTUP, SYS, TAB, TRACE, TRACEOFF, PRINT USING, &, !, AND %.

When using the cartridge without the extensions disk, many of these will not be available, including the ability to use the upper 64K of memory. Notice the commands SORTUP and SORTDOWN, which allow fast and

convenient sorting of string arrays (another feature not directly allowed in Atari Basic.)

The commands CALL, PROCEDURE and LOCAL pertain to Basic XE's ability to have much more structured programs, approaching PASCAL in style. These procedures are similar to a standard subroutine, but the same variables may be used and changed from within the procedure as in the main program, without affecting the value of the variable upon exiting the subroutine. The following program fragment will help to make this clear:

```

10 Call "Get In Range" Using 10,90 to Result1
.
.
90 Rem ***Beginning of procedure
100 Procedure "Get In Range" Using Min, Max
110 Local Temp, Score
.
180 Exit Temp
190 Rem ***End of procedure
.
.
999 End

```

In this example, the values 10 and 90 are automatically passed to the variables Min and Max to be used in the procedure. The variables Temp and Score are local variables whose values within the procedure are totally independent of any use outside of the procedure. That is, whatever value they contained before entering the procedure will be unchanged upon exiting the procedure, regardless of any use within the procedure. Upon exiting the procedure, the local value of Temp will be passed to the variable Result1 for use in the main program. Because there is still a limit of 128 unique variable names, local variables are often necessary to keep within the total limit, as well as making for a much more structured program.

The two features of Basic XE which really set it apart from Basic XL are the much, much faster operation of existing programs, and the additional program space available. The extensions disk contains faster math routines which automatically replace the old routines in the operating system. For certain functions, this yields results far faster than even the Newell Fast Chip. For a very simple benchmark, I created a loop which squared 1000 numbers. Standard Atari Basic on an unmodified machine took some 14,000 jiffies (233

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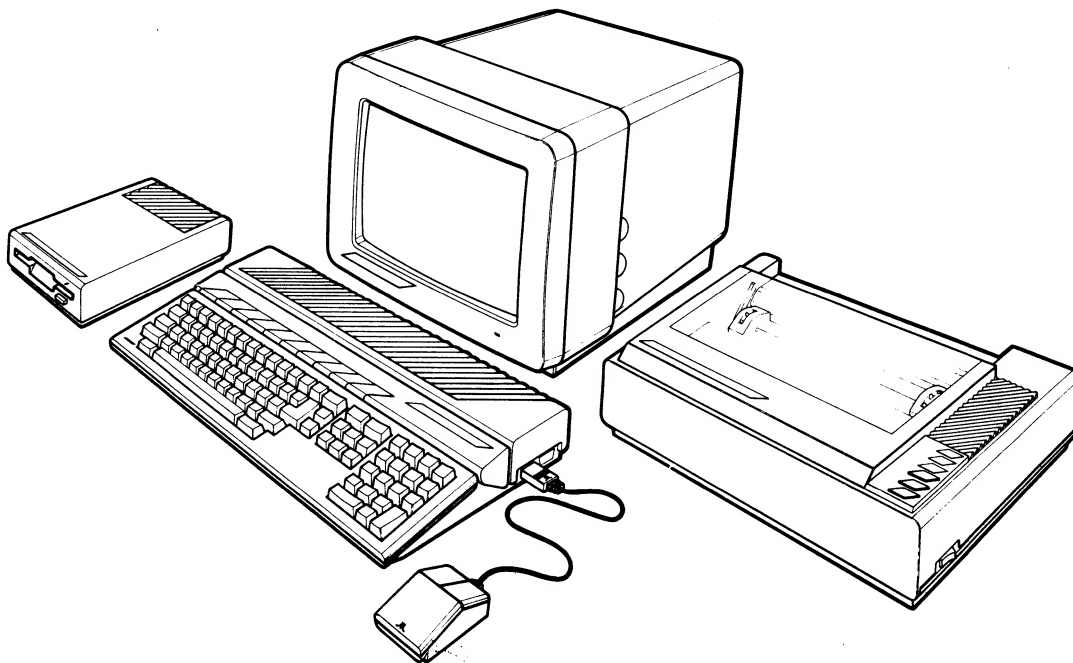


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seconds). The same loop with Basic XL and a Fast Chip took about 3800 jiffies (63 seconds). With Basic XE, the total time was 201 jiffies (3.3 seconds)! This is some 7000% improvement over standard Atari Basic! The effect will not be so dramatic with all programs, since the square function is normally one of the slowest, but in almost all cases significant improvement will be noticed.

The EXTEND command will separate the program and data storage, with the program occupying the upper 64K, and data storage being allowed in the main 48K (of which about 35K is available). This arrangement should allow for roughly twice as large a program. Note, however, that once the EXTEND command is given, the program may then only be loaded on a 130XE, regardless of whether the program is small enough to fit an 800XL. The only way to recover such a program is to LIST it to disk, and then re-enter it. Also, I did run across a public-domain game program which caused the computer to lock-up upon my attempt to use the EXTEND command. I was not able to determine the cause of this.

In summary, Basic XE is a very valuable addition to the library of programming languages available for the Atari. If you intend on doing any serious programming with the 130XE and prefer not to learn an entirely new language, Basic XE is a must. If you have some older programs which you wish would run faster (especially math-oriented), Basic XE might very well be just what you need. Or, if you need to use the extra memory in the 130XE but haven't been successful with ACTION! or assembly language, Basic XE provides an easier alternative. I highly recommend it. Retail price is \$79.

ATARI AT COMDEX

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Submitted by Bill Sheppard

Wednesday, November 20

By Jack Powell

Las Vegas, NV -- Covering a huge, three island display area in the center of the West Hall of COMDEX, the largest computer trade show in the US, Atari and its third-party developers are easily the busiest attraction of the show.

Atari was clearly aiming at a show of force in the 68000 world by gathering its supporters under a collection of plum-colored banners identifying each ST stalwart. Over forty software companies were provided display areas and ST machines by the Tramiel operation.

In the center of the Atari action, the the ST, the Amiga, and the Macintosh were lined up side by side. The familiar Amiga bouncing ball was running identically on both the Amiga and the ST, (actually, a bit faster on the ST), while the Macintosh displayed only a black and white disk icon bearing a question mark. The price tags over the machines told the story: \$1795 for the Amiga, \$2795 for the Mac, and \$999 for the Atari ST.

Not to be outdone, the 8-bit Atari 130XE was also displaying a bouncing ball demo. It was, however, the only Atari 8-bit machine on display at the Atari space. Except for the Amiga at the Atari exhibit, Commodore was not represented at the show.

Perhaps the most impressive graphics demo was an animated parrot, also from Atari, which flies across the screen while a graphics slide show continues in the background.

The list of software companies is so extensive, we'll just have room in this installment to briefly mention the companies and their products. Stay with us in the next few days for detailed updates.

ANTIC displayed its new ST catalog software, including The Cartographer, Murray and Me, and the Metacomco Macro Assembler. Of particular interest was a demonstration of a new program by Tom Hudson which displays three dimensional objects in both wire-frame and solid -- with adjustable light source!

Activision is showing both Hacker and Borrowed Time. If you've seen Hacker on the 8-bit machine, you're in for a pleasant surprise. The travel through the underground tunnel is graphically real; complete with railroad lanterns hanging from the rock walls.

Llamasoft was showing a brilliantly colorful psychedelic light show called Colourspace. Sierra-On-Line has its Ultima II on the store shelves. We saw King's Quest II, the animated graphics adventure. On the ST the hero can move at three different speeds and the program can take advantage of two disk drives. Sierra-On-Line will also soon release Winnie the Pooh and ST-One-Write which, they say, is the number one small business accounting system for the Macintosh.

Hippopotamus Software has its Backgammon on a full-color screen with excellent graphics right down to the reflections on the pieces. Academy Software has an ST version of Typing Tutor, and Xlent Software is showing The Typesetter -- a Print Shop- style program.

In addition to its Regent Word word processor, Regent Software announced a spelling program named, logically enough, Regent Spell.

Batteries Included was showing off the colorful graphics of DEGAS, and a company called Computer Curriculum is adapting their dedicated education software, originally designed for a mini-computer, over to the ST.

GST Holdings LTD, from England, is showing a C Compiler, a Macro Assembler and a MacWrite-like word processor.

Spinnaker Software is introducing its line of graphics adventures and educational software. On their screen was Perry Mason and The Case of the Mandarin Murder.

Migraph is demonstrating Easy Draw, an object-oriented graphics program. Among its many options is an "almost-infinite zoom."

TDI Software, is currently offering Modula-2, a favorite language of computer scientists. They will also be demonstrating Andra, a professional typesetting program which was written on their own Modula-2.

BMB Compuscience is demonstrating a database management package with LAN (Local Area Network) which will allow users to transfer data to and from the IBM and ST. They expect this to be available in March or April.

Mirage Concepts is also showing a database in addition to their disk utility program by Holmes and Ducksworth.

Portable Software is showing a property management system which operates under BOS (Business Operating System). This is going to be a high-end system for the vertical market.

Right next to Portable Software is Softronics which was displaying the first element of a complete integrated package. Their terminal program was truly impressive. Practically any terminal can be emulated,

and if that's not enough, you can define your own and compile it to disk. Among their other modules, Softronics plans a intelligent CAD/CAM system which can analyze a plan and determine the success or failure of the structure!

As you can see, there's a lot of excitement and a lot of software support for the ST. What we have seen so far is solid product. And most of it will be on the dealer's shelves by Christmas. Reaction to the ST by the professionals here at COMDEX is very positive and it looks like a good year for Atari!



*** COVER ART ***

The ST-BASIC (STB) program below was downloaded from CompuServe and used to draw this month's cover art. It is VERRRRY FAST! And very small! An altogether worthwhile effort for our first STB program. Note that the STB editor wants line lengths < 80 columns. ...JLP

```

0 ' ST-BASIC "ELLIPSE.BAS": 10/20/85 by R.VAN
1 ' (Attention beginning ST-BASIC hackers!)
2 ' A useless program in pitiful ST-BASIC?
3 '
10 START: FullW 2: ClearW 2: Atari$=Chr$(14)+Chr$(15)
15 GotoXy 0,1: ? Atari$;" _SPEEDY ELLIPSE DRAW DEMO_
   ";Atari$
20 ? "This demo draws 260 random ellipses"
25 ? "(in color on RGB units) using the"
30 ? "'PELLIPSE' ST-BASIC command.": ? : ? "You are in ";
35 If Peek(SysTab+0)=4 then Xmax=320:Ymax=200:Colrs=16: ?
   "LOW";
40 If Peek(SysTab+0)=2 then Xmax=640:Ymax=200:Colrs=4: ?
   "MEDIUM";
45 If Peek(SysTab+0)=1 then Xmax=640:Ymax=400:Colrs=2: ?
   "HIGH";
50 ? "-Resolution mode.": ? : ? "Type [CTRL]-[6] to exit
   program."
55 Input "Type [RETURN] or [ENTER] to begin";Amiga$:
   ClearW 2
60 For Loop=1 to 260: Color
   1,1+Rnd(1)*Colrs,0,0,Rnd(1)*5
65 Pellipse
   Rnd(1)*Xmax,Rnd(1)*Ymax,20+Rnd(1)*90,20+Rnd(1)*40
70 Wave 20,350,25,3000,0: Next Loop: Goto START
80 '
90 ' That wasn't that painful was it? Now let's run the
   program
99 ' and see the puppy work.
100 end

```



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***Items not in stock can be special ordered.

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*** ATARI 520ST versus APPLE MACINTOSH ***
 *** BENCHMARKS GALORE! ***

by John Pellet

Here are five benchmarks, written in C for the MAC, from the November 1985 issue of BYTE. Each is fully described in the magazine and briefly at the start of each section of code. The benchmarks are:

fib.c	Fibonacci series.
frame.c	Empty loop.
intmath.c	Integer math.
pointer.c	Pointer to array.
sieve.c	Prime number generator.

The basic results, compared to the Hippo-C on the MAC are presented below. Note that other C environments for the MAC may produce substantially better results, as may other systems for the 520ST. Times are in seconds, sizes in K. On the 520ST, GEM is run from the desktop, and HOS is run from the Hippo Operating System.

Benchmark	520ST		Macintosh	
	time	size(GEM/HOS)	time	size
frame.c	<1	? / 11K	.25	21K
intmath.c	12	32K / 12K	16	22K
fib.c	32	31K / 12K	47	27K
pointer.c	22	? / 11K	33	21K
sieve.c	8	39K / 20K	12.5	21K

I am not sure why the results are as different as the above table shows. The ST's 30-40% speed advantage may be a product of 2 factors: the ST's increased clock speed and the ST's video chip which relieves the 68000 CPU from many screen duties. The MAC file sizes represent that required to run a program from the desktop. The corresponding ST files are 5-15K larger, possibly indicating GEM has a larger overhead. All of these differences should relate to the basic machine - rather than a compiler difference - since all cases were compiled on the Hippo-C system for the ST and the MAC. If anyone would make the effort to benchmark the 8 biters, I, for one, would be very interested in the results. Especially an ACTION! versus C comparison.

```

-----
/* FIB.C
   from BYTE, November 1985

```

Calculates the 24th value in the Fibonacci sequence, defined as 0,1,1,2,3,5,8,13,21,... repeated 10 times. This algorithm makes extensive use of recursion and tests

the function calling of the compiler.

```

*/

#include <stdio.h>
#define NTIMES 10 /* # times to complete fib. value */
#define NUMBER 24 /* largest fib. calc. w/ 16 bits */

main()
{
    int i;
    unsigned value, fib();
    printf("START TIMING\07\n");
    for(i=1; i<=NTIMES; i++)
        value = fib(NUMBER);
    printf("STOP TIMING\07\n");
    printf("\nPerformed fibonacci series %d times\n",
           NTIMES);
    printf("fibonacci(%d) =%u.\n",NUMBER,value);
    printf("Press any key to end: ");
    getchar();
}

```

```

unsigned fib(x) /* compute Fib. number recursively */
int x;
{
    if (x > 2)
        return(fib(x-1) + fib(x-2));
    else
        return(1);
}

```

```

-----
/* FRAME.C
   Benchmark from BYTE, November 1985

```

frame.c is an empty loop that cycles 10,000 times.

```

*/
#include <stdio.h>
#define COUNT 10000
main()
{
    int i;
    printf("START TIMING\07\n");
    for (i = 0; i < COUNT; ++i)
    {
        ;
    }
    printf("STOP TIMING\07\n");
}

```

```

/*      intmath.c
      From November 1985 BYTE
      Integer math benchmark, repeated 10000 times.
*/

```

```

#include <stdio.h>
#define COUNT 10000
main()
{
    int i, j, k;
    printf("START TIMING\07\n");
    for (i = 0; i < COUNT; ++i)
    {
        j=240; k=15;
        /* Test byte-byte combinations */
        j = (k * (j/k));
        j = (k * (j/k));
        j = (k+k+k+k+ k+k+k+k+ k+k+k+k+ k+k+k+k);
        k = (j -k-k-k-k -k-k-k-k -k-k-k-k -k-k-k);
        /* Test byte-word combinations */
        j = (j << 4); k = (k << 4);
        j = (k * (j/k));
        j = (k * (j/k));
        j = (k+k+k+k+ k+k+k+k+ k+k+k+k+ k+k+k+k);
        k = (j -k-k-k-k -k-k-k-k -k-k-k-k -k-k-k);
        /* Test word-word combinations */
        j = (j << 4); k = (k << 4);
        j = (k * (j/k));
        j = (k * (j/k));
        j = (k+k+k+k+ k+k+k+k+ k+k+k+k+ k+k+k+k);
        k = (j -k-k-k-k -k-k-k-k -k-k-k-k -k-k-k);
    }
    printf("STOP TIMING\07\n");
}

```

```

/*      pointer.c
      From November 1985 BYTE

```

Pointer.c uses a pointer to march through a 128 character array, setting each character to the blank character. Repeated 10000 times. Measures efficiency of pointer for array access.

```

*/

```

```

#include <stdio.h>
#define COUNT 10000
#define ALLOTTED 128
main()
{
    char workarea[ALLOTTED], *ptr;
    int i;
    printf("START TIMER\07\n");

```

```

    for (i=0;i<COUNT;++i)
    {
        ptr=workarea;
        while (ptr<(workarea+ALLOTTED)) {
            *ptr = ' ';
            ++ptr;
        }
        printf("STOP TIMING\07\n");
    }
}

```

```

/*      sieve.c
      From November 1985 BYTE
      Finds prime numbers.
*/

```

```

#include <stdio.h>
#define TRUE 1
#define FALSE 0
#define SIZE 8190
char flag[SIZE+1] = {0};

main()
{
    int i, prime, k, count, iter;
    printf("START TIMING\07\n");
    for(iter=1; iter<=10; iter++) {
        count=0;
        for(i=0; i<=SIZE; i++)
            flag[i]=TRUE;
        for(i=0; i<=SIZE; i++) {
            if (flag[i]) {
                prime=i+3;
                for (k=i+prime; k<=SIZE; k+=prime)
                    flag[k]=FALSE;
                count++;
            }
        }
        printf("STOP TIMING\07\n");
        printf("\n%d primes.", count);
        getchar();
    }
}

```

For those of you ST owners who are of a saterical bent and who are also devotees of the prophet Bob Dobbs of the Church of the Subgenius, there is good news! Simply by typing in this program from BASIC, you can see Bob's visage: PRINT CHR\$(29);CHR\$(30);PRINT CHR\$(31);CHR\$(32) With a bit of creative redundancy you can get a whole screenful! Praise Bob!

(from Bob Dain)

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**** Attention Atari Enthusiasts ****

We would like to revive the "Experts List" that was formerly published each month and, at the same time, identify possible teachers for our Atari classes which will begin soon. If you are interested, please fill out the sheet below and either give it to Dave Gillen or Randy Ochmann or fold and staple this page and mail it to DAL-ACE (if you wish, bring it to the January meeting). Serving as a DAL-ACE "expert" is a great way to meet other Atari enthusiasts and you don't need to be a computer professional to help. Any knowledge you have can be helpful to somebody else. We need "experts" at the beginning, intermediate, and advanced levels in hardware and/or software.

Membership involvement is what makes an organization strong. Get involved! Fill out this sheet today and become an "expert".

Name _____
 Address _____ City _____
 City _____ ST _____ Zip _____
 Phone _____ Atari machine(s) owned _____
 Areas of knowledge: Hardware _____
 Software _____
 Both _____

Being an expert would involve either spending some time at the monthly meetings answering questions or serving as a resource during the month by having your phone number published in the Newsletter. Please indicate:

Expert table at meeting _____
 Expert phone list _____
 Both _____

Would you be interested teaching DAL-ACE classes? We will provide outlines and any other aid you will need.

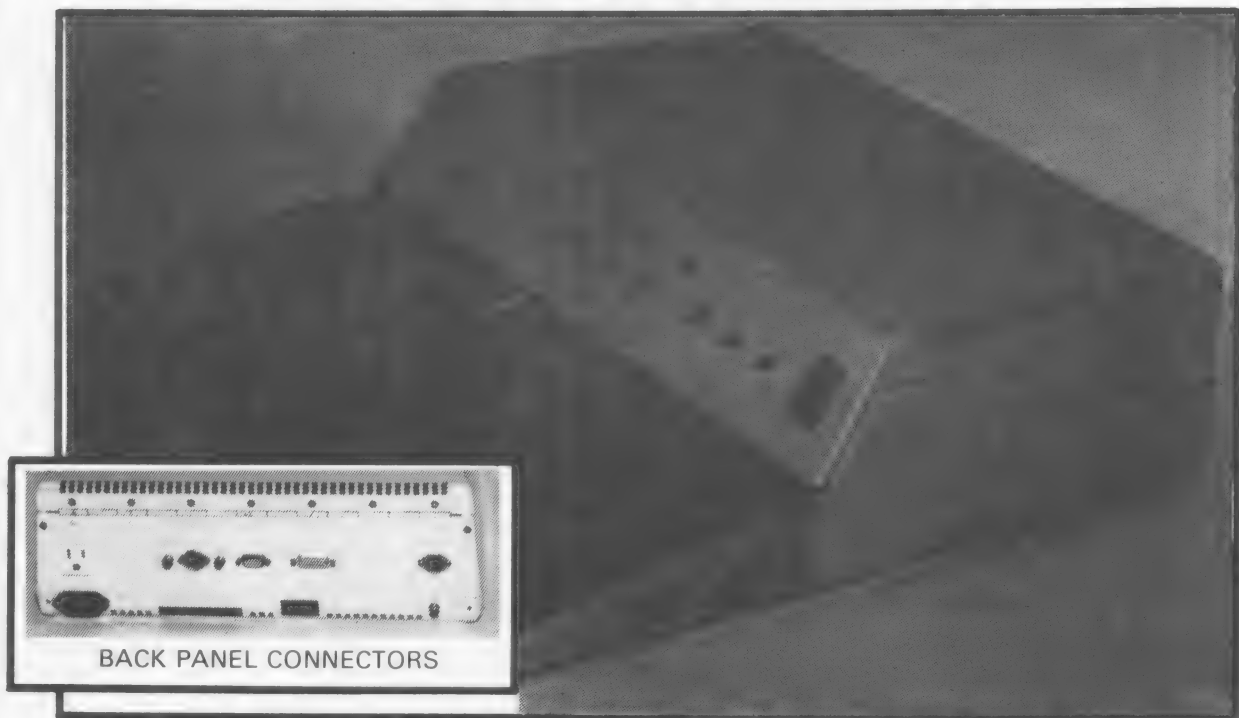
Yes _____
 No _____

If yes, what type of classes and level would you be interested in teaching?

Level: Beginning _____
 Intermediate _____
 Advanced _____
 Type: Programming _____
 Please list languages: _____

 Word Processing _____
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 Please list:
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*** TOP 10 PRINTERS FOR ATARI: ***
 ANTIC ONLINE USER POLL TALLY

Nat Friedland, ANTIC Editor

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Which printers are most widely used by Atari owners? How good do Atari owners think their printers are? Antic now has much fuller answers to these questions - thanks to the 1,034 responses in the largest-ever CompuServe ANTIC ONLINE users poll. As a result, we plan to publish even more programs compatible with the top-rated printers. Here are the highlights of what we learned from the survey votes:

Nearly 120 different printer models were named in the survey. However, the bulk of these printers only got a handful of votes - often merely one or two responses each. In contrast, the Top Ten printers accounted for 68.7 percent of the total vote.

Antic was pleased to learn that many of the 10 most popular printers were those which had earned the most enthusiastic reviews in previous issues of this magazine.

A number of the most widely sold printers during the past few years have now been replaced by newer models. The poll reflected this, with several recently discontinued units scoring high on the popularity list.

MOST WIDELY OWNED:

- | | |
|-----------------|-------|
| 1. Gemini 10X | 11.9% |
| 2. Star SG-10 | 8.6% |
| 3. ProWriter | 7.1% |
| 4. Epson RX-80 | 7.0% |
| 5. Epson FX-80 | 6.5% |
| 6. Epson MX-80 | 6.2% |
| 7. Panasonic KX | 5.9% |
| 8. TWO-WAY TIE | 5.8% |
| Okimate 10 | |
| Atari 1027 | |
| 9. Atari 1025 | 4.1% |

ANTIC ONLINE readers were asked to name the printer they owned, and then to rate it in six categories -- text quality, speed, graphics quality (if applicable), ease of use, reliability and value for price.

The 10 most popular printers are ranked here by their average rating in all six categories. The ratings were made on a scale of 1 to 5, with 5 the highest. Antic Program Editor Charles Jackson wrote a program that

automatically tallied the scores.

Overall, Atari users seem to be very satisfied with their printers. Even most of the less-widely-used printers tended to be highly rated by their owners.

HIGHEST QUALITY

Rating (5=highest possible)

- | | |
|------------------|-----|
| 1. SG-10 | 4.5 |
| 2. Epson RX-80 | 4.3 |
| 3. FOUR-WAY TIE: | 4.2 |
| Gemini 10X | |
| ProWriter | |
| Epson FX-80 | |
| Panasonic KX | |
| 4. Epson MX-80 | 4.0 |
| 5. Okimate 10 | 3.6 |
| 6. Atari 1025 | 3.0 |
| 7. Atari 1027 | 2.6 |

FOR A MORE COMPLETE ANALYSIS OF THIS SURVEY, SEE THE FEBRUARY, 1986 ISSUE OF ANTIC MAGAZINE.

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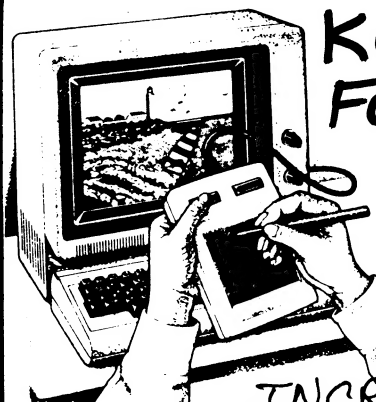
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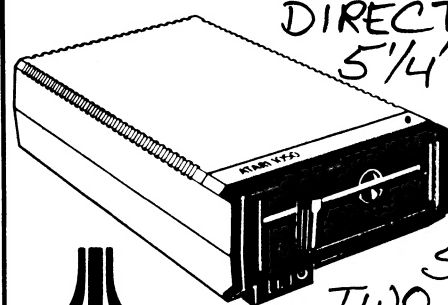
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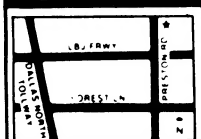
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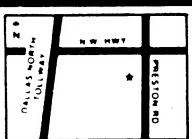
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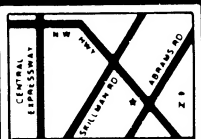
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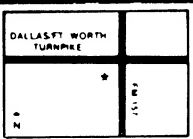
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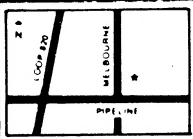
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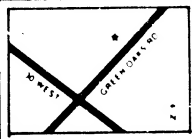
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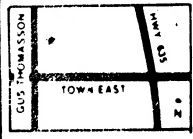
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NEWSLETTER SUBMISSIONS

Submissions are WELCOME in ANY form. However, it is extremely helpful if all submission(s) can conform to the following form:

- Condensed print (16*17 CPI).
- Column width of 56 characters (3 7/16 inches).
- Page length of 9 inches (54 lines @ 6 LPI).
- Right and left margins justified for text.

All submissions should be given to one of the staff above or brought to the production meeting both printed out and on a DOS or TOS disk.

NEWSLETTER PRODUCTION SCHEDULE

Newsletter production meetings are usually held at 1 PM on the Saturday two weeks before the regular meeting date at Jim Chaney's house, 916 E. Berkley in Richardson. The editor will have any changes from this schedule.

JANUARY Production Mtg: Saturday, December 28, '85
 FEBRUARY Production Mtg: Saturday, January 25, '86
 MARCH Production Mtg: Saturday, February 22, '86

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 (left) and park at Infomart, on the left just after you go under Stemmons. If you're using the tollway, exit right on Wycliff, go left on Harry Hines to Oak Lawn and turn right. Infomart will be on your right. From the south, take Stemmons north then follow above. Infomart is the big white steel and glass building south of the other 'marts. The main entrance faces Stemmons. Guests are WELCOME!!

*** MEETING INFORMATION AND AGENDA ***

10:00 DAL-ACE KIOSK OPENS
 10:00 - 11:00 NEWSLETTER EXCHANGE SIG
 11:00 - 12:00 CLUB SALES
 11:30 - 12:00 NEW MEMBER SIG
 12:00 - 2:00 BUSINESS MEETING
 CLUB DEMONSTRATION
 1:00 - 4:00 CLUB SALES
 2:00 - 4:00 OTHER SIGS

Meeting rooms and additional information will be posted at the DAL-ACE kiosk at the main entrance, which will be manned from 10AM to 4PM. Club (including disk -or-the-month and garage sales) and vendor sales will take place in the basement.

FUTURE MEETING DATES

JANUARY MEETING: January 11, 1986
 FEBRUARY MEETING: February 8, 1986
 MARCH MEETING: March 8, 1986

NEWSLETTER ADVERTISEMENTS

Personal sale ads are free to current members

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Ads must be camera ready. Copy must be received PRIOR TO the production meeting date at left. Mail copy to DAL-ACE Newsletter, P.O. Box 851872, Richardson, Texas, 75085-1872 OR contact the Advertising Manager listed at left. Copy received after the deadline will be run the following month. For contract advertisers, if no new copy is received by the deadline then the most current ad will be re-run.

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DAL-ACE membership is \$16.00 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. Members 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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