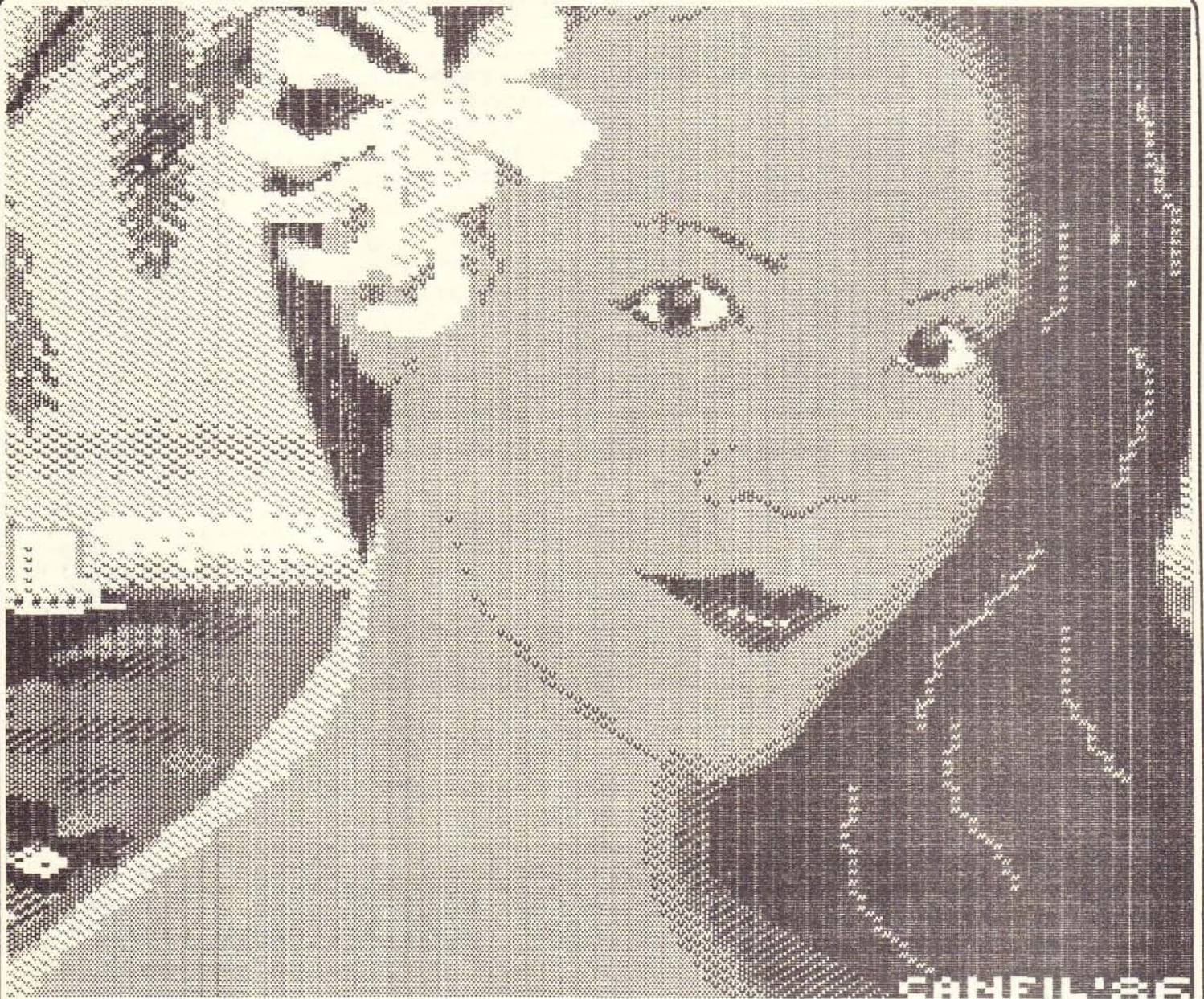


SLCC Journal

San Leandro Computer Club

November 1986



Inside:

We've got Hardware Reviews!

We've got Software Reviews!

(We've also got the Disk-of-the-Month AND Lotto 6/49 - the Atari version!)

HAPPY HOLIDAYS FROM MIGRAPH!

FASTTM

\$49.95

Here's the desktop accessory you've been waiting for! FAST contains several of the most popular programs all in one: ST DOS, ST Editor, a Card File plus a calculator, calendar, ASCII table and clock. Many of FAST's parameters can be set to meet individual needs and it operates in all three resolutions. Once installed, it is accessible from within any GEM program.

LabelMasterTM

\$39.95

Once you try LabelMaster you'll never use plain labels again! This great program is GEM based and contains a Graphic Editor to create your own label designs and a mailing list manager. Packed with features plus over 100 ready to use label designs. The possibilities for home and business are endless.



Toall S. Towners
Attn: Happy Holidays
123 Some Ave.
Anywhere, USA 12345

Easy - Draw^R 2.00.....**\$79.95**

New features and a new price make Easy - Draw a great gift for Christmas. Version 2.00 contains all the powerful features in version 1.03 like object oriented graphics, pop up menu, specific area zooming, and rubberband size and stretch, PLUS:

Flip & Mirror, Single GEM file format, Edit Polyline, New Change Arc and Arrange commands, and Automatic copy between windows!

With Easy - Draw you can create anything from simple graphics to technical illustrations, and add lots of text too!

**MORE EXCITING PRODUCTS
COMING SOON!**

To Order see a Dealer near you or call MIGRAPH at:
1(800) 223-DRAW or (206) 838-4677

This ad created entirely with Easy - Draw, except for the label.

SLCC Journal

Permission to reprint uncopyrighted articles in any non-commercial publication is permitted without written authorization, provided proper credit is given to the San Leandro Computer Club and the author.

Opinions expressed are those of the authors and do not necessarily reflect the views of the SLCC.

