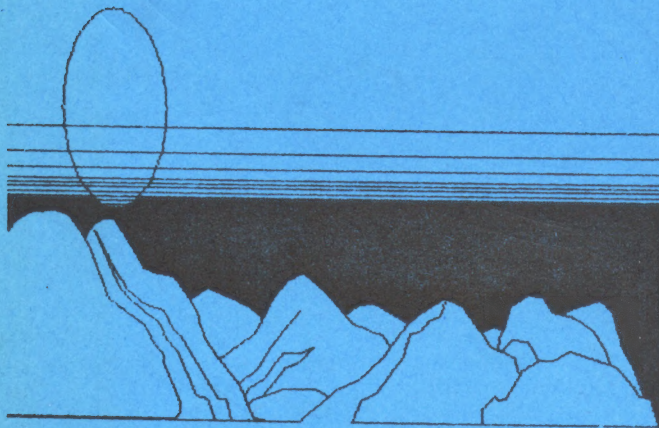




Dallas Atari Computer Enthusiasts
Volume 10, Issue 3 March, 1989



Clip art shown here is from Migraph's DrawArt Professional - reviewed inside...

The long awaited Polynomial Curve Fitter - a type-in program for the 8-bit!

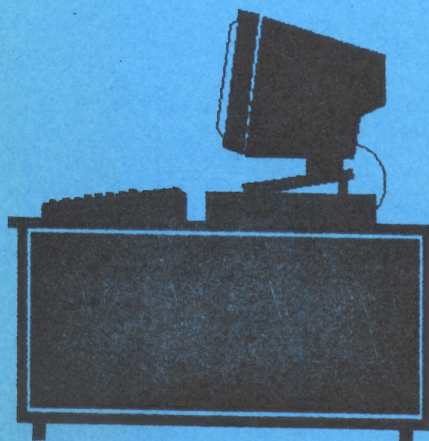


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1988 Financial Reports... New ST Disks... New PD 8-Bit Graphics Program in Library... Diamond OS review... Order your Express! cartridge early!

Dollar Signs

By Rene Tucker,
Treasurer

End of year reports

October through December showed a trend toward recovery which hopefully will continue into the year 1989.

Most significant and effective among the cost cutting measures undertaken was the reduction of printing expenses. Increasing membership dues, encouraging disk sales, and other revenue generating projects, i.e. selling Atari items and raffling software, all contributed toward improving financial stability by the end of the year.

In September the officers asked you, the members, for help in pulling out of a financial tailspin. You came through, made sacrifices and generally supported our efforts to attain fiscal responsibility. Thank you all. Keep up your support of the club -- buy disks and encourage all Atari enthusiasts to join Dal-ACE.

The fourth quarter report, annual report, and a graph of monthly performance for 1989 follow.

Shareware...

...is good for all of us! Get your money's worth and encourage shareware programmers to develop more quality, affordable software for our Ataris.

Support

shareware

programmers!

Dal-ACE Fourth Quarter Report - December 31, 1988

October November December

Totals

Income

Dues	\$152.00	\$136.00	\$196.00	\$484.00
Disk Sales	211.00	53.00	105.00	369.00
Ad Sales	10.00	0.00	35.00	45.00
Other	0.00	61.75	419.00	480.75
Total	\$373.00	\$250.75	\$755.00	\$1378.75

Expenses

Printing				
Newsletter	\$170.10	\$120.00	\$120.00	\$410.10
Other	0.00	0.00	0.00	0.00
Libraries				
Disk Purchase	0.00	0.00	64.60	64.60
Supplies	27.50	0.00	3.90	31.40
Telephone				
BBS	159.24	0.00	0.00	159.24
Taxes/Fees	0.00	0.00	0.00	0.00
SLS TX PD	29.21	0.00	0.00	29.21
Postage	0.00	40.00	60.00	100.00
Misc.	396.00	0.00	443.08	443.08
Totals	\$386.05	\$160.00	\$691.58	\$1237.63

Net Income/Loss \$141.12

Bank Balance 9/30/88 \$1120.56

Bank Balance 12/31/88 \$1261.68

Many Thanks To...

This month's authors: Dr. Jerry Polson, Rene Tucker, Ralph Salmerton, the unknown person who submitted the Express! information.

Donations to the club: Dave Munsie, for a Hybrid Arts MIDI interface for the 8-bit *and's* Computereyes, also for the 8-bit Jim Jackson, Ray Gilman, and Ralph Tenny for donations to the ST library.

It's people like all of these who keep the club going!

Dal-ACE Annual Report - 1988

Quarter - First Second Third Fourth Totals

Income

Dues	\$512.00	\$400.00	\$388.00	\$484.00	\$1784.00
Disk Sales	597.00	261.00	367.00	369.00	1594.00
Ad Sales	170.00	50.00	35.00	45.00	300.00
Other	<u>161.00</u>	<u>238.50</u>	<u>73.00</u>	<u>480.75</u>	<u>953.25</u>
Total	\$1440.00	\$949.50	\$863.00	\$1378.75	\$4631.25

Expenses

Printing

Newsletter	\$771.26	\$671.49	\$787.41	\$410.10	\$2640.26
Other	57.20	0.00	83.16	0.00	140.36

Libraries

Disk Purch	324.66	0.00	303.26	64.60	692.52
Supplies	87.78	0.00	9.00	31.40	128.18
Subs	10.00	0.00	0.00	0.00	10.00

Telephone

BBS	134.29	130.57	0.00	159.24	424.10
Other	25.30	60.00	34.28	0.00	119.58
Taxes/Fees	240.00	0.00	28.00	0.00	268.00
Sls Tx Pd	19.42	46.57	21.77	29.21	116.97
Postage	161.00	0.00	108.60	100.00	369.60
Misc.	<u>241.88</u>	<u>22.84</u>	<u>37.69</u>	<u>443.08</u>	<u>745.49</u>
Totals	\$2072.79	\$931.47	\$1413.17	\$1237.63	\$5655.06

Bank Balance 01/01/88 \$2264.27

Bank Balance 12/31/88 \$1261.68

Difference \$1023.81

Total Income \$4631.25

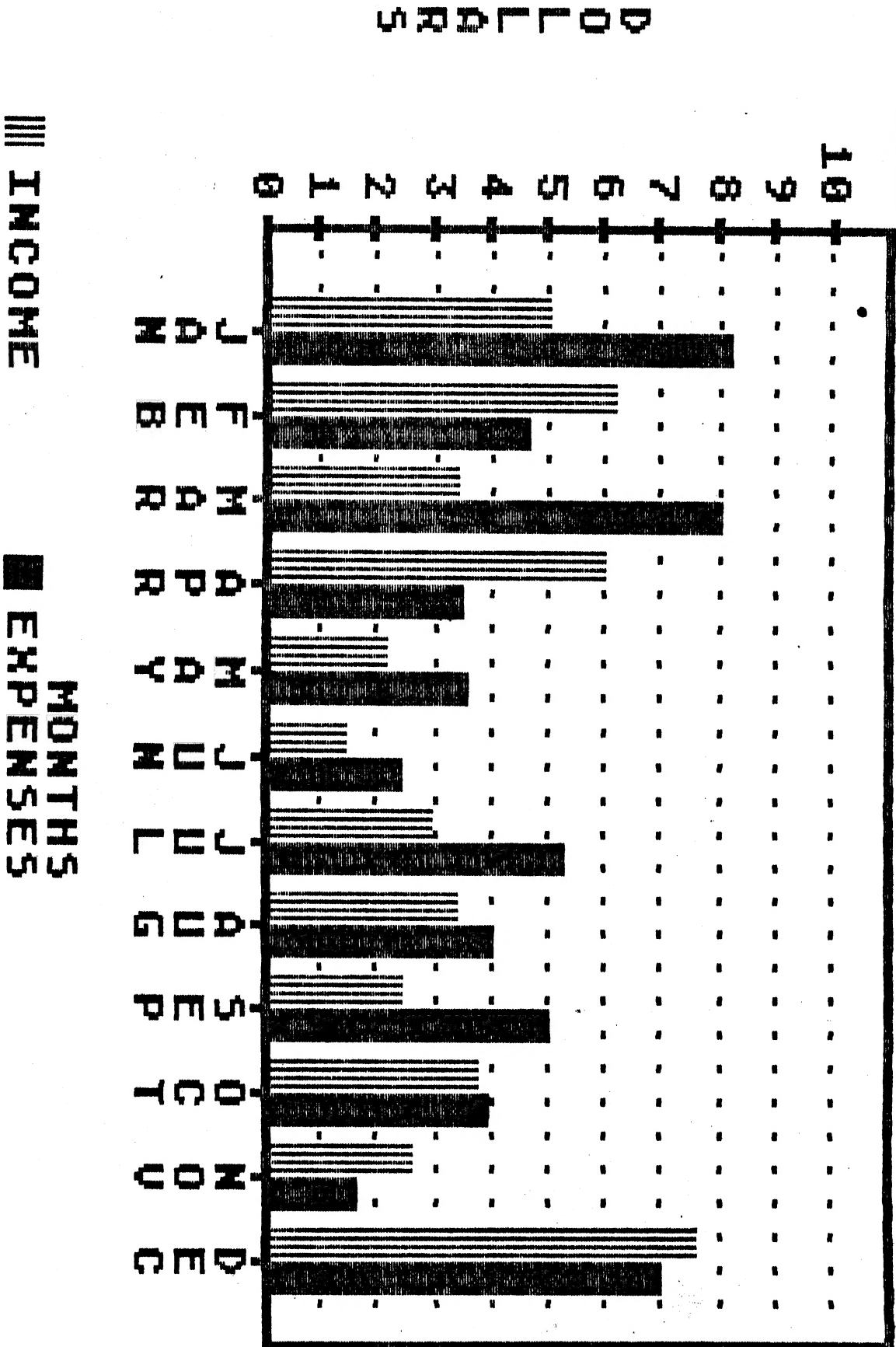
Total Expenses \$5655.06

Income/Loss -\$1023.81

Cash on Hand \$41.15

E+2

MONTHLY PERFORMANCE



Become a Quantum Mechanic and Make Big Bucks!

The booming field of Quantum Physics is in need of fully trained and skilled Quantum Mechanics. Quantum Mechanics **make Big Bucks**.

Do you have what it takes to enter this new and exciting field? Do you want to work with meson micrometers, Quantum spanners, Quark alignment benches and many other exciting jobs? Do you want to **make Big Bucks**?

Industry is crying for fully qualified Quantum Mechanics. They want you and you can **make Big Bucks**.

You can be on your way to becoming a Quantum Mechanic in just days. All that you need to do is send us every single cent you can lay your hands on and we will enrol you in our exclusive correspondents course. Before you know it, you will be on your way to becoming a fully qualified Quantum Mechanic and **making Big Bucks**.

Soon after sending us the dough, you will be setting down with all of your friends at Joe's Bacchanalia and Libationtory, telling them just how great it is to be a Quantum mechanic. You will be the envy of all your friends. Best of all you will **make Big Bucks**.

We will show you how to use Quantum spanners, Meson micrometers, Set Eigen Values and Vectors, Build Electron Models, Set Fermi speedometers, Apply strong forces, Set Alfa and Beta Alignment and repair neutrino colision damage. Best of all, you will learn how to **make Big Bucks**.

After completion of the course work you will go to work in the Valley of the Nuclides. You will start moving up the Nuclenon levels and **make Big Bucks**.

Heisenberg didn't take our courses and he is quite unsure of himself. He wrote:

$$\Delta P_x \Delta X > h, \Delta P_y \Delta Y > h, \Delta P_z \Delta Z > h$$

So you see, Heisenberg might have been here, but he isn't sure.

Send for more information today!

The Faust and Mephistopheles School of
Quantum Mechanics where our motto is

"Would we lie to you?"

The Grapevine

News, Rumors, and Product Announcements

News

BBS Alert!

The editorial page of the March, 1989 Computer Shopper magazine reports that "Southwestern Bell is trying to impose a "Bulletin Board Service Charge" in BBSes within their area. The pretext is that calls to BBSes unduly load the trunk lines because of the number and duration of the calls. The Baby Bells are introducing this in a part of the country where they expect little opposition. It is a test case and if they get away with it these charges will spread all over the U.S. They never stop trying and we must never stop watching. Write to:

Public Utilities Commission
7800 Shoal Creek Blvd
Suite 400-N
Austin, TX 75787

Attention: Mr. Philip Holder, Chief Examiner
RE: Reginald Hirsch vs. Southwestern Bell

Telephone

XF551 Blues?

Matthew Ratcliff reports on CompuServe that the XF551 *does not* write backwards to the back side of your disks, as was previously reported. That appears to be a rumor spread by some competitors.

8-Bit HD!

A recent issue of *Nybbles & Bytes* the newsletter of the combined Phoenix Atari groups, reports that they were testing a complete 20/30 meg hard drive for the Atari 8-bit. They were expecting the testing to be done by now, with the cost to be around \$450 (\$50 more for a 40 meg)! How did they manage? A hard drive interface designed by Bob Wooley of SPACE that would cost around \$25 and eliminate the current need for a \$299.95 MIO. If all this worked, we should be hearing about it soon.

Morris has moved!

But not far. Computer Discoveries' new location is just around the corner from the old location. It's still at the Midway Plaza Shopping Center at Midway and Harvest Hill Road, address and phone number below:

Computer Discoveries
12801 Midway Road, #201
Dallas, TX 75244
(214)484-9104

Rumors

New Superstore?

An anonymous source has told me that within the next six months, there will be a new electronics superstore in the Dallas-Fort Worth area that will "simply blow away Federated and other local electronics stores." The aforementioned paradise will heavily support the Atari product line. Cross your fingers!

New Products

ST MINIX

This new operating system is call compatible with V7 UNIX. All the source code for the OS and utilities is also available. It replaces TOS and turns your ST or Mega into a Unix machine. Includes a Kernighan & Ritchie compatible C compiler, a shell that is functionally identical to the Bourne shell, full multiprogramming, ability to read and write TOS disks, and lots more.

You may copy the source code for educational and research use. (For instance, a teacher may buy MINIX and copy it for all his students.) However, if the copying gets out of hand and turns into piracy, Prentiss-Hall won't be doing any more for the Atari.

Price is about \$110 for MINIX and the reference manual. You'll want the reference manual, since all that comes with the Atari version is a small booklet describing the differences between the IBM and ST versions. You can order MINIX from most book stores or directly from Prentiss-Hall (the publishers):

(201)767-5937

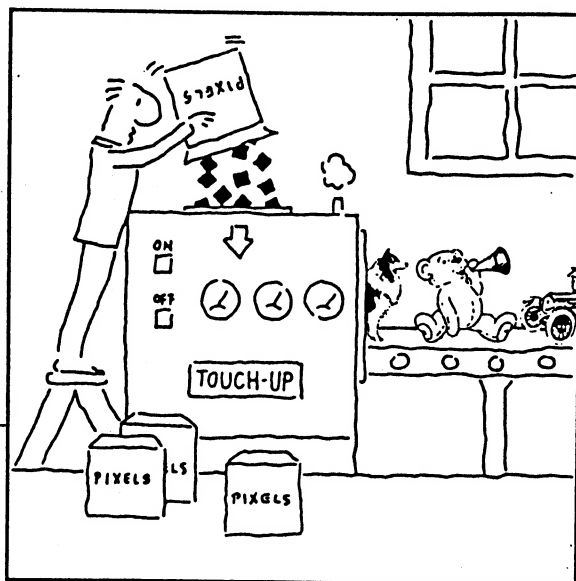
Get in business for less!

New from Xenia Research is an entire Point of Sale Network, including a bar code system, for use on the 8-bit Atari. The bar code reader itself requires only an 8-bit Atari with 48K and a monitor, printer optional (for printing out your own bar codes). The P.O.S. software requires a 130XE or 128K XL and a double density drive

See *GRAPB* on page 8

Give your desktop graphics that professional touch.

Introducing Migraph Touch-Up™



Migraph Touch-Up is the complete design tool for high-resolution monochrome images.

Create, edit, enhance—you can do it all with Touch-Up.

And do it better, because Touch-Up is the first "virtual page" graphics program for the Atari ST.* A sizeable advantage indeed!

Touch-Up can handle bit-mapped

images of any size and resolution (based on available memory in your computer). Which means you can now produce pixel-perfect images for all your publishing projects.

Migraph Touch-Up. A powerful tool for professional-quality results.

Ask your dealer for a demonstration of Touch-Up, or call Migraph's toll-free number for more details.



200 S. 333rd St., Suite 220

Federal Way, WA 98003

(800) 223-3729

(206) 838-4677

ST Disk Library Report

By Angela Burns, ST Librarian

Dal-ACE ST Disk #116:

DESKEY.ACC assigns key commands to perform desktop functions without using the mouse. MYSTIC.ACC is a GEM based ST disk formatter from Double Click Software. TAB142.ACC is a simple to use address book. MONOFIRE.BAS is a simple but cute monochrome fireworks display written in GFA BASIC. Two disk labelling programs: DISKLABL.PRG includes documentation and GFA BASIC source code; MB_LABEL.BAS is an uncompiled GFA BASIC file. MEGABLIT.PRG is version 2.8 (released January 1989) of Darek Mihoeka's paint program; docs included. WORLD.MKM is an animated spinning globe mouse icon for use with the Mouse-Ka-Mania program. Two text files: one tells you how to upgrade from a 1040 to 2.5 meg; one instructs you on upgrading from a Mega 2 to 4 meg. And GFABASRO.PRG, the public domain run only program that lets you run the uncompiled GFA programs on this disk.

Dal-ACE ST Disk #117:

LABEL MANAGER is written in GFA BASIC by our own Ralph Tenny, and it's good! It helps you produce and print a database of freeform mailing labels and is set up for some nice future updates. A Dal-ACE shareware first! Play SANTA.PRG and catch all the gifts that have fallen out of Santa's sleigh; includes GFA source. IMG_DEMO.ACC is a demo of an .IMG file editor. It includes basic paint program functions, but there is no SAVE function in the demo version. It will, however, give you a good idea of whether to buy it or spend nearly \$200 for that *other*.IMG editor!

Dal-ACE ST Disk #118:

QUIZ.PRG is a do-it-yourself multiple choice quiz construction set. All you do is type in each question, four possible answers, and the letter of the correct choice. Includes features to edit questions, print out quizzes, and give you up to three guesses to get the right answer. The rest of the disk is comprised of quizzes which I have shamelessly adapted from assorted trivia game cards.

Dal-ACE ST Disk #119:

ST Xformer version 2.3 is the oldest version of the 8-bit emulator. Now runs in monochrome. Although it

requires a meg to run, a "junior" version that will run in 512K is available from the author by mail. Also included is the ST Xformer File Xfer Utility and a few demo 8-bit programs.

And there's more on the way!

No GFA

GFA BASIC 2.0 *will not* be placed in our public domain disk library. I know that the Analog and ST-Log programs are made available to club libraries; but Antic and Start do not feel the same way about the programs that appear in their pages and on their disks. Incidentally, that includes programs that are no longer available from them and never will be.

Whether Antic's and Start's position is a reasonable one is up for debate, but until the day comes that they give clubs their permission to carry their programs, we will not have them in our library. Your only option, if you feel that their policy is unfair, is to write to them and complain. Sorry.

GRABE from page 6

such as the XF551; it can also make use of the CX-85 keypad and a printer as options. The P.O.S. software, which includes software to run a lottery or contest, is available by itself or with the bar code reader wand. And talk about compatible! Use it with Atari DOS 2.5, SpartaDOS, DOS XL, Top-DOS, SMARTDOS, and MYDOS. Use it with Atari BASIC, BASIC XL, BASIC XE, the ABC Compiler, Turbo BASIC XL, Kyan Pascal, Lightspeed C, Action!, or the MAC/65 assembler. Use it with existing software, or easily incorporate the bar code system into your own business software programs! We will have a demo disk of this marvelous (not to mention inexpensive) business tool in the 8-bit disk library in March; you really need to see it to believe it! Tim also has an informative flyer that gives more details on the program and equipment as well as on using the bar code scanner in your own programs. The Point of Sale software alone retails for \$69.00; the entire bar code system including P.O.S. and bar code reader wand is only \$179 from:

Xenia Research
Omega Soft
Box 139
Harrells, NC 28444
(919)532-2359

DrawArt Professional

An ST review by Angela Burns

DrawArt Professional is the first of a new series of clip art from Migraph. Usable on either an IBM or an ST, the program consists of two double sided 3.5" disks (although it is also available in 5.25" format) full of professionally designed images suitable for a variety of uses.

Upon opening the package, you will find a very nicely done manual. Why would you need a manual in order to use clip art? Well, these images are not your basic bit mapped ones; they are object oriented images. Thus, they can be manipulated in any of a number of interesting ways by using Easy Draw to change and combine them. (The graphics are in .GEM format.) The manual not only explains in a clear, concise manner how to do this, it also offers some interesting ideas to help you get started taking advantage of this handy feature. Anyone who has taken a D.E.G.A.S. picture and tried to change it to suit his or her purposes (especially anyone who has little artistic talent) will find the ability to easily edit images a real life saver. It's also nice to take advantage of Easy Draw's ability to rotate, flip, etc. the images. Also in the manual are a blank page for your notes and pictures of all the graphics contained on the two disks.

The biggest advantage to using object oriented images (to my mind) is their clarity when printing. No matter how you enlarge or shrink a DrawArt graphic, it will retain its sharpness and detail. The images will print out at the highest resolution of your printer, whether it be a 9-pin dot matrix or even a 300 dpi laser printer. It's certainly a pleasure to lose those blocky looking pictures that come on some clip art disks!

There is a nice variety of types of images. After trying to write a coherent paragraph describing the disks' contents, I decided to settle for a simple list of the folders and their contents:

- ANIMALS (ant, bull, two butterflies, two turtles, rabbit)
- ARROWS (two blank signs with arrows to emphasize your point or product)
- ARROWS_1 (six configurations of groups of arrows)
- ARROWS_2 (two large groups of curved arrows)
- ART_TOOL (airbrush, compass, stick pen, fountain pen, fine point felt tip pen, two exacto knives, two pairs of scissors, and a logo comprised of art tools)
- AUTOS (side views of a 240Z, 350SEL, vintage Chevy, and a spark plug; bottom view of a

pickup)

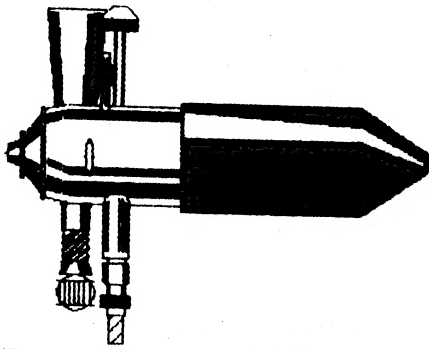
- BORDERS (two graphics suitable for use as full page borders)
- BUILDING (two houses, a lighthouse, and a 3D house that can be expanded using Easy Draw to see the inside details)
- CLIPART (ampersand (& sign), two award ribbons, books, pile of gold, ink splat, matchbook, no logo (that circle with a slash), #1, Paint brush with a face, a sign with a hand crossing its fingers, two diamonds, two sets of sunglasses, sunset, and two suns with faces)
- COMPUTER (top view of a system, two 3.5" disks, laser printer, work station)
- FOOD (apple, barbecue grill, glass of bubbly, sixpack, soda, Swiss cheese, wine glass)
- LIGHTS (two flashlights, lamp post, table lamp)
- MAPS (U.S. flag, two globes, compass, U.S. map)
- MUSIC (border of musical notes on a staff, mandolin, sheet music)
- OFFICE (slate, two steno chairs, back view of a computer, magnifying glass, pad of paper, paper clip, pencil, two phones, tape dispenser)
- PHOTO (four cameras, lens, film, two video cameras, enlarger)
- SPORTS (baseball, bats and ball, fishing reel, two pistols)
- STARS (nine different stars and groups of stars)
- TRANSPRT (small boat, front view of a jet, piper cub, underside of an SST)

Whew! There is a lot of stuff on this disk! As you can see, if you are into desktop publishing for almost any reason (but especially business purposes or newsletter production) you need DrawArt Professional. If Migraph continues to output images of this quality, they will soon be recognized as the *only* kind of clip art images to buy.

Migraph is in the first stages of preparing DrawArt Professional #2 and asks for your suggestions for the type of images you would like to see included.

At a retail price of \$69.95, DrawArt is not the least expensive of the clip art collections available, but the quality of the images and the clear printouts they produce will soon make you glad you made the investment. I recommend it for anyone who is interested in desktop publishing on the ST.

(Ed note: see front cover for examples of DrawArt Professional graphics.)



Pixel Artist Deluxe v. 1.3

An 8-bit review by Ralph Salmeron

We definitely have another winner here for the 8-bit library with Art Horn's **Pixel Artist Deluxe version 1.3**, a feature packed drawing program for all aspiring Atari artists with at least 40K in their machines.

If there's been one particular type of software application that I've been continually drawn to through my years with Atari, it's been graphic programs, specifically drawing programs. You name it, I've probably bought it. Starting 'way back in my 800/410 recorder days with *DRAWIT* from the old APX program, and on up through *Koala Pad*, *Atari Artist Touch Tablet*, *Paint*, *Micropainter*, *Graphics Master*, *RAMBRANDT*, *Blazing Paddles* and *BBK Artist* Get the picture !?! (No pun intended... well, maybe just a little one.)

Okay? I guess part of the reason I'm such a graphics junkie, apart from the great job our 8-bits do with them, is that all of the programs manage to leave you wanting just one more feature - usually, one that you can't live without. With *Koala Pad* and *Atari Artist* it was the UNDO feature; with *Paint* and *Micropainter* you couldn't do ellipses; with *Graphic Master* and *BBK Artist* you couldn't use touch tablets. Of course, most of their picture formats were incompatible with the other programs.

Now, if you think I'm gonna say **Pixel Artist Deluxe (PAD)** solves all these problems, you're wrong! But not by much! In fact, the only feature Mr. Horn seems to have left out is the ability to add text to your drawing (and next month's disk featuring graphic utilities should take care of that!).

I've always felt that any drawing program worth its salt had to support one of the touch tablets available (*Koala* or *Atari*), because they're such an enormous time saver and drawing aid. **PAD** supports both joystick and touch tablet (*Koala* and *Atari Artist*) at the same time. The only other program that can boast that is *RAMBRANDT*. All commands can be accessed by keyboard and/or joystick/touch tablet.

PAD supports both *Koala* format (*Atari Artist*, *MicroIllustrator*) and *MicroPainter* format (*Paint*, *PD Paint*), allowing you to load and save both types of file.

Besides the standard drawing tools, like rubberband rectangles and circles, outline and solid shapes, and a variety of fills, **PAD** provides you with six

brushes, including the only *true* random pattern "AIR BRUSH" I've seen, in two spray sizes yet - fine and wide.

When it comes to colors, you make your selections from two color bars (hue and luminance) laid right over your picture so you can see the effects of your changes as you make them. In addition to the four colors selected, there are sixteen user-definable patterns, making for one heck of a palette selection.

The "ENLARGE" feature, used for detailed pixel-by-pixel drawing, is achieved with true proportions and provides a simultaneous viewing window so, once again, you can see just how your changes are affecting the drawing.

One feature I've found unique to **PAD** is the "BEND" option, which allows you to bend a straight line at two different points to create the smoothest obtuse curves and angles I've ever seen.

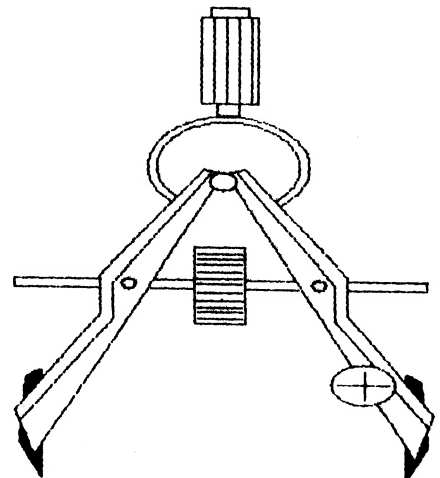
When using a touch tablet (the program automatically figures out which one you're using), you can adjust the cursor speed to your individual liking; and these and all your palette and brush selections can be saved in separate configuration files for future recall.

Whew! I could go on and on, but hey, just buy it (\$3 for members / \$6 for non-members) and find out for yourself what a great addition to your collection this could be.

Wait a minute... Did I tell you it supports RAMdisk D8:???

Oh, yeah... If you need concentric circles, it'll remember your working center point for you!

... and then there's the Jitter Filter...
O o o p p s s ...
Almost forgot about the Online instructions... and by the way, did I mention that I drew



Dave Coursey Speaks to Dal-ACE Members

Report by Angela Burns

El presidente Donny Arnold finally succeeded at luring a speaker for our main meeting. The speaker for February was Dave Coursey, compu-columnist for the *Dallas Times Herald* and a recent acquiree of a Mega ST. The topic was computer viruses. After his speech, there was a discussion session. What follows is a report of some of his comments from my very garbled notes.

The problem of viruses is not a new one. It's been going on for quite some time. What made it such a hot topic in the media recently? The advent of the AIDS virus and its frightening implications to the public was already in the forefront of the news reports when some enterprising media people came up with the "computer AIDS" analogy. The press took this "sexy" idea and ran with it, effectively freaking out the computer user community.

The wide publicity that the computer virus has been subject to in recent months has probably contributed to some degree to the virus problem. There have undoubtedly been some hacker-type brats who have seen or heard reports of the virus problem and thought that starting a widespread virus would be "cool."

Dave then went on to relate some virus stories, some verified, some undoubtedly apocryphal. For essentially the same information, see the recent article in *Atari Explorer*. One interesting story was that of a man who was using a certain IBM word processor when he found that at the beginning of the file he was working on was the word "gerbil." This led him to believe that he must be infected with the dreaded gerbil virus. A call to tech support for the program he was using, and they said, "Yes, indeed, you must have the gerbil virus." He very calmly went through his files and deleted every one that had that "gerbil" in the beginning, only to find that he had just deleted every file he had! Seems that the program designers had put the gerbil header in there for some reason and had left it in, probably for the sake of fun. There was and is no gerbil virus, but the fear of viruses lost this man's data just as surely as if there had been one.

The Woodstock era of computing - that time of relative freedom and universal sharing of information, as well as total good will among computer users - is over. Virus creators are really electronic terrorists. The makers of "virus killer" programs, some of dubious value, prey on the public's fears.

The definition of "hacker" has changed over the years. Originally, a hacker was one of those pioneering spirits who explored the furthest reaches of the computing world to share their knowledge with others. Nowadays, a

hacker is usually a somewhat alienated adolescent with little sense of ethics, who just wants to see what he can get away with.

Computers are really no more or less vulnerable than other industries. There are places in the electrical grid and in rail systems, for example, that, if attacked, could cause widespread problems from the damage of a small, easily accessible area.

The problem of protecting the computer network does not just concern the spiteful creator of viruses. Major problems are caused by a whole spectrum of things ranging from the stupid user who is always screwing up something, to the average user who is only human and makes occasional mistakes, to the vengeful, antisocial hacker who's out to lock up the network.

Most problems you will experience with bad data, etc. are user caused. Don't automatically think you have a virus when something strange happens.

Protect yourself from virus infestation by: 1) Sterilizing your computer environment. 2) Always keep *all* your backups current. 2) Always test new software for a time and watch what's going on. Make sure the program is doing what it's supposed to be doing. User group libraries are important to this validation process.

In the long term, we must build in safeguards that will make computing less enjoyable for those of us who are innocent of any wrongdoing. This will be a real pain in the neck but will be necessary to protect us from the damage caused by evil-minded hackers.

We have too much faith in technology. Humankind's reach exceeds its grasp; we reach further and ever further without really getting control of the technology we've already developed or getting a handle on what we really want to do.

Many hackers don't realize they are doing anything harmful; or else they feel the target is so big and powerful that what they do doesn't hurt. Much damage is the unintentional result of game playing by hackers. "I wonder how long it would take me to break into that mainframe on campus. Bet I could do it if I tried."

There *is* a change coming, but it's hard to tell when protective measures might be implemented. It probably depends on when the "big guys" feel really threatened. When a hacker makes mincemeat out of the New York Stock Exchange computers, we'll see action - fast!

I'm sure you join me in offering thanks to Mr. Coursey for taking the time and making the effort to be our February speaker and wishing him luck with his new ST.

Diamond in the Rough

A review of the 8-bit Diamond OS by Rene Tucker

Diamond OS is a graphic environment operating system for the Atari 8-bit. It is available now along with *DIAMOND WRITE*, *DIAMOND PAINT*, and a *Programmer's module* from Reeve Software, 29W150 Old Farm Lane, Warrenville, IL 60555. It has been developed and marketed by Alan Reeve.

The cost of each module is \$29.95. The product was tested on a 256K 800XL with two 1050 disk drives. A printer is optional.

My initial evaluation may seem harsh, but I couldn't help but compare it to another recent release - GEOS for the Apple 8-bit computer.

After a demonstration of this program to a small group of inveterate 8-biters, the consensus was that it's a good beginning; but that much more work could be done, and that in its present state of development it is not really ready for the general market. In other words - hang on to your money for a while!

The following points figured strongly in my evaluation. First, the manual. It is practically useless; it is incomplete and unclear in describing the exact procedures needed to get the program up and running with at least some degree of satisfaction. It does a pretty good job of describing the features but lacks sufficient explanation how to access them. Windows, icons, etc. came up smoothly enough, but actually using the file management system was an exercise in frustration. Disk duplication took five minutes, and that was with two drives! File copying is fairly quick and flawless if you drag the file over to the destination drive icon. Otherwise, you're in for a long process of swap and insert. One of the most intriguing features of Diamond OS is the mouse input. This is a real treat for us 8-bit users. The ST mouse works best and is especially smooth and accurate. A "pseudo-mouse" or joystick works nearly as well and opens up the whole new world of point 'n click, pull down menus, and dialog boxes.

The single most inconvenient feature of Diamond OS is the inability to return to the desktop without rebooting after running a program.

I realize that this represents a significant effort to bring new life and use to our venerable 8-bits, and I appreciate these efforts but also hope and look forward to further improvements and developments of this product.

Express! (The Cartridge)

From an online press release;
submitted by ???

Orion Micro Systems is pleased to announce the latest addition to its product line: the new **Express!** terminal program in a 64K cartridge.

The **Express!** cartridge is a brand new terminal program written by Keith Ledbetter, the author of the popular **Express!** series of communication programs. The new **Express!** cartridge sports 64K of banked memory and is written in 100% assembly language, allowing Keith to pack in features that are not available in any other terminal program for the Atari 8-bit.

The cartridge will work with any modem that has a corresponding "R:" handler available for it, including (a) any Hayes-compatible modem used with an *RSQ P-R-Connection* or *MIQ*, (b) Atari 1030 modem, (c) Atari XM301 modem, (d) Atari SX212 modem, and (e) *Supra MPP* modem.

The **Express!** cartridge is built around a drop down menu system identical to those on other machines like the Atari ST. The *XEP-8080*-column cartridge is also fully supported. If you are using an *XEP-80* the drop down menuing system is replaced with a text based, 80-column menu. This means you will no longer need the two monitors (i.e. one for terminal mode, one for the menus).

Express! also has a full screen, *Action*-type text editor built in. This is a great feature to have, allowing you to edit the capture buffer or compose messages for uploading to BBSes. Supported features include cut and paste, line tagging, find, and search/replace.

The **Express!** cartridge also allows you to piggyback another cartridge on top of it. Then, at your command, you can turn off the **Express!** cartridge and run the cartridge plugged into the top of it! Or, you can turn off the **Express!** cartridge and the cartridge above it, making the OS think there are no cartridges in your machine.

Express! has a planned release date of June 1, 1989 and will retail for \$69.95. Orion will start taking pre-orders for **Express!** on February 6, 1989 and will give a \$10.00 discount off of the retail price for pre-orders placed directly with them prior to the June 1, 1989 release date. (Virginia residents should add 4.5% sales tax.)

If you would like to order by telephone, or if you have any questions about specific features of any of our products, you can call Chris at (804)794-9437 between the hours of 6 pm and 10 pm Eastern time. Order from **Orion Micro Systems, Attn: Express! Cartridge, 2211 Planters Row Drive, Midlothian, VA 23113.**

A Polynomial Curve Fitter

An 8-bit program by Dr. Jerry Polson

I have on many occasions searched for a polynomial curve that would fit data that came from experiments and other sources. The general form of the polynomial equation is:

$$Y = A_n X^n + A_{n-1} X^{n-1} + A_{n-2} X^{n-2} + \dots$$

where

n = the highest order of the polynomial giving the best fit

A_n = coefficient of the n th term.

Several years ago I ran across a program for the Apple that performed this operation for me. When my youngest son acquired an Atari 800XL, I converted the program to Atari BASIC and added several more features to it.

The program begins by asking the user if he wants a hard copy printout. If the answer is "Y" then all output is directed to both the screen and printer; otherwise, it will go solely to the screen.

The next question asks the user if he wants to input data from a file. For long lists of data and for data which accumulates over time this is the best method, since it saves the user from having to re-enter the same data over and over. (A Menu Driven File Generating Program is also listed below. Data should be entered sequentially, i.e., X1, Y1, X2, Y2, etc.)

If you use data previously stored in a file, you merely answer "Y" and then enter the filename. If you decide to enter the data from the keyboard (as for small sets of data), then you are asked to give the number of sets of data points and are prompted with

X = ?

and

Y = ?

until all the sets of points are entered.

The program then begins finding the appropriate polynomial. After each order is calculated, the coefficients are printed out along with the deviation and residual. The basic idea is to get the deviation as small as possible. After each iteration, you are asked if the fit is close enough. If you answer "N", then the program does the next order iteration.

If you answer "Y", you are asked if you would

like to do a trial calculation. If you answer "Y" again, the program asks you to enter the value for X and then calculates the corresponding value for Y. It then repeats the question until you answer "N".

At this point, the program asks if you would like to continue the iteration. If you respond with "Y", it calculates the next higher order polynomial equation. If you answer "N", execution is terminated.

The program listed here is designed to handle 50 sets of data points. This can easily be increased, depending on the memory available, by changing the subscripts of X and Y in the dimension statement of line 20. While the program will run in Atari BASIC, it is fairly slow when doing higher order polynomials with large data sets. I recommend using Turbo BASIC when running the Curve Fitter. It is much faster and can be obtained from the Dal-ACE 8-bit disk library. You can further enhance the program's performance by compiling it with the Turbo BASIC compiler.

I have had a lot of fun using the Curve Fitter to forecast stock market trends. You can calculate a stock's daily high or low price as a function of its opening price (or some other combination). It's quite interesting to see how accurate your polynomial equation can be at forecasting these trends. (I don't recommend it as an investment tool, however.)

An obvious extension to the Curve Fitter is the addition of a graphics capability for plotting the raw data and then drawing in the polynomial fit. This, coupled with a screen dump feature, could also be very useful.

10 REM CURVE FITTING PROGRAM WITH CALCULATION CAPABILITY

```

20 DIM X(50),Y(50),C$(2),T(10,10),A(10),
F$(14),Z$(12)
30 FOR I=1 TO 50:X(I)=0:Y(I)=0:NEXT I
40 FOR I=1 TO 10:A(I)=0
50   FOR J=1 TO 10
60     T(I,J)=0
70   NEXT J
80 NEXT I
90 P=0
100 ? "):"? "DO YOU WANT A HARD
COPY (Y/N)? ";
110 INPUT Z$
120 IF Z$="Y" THEN P=1:GOTO 150
130 IF Z$="N" THEN P=0:GOTO 150

```

Dallas Atari Computer Enthusiasts

```

140 GOTO 100
150 ? "Y"? "INPUT FROM A DATA FILE
(Y/N)? ";
160 INPUT Z$
170 IF Z$="N" THEN 280
180 ? "Y"? "ENTER FILENAME: ";
190 INPUT Z$
200 F$ "D":F$(LEN(F$)+1)-Z$
210 OPEN #1,4,0,F$
220 TRAP 270
230 I=1
240 INPUT #1,W:X(I)=W
250 INPUT #1,W:Y(I)=W
260 I=I+1:GOTO 240
270 N=I-1:ZZ=2:CLOSE #1
280 ? "Y"? "CURVE FITTER WITH TRIAL
CALCULATIONS"
290 IF ZZ=2 THEN 390
300 ? : ? : ?
310 ? "HOW MANY POINTS ARE KNOWN?
";
320 INPUT N: ? : ?
330 FOR I=1 TO N
340 ? "X= ";;INPUT X1
350 X(I)=X1
360 ? "Y= ";;INPUT Y1
370 Y(I)=Y1:
380 NEXT Y
390 D=0
400 D=D+1
410 FOR E=1 TO D
420 FOR I=1 TO D
430 T=0:FOR S=1 TO N:T=T+X(S)^(E+I-
2):NEXT S
440 T(I,E)=T
450 NEXT I
460 T=0:FOR S=1 TO N:T=T+X(S)^(E-
1)*Y(S):NEXT S
470 T(O,E)=T
480 NEXT E
490 FOR H=(D-1) TO 1 STEP -1
500 FOR E=1 TO H
510 IF T(H+1,E)=0, THEN T(H+1,E)=1
520 M=T(H+1,H+1)/T(H+1,E)
530 FOR I=0 TO H+2
540 T(I,E)=T(I,H+1)-M*T(I,E)
550 NEXT I
560 NEXT E
570 NEXT H
580 FOR H=1 TO D
590 IF T(H,H)=0 THEN 610
600 A(H)=T(0,H)/T(H,H)
610 FOR E=H+1 TO D
620 T(0,E)=T(0,E)-A(H)*T(H,E)
630 NEXT E
640 NEXT H
650 ? : ? "-----"
660 IF P=1 THEN LPRINT "-----
-----"
670 ? : ?
680 IF P=1 THEN LPRINT:LPRINT
690 FOR I=D TO 1 STEP -1
700 ? "COEFFICIENT OF X":I-1;" ";
710 IF P=1 THEN LPRINT
"COEFFICIENT OF X":I-1;" ":"":A(I)
720 ? "":A(I)
730 NEXT I
740 ?
750 IF P=1 THEN LPRINT
760 V=0:R=0
770 FOR I=1 TO N
780 W=0
790 FOR J=1 TO D
800 W=W+A(J)*X(I)^(J-1)
810 NEXT J
820 R=R+ABS(W-Y(I)):V=V+(W-Y(I))^2
830 NEXT I
840 ? : ? : ? "DEVIATION=":V: ? "AVERAGE
RESIDUAL=":R/N
850 IF P=1 THEN LPRINT :LPRINT
:LPRINT "DEVIATION=":V:LPRINT
"AVERAGE RESIDUAL=":R/N
860 ? : ? "CLOSE ENOUGH (Y/N)? ";;INPUT
C$
870 IF C$="N" THEN 400
880 IF C$="Y" THEN 900
890 GOTO 860
900 ? "Y"
910 ? "DO A TRIAL CALCULATION (Y/N)?
";
920 INPUT C$
930 IF C$="Y" THEN 950
940 GOTO 1050
950 ? : ? : ? "ENTER VALUE FOR X ";;INPUT
X1
960 ? : ?

```

```

970 S=0
980 FOR I=D TO 1 STEP -1
990 S=S+A(I)*XI(I-1)
1000 NEXT I
1010 ? "Y=";S;" FOR X=";X1:?
1020 IF P=1 THEN LPRINT :LPRINT
"Y=";S;" FOR X=";X1:LPRINT
1030 ? "ANOTHER TRY (Y/N)? ";;INPUT C$
1040 IF C$="Y" THEN 950
1050 ? :? :? "CONTINUE ITERATION
(Y/N)? ";;INPUT C$
1060 IF C$="Y" THEN 400
1070 ? :? :? "HAVE A NICE DAY!"
1080 END
    
```

Sample Output

COEFFICIENT OF X⁰ =0

DEVIATION=14843
 AVERAGE RESIDUAL=29.5714285

COEFFICIENT OF X¹ =19
 COEFFICIENT OF X⁰ +=21.7142857

Y=19X-21.7

DEVIATION=2259.57102
 AVERAGE RESIDUAL=15.244898

COEFFICIENT OF X² =-4.13025516
 COEFFICIENT OF X¹ =19.1475091
 COEFFICIENT OF X⁰ =-2.08821385

Y=-4.1X²+19.15X-21

DEVIATION=867.103294
 AVERAGE RESIDUAL=10.4159695

COEFFICIENT OF X³ =2.01571167
 COEFFICIENT OF X² =-3.92801033
 COEFFICIENT OF X¹ =4.87270336
 COEFFICIENT OF X⁰ =-3.57591762

Y=2X³-3.9X²+4.87X-3.58

DEVIATION=107748918
 AVERAGE RESIDUAL=0.329095854

COEFFICIENT OF X⁴ =-4.27225124E-03
 COEFFICIENT OF X³ =1.99988132
 COEFFICIENT OF X² =-3.95770469
 COEFFICIENT OF X¹ =-5.00098329
 COEFFICIENT OF X⁰ =-3.04545171

Y=-22X³-4X²+5X-3

DEVIATION=854764562E-03
 AVERAGE RESIDUAL=0.0275354016

COEFFICIENT OF X⁵ =1.66461364E-08
 COEFFICIENT OF X⁴ =1.03749035E-08
 COEFFICIENT OF X³ =1.99999983
 COEFFICIENT OF X² =-4.0000001
 COEFFICIENT OF X¹ =5.00000028
 COEFFICIENT OF X⁰ =-2.99999992

Y=2X³-4X²+5X-3
 (Best fit equation)

DEVIATION=1.33009387E-12 (Very Small!)
 AVERAGE RESIDUAL=3.11003004E-07

Y=-107.999999 FOR X=-3

Y=81.0000082 FOR X=4

Y=-920.000199 FOR X=-7

Probably another iteration would give an overflow error.

10 REM DATA FILE CREATE AND UPDATE

```

20 DIM F$(14),A$(12)
30 ? """? "ENTER FILENAME: ";
40 INPUT A$
50 F$="D:"
60 F$(LEN(F$)+1)=A$
70 ? """
    
```

```
80 ? " MENU"
90 ? :?
100 ? "<1>-CREATE FILE"
110 ? "<2>-ADD TO FILE"
120 ? "<3>-CORRECT FILE"
130 ? "<4>-PRINT ALL RECORDS"
140 ? "<5>-LEAVE PROGRAM"
150 ? :?
160 ? "ENTER CHOICE: ";
170 INPUT C
180 IF C<1 OR C>5 THEN 210
190 ? ")"
200 ON C GOSUB 230,230,330,630,220
210 GOTO 70
220 ? ")":? "HAVE A NICE DAY!":END
230 REM CREATE OR ADD TO FILE
240 IF C=2 THEN 260
250 OPEN #1,8,0,F$:GOTO 270
260 OPEN #1,9,0,F$
270 ? "ENTER DATA 9999 TO END: ";
280 INPUT A
290 IF A=9999 THEN 320
300 PRINT #1:A
310 ? :? :GOTO 270
320 CLOSE #1:RETURN
330 REM CORRECT FILE
340 OPEN #1,4,0,F$
350 OPEN #2,8,0,"D:TEMP.DAT"
360 ? "ENTER INCORRECT DATA: ";
370 INPUT B
380 TRAP 550
390 INPUT #1:A
400 IF B<>A THEN 440
410 ? :? "CHANGE THIS DATA (I=Y,O=N)?
";
```

```
420 INPUT D
430 IF D=1 THEN 460
440 PRINT #2:A
450 GOTO 390
460 ? :? :? "ENTER CORRECT DATA: ";
470 INPUT A
480 PRINT #2:A
490 ? ")":? "MORE CORRECTIONS
(I=Y,O=N)? ";
500 INPUT D
510 IF D=1 THEN ? ")":GOTO 360
520 TRAP 550
530 INPUT #1:A:PRINT #2:A
540 GOTO 530
550 CLOSE #1:CLOSE #2
560 OPEN #1,8,0,F$
570 OPEN #2,4,0,"D:TEMP.DAT"
580 TRAP 610
590 INPUT #2:A:PRINT #1:A
600 GOTO 590
610 CLOSE #1:CLOSE #2
620 RETURN
630 REM PRINT FILE
640 OPEN #1,4,0,F$
650 TRAP 710
660 ? "FILE CONTENTS":? :?
670 INPUT #1:A
680 ? A:?
690 FOR I=1 TO 100:NEXT I
700 GOTO 670
710 ? "TYPE 1 TO RETURN TO MENU. ";
720 INPUT D
730 CLOSE #1
740 RETURN
```

Editor's note: As usual, I make no claims that I have actually typed this program in correctly. If it does not work properly, see the &bul; librarian to get a copy on disk, or call my husband Ray at 368-4725, after 7 p.m., no Fridays. I will drop you a xerox of the original in the mail.

Club Classifieds

Help! The puppy scarfed the ST BASIC disk just when my daughter was ready to try her hand at programming! Who's got one cheap they can live without? Call Ray at 368-4725 after 7 p.m., no Fridays.

Most Wanted List

Dal-ACE Experts

- Donny Arnold 289-6746 call before 10 p.m.
8-bit general knowledge
- Joe Camblin 221-7825 call from noon to 2 a.m.
MIDI & desktop publishing
- Larry Dineen ... (817)668-7296 call during day.
ST general knowledge
- Eb Foerster 357-7602 call from 7 to 10 p.m.
Turbo BASIC, SynFile, SynCalc, Assembly
- Ron King (817)283-0674 call from 5 to 10 p.m.
8-bit hardware
- John Saunders (817)566-0318
C and Assembler languages
- Michael Trombley 429-6134
ST general knowledge
- Ralph Tenny 235-4035 call from 7 to 10 p.m.
ST general knowledge and hardware
- Rene Tucker 223-6176
8-bit general knowledge
- Wally Wilinsky 506-0352 call from 6 to 10 p.m.
MIDI
- John Winer 907-1348
Systems programming and general knowledge

Infomart Directions

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

Editorial Policy

The editorial staff of the Dal-ACE newsletter reserves the right to edit your submissions for spelling, punctuation, grammar, clarity, and for reasons of space limitations.

Newsletter Submissions

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

Newsletter Advertisements

Personal ads are free to all current members. Please see the editor for details.

Commercial Rates

Full page \$35
Half page \$25
Quarter page \$15
Business card \$10

For an additional \$10 per full page or \$5 per partial page, you can request that your ad be placed on the inside front or back cover or the center-page spread. This service is first come, first serve.

Ads must be camera ready. Submission deadline for ad copy is the first of the month prior to publication date. That is, November 1 will be the deadline for your ad to appear in the December newsletter. Mail copy to the address on the back page, or contact the advertising manager, editor, or Vice President of Communications. Copy received after the deadline will be run the following month. For contract advertisers, if no new ad is received prior to the deadline, the most recent ