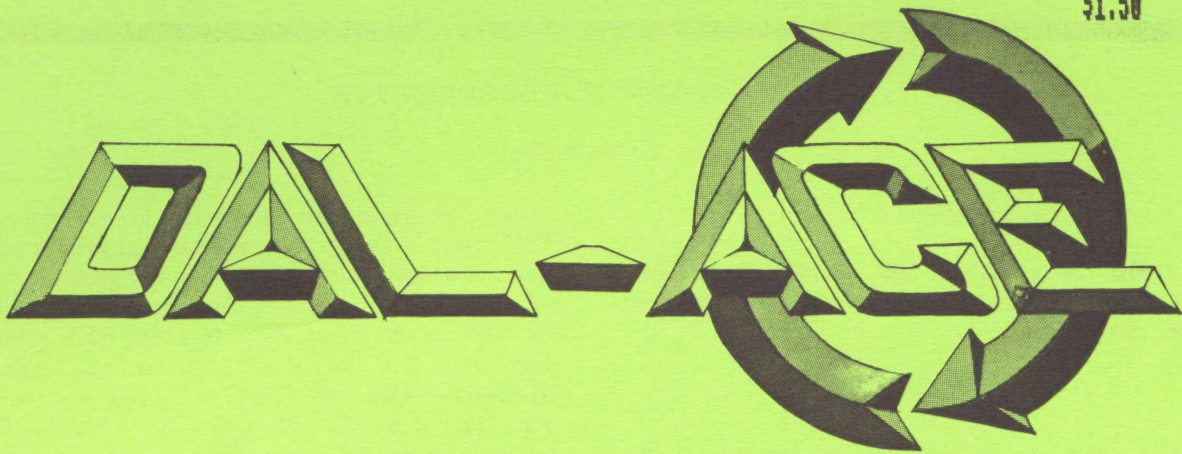


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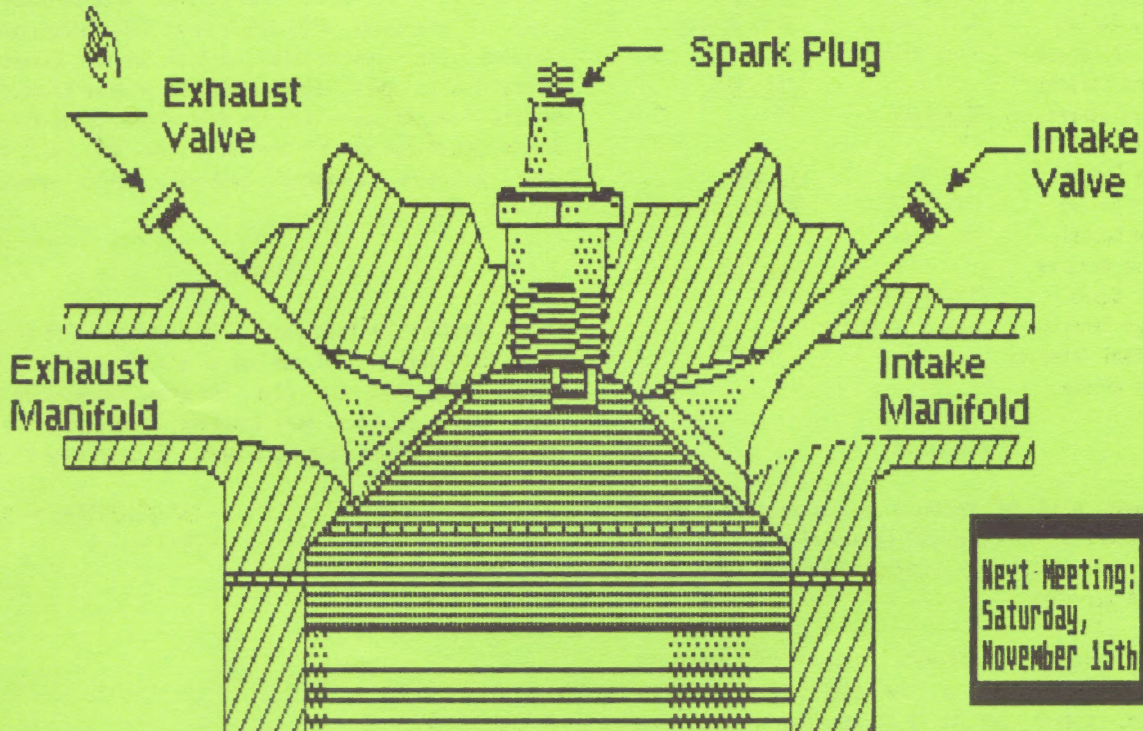
DALAS Atari Computer Enthusiasts

Volume 7, Issue 10

October 1986

PISTON.EZD

PISTON.EZD  
Drawn with Easy-Draw  
by: MIGRAPH, Inc.





## PRESIDENT'S PERSPECTIVE

By John Pellet

## ATARIFEST

There WILL be a fest next year, at INFOMART, scheduled for mid May, in conjunction with the regular DCC Users Forum. See you there!

## TOYS FOR TOTS

We still have no volunteer for Toys for Tots. If you want to have one this year - and everybody seems to enjoy it - SOMEBODY better volunteer to head the effort. Time is growing short! Talk to Marc Salas if you have any questions - he headed last year's great festivities!

## NEXT YEAR'S OFFICERS

The following are the volunteers to date. Incumbents are in *italics*. As you can see, we need help at many positions. Put your name on the list. It only takes ENTHUSIASM!

## CURRENT VOLUNTEERS (from signup sheets):

<u>M-A-L (4)</u>	<u>NWS EDITOR</u>	<u>PRESIDENT</u>
Bill Bailey	Mark Lewis	Larry Dineen
Bob Childress	Scott Phelan	
Frank Corlett		<u>VICE PRES.</u>
<i>Larry Dineen</i>	<u>SECRETARY</u>	???
John Funk	???	
Gary Fuquay		<u>VP COMM.</u>
<i>Jeff Golden</i>	<u>TREASURER</u>	Howard Chang
Dale Kassel	<i>Don Adams</i>	
<i>Steve Markley</i>		<u>ADV. MGR.</u>
<i>Marc Salas</i>	<u>REVIEW COORD.</u>	???
Nolan Terrill	Michael Trombley	
Michael Trombley		
Jeff Wilson		

## MISCELLANY

Gary Sewell will be teaching an introductory class in PASCAL, starting in the next couple of weeks. Classes will be held in Irving. Interested parties should call him at 214-727-6567.

We got a couple of software packages this month for review. I'm not sure of the titles, so if you are interested, please see Jim at the meeting or give him a call later.

I have just put an Epson double-sided drive in one of my SF354 cases. There have been several minor problems (like, what does the terminating resistor pack look like) but on the whole it seems to be working very well now. The bare drive I used was an Epson SMD-100 from Halted Specialties Co., Inc. at 827 E. Evelyn Ave., Sunnyvale, California, 94086 (408-732-1573). Total cost for the drive was about \$90. The swap was purely mechanical - swapping cables and cases. Total time for the swap was under an hour, but working out all the bugs took about three days.