EDITOR	Jerry Teller	233 - 9158
GRAPHICS ASSISTANT	Jim Hood	534 - 2197
CALENDAR	Jerry Teller	233 - 9158
ADVERTISING SALES	Ron Seymour	537 - 3183

ADVERTISING RATES

FULL PAGE, 3 ISSUES: \$100.00

FULL PAGE: \$50.00 QUARTER PAGE: \$18.00

HALF PAGE: 30.00 BUSINESS CARD: 5.00

SAN LEANDRO COMPUTER CLUB

P.O. BOX 1525

SAN LEANDRO, CA 94677-0152

An Independent, non-profit organization of Atari microcomputer users with no connection to Atari Corp.

Membership fees of \$20.00 per year provide access to the club print and magnetic libraries, subscription to the *Journal* and participation in club activities.

PRESIDENT	Bob Barton	352 - 8118
VICE-PRESIDENT	Mike Sawley	482 - 5061
TREASURER	Lola Hansen	482 - 2222
SECRETARY	Jim Moran	523 - 4231

PROGRAM CHAIRMEN		
GENERAL MEETING	Richard Scott	887 - 8357
ST SIG MEETING	Jack Hodges	471 - 4109

SOFTWARE CHAIRMEN		
8 BIT	Mark Perez	792 - 0398
	Cliff Schenkhuizen	537 - 5245
16 BIT	Mike Curry	782 - 9148
DISK LIBRARIAN, 8 BIT	James Moran	523 - 4231
TAPE LIBRARIAN	Frank Hand	638 - 8032
PRINT LIBRARIAN	Einar Andrade	484 - 4484
ACTION SIG	Jim Warren	782 - 7080
ASSEMBLY SIG	Frank Daniel	471 - 8133
AT8000 SIG	Mike Sawley	482 - 5061
BASIC SIG	Guy Cochrane	582 - 5581
BBS SIG	Mike Sawley	482 - 5061
BEGINNERS' SIG	Richard Stiehl	835 - 9857
C SIG	Dave Beckmeyer	558 - 5318
LOGO SIG	Lola Hansen	482 - 2222
MISCELLANEOUS SIG	Phil Mitchell	551 - 2208
PASCAL SIG	Mike Morrow	570 - 7478
ST SIG	Bob Barton	352 - 8118
VIP SIG	Chuck Amaral	632 - 1387

OFFICIAL SLCC BULLETIN BOARDS

KEY SYSTEM (8 BIT) (415) 352-5528

SYSOP: Mike Sawley

THE VILLAGE (16 BIT) (415) 783-5545

SYSOP: Mike Curry

CONTENTS

- 2 Animation Station-----review
 - 4 BASIC View-----review
 - 5 EPYX 500XJ Joystick-----review
 - 7 SLCC November Calendar
 - 8 LDW BASIC Compiler--ST review
 - 10 October Minutes
 - 10 Lotto 6/49 - the Atari Version
 - 11 *Dazzling* Disk-of-the-Month
 - 12 The Back Fence
- (see Back Cover for More Good Stuff)

Pardon Me, Boy. Is this the Animation Station?

by Art Canfil
(from the Key System)

I just bought an "Animation Station" (from Suncom), and have been fooling around with it. It's impressive in both its strengths and flaws, and I'd like to share some of both.

The package retails for \$74.95, and includes both hardware (a Koala-like pad), and software ("DesignLab"). There are versions of Animation Station for several popular microcomputers. This review will deal only with the Atari 8-bit version.

First the hardware: the Animation Station pad is similar to the Koala pad or the Atari touch pad. It measures slightly larger than a Koala Pad.

The most important physical difference between the AS and the Koala is that the AS sensor pad is rectangular, like a TV or monitor screen, not square, as with the Koala's sensor pad. This means a much more realistic "feel" for freehand artwork. It also meant that I had to readjust my coordination to compensate for a couple of years using the Koala Pad.

The AS pad has two buttons -- the top one is called "UNDO", and the bottom is called "DO" -- and these sets of buttons are conveniently placed on both right and left sides of the pad. (Equally handy for the "Lefties" out there!)

On the back side of the pad is a handle-like extension that swings out to allow the pad to tilt up at a handy angle on a desk or table. (I personally keep the handle closed, preferring to use the AS pad in my lap.)

The AS pad also has a tiny switch at the lower right corner, which is supposed to allow the pad to emulate "paddle, keyboard, mouse or joystick control" (according to the slickly-printed box's claim). This comes perilously close to being a damned lie: the few games using paddles might be played with the AS pad, I suppose, although rather awkwardly. But special software would have to be written for the AS pad to function as "keyboard" (huh?) or as a "joystick"! Certainly the pad does not substitute for a joystick in the existing programs I tried. (As for emulating a mouse, I won't comment, having never had reason to use a mouse with

an 8-bit Atari.)

One last functional item regarding the hardware half of the Animation Station package: when using software other than that included with the product (I used Microillustrator), the pad behaves as follows: Whenever the stylus is lifted, the cursor zooms to the upper-right hand corner of the screen. (With a Koala Pad, the cursor disappears when the stylus is not pressing the sensor pad surface.) Because of the way Microillustrator works, this makes the AS pad very awkward to use, and tends to leave nasty, unexpected lines between the last place one was drawing and the upper-right corner! This would probably be a major handicap when using many other programs, as well. Flipping the "emulator" switch back or forth seems to have no effect. (As far as my experiments have been able to determine, the emulator switch does nothing at all!)

The cream-colored case appears as tough as a Koala Pad (tough as nails), and the cord length is adequate. A nice plastic stylus is included, and the pad has a hole for its storage.

In summary of the hardware: a very much improved sensor pad, ergonomically speaking, but there's a serious hardware problem in that the pad thinks it's always being pressed. And Suncom makes claims about the pad's utility which would tend to mislead most potential purchasers.

Now for the software.

The included DesignLab software and data files (by Baudville, Ltd.) impressed me immediately with their power and intuitive design.

I have a copy of RAMbrandt, as well as Microillustrator (a.k.a. "Atari Paint" and "Koala Painter", I understand). RAMbrandt is the "power" painter's tool, but I find it buggy in some areas and so un-intuitive to use that it's a pain in the rear. (The fact that it makes files in FORTH disk format, for instance, means I spend lots of extra time laboriously translating file formats -- and sometimes making fatal mistakes.) Microillustrator is highly intuitive, generally a pleasure to use. It appears to

be entirely bug-free. But M-I doesn't have many "bells and whistles". Not even a "spray" brush, or the ability to move stuff around on the screen (windows and stamps). Nor does M-I have "text" functions. (You have to go into "magnify" and make your letters from individual pixels.)

But DesignLab has many "power" features, yet is very "ergonomic" and "intuitive" (techno-babble words for "easy to use").

DesignLab allows many fine aids for painting, as well as several handy shape table files which can be loaded (and the shapes then rotated and/or flipped). The shape files are especially useful for the non-artist in us all. Font files can also be loaded, and then one can hit the "text" icon, place the cursor anywhere on a PIC with the pad, and start typing from the keyboard. The software supports screen dumps using Epson, Gemini, Panasonic, or Okidata Okimate printers. The whole PIC can be scrolled in any direction on the screen, in a wrap-around manner. Available hues and luminosities are the same as with MicroIllustrator, but mixing can be done with the four main selected colors by user choice. Windows can be defined on the screen, then moved, or even saved as window files on disk. And on, and on... And almost everything is done without having to put down the AS pad to hit the keyboard.

I was so impressed by the whole hardware/software combination that I immediately called several friends about my fantastic buy. Later, after two days of using the DesignLab software, my feelings are much more mixed.

Problem 1: The PICs produced by the D-L software are not compatible with either MicroIllustrator or MicroPainter. I was able to load D-L PIC files onto my screen using "SEEPIC", and dump to my Epson without trouble. Using MegaFont II, I was able to do a screen dump to my Epson, by telling M-F II that the D-L PIC was "graphics 7+/8". MicroIllustrator refused to load D-L PICs at all, claiming "file too short"(!) The only way I could load a D-L PIC into RAMbrandt was by telling the program that the file was in "Micro" format. But when loaded, it did strange things to RAMbrandt, and an Epson screen dump from that program gave me four disjointed parts of the PIC (some parts were missing). FADERII goes entirely insane when it tries to load a D-L PIC. RainbowDOS can load a D-L PIC as a Micro-Painter file, but

trying to load one as a Koala file causes RainbowDOS to go berserk. Lastly, Digit-a-View will load the file, but produces the wrong color values.

Problem 2: All PIC files produced by D-L are 62 (single density) sectors long, regardless of the PIC's complexity. In contrast, a rather complex M-I PIC file is about half as long, and many run to less than a third of that. The large files mean expense in both floppy disks and connect time when uploading or downloading these PICs.

Problem 3: Bugs. Not many, but they run from irritating to disastrous when they pop up. For instance: the "fill" function usually won't entirely fill a complex shape. Also, some functions such as the "fill" and the "oval" commands have to be tried twice before they actually work. Worst, the disk I/O sometimes "goes south", leaving one with a PIC which can't be saved. Not even a directory listing can be made when this happens.

Problem 4: No provision is made for creating or saving your own shape or font files. (But Suncom plans to <sell> extra shape file disks.)

That's enough. All I'd like to say now is that this flawed product may look very good after some hardware and software bug fixes. But consider the pros and cons before paying your \$80 for this intriguing product.

A footnote: I like the product so much even with its flaws, that I'd like to see some good software hacker make a program to convert files back and forth between D-L, M-I, and M-P formats (including a compression routine to pare down the long files).

BASIC View Keeps your Atari Under Control

by William E. Schlick
M.A.C.E. JOURNAL Oct. '86

I recently received a program called BASIC VIEW from SOFTWARE CONCEPTS of Lisle, Ill. It was advertised as being able to help locate troublesome bugs by showing a step-by-step execution of any Atari BASIC program. BASIC VIEW, which sells for \$20, is a menu-driven program that is controlled by an ordinary joystick. The commands allow you to run your program; start/stop program execution; list program; set breakpoints; alter the speed of execution; observe and alter variables. The 25 page manual begins with an easy to follow introduction on booting the disk using Atari DOS, or OSS DOS XL. Loading time is under 30 seconds and it will automatically return to BASIC. You can then type in your program or load it from disk. Type VIEW and off you go.

At this point in working with a new piece of software the manual and I sometimes part company, either because it takes the tone that the user already has mastered the program, or the manual was written for another computer line (please see erratum sheet, goodbye, good luck). Not so with BASIC VIEW. The disk comes complete with 3 demo programs which are used to try out ALL the program commands. In fact, the manual is laid out as an extremely well-written tutorial which I found to be easy and painstakingly clear to follow.

OK, now for what BASIC VIEW is about. Once your program is loaded in, by typing VIEW you will see the main menu screen. It is divided into three sections: the top portion is called the listing section, in which will be displayed eleven lines of your program, with the 'current' line being displayed in inverse video. The middle portion is called the menu section. Its commands are accessed through a joystick plugged into Port #1. By moving the joystick up, down, right, and left a small arrow will jump between the available commands.

Once a command has been selected, pressing the trigger button will execute the command or, in some cases, allow data entry

via the keyboard. The main menu commands are LIST, BASIC, RUN, CONT, VAR-MENU. In addition to the commands you will see three small boxes called cells: they are CURRENT, STOP and COUNT. The bottom screen portion is called the display section which will show the present values of the variables and memory locations your program uses. The LIST command allows you to fine scroll your program in the listing section up or down or pause. When you are done, by pressing the trigger button, your program will return to the displayed listing you began with. The RUN command places the program in a trace mode, but unlike other simple trace programs you actually watch the program execute each line while you control the speed with the joystick. Press the trigger and the program stops; select CONT command and continue or start again with RUN. You may also do inputs from the keyboard if your program requests them.

If there are any graphics being done they may be viewed as the program is running by pressing the [Option] key. Pressing the [Option] key will toggle between the BASIC VIEW screen and your graphics screen -- neat. By using the CURRENT and STOP line cells you may specify start and stop points in the program as well as using the trigger to start/stop. Another nice feature is called COUNT. In the COUNT cell will be an integer you have typed in which will decrement each time the line number in the STOP line cell is executed. This is used if you have a loop which is going awry. Set the STOP line cell to one of the lines in the loop and the COUNT cell to the number of times you wish the program to loop.

Program variables in the display section can be viewed by using the FIND and BROWSE commands. The FIND command will locate the variable you select or the closest alphabetical match. The BROWSE command allows viewing the variables your program uses. They are placed in alphabetical order and can be scrolled into the display section. The cell below each

variable will indicate its current value. A number of sub-menus allow you to find and browse through variables by name or element number. Once the variable or its element is in the display section you will be able to observe its value change as the program is run. The variables may have their values changed by you at any time. This is a great way to observe the effects of different variable values as, for example, a picture is being drawn. You can watch the screen. [Option] key back to BASIC VIEW, change variables, and [Option] key back and forth until the picture is just right. You can jump to BASIC with the BASIC command, work over your program and jump back to BASIC VIEW.

But we're not done yet. You may also use BASIC VIEW to display the values of memory locations. The values of five locations will be in the display section where they can be browsed over.

Well, there you have it, the ten minute tour of what has to be one of the best utilities this year. I expect that you will be pleased with the program's clearly thought out actions and versatility. If you are just a beginner or an advanced programmer and have ever spent a long night wondering why your program went wrong, or maybe you just want to see how a program from a magazine really executes, then BASIC VIEW is the program you want.

EPYX 500XJ Joystick -- Precise and Ergonomic

by Peg Bremer and Randy McSorley
(reprinted from PACUS Report)

EPYX, a leading software company, has released their first hardware product, the EPYX 500XJ Joystick. The 500XJ is a very different joystick, with a rounded bottom and a button on the underside. The Joystick's action is very positive. The rounded design is so that the joystick fits snugly into your hand, increasing comfort. It's an adult's joystick, though. The grip is a little too big for a youngster.

The secret behind the 500XJ lies just under the base of the joystick. Microswitches are placed near the top of the base -- other joysticks put the switches on the bottom, so the response is quicker and there's less joystick travel.

Although I found that the 500XJ helped increase my top scores in arcade games (notably *Stealth*), I most appreciate the 500XJ when I'm using a drawing program like *MicroPainter*. It seems like I have much more control over the cursor, and my hand doesn't tire as easily as with a regular joystick. Unlike many other joysticks, diagonals are easy to "hit" without fumbling the stick around. The fire button is quite large, and yields a very positive "click" when pressed -- you have to experience the difference this makes to believe it!

The EPYX 500XJ joystick is the best joystick I've ever used, and I own a lot of them. It's perfect for fast action arcade games and drawing programs. If you want



championship scores in your games, or fine control in your joystick applications, get the EPYX 500XJ!

(EDITOR'S NOTE: left-handed persons may not be too pleased with this stick's definite right-handed shape, and fire button intensive games like *Joust* reveal a fairly stiff pressure is required to activate the fire button....sure is a sweet stick, though.)



EPSON®

Access to Software
4720 Geary Bl
San Francisco Ca 94118
415)751-2231

=====

Authorized Atari ST sales and service.
A large inventory of Atari ST software.
All software discounted AT LEAST 15%!
We can special order any software for you.

=====

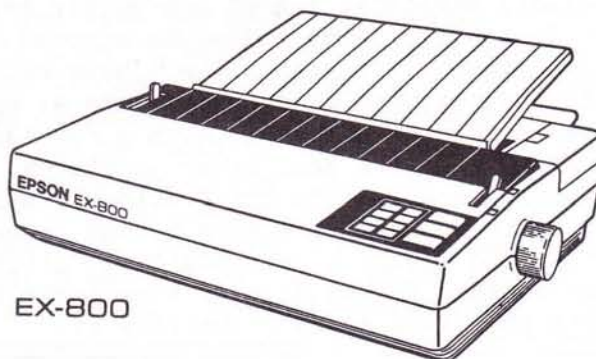
Access to Software is one of the
largest EPSON dealers in San Francisco
We are an authorized Epson service center.

=====

Store hours are : 1100 am. to 700 pm. M - F
1000 am. to 500 pm. Sat
Noon to 500 pm. Sun

4720 Geary is located between 11th and 12th avenue
in the Richmond District of San Francisco.

Access to Software
4720 Geary Bl
San Francisco Ca 94118
415)751-2231



EX-800

SUN

MON

TUE

WED

THU

FRI

SAT

NOVEMBER 1986

SAN LEANDRO COMPUTER CLUB

2	3	4 MAIN MEETING 8 PM-S.L. PUBLIC LIBRARY	5	6	7	8 1
9	10 ST SIG 8 PM CALL BOB: 352-8118	11 ASSEMBLY SIG 8 PM CALL FRANK: 471-8133	12	13 EXECUTIVE BOARD 8 PM AT LOIS' HOUSE CALL BOB: 352-8118	14 JOURNAL DEAD-LINE CALL JERRY: 233-9158	15
16	17	18 ATR8000 SIG & BBS SIG 8 PM CALL MIKE: 482-5061	19 EDUCATION SIG 7 PM CALL LOIS: 482-0674	20 BASIC SIG 8 PM CALL GUY: 582-5561	21	22
23	24 ST SOFTWARE SIG 8 PM CALL BOB: 352-8118	25 PASCAL SIG 7PM CALL MIKE: 570-7478 VIP SIG 8PM CALL CHUCK: 632-1367	26	27 THANKSGIVING HOLIDAY	28	29
30	<p align="center">WRITE A JOURNAL ARTICLE ANYTIME!</p>					



copyrama Inc.
printing services

OFFSET PRINTING • COPIES • LAYOUT • CUTTING AND FOLDING
COLLATING • BROCHURES • PICKUP AND DELIVERY
BUSINESS FORMS • BINDING • ART AND DESIGN SERVICES
LETTERHEADS • INVITATIONS • THREE CONVENIENT LOCATIONS

SAN LEANDRO
352-8912
2337
VERNA COURT

DOWNTOWN
HAYWARD
582-2725
22479
MAPLE COURT

HAYWARD
785-3364
24237
HESPERIAN BLVD.

LDW BASIC Compiler - Add Speed to Your ST

by Stephen Eitelman
(from CURRENT NOTES October 1986)

INTRODUCTION

Another Basic compiler for the 520ST has been introduced, this one by Logical Design Works in California. Although this compiler came out after two others, it is superior to them in virtually all aspects. It still lacks somewhat in speed, but is nonetheless faster than its competitors in all tests except printing to the screen and faster than ST Basic in all respects, including trigonometry. Furthermore, the LDW compiler will compile ST Basic, so that at long last, a version of Basic is available for the ST that features both an interpreter for easy debugging and a compatible compiler for speed and execution from the desktop. It retails for \$69.99.

INSTRUCTION MANUAL

The manual consists of 81 pages but lacks an index. The table of contents, however, is sufficiently detailed to answer most questions quickly. The manual is divided into three sections: Part I is the Users Manual and is quite adequate, containing a complete menu description (the compiler is GEM based), is well written and easily understood. It contains a fair number of examples and very thorough explanation of file manipulations. Part II is called the Technical Report and is as obscure and difficult to understand as Part I is clear and useful. Part III is clearly only for advanced programmers thoroughly familiar with sophisticated software development. For the rest of us mere mortals, it is 24 pages of material that can be safely ignored. The third portion of the manual contains five appendices listing the many error messages and explaining them. I found this to be a big help for correcting mysterious errors.

There is an entire chapter devoted to explaining the details of language implementation. This chapter is remarkably complete. Another chapter I especially liked is chapter 6 entitled "Practical Advice". This chapter is devoted largely to a discussion of double precision versus accuracy. It is quite enlightening. More about this later.

The Customer Use Agreement requires that a Developer License be obtained for distribution of programs compiled with this product. The license is not required for programs intended for the public domain or for publication in magazines.

COMMENTS ON COMPILER OPERATION

The package contains two disks, the compiler and the linker. The compiler is copy protected, but two backups are permitted. The backups do not run independently, however. The original compiler disk is still required

when loading the compiler. The copy protection results in two loud buzzes during the loading process. As a Commodore 1541 disk drive user, this makes me very uneasy. Such noises were followed by both my 1541 drives being knocked out of alignment. I am not aware of any such reports on the Atari drives. Still...?? [Note: LDW has informed *Current Notes* that upgrades (available to REGISTERED users at a nominal cost) will NOT be copy protected. JW]

Source code (what the programmer writes) can, in addition to using ST Basic, be written with any editor that produces ASCII files. Thus, Micro-EMACS, Regent Word, TextPro, ST Writer, and 1ST Word can be used. (Note: In previous compiler reviews, I said that 1ST Word could not produce ASCII files. This is wrong. Just switch off WP mode under the Edit menu. Apologies to GST.) For experimenting with changes to simple programs, the various word processors seem to be more efficient than ST Basic, although this is a pretty subjective judgement. The capability to interactively debug a program using the ST Basic interpreter is such a huge improvement over the Philon and Softworks compilers that this one feature alone puts this compiler at the top of my list by a long way. The GEM-based compiler and greater execution speeds just put its first place ranking that much further ahead of the other two.

Other features I liked:

- Error messages stay on the screen until return is pressed.
- Audio cues (from Beethoven, no less!) are used to signal the end of compilation and linking.
- Double precision is available, including trig, and exponential functions; about which, see the accuracy discussion later.
- Array size is limited only by available memory.
- Line numbers are unnecessary. Now this usually means that the compiler won't recognize out-of-order lines when numbers ARE used. LDW, however, generates a compiler syntax error if out-of-order line numbers are encountered.
- ST Basic graphics and sound commands will compile, although the timing for sound commands may require adjustment. This feature is unique among the three competing compilers.
- Compiling and linking produces stand-alone, executable machine code that will run right from the desktop.

- The compiler and linker will run on systems with only one single-sided drive.
- VDI and AES calls are permitted.
- Reasonable sized files (20K or so for small programs) are produced.
- There are numerous examples on the disk that are well commented.
- Errors in the ST Basic Sourcebook are pointed out in the LDW manual.

Upon receiving the package, I was, as usual, very anxious to try the compiler out with a minimum of reading. The table of contents lists a compilation procedure for one and two drive systems. The procedure is relatively straightforward, including creation of the working compiler and linker disks. The files for the compiler disk are a bit scattered between the two original disks, but are all present. The compilation procedure requires that the original compiler be in drive A and the working copy be in drive B to allow for checking for copy protection. After loading, the file to be compiled is selected. The screen is divided into two halves. The upper half lists any errors detected during compilation and the bottom half is a status report containing the name of the file, the drive it is on and the various compiler options that have been selected. Syntax errors are placed in a file with the original file name and a .LST extension. Compilation of short programs requires about one minute. Once compilation is completed, a little Beethoven is played (really!) to signal for the linker disk.

The linker appears to be a Digital Research, Inc. linker that is used with the Alcyon-C compiler in the Atari development package. It runs reasonably quickly, taking about five minutes for a small program. At this point, various obscure error messages may be encountered; the most common ones are explained in the back of the manual. So if the disk is full, one can discover this without recourse to phoning the company. When the compilation and linking process is successfully completed, a little more Beethoven is played along with a screen message from him (!) and then a wait for a return to go back to TOS. Double-clicking on <filename>.PRG will load and run the program.

SPEED COMPARISON

Several benchmarks were run: a trig test that squares the cosine of an index that is allowed to vary from 1 to 10000, the SIEVE of Eratosthenes (for finding prime numbers), a repetitive multiplication and division calculation, and a random string generation, sort and print test. The sieve and calculation tests are both from BYTE magazine, May 1985. I have shown all three competing Basic compilers, ST Basic and even Lattice-C results for the math tests. Clearly, the LDW compiler is

the speed winner in most categories, beating out even the C-compiler in two of the three math tests. Being a total novice at the C-language, I did not even attempt to translate the string tests into C.

Comparison of Program Execution Speed
(Times are in minutes:seconds)

Program	Speed Test					
	A	B	C	D	E	F
LDW	0:33	0:21	0:04	0:08	0:21	1:34
Softworks	3:18	1:34	0:22	0:24	0:69	0:37
Philon	1:01	0:48	0:08	2:04	2:25	0:36
Lattice-C	3:53	0:01	0:26	XXXX	XXXX	XXXX
ST Basic	0:38	4:11	0:31	1:09	5:04	1:45

Test Description:

- A: $1 \leq i \leq 10000$, $y = \cos(i)$, $x = y * y$ [Giving $\cos(i)$ squared, but faster]
- B: BYTE magazine sieve, 10 iterations, $n = 2047$
- C: BYTE magazine Calculation benchmark
- D: Generate 1000 random strings
- E: Sort random strings
- F: Print sorted strings to screen

The C-language version of the sieve program came from the back of the Lattice-C manual. All I had to do was modify two numbers to correspond with those used in the Basic tests. In all fairness to C, the math tests were run in double precision while the Basic compiler tests were in single precision, so there is an element of apples and oranges comparison here. The reason for double precision in C is that is how the math functions are done by the compiler. There just isn't any easy way to force it into single precision.

Note that the LDW compiler is the only one that manages to run faster for the trig test than ST Basic - and then just barely. Remember the IBM PC test mentioned in the last article (Softworks review)? It got a speed increase of almost a factor of six. So LDW speed is still nothing to write home about in math intensive applications.

ACCURACY

The LDW manual puts considerable emphasis on the matter of accuracy versus precision. What this means, it turns out, is that while it is possible to force a math operation to print out lots of digits, they may not all be correct. This, the authors say, is because Alcyon-C (which the compiler was written in) does not support double precision. They have added honest-to-goodness

...continued on page 11

SAN LEANDRO COMPUTER CLUB

REGULAR MEETING MINUTES

OCTOBER 7, 1986

Meeting called to order at 8:10 PM by Vice President Mike Sawley. The ATARI EXPO which was held in late September was reported as a success with attendance in excess of 2600. When everything is totaled and wrapped up, it appears the clubs will receive nearly \$2000 each, according to the report made by Jim Hood.

The purchase of an ST system for club use was discussed at length. The Chairman appointed Dan Chun to head up a committee to investigate the best deal the club could make on a purchase.

Newsletter editor Jerry Telter advised the club that he would not be able to continue as editor due to work commitments. Jerry asked for a replacement to be found in the near future. He also requested the members to help in the production of the JOURNAL or there might not be one. Anyone wishing to help on the newsletter should call Jerry or leave him e-mail on the Key System.

The software chairmen next previewed the Disk of the Month. Some of the programs on this month's disk include the latest version of MACHDOS with all the extra features, MEGABUG a new machine language debugger and MUSIC MASTER 4 which has the music from over 40 of the latest games.

Treasurer Lois Hansen reported on the club's finances which are in very good shape and improving. The club has approximately \$4500 in the bank at this time. Lois also discussed the new EDUCATIONAL SIG that she is heading. The SIG will have its first meeting this month and all members who are interested in educational programs for the ATARI should attend. Lois may be reached at 482-2222 for further information.

Club member Court Bates demonstrated WIZARDS CROWN, a new adventure game from SSI. Court had spent 75 hours playing the game in the process of reviewing it for the JOURNAL, and so was able to make a very thorough and interesting report.

After a short break the meeting continued with Sysop Mike Sawley giving a demonstration of the new CARINA BBS software that is currently running on the Key System.

During this demonstration the members

were asked for input as to their wishes on whether the club should have one or two BBS's. The choices would be separate systems for the 8 bit and 16 bit machines or a combined system for both machines. Much discussion followed concerning the ability of the current system to handle ST downloads. The cost of a second ST system which could run up to \$2000 plus monthly maintenance costs. It was agreed that more information on the availability of new software or updates to the CARINA program that would allow proper downloading and more membership input was required before a decision could be reached.

The meeting was adjourned at 10:10pm.

Respectfully submitted,

Jim Moran - Secretary

The Atari Version**Lotto 6/49 for Fun**

by Rae Thom

(from REACH - Edmonton, Canada)

This is a program which plays Lotto 6/49. Input your numbers at the prompts and the program will tell you how many you have correct. Now you can try out those lucky numbers *before* you buy the ticket!

```

5 DIM NUM(6)
10 GRAPHICS 2+16
20 POSITION 16,4
30 ? #6,"LOTTO"
40 FOR E=0 TO 5
50 FOR F=0 TO 14 STEP 2
60 FOR G=1 TO 15
70 SOUND 0,E,F,G
80 NEXT G
90 NEXT F
100 NEXT E
110 SOUND 0,0,0,0
120 GRAPHICS 0
130 ? "GIVE ME YOUR LOTTO 6/49 NUMBERS."
140 FOR A=1 TO 6
150 INPUT Z:NUM(A)=Z
160 NEXT A
170 C=0
180 FOR N=1 TO 6
190 M=INT(RND(0)*49)+1
200 IF M=NUM(N) THEN C=C+1
210 NEXT N
220 ? "YOU HAVE ";C;" NUMBERS CORRECT."
230 END

```


Back Fence from page 12...

and the other three were built up with the interface board from Berkeley Microsystems. It's about \$150, works with a standard controller and SCSI drive, and has a battery back up clock that works. The best news is that the latest versions of hard disk drivers seem to have solved that ridiculous 40 folder limitation mentioned previously here and in other places. (Speaking of that, latest scholarship seems to indicate that the aforementioned limitation is an Atari problem rather than a DRI problem as I originally indicated - if so, apologies to DRI.

Another goody about hard disks that Atari hasn't mentioned yet...there's a new driver and some associated utilities over there that allow you to boot from the hard disk. One hopes that they will be making this generally available, but one has hoped before...

Also regarding hard disks, if anyone is using the first version of OSCAR to do hard drive backups, be very careful. There seem to be some bugs.

Out of time, out of space. Tune in again next time for a slashing review of an alleged word processing package written by supposed professional software engineers. I'd have put it in this time but I'm waiting for a response from the company. BCNU.

LDW BASIC Compiler from page 9...

double precision functions for trig, logarithms, square root and exponentials that generate 13 significant figures, all of which are accurate. Not having much poetry in my soul, I got worried about the accuracy of the other compilers. I checked the sine and cosine of 45 degrees for Softworks, Philon and Lattice-C compilers. This test may not be exactly comprehensive, but Softworks and Philon did just fine - accuracy commensurate with the number of digits. But mighty Lattice-C flunked: the cosine of 45 degrees printed out 14 digits, of which only the first five were correct!

CONCLUDING THOUGHTS

The LDW Basic compiler is clearly superior to its two competitors in virtually all respects except for speed of printing to the screen. This may affect graphics effects in games; the forthcoming blitter chip should fix that. Otherwise, if you really must have a Basic compiler, then buy this one. It may not have quite the math speed you expect, but is in all other respects a fine Basic language compiler.

Disk-of-the-Month!

You ask, "What about the Disk of the Month???" We reply modestly, singing the ever familiar tune of a fabulous floppy. "How great can this one be?" you ask yourself... Well...

Remember those sleepless nights staring at a lifeless Koala picture, wishing for a better way to show off the Atari's nifty graphics to your friends? Well, we sympathize with your insomniac dilemma and offer you a cure: **COMPUTER CANVAS** -- a complete high res drawing/animation system, ready for hours of unbridled fun.

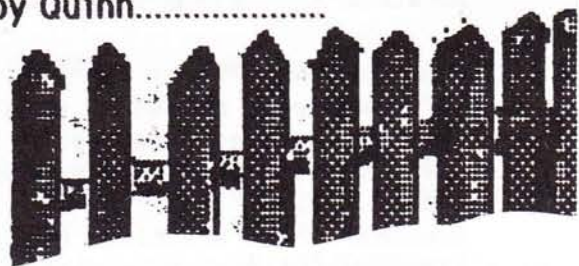
Moving on to the rest of this fun-packed disk brings us to the solution to all of your telecommunications blues! Well, maybe not ALL of them, but no longer will you have to make and serve coffee to your guests as you UNSCRUNCH a fabulous demo to show them because SCRUNCH/UNSCRUNCH did everything you wanted (in twenty minutes, however). **SCRUNCH II** is here to solve the slow-write blues! Now, you too can SCRUNCH and UNSCRUNCH files with one program -- and FAST! We also have **OMNI*LOADER** to solve the problem of having a three disk set just to hold the programs you need to view all the different picture formats. **Omni*Loader** will allow you to view pictures saved with Micro Illustrator, Micro Painter, RAMbrandt, Fun With Art, Graphics 8, Graphics 9, AND Compu-serve RLE pictures. Are you tired of Sparta DOS's incompatibility problems just to load files in Ultra Speed? Now, there's a better way... **HIGH SPEED BOOT MAKER!** Now you can convert any Atari DOS (2.0S, 2.0D, 2.5) or Paperclip to boot and load in Ultra Speed! We have included a database utility from ANALOG magazine that will aid greatly in organizing any sort of list that you might have.

Games such as **DEATH ZONE**, an awesome 3-D simulation of tank battle, and **RATS!**, reminiscent of the arcade hit BURGERTIME, round out the disk. Your mission, Jim, is too keep this newsletter with you at all times and bring a crisp five dollar bill to the Main Meeting to exchange for one of these value-packed disks.

WARNING: THE SOFTWARE CHAIRMEN OF THE SLCC HAVE DISCOVERED THAT BUYING THE DISK OF THE MONTH CAN BE ADDICTIVE AND THEREFORE USEFUL IN OBTAINING BARGAIN 8-BIT ATARI SOFTWARE.

The Back Fence

.....by Quinn.....



NOT JUST A GAME MACHINE...But can it ever play a game! Just saw a new game out that looks pretty hot. It's called Starglider from Rainbird (same people who did Pawn). The graphics and sound are dynamite, digitized rock band and all, and it seemed to play well (I just got to watch so I can't swear to how it plays). Also heard about some other arcade-type games on the near horizon including (ready?...) Missile Command and Battlezone. These, of course, are classics which will probably outlast three more generations of hardware. Can't wait to see them on the ST.

OSS...On the more, um, productive side, keep your eyes on OSS, the folks with Personal Pascal. Hear tell they are about to release a source level debugger for Pascal (I'm still holding out for a source level debugger for English). With that and some other utilities they've been promoting (some nifty little programs in a line called "BareWare" - cheap, but functional), these people should be getting some attention. Personal Pascal is among the top three development environments for the ST, a solid, complete implementation. It's almost enough to seduce me away from C. Speaking of OSS and development, I understand they are seeking programs to market. If you're a programmer (Oh, that's right. *Nobody's* a programmer anymore. We're *developers*.), dig that half finished opus up out of the depths of your source backups, polish it up and call OSS. From what I hear, it doesn't even have to be written in Pascal. You're not likely to become rich from it, but hey, what's wrong with a few bucks for your effort. After all, you've already put in most of the effort for nothin'. OSS is in San Jose. Call 'em at 408-446-3099.

ARC, THE HERALD ANGEL SINGS...There is a new archiving program out in the public domain...new to the ST, anyway, not to other communities. It's called ARC.TTF and it's been ported from the PC and others (including Amiga, I think). The reason this

program is hot is, firstly, it works. Secondly, it uses the same formats as on other computers. This is meaningful because it provides us the opportunity to swap data files conveniently, easily and reliably. Also, it is pretty efficient. What it does is to take a file or series of files, analyzes to see which compression algorithm is the most efficient for that file, and then compresses it. If you're using it on a series of related files, it packs all of them into a single file for archiving, or telecommunication. This is neat. For one thing, it means that you no longer have to worry about losing that .RSC file without which your .PRG file is useless. You can pack them together in one file for storage and they'll never get separated. Now the reason I'm bringing this up and spending so much time on it is that people in some quarters are making suggestions about making ARC the standard for packing files in ST forums (such as bulletin boards, on-line services and so forth). That way, instead of having three or four different formats for library and archiving, we would only have one, and one that would be compatible with other systems. That would be handy. Therefore, I am adding my support to the ARC FOR STANDARD campaign. Spread it around.

Another push is to make IFF the standard graphics storage format for the ST. This may sound like heresy to some since IFF is the format that Electronic Arts developed and used for their Amiga stuff, but it's spreading. It's not just for the Amiga or incompatible with the ST, but I don't need to get into that here. It's in a very thorough article by Tom Hudson in the Fall issue of START. Tom makes a very compelling case. Check it out.

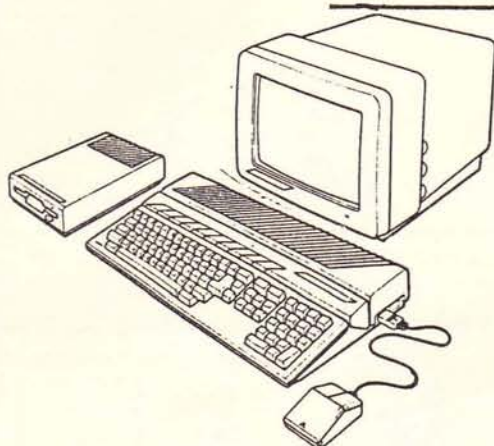
HARD IS EASY...Hard disks are appearing on more and more ST systems these days. I don't have one (yet), but I personally have seen and/or heard of five different systems in the last three weeks with hard disks and not a one of them was in a store. They ranged from 10 to 86(!) megabytes in capacity. (To be honest, the 86 Meg drive was only able to use 64 Meg in four 16 Megabyte partitions due to a limitation in some part of IOS. But it was still impressive to see that much storage available.) Even more interesting is the fact that only one out of the five drives I ran into was from Atari. One was a Supra

...continued on page 11

3E SOFTWARE & SYSTEMS

931 A STREET HAYWARD, CA 94541
OPEN TUESDAY-FRIDAY 11-7, SATURDAY 11-5

**OVER 250 ST SOFTWARE TITLES
IN STOCK!**



THE ATARI 520ST SYSTEM

COLOR_\$795

B&W____\$595

SYSTEM INCLUDES:

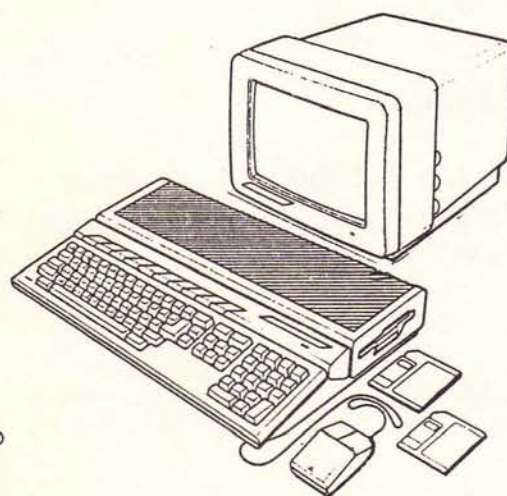
- COMPUTER
- MOUSE
- MONITOR
- DISK DRIVE
- FIRST WORD
- NEOCHROME
- LOGO
- BASIC

THE ATARI 1040**ST** SYSTEM

COLOR_\$949

B&W____\$749

PRICES SUBJECT TO CHANGE
WITHOUT NOTICE



ATARI[®]
Power Without the Price[™]

(415)
537-3637

Club Library

FOREM 26m on File

From the Editor...

Increasing time commitments at my job make it impossible for me to continue as the editor of the SLCC JOURNAL. Therefore, there is an opening for a new editor to take charge of a redesigned JOURNAL and its staff. I will continue to be available for staff work, along with several other members who have been joining up faster than we can update the masthead.

This is an excellent opportunity to do something for the club and to learn about desktop publishing -- the Atari version.

I will be at the November meeting, and will be happy to take volunteers, either for the position of editor or for general staff work on the JOURNAL.

-- Jerry Telfer

The SLCC has recently put FOREM 26m into its disk library. FOREM 26m is an electronic bulletin board system for use with an ATARI 800 with at least 48K and a Hayes compatible modem, at 300 or 1200 baud.

Please note: FOREM 26m will **not** work on XL or XE series machines! You will also have to obtain from Woodmark systems a copy of "R-DOS" as this is the only DOS that will work. Watch this space next month for a new education disk.

--James Moran

SLCC Journal

P.O. Box 1525, San Leandro, CA 94577

Next Meeting:

November 4, 1986 8pm
San Leandro Community Library
300 Estudillo Avenue

TO:

186

87/05/08