## COVER ART

This month's cover was drawn with EASY-DRAW from MIGRAPH, Inc. It is included on the demo disk in the club library (ST DISK #43). But the demo version (the only one I have) does not support printing. So I copied CONTROL.ACC over from one of my working disks and used the standard ST screen dump to get a printout. This should not in any way be interpreted as representing EASY-DRAW's graphic output capability. While I have not looked at the production version, it is my understanding that EASY-DRAW produces printouts limited only by the quality of the printer, not the screen resolution. This is possible since it pre-loads GDOS.PRG from an AUTO folder, which contains the appropriate virtual device drivers. Theoretically, this should allow the program to produce outputs limited only by the device resolution for any device which can support the VDI system (e.g., plotters, laser printers, blueprint machines, vector graphics screens, etc.)!

THANKS!

That's about it for this month. In November we're on the third Saturday, so I'll see you on the 15th. If you are ENTHUSIASTIC, want the club to grow, and will do the small amount of actual work involved, PLEASE sign one of the volunteer sheets roaming around. Or give me a CALL!

ENTHUSIASTICALLY YOURS  
JOHN PELLET



## DCC NEWS

September 15, 1986 Meeting

DCC sold a total of 47 tables at the September meeting.

Infomart has no major complaints about the DCC operation at this time - they want to keep doing business with us. Please be reminded that the merchants in the basement area must sell only directly computer-related material. Tee shirts with computer sayings on them don't cut it! Infomart is trying to "open-up" the main atrium lobby. Note that the cast iron railings have been removed! The new contract should be finalized soon!

The overcrowding at 12:00 meetings has been reduced, but the 1:00 time slot has become overcrowded. Groups are now requested to schedule no more than five (5) meetings at ANY hour of the day. This will not apply to meetings being prompted jointly by two or more user groups. TCEA meeting in November will crowd the forum for meeting rooms (see below). Everyone should be prepared!

DCC now has an answer-only phone at (214) 746-3297 with an information announcement covering the DCC activities.

TCEA: Will meet in November with the members of the Forum. DCC requests that special programs dealing with education be scheduled by the groups if possible.

Some teenagers, without parents, did try to attend the September Forum. Please request that they have badges and proper escort to be in the building.

A DCC advertising brochure should be available at this Forum, to be distributed at local retailers.

Charles Sullivan requested persons able to assist CCAD with programming that would eliminate the need to depress two keys at the same time, please volunteer their services. CCAD could really use the assistance, and would greatly appreciate it.

The possibility exists for a mass modem buy on 1200/2400 baud external modems. Pricing and evaluation will be available in October. The range is \$200/\$225 for 2400 baud and \$100/\$125 for 1200 baud modems. It is planned that orders could be taken in November for December delivery. The TI-Pro group is the sponsor; contact Mike Gronick of that group for further information.

## ATARI PRESS RELEASE

Sept. 18, 1986 (Sunnyvale, CA)

Atari Corporation announced today that it has filed a Registration Statement with the Securities and Exchange Commission for an initial public offering by the Company of 4,500,000 shares of Common Stock (and up to an additional 675,000 shares that may be purchased by the Underwriters from the Company to cover over-allotments) through an Underwriting group to be managed by PaineWebber, Incorporated. The price range is anticipated to be between \$11.50 and \$13.50 per share, and the offering is scheduled for mid- to late October. A written prospectus with respect to the offering will be available from PaineWebber, Incorporated.

Atari Corporation develops, manufactures, and markets microcomputer systems and software as well as video game systems, designed to offer advanced technology at low prices. The Company's product line consists of the 16/32-bit ST computers, the 8-bit XE computers, and the 2600 and 7800 video game systems, with associated software and accessories.

A registration statement relating to these securities has been filed with the Securities and Exchange Commission but has not yet become effective. These securities may not be sold, nor may offers to buy be accepted prior to the time the registration statement becomes effective. This communication shall not constitute an offer to sell or the solicitation or sale of these securities in any State in which such offer, solicitation or sale would be unlawful prior to registration or qualification under securities laws of any such State.

\*\*\*\*\*  
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 \* WRITE AN ARTICLE!!!!!!! \*  
 \*\*\*\*\*

The Eight-Bit Stretch:

More Bang for Your Buck (Part II)

By Jeff Wilson

Last time out, we flogged the 8-bit Atari line's raw computing performance. We learned that an honest 20X performance boost is possible by rewriting BASIC programs in assembly language and performing cybernetic brain surgery (a.k.a. hardware upgrades) on our faithful machines.

Shame on me. I showed you all of this complex stuff and forgot to mention a very simple technique that can buy 30% more compute horsepower (according to Ian Chadwick in *Mapping the Atari*). All that it costs you is four BASIC statements or seven lines of assembly code, to wit:

[Part of a BASIC program]

```
.
.
1000 DMA= 559
1010 SAVEDMA= PEEK(DMA)
1020 POKE DMA,0
.
```

[More of the BASIC program]

```
.
.
2000 POKE DMA,SAVEDMA
.
```

[The remainder of the BASIC program]

-- OR --

[The equivalent assembly language]

```
.
.
DMA = $22F
LDA DMA
STA SAVEDMA
LDA #0
STA DMA
.
.
LDA SAVEDMA
STA DMA
.
```

Back already? Your program ran to completion much sooner, didn't it? Oh, but you say that all of the aliens disappeared and the screen went blank? And that spoiled the game for you?

Well, you can't have everything. What you managed to do with these peeks, pokes, loads, and stores was disable the ANTIC chip's access to main memory. ANTIC steals memory cycles from your computer's CPU in order to continuously paint images on the T.V. or monitor. With ANTIC disabled, you freed memory "bandwidth" for use by the 6502.

The 6502 is a good old load-store-load-store sort of processor, without a big register set or fancy cache memory that would otherwise allow some simultaneous processing by the CPU and ANTIC. So, the extra memory cycles you make available to the CPU result in quicker computation in direct proportion.

Of course, you must alter any programs you might wish to accelerate in this way. That means you must either have the source code (not a big deal for interpretive BASIC programs) or be pretty adept in patching machine language (a significantly big deal that's not worth the 30% improvement, in my opinion).

Bottom line: If you don't really need to see those aliens, you can make things zip along up to 26X (20X \* 1.3X) faster if you apply all of the tricks we've discussed!

Next time we'll examine the I/O (input / output) performance of 8-bit Ataris. This is even more important to characterize than raw computing performance, since floppy disks and Atari serial I/O are notoriously slow. We'll learn that for operating systems, just as for anything else in this life, you get what you pay for.

**SUPPORT  
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VOLUNTEER!**

OK, go try this out on your 6502-based Atari.

**SOFTWORKS BASIC**

Reviewed by Larry Dineen

Softworks Basic by Softworks Limited is a Basic compiler that works with the ST. You start by creating a text file of your basic program. This text file does not have line numbers and must follow the syntax of softworks basic which is different from St Basic. First Word is what they suggest you use and a separate instruction sheet is included explaining how to use it.

The basic has all the standard commands, plus some extra commands and some that are specifically for use with the St. The TOOLBOX statement allows access to the graphics and operating system commands. A list of these calls is provided but no explanation on how to use them other documentation is needed such as the developers manual or one of the abacus books. The XCALL statement allows use of subroutines written in other languages such as 'C' these must contain position independent code, and it is up to the subroutine to check arguments. You can also call other programs by using the CHAIN statement as if it had been double clicked from the desktop. As received the disk contains several examples of both the basic statements and the runnable program, these examples cover the use of most of the statements in softworks basic. There is one further statement that is unique to softworks basic and that is the MAP statement which is used to reserve space for complex data structures like those in languages such as 'C' and 'Pascal'. This allows you to handle almost any conceivable set of data as a coherent unit or by its parts. This is a very powerful feature and softorks basic is the first I have seen to include it.

The program as received is not copy protected so you can use it with a ram disk or hard disk. I compiled all of the examples with it from a ram disk and the compiles were extremely fast, you could not see the message stating that the program compiled with no errors. Speaking of errors when compiling you can set several switches the 'M' switch which tells you if you have any unmapped variables, the 'L' switch which lists all errors to a file on disk with the file name of your program with a 'LST' extension, the 'T' switch which allows you to see the statements as they are compiled, the 'L' and 'T' switches will work together. Last is the 'E' switch which will produce an error file with the extension of 'BER'. As received the documentation did not have the proper instructions for setting the switches but a call to softworks produced the correct procedure, later manuals will be corrected, the procedure is as follows rename the Bcomp.prg to Bcomp.TTP and when you give the file name set the switches with the / character.

After a program is compiled it will not run, a program called 'Brun.prg' must be used to run your program and here is where I take exception to them calling this a compiler, in my experience a compiler is supposed to produce machine executable code that is code which will run on any machine of the same type without any external programs or libraries needed also since the license agreement is the standard purchaser gets nothing agreement you will not be allowed to distribute your program without violating copyright and giving the BRUN program with it. Not the way to win friends is it? Except for the above the program is worth the money if you can live with the limits.

**PHANTASIE by SSI**

Reviewed by Larry Dineen

Phantasie is a multiple character role playing adventure. When you open the box the first thing you see are two single sided disks the game disk and the player disk, the second thing is the instruction booklet saying that this booklet contains the instructions for Phantasie 1 and 2 as played on several computers, so the first thing you have to do is find the instructions which apply then read. From hereon the game follows the standard format of a role playing adventure ie select the character's type (races), classes (professions) and attributes. You may generate as many as 37 characters but may take no more than six with you. Once you have created the characters and chosen those you wish to take with you, you can start playing. Playing the game is pretty straightforward you travel around a mythical world called Gelnor collecting treasure, to pay your companions and for living expenses, the main object is to defeat the Black knights and the sorcerer Mikademus. While traveling around you will enter towns, dungeons travel the desert, climb mountains, cross rivers and lakes and meet various people and creatures when this happens you are given some choices to flee, to fight, to talk. When you make your choice you are allowed to select how each member of your party will act, once this is done you can execute your choice, you do not have control of each party member but of the group and they act as a group under control of the computer not you. After each action you can either do it again or change it ie fight then run. Movement is with either the mouse or the keyboard as are most of the game selections. The graphics are about average block for the scenery with the towns being drawn in some detail, there is no real animation in the game. All in all the game is about average and really aimed at the younger adventurer or novice adventurer. A good game worth the money if its for you.



**MORE! Graphics for the Print Shop**

from The Pierstoff Co.

By John Olson

When I started to review this software package I figured "well here goes another set of 120 graphics for the Print Shop".

I opened the package and the first surprise was that there were 128 graphics. The graphics were a nice collection which compliments the graphics from Broderbund.

I Then noticed that there were 10 Screen Magic Screens. I stopped and thought "Screen Magic?, oh yea, that was that funny thing that generated wierd computer art and allowed you to use it for a background or to save it to disk", you remember the option you tried once and havn't looked at since. Well I loaded a couple of them up and boy was I surprised. There are 10 really nice backgrounds and a ribbon you can put on a certificate. The Graphics include: Hearts, trees, bricks, flowers, leaves, stones, boards, houses, the world and the U. S. flag. These graphics are so good that it has been included as the cover art for this months newsletter.

I like the graphics and the Screen Magic enough that I plan on adding it to my software selection.

An example of "MORE! Graphics for the Print Shop"

<-----

**BUSINESS OPERATING SYSTEM***Reviewed by L.Dineen*

Business Operating Software, BOS for short is a operating system designed, as its name implies, for business use especially multi user environments and as such has a suite of business programs available. These programs cover the usual business needs and cost about \$300 which with the cost of the multi-user BOS is inexpensive for what you get. Also the BOS is available for a variety of computers allowing shared files etc. Applications written for one system will run on any other system without any changes or recompiling and are transferred with simple file transfer. BOS supports up to 29 8800,8886,68000 processors and each processor can support up to 17 terminals .

The demo provided is a single user version and as such was limited in scope. All monitors are supported, single or double sided drives and either serial or parallel printers. Hard disk is not currently supported but I'm sure it will be in the near future. One thing which is not supported is any graphics, other than character graphics, but I think that they will have to come out with a package soon.

There are two disks included in the demo package one contains the os and the other the programs. The first prompt after loading both disks is date and time confirming the entry, next a user id is required, in the demo any will do but the user systems will use the id as a password allowing some security.

The demo is menu driven and as such is self explanatory. The demos include an explanation of BOS, sample data base query, Towers of Hanoi, othello, space invaders, pentominoes, and The sieve of Eratosthenes. I ran the towers with a height of 13 and it took 16:9:50 min. The sieve done 10 times took 256 sec. So for COBOL, the times are quite respectable. There is a wide range of applications available and for further info call BOS National, 2607 Walnut Hill Lane. Suite 200, Dallas, Texas 75229 at (214) 956-7722 Telex:4942796

**OPINION:**

For the business user the product is the way to go if you wish to use the ST for business, the portability alone makes it worth the money but add multi user and it becomes a bargain. If some deal could be worked out for schools it could be THE THING for education. The home user, unless rich, should leave BOS alone until they come out with a home version.

Editor's STRING#

Hello!

Welcome to our Christmas Issue. *Christmas Issue?* Yes folks, even though it is October (well, it's September as I write this), this is our Christmas Issue. In the middle of the newsletter you will find advertisements from many vendors selling Atari wares.

So where's that wish list that you've been making? Been coveting a new disk drive? Take a minute to thumb through the ads. If you want, you can even pull out this section for your own use.

I'm happy to hear that some volunteers have stepped forward to become the next newsletter editor(s). It really is a great opportunity for growth. I've learned much during my stint.

In closing, you DO know more than you think! Share some of it with your fellow Atari users.

Dave

**NEW ST DISKS**

The following are new ST library disks this month:

#37: *Title and documentation unavailable at press time. Check with Librarian.*

#38: More TINY color slides.

#39: Spinning globe color demo. Requires 1 MEG!

#40: Animated dolls. GREAT demo! Requires 1 MEG!

#41: Large collection of VIP templates.

#42: ARC file/disk compressor, Bouncing ball demo, NED version 0.9, DISKMAN.ACC, shareware that manipulates disks within GEM programs, and BOOT to make your ST look like something else (a RAM-TOS, or 512K machine, etc.)

#43: Easy-Draw demo. Complete except for save and print routines. Includes some great graphics demos.

#44: More ST utilities. Some duplications (e.g., WORD400) but several new ones.



**\*\*\* DAL-ACE Christmas Insert \*\*\***

**DAL-ACE  
CHRISTMAS  
ISSUE**

**Advertising**

**Insert**

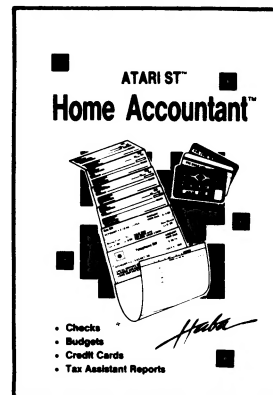
# \*\*\* DAL-ACE Christmas Insert \*\*\*

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manage your  
money!

Year	Month	BUDGET	ACTUAL
71/000	1986		
72/000	1987		
73/000	1988		
74/000	1989		
75/000	1990		
JAN	1	250.00	250.00
FEB	1	250.00	250.75
MAR	1	250.00	301.50
APR	1	250.00	219.15
MAY	1	250.00	
JUN	1	250.00	
JUL	1	250.00	
AUG	1	250.00	
SEP	1	250.00	
OCT	1	250.00	
NOV	1	250.00	
DEC	1	250.00	
TOTAL		3000.00	1128.96

- Automatically sets up and arranges checking or credit accounts.
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TINKERTUNE requires an Atari with 48K, a disk drive, and a joystick. To order your copy, call (604)385-3711 or send \$29.95US plus \$3. shipping and handling to:

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B.C. residents add 7% sales tax. No personal cheques please.  
VISA welcome (be sure to include card expiration date and authorization signature).

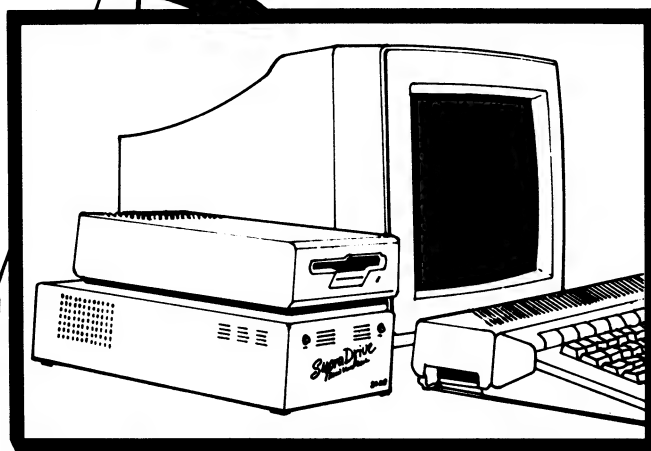
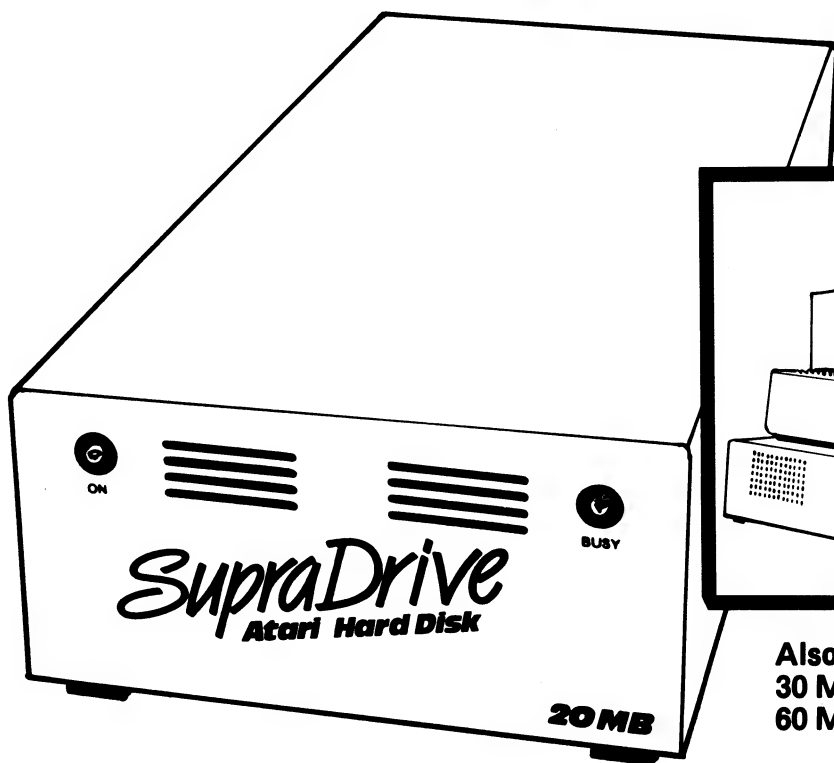
**\*\*\* DAL-ACE Christmas Insert \*\*\***

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# \*\*\* DAL-ACE Christmas Insert \*\*\*

## Finally, a *Fast and Powerful Basic* for Atari ST computers.

Start with a terrific machine — the Atari ST computer. It's got outstanding graphic and sound capabilities, along with a super processor. The final ingredient is a programming language with sophistication equal to the Atari's. And that's Softworks Basic.

Softworks Basic is a full-fledged BASIC language system packed with power for users at every skill level. Serious programmers will appreciate the advanced features including advanced data structures (like C structures or Pascal record), superior string manipulation, and access to programs written in other languages.

Everyone will love Softworks Basic speed of execution, unmatched by any other Basic for the Atari. It interfaces to ROM routines and even compiles double-click programs. Our Basic virtually makes the Atari operating system and graphics software fully accessible to you, the programmer. And because Softworks Basic is a true compiler, there's no need to provide source code for others to run your program.

So, why wait? Get Softworks Basic for your Atari ST computer and watch the sparks fly!

	SOFTWORKS BASIC	ATARI ST BASIC
<b>Benchmarks (in seconds)</b>		
sieve (floating point)	38	109
sequential file i/o	14	155
string manipulations	28	432
program load	5	45
Compiler	Yes	No
Direct interface to ROM	Yes	No
Written in assembly language	Yes	No
Uses windows	No	Yes
Permits string arrays	Yes	No
Line numbers required	No	Yes
Alphanumeric labels	Yes	No
Produces double-click files	Yes	No
Advanced data structures	Yes	No
Disk space required	40K	143K
Minimum memory required	128K	256K
Maximum array size	unlimited	32K

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For The Atari ST™

EZ CALC™ is a fully implemented GEM™ based spreadsheet for home and business use. This is by far the most powerful spreadsheet available for the price. Better yet, all commands are mouse controlled for speed and ease of use. EZ CALC™ also uses less memory than other spreadsheets for the ST, leaving more room for your data and formulas. If you've never used a spreadsheet before, you'll be amazed how easy EZ CALC™ is to learn and use. The experienced user will love the speed of a mouse controlled spreadsheet.

Desk	File	Print	Recalculation	Defaults	Help
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The FASTCHIP floating point routines can give you up to four times the speed of the original floating point routines. Atari basic uses these routines for almost every operation. Spreadsheets and other languages also use these routines. You can see the difference.

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This program was designed for use with Atari 130XE, and 256K 800XLs with the Newell Industries 256KXL ram upgrade. It should not be used with other computers unless they support this bank switching method. This program supports both single and double density disk drives up to 2880 sectors per disk. Copies a full disk in just one pass. Make multiple copies while reading the source disk once.

### SBM ST

This system was designed to operate in a wholesale or retail environment. SBM ST is an inventory control, point of sale program that produces invoices, purchase orders, statements, mailing labels, quotes, sales and account reports, plus much more.

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General Information:

Mailing labels may be printed for all or selected accounts and vendors. Purchase orders may be printed with automatic update of inventory records. Sales reports consist of daily, periodic, and annual. Tracking of up to 30 salespersons for figuring commissions, etc. Ten programmable tax rates, seperated and recorded.

Capacities:

Parts (items) - 32,767 per inventory file, unlimited number of files.

Accounts - 32,767 per account file, unlimited number of files.

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2. Click on the Thunder icon on the desktop.

3. Click on the Thunder icon on the desktop.

4. Click on the Thunder icon on the desktop.

5. Click on the Thunder icon on the desktop.

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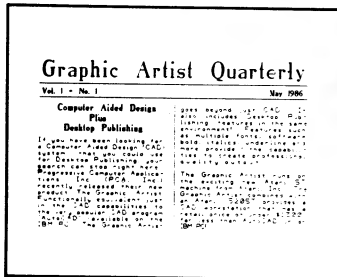
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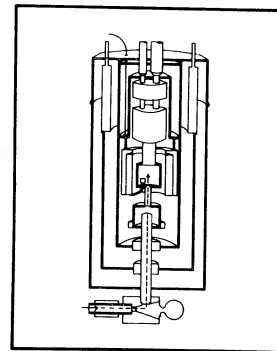
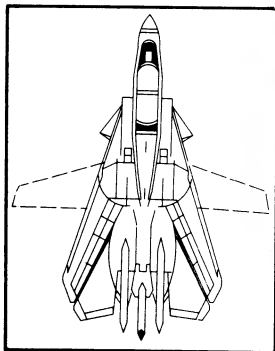
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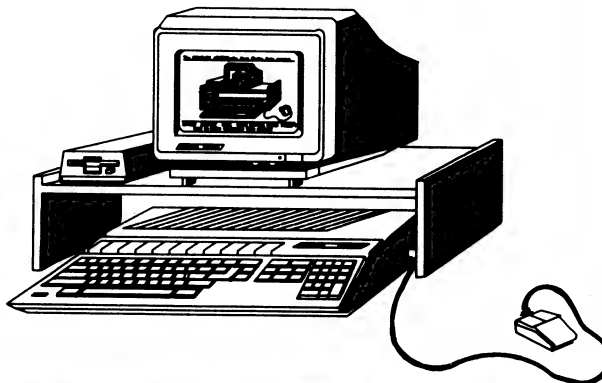
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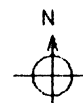
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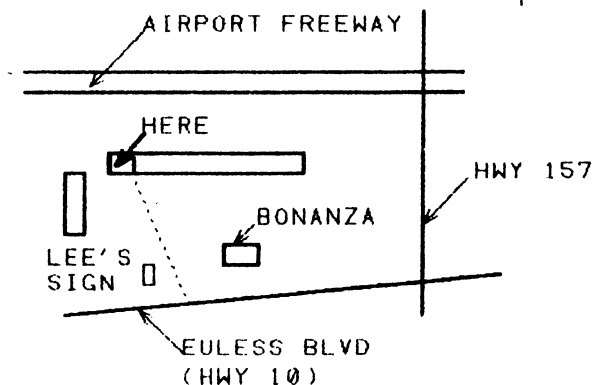
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## CHRISTMAS CARD MAILING LIST

by Jeff Golden

This is a reprint of an article that was submitted to the newsletter a few years back, and with the approaching season, I felt that this would be a good time to do it again.

The program is designed to print return addresses and "to" addresses directly on the envelopes. (The author felt that using mailing labels on Christmas cards would be tacky).

Most daisy-wheel and dot-matrix printers, with friction paper feeds, can be used with envelopes, but don't stuff envelopes in an Atari 1027 printer. The 1027 was not designed for printing envelopes, and could be damaged.

When printing envelopes, the program stops, displays the next name on the TV-screen, and allows you to select the proper card for Aunt Harriet. After inserting the envelope, answer "Y", and you get a neatly addressed envelope that anyone can read. The program also gives you the choice of skipping over Aunt Harriet, if you choose to do so.

Names and addresses are stored within the program in DATA statements. DATA statements were used so that you could use the BASIC source code editor to make corrections to your address list.

When adding new names to the list, the program generates the necessary DATA statements automatically. There is room in a 40K, or larger machine, for about 200 addresses. If this is not enough, you can start up a fresh copy of the program to hold the remaining names. If you really want to get fancy, you can keep the "A"s in one program and the "B"s in another.

Since the address list is part of your program, don't forget to SAVE your program every time you make any changes to the address list.

If you want to use the program to print mailing labels, delete lines: 240, 260, 280, 300, 340, 360, 380, 400, 420, and 500. Adjust the number of spaces placed in E\$, by line 180, so that the addresses print in the proper print columns, and adjust the number of blank lines printed by line 520 so that the printer spaces properly to the next label.

```

20 REM **** CHRISTMAS CARD ****
40 REM **** MAILING LIST ****
60 REM **** J. Golden 1984 ****
80 DIM A$(40),B$(40),C$(40),D$(40)
100 DIM E$(40),F$(1)
120 ? "Do you want to add names? Y/N"
140 INPUT F$
160 IF F$(1,1)="Y" THEN GOTO 600
180 E$=" "
200 OPEN #2,B,0,"P: ":TRAP 30000
220 READ A$,B$,C$,D$:REM GET ADDRESS
240 ? A$:? "PRINT THIS ONE Y/N? ";
260 INPUT F$
280 IF F$(1,1)<>"Y" THEN 220
300 ? #2;CHR$(15);:REM CONDENSED PRT
320 ? #2;CHR$(27);"G"::REM DOUBLE PRT
340 ? #2;"Return Name "
360 ? #2;"Return Address"
380 ? #2;"Return City/State"
400 ? #2: ? #2: ? #2: ? #2: ? #2
420 ? #2;CHR$(18):REM RESET CONDENSED
440 ? #2;CHR$(27);"E":REM EMPHASIZED
460 ? #2;E$;A$: ? #2;E$;B$
480 ? #2;E$;C$: ? #2;E$;D$
500 ? #2;CHR$(27);"F":REM RESET EMPH.
520 ? #2: ? #2: ? #2: ? #2: ? #2: ? #2
540 GOTO 220
560 REM
580 REM **** ADD NAMES & ADDRESSES ****
600 TRAP 640:X=0
620 READ A$:X=X+10:GOTO 620
640 X=1000+X+INT(X/4)
660 ? CHR$(125)
680 ? "DO NOT USE ANY COMMAS!!"
700 ? "Enter 1st address line "
720 INPUT A$
740 ? "Enter 2nd address line "
760 INPUT B$
780 ? "Enter 3rd address line "
800 INPUT C$
820 ? "Enter 4th address line "
840 INPUT D$: ? CHR$(125);
860 ? "Press RETURN for each line "
880 ? : ? X;" REM *****":X=X+10
900 ? X;" DATA ";A$:X=X+10
920 ? X;" DATA ";B$:X=X+10
940 ? X;" DATA ";C$:X=X+10
960 ? X;" DATA ";D$:X=X+10
980 ? "GOTO 680 ":POSITION 0,0:END
1000 REM *****
1010 DATA DALACE
1020 DATA P.O. BOX 851872
1030 DATA RICHARDSON TEXAS
1040 DATA 75085-1872
30000 END

```

## ST MEMORY MANAGEMENT

Jeff Rigby / SOTA Computers  
3949 Sawyer Rd. Sarasota, Fl.

The following is a brief overview of the Dynamic Memory used in the Atari ST series of Computers. Provisions were made in the design of the Memory Management Unit for 64K (4164), 256k (41256) and 1meg (411001) chips.

The Memory Management Unit does a variety of jobs in dealing with the memory, all these are transparent to the 68000 MPU. Dynamic Ram is currently the most popular memory used in computers today, it is very inexpensive and reasonably fast. The bad news is that it has to be refreshed every 4ns or it loses its memory. Refreshing is accomplished by strobing all the Rows in the multiplexed memory. In computers without a MMU the MPU loses up to 20% of its time in just doing refresh. The great news is that Atari designed the ST with no wait states. The MMU does the refresh and Multiplexing of the dynamic ram and the MPU (68000) is free to do whatever is needed. The MMU can control two banks of two 8 bit words each. The current method of determining the amount of memory uses an 8 bit byte as its base. In other words, 8 bits \* 256K = 256k bytes of memory. In the ST we have 16 bit words  $2 * (8\text{bit}) * 256\text{k} = 500\text{k}$  of memory in one bank using 256k chips, with two banks you have 1 meg. Using the new one meg chips you have  $2 * (8\text{bit}) * 1\text{meg} = 2\text{meg}$  per bank. If you are going to upgrade your memory then replacing one of the 500k banks of memory with 1 meg chips gives you 2 meg plus what you have in the other bank for at least 2.5 meg.

41256 4- CMOS very low power (runs cool)

1- 1 bit

256- by 256K

```

      top
      |-----|
AB  1 -| |:- 16 Vss
Din 2 -| |:- 15 CAS low on.
WElo 3 -| |:- 14 Dout
RASlo4 -| |:- 13 A6
A0  5 -| |:- 12 A3
A2  6 -| |:- 11 A4
A1  7 -| |:- 10 A5
Vcc 8 -| |:-  9 A7
      |-----|

```

A7-A0: Address lines

Din: Data in

Dout: Data out

(on the ST, Din/Dout are hooked together)

WElo: Write enable when this line is low

RASlo: Row Address Strobe

CASlo: Column Address Strobe

Vss: Ground

Vcc: 5 volts

Refresh and RAS are accomplished when the RAS line is held low and the proper row address is selected. Refresh requires that all 256 rows be addressed one at a time. The RAS line is held low and a number (base 2) is put on A0-A6, the address bus. This is done 256 times (one for each address).

Writing to Memory is done by

- 1) bringing RAS low
- 2) put the proper address (row address) on A0-A6
- 3) bring RAS high
- 4) bringing CAS low
- 5) put the proper column address on A0-A7
- 6) bringing CAS high
- 7) bringing WE low
- 8) put data on Din
- 9) bring WE high

Reading Memory is done the same way but use Dout.

As you can see there is a lot that the MMU has to do, it is running at 16 Mhz doing the calculations for the Multiplexing and other functions, but the Memory itself can only be addressed at 4 Mhz due to the speed restrictions in CMOS devices.

The chip that is in your ST now is a 41256 dynamic ram memory chip, the one meg chips you may have heard about are still too expensive but they will come down in price soon. When they do you may upgrade your computer to 2.5 meg or 4 meg of ram.

## SPARTADOS 3.2

Reviewed by Butch Youngblood

411000 4- CMOS low power (20% faster than 41256)  
 1- 1 bit  
 1000- by 1000k

```

      top
    |-----|
Din  1 -! !- 18 Vss
WElo 2 -! !- 17 Dout CAS low on
RASlo3 -! !- 16 Dout
N/C  4 -! !- 15 A9
A0   5 -! !- 14 A8
A1   6 -! !- 13 A7
A2   7 -! !- 12 A6
A3   8 -! !- 11 A5
Vcc  9- ! !- 10 A4
    |-----|
  
```

If you will notice there is an A9 pin on the DRAM that was not on the 256K chip, this is where it gets the extra address range. The A9 pin on the MMU is not connected to anything in the ST and as you notice the pin configuration of the 1 meg chip is nothing like the 256k chip so to upgrade I guess I am going to have to make a PC board to hang on the mother board of the ST.

The refresh and addressing of this chip are the same as the 256k chip with the exception that refresh is done on 1000 addresses and the row and column addresses are 1k by 1k.

The ST is one of the best designed personal computers on the market. We hear about all of the co-processors in the Amiga but never hear of the co-processors in the ST, there are several of them including several DMA channels. Atari just doesn't blow it's own horn loud enough. Did you know that in all most all tests the ST is faster than the Amiga or the Mac. The memory upgrades to the Amiga slow down the Amiga 12% (refresh is not transparent). Upgrading the ST is very inexpensive and very expensive on the Amiga or the Mac. Atari went to great expense to make the ST VERY UPGRADEABLE, for our benefit and theirs (they wanted several new improved models to sell later).

This review is both a update for those of you are familiar with one of the earlier versions of SPARTADOS (1.x, 2.x), as well as an introduction to those who have never seen a SPARTADOS. I would like to open by saying that there are several fine DOS's for the ATARI XL machines, however ATARI does not make any of them.

The current third party DOS'S are all a superset of ATARI DOS 2, which means that they are in most cases more compatible than the DOS'S that ATARI has come out with in the last two years (DOS 3, 2.5). SPARTADOS is very different in syntax than ATARI DOS 2.5. In fact, it shares more in common with UNIX or MS-DOS since it uses a CP or command processor. I was able to adapt to this new environment very easily, but for those that are used to the "MENU" in ATARI DOS, do not fret since they included a version that uses menus. In fact SPARTADOS is not just a DOS, but is a DOS CONSTRUCTION SET.

SPARTADOS CONSTRUCTION SET is a system of utilities that allows you to build your own custom DOS. I have the U.S. DOUBLER in my ATARI 1050 disk drive and received the SPARTADOS as a freebie with the upgrade. But I would have payed for this DOS. I found myself using SPARTADOS, not because it allowed "TRUE DOUBLE DENSITY," storage on my ATARI 1050 (as well as 3X transfers of data), but because I quickly became used to the power that subdirectories and a 256K RAMDISK gives you. I must say that my ego has become quite a problem since I started learning SPARTADOS 3.2. I have all the power that the "big boys," have with their I.B.M. PC's. I am learning to do things with my eight bit that I thought could not be done.

Below are some of the additional features of SPARTADOS 3.2:

```

BASIC ON/ OFF from keyboard
TIME B (REAL TIME CARTRIDGE FOR 8 BIT)
FULL READ CAPABILITY OF ATARI DOS 2.5
BASIC XE compatibility
1200XL TIME DATE STAMPING
RAMDISK AS ANY DEVICE D1-D8 (192K)
INTERNAL 32 CHAR KEYBOARD BUFFER
  
```

I must say that I would have to recommend most of the fine products that come out of I.C.D.'S little lab, and I wish them the best in getting out there new MID interface that will allow the connection of any SASI hard disk to the 800XL. GOOD LUCK & GOOD COMPUTING!

### SOME NOTES ON CONNECTING THE AVATEX MODEM TO AN ATARI 520ST

The following reflects my recent trials hooking up an Avatex modem to the 520 ST. I first started by using a couple of clamp-on connectors and some ribbon cable, to connect all 25 pins.

At this point, I was able to download from a BBS or CompuServe at 1200 baud, but typing to a friend in the terminal mode was a real problem (lots of weird characters) and uploading was impossible.

After a LOT of frustration and many, many hours of experimentation, I was able to solve the problem, and I thought I'd share ST owners who, like myself, have little experience with modems and cables and so on.

The problem, in technical terms, appears to be this. There are basically two methods of handshaking used by the RS232 standard. One is called RTS/CTS and the other is called DSR/DTR. These abbreviations refer to certain lines in the RS232 cable which carry the signals which let one gadget know how the other is doing.

The ST has the capability to perform handshaking via the RTS/CTS method, but not the other, and the AVATEX can use DSR/DTR, but not the other. In other words, they cannot shake hands with each other!

This may seem like an insurmountable problem, but it isn't really! In fact, most modem-wise people only connect three wires when they are hooking up a modem to a computer - Send Data, Receive Data and Ground. In this case, handshaking will be performed by software, and it is!

OK, that's enough of the pseudo-technical talk, and here is what I suggest you do to get your ST and your AVATEX to talk politely to each other.

The following pins should be connected on both ends of the RS232 cable:

- pin 2 - Transmitted Data (TD)
- pin 3 - Received Data (RD)
- pin 7 - Signal Ground
- pin 8 - Carrier Detect (CD)

On the ST end of the cable, put a jumper wire between the following pins (connect them together). Do NOT make any connection to these pins at the modem end:

- pin 4 - Request To Send (RTS)
- pin 5 - Clear To Send (CTS)

On the modem end of the cable, put a jumper wire between the following pins (connect them together). Do NOT make any connection to these pins at the ST end:

- pin 6 - Data Set Ready (DSR)
- pin 20 - Data Terminal Ready (DTR)

No doubt some expert can tell you more about this problem than I know, but this cable works and gives me trouble free telecommunicating!

(JLP's NOTE: The above information was downloaded from CompuServe and the source is unknown. Try at your own risk, but seems like a simple, harmless thing to try if you are having modem problems, whether Avatex or other.)

\*\*\* Next Meeting: \*\*\*  
\*\*\* Saturday, \*\*\*  
\*\*\* November 15th \*\*\*

XE Term vs. EXPRESS!  
By Mike Valant

When I bought the Atari XM301 modem, I was thrilled at its performance. Let's face it: Auto-answer, auto-dial, tone-dial functions used to cost a LOT, even with 300 Baud. Well, for \$35 this was a steal. I happily ran a phone line into my room, plugged in the modem, and booted up the disk with XE-Term, waiting to be smashed by a program similar to Telelink II. What a surprise to see a terminal program which has numerous features! They're even documented nicely. Who could ever want anything more out of a program? The answer is, "Anyone with XE-Term." Sure, it's great for getting started but it still falls short of many other programs.

Take, for instance, Express 2.1. I love the multi-screen, scrolling menu, nicely formatted with every function available right there. With XE-term, on the other hand, you must stumble through menus (one of which, the options function, isn't even listed) and choose and choose and choose, to do anything. Of course, if you're not in any hurry, this may be adequate. However, there are a few major shortcomings of XE-term which shoot it in the foot.



## WORD PROCESSORS GALORE!

Review by Larry Dineen

The first problem I came up against was the limited buffer. XE-term wants to stop at a certain number of blocks, even though it saves the acquired data periodically. This results in the fact that you cannot download any file longer than around 260 sectors. Of course, this causes considerable frustration when a poor new user tries again and again to download a large program. On the other hand, I have never found a limit to Express 2.1's download capabilities.

The other obstacle is the dialing menu of XE-term. Oh, I guess it's O.K. if you only call three or four BBSs total but even then it gets monotonous to answer the question, "Edit or Redial?" every time you want to dial a number. Again, Express comes to the rescue by providing ample space for lots of BBS numbers, three macros per number, and a settable time limit for dialing. A final note: Express redials automatically and will cycle through selected numbers, while XE-term does neither, forcing the user to sit and press...press...press...

All of this, of course, resulted in a lust for Express 2.1 (compatible with the XM301). To satisfy my desire, I had to first download a smaller program, Proterm, then download Express, because Express was too large for XE-term to download. So, new users, I suggest you make connections and consult some helpful Sysops (I was helped by the Wazoo of the Bizarre BBS) in order to bootstrap your way away from XE-term to the much more desirable Express 2.1.

\*\*\* SUPPORT YOUR \*\*\*  
 \*\*\* NEWSLETTER, \*\*\*  
 \*\*\* WRITE AN \*\*\*  
 \*\*\* ARTICLE! \*\*\*

In this review I am going to try to review three word processors, Hippo Word, Textpro, Haba Writer, and compare them to each other. I will start with a description of each and then at the end compare them.

## HABA WRITER

A full featured GEM-based word processor making extensive use of pull down menus. This word processor is an update, third or fourth, of the original Haba Writer and as such has most of the bugs of the original fixed. The most glaring of which was the inability to save or read ASCII files. Some of the features of Haba Writer are, multiple windows let you work with several documents at once, search and replace text going up or down a document, rulers which let you set margins and tabs precisely, horizontal scrolling which lets you create documents as wide as 132 columns. These features can be invoked from the keyboard or mouse, and as long as the help file is on the disk you are using help dialog boxes are available. Another nice feature is that if you change type styles what you type thereafter appears on screen in the type style selected until it is changed, not just text surrounded by control codes. Cut and paste from or to documents open at that time is also supported. Most printers can be used all you have to do is edit the printer file to suite your printer. All the other standard features of word processing are supported, move text, insert, delete ect. This version of Haba writer is reasonable and as such is worth your consideration, the disk is copy protected and as such will work with hard disk or ram disk as long as when you boot the original is in drive A.

## HIPPO WORD

A full featured GEM-based word processor using pull down menus. This is a very good word processor which also allows the use of graphics in your document. You get the graphics from a Degas file using an accessory called GRAB.ACC. Once your document is loaded you double click on grab.acc and give it the file name, then your degas picture will appear on screen you then select the portion of the picture you wish to use, rectangular areas only, the selected area is then saved to a font file or files which have to be put into the word folder on the boot disk before they can be used. Once in the word folder as fonts you can select them from the font menu and place them where you wish in your document. Other than graphics all of the standard features are supported, only one document can be open at a time but the search and

replace feature of Hippo Word is the best and most versatile I have ever seen you can search for just about anything, as long as it fits on one screen line, using the regular expressions feature. The major draw back is that due to the graphics capability only Epson printers are supported at this time.

If you have Hippo Simple you can use the mail merge feature and merge data base information into your document. Hippo Word is one of the best word processors I have seen to date and a big plus it is not copy protected so those of you with hard disks can run it from your hard disk and the rest of us can run it from ram disk. This is the first word processor I have used that I would be willing to purchase to replace ST Writer.

### TEXTPRO

This word processor is one of the best implementations of word processing I have seen on the ST, it has all the bells and whistles, up to five column printing, supports sideways printing on Epson and compatibles, automatic table of contents and index generation, full screen editing with mouse or keyboard, definable function keys, and rs232 input and output. All of the features mentioned above work I have tried them all and in doing so I have found a word processor that does everything and is reasonably priced, so why won't I buy it well I'll tell you.

This program has one of the most user unfriendly copy protection schemes I have had the misfortune to encounter. I believe that every manufacture has the right to copy protect his software but the way the people at Abacus have gone about it is totally stupid and should not be tolerated. When read the manual no where does it mention that the program is copy protected and warn you to use the original only so after reading the manual you copy the program to your hard disk, double click it and presto it loads, with no warnings, after it loads you start typing your first novel and after a few hours you go to save it. What you can't?!@### Well ok I guess I just print it out and chalk it up to experience. What you can't?!@### That is why I believe this program should be given a miss by all sane users and those dealers handling Abacus software products should be told not to bother as long as they persist in their insanity.

### THE COMPARISON

Hippo Word Ease of use 8, Features 9, Cost 4, Manual 7, Purchase 10  
 Haba Writer Ease of use 8, Features 5, Cost 3, Manual 8, Purchase 6  
 Textpro Ease of use 8, features 9, Cost 4, Manual 8,

Purchase 0  
 0=worst 10= best

In spite of what I have said a word processor is one of the most personal pieces of software I know and the only way to really choose your word processor is to used it before you buy it. Take a letter to your local Computer store and ask if you can demo several word processors, type your letter using each word process or then you can make your choice. Good Luck!

## REPORTS IN H & D BASE

By John Pellet

If you are like me, the most frustrating part of H & D Base, the powerful ST data base, is the report generator. I find it awkward, cumbersome, and basically worthless. This command file takes a standard address file (with field names of NAME, STREET, CITY, STATE, and ZIP) and prints out the data base at one record per line. The control codes are for an Epson FX-85. The comments are in italics and should NOT be typed in. Commands are underlined.

goto 1 Go to the top of the data base.  
set print on Start echoing to the printer.  
set raw on Do NOT pad a space between each print command. This must be done or the setup codes won't work.  
 ?? chr(27),chr(78),chr(6) Set up the 6 line SOP. Be sure to use the "??" rather than "?", since "??" doesn't add CR+LF to each statement.  
 ?? chr(27),chr(77) Turn on elite, 12 cpi.  
set raw off Go back to the space padding default.  
 ?? date() Print the system date at the upper left.  
 ?? " AN ATARI-RELATED ADDRESS LIST"  
 ? Print header and skip a line.  
do while .not. eof For the whole data base (until end of file reached).  
 ? name,street,trim(city-(", "+state+" "+zip)) Here's the tricky part. Print the NAME then STREET fields with trailing blanks, followed by CITY, without, and STATE and ZIP with trailing blanks, separated by ", " and " ", respectively. Note that this will be all on 1 line, unless the string is longer than your printer's width. In any case, the maximum length allowed by the program is 256 characters.  
 SKIP Go to the next record.  
 ENDDO Stop when end of file marker reached.  
 ? Skip a line.  
 ? chr(12),chr(27),chr(64) Reset the printer and send a form feed.  
set print off Stop echoing to the printer.



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Submissions are WELCOME in ANY form. It is extremely helpful if all submissions conform to this format:

Condensed print (16 to 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.

DAL-ACE CALENDAR

Here is the current schedule of upcoming DAL-ACE events.

Saturday, November 1	Newsletter Production Mtg
Saturday, November 15	Main Meeting
Saturday, November 29	Newsletter Production Mtg
Saturday, December 13	Main Meeting

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.

Main Meeting dates that are more than 90 days ahead of time are tentative. The Infomart reserves the right to change the dates, so check the newsletter for the latest schedule.

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 - 10:30	NEWSLETTER EXCHANGE SIG
11:00 - 12:00	CLUB SALES
11:00 - 11:30	NEW ATARI USERS
11:30 - 12:00	MEMBERSHIP SIGNUP & NEWSLETTER DISTRIBUTION
12:00 - 2:00	8-BIT DEMOS BUSINESS MEETING OTHER DEMONSTRATIONS
1:00 - 2:30	CLUB SALES
2:00 - 4:00	ADVENTURE SIG ST SIG

Meeting rooms and additional information will be posted on the schedules at the main entrance, and the main kiosk, which will be manned from 9AM to 4PM. Disk-of-the-month and garage sales will be in the main meeting room. Vendor sales will take place in the basement.

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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

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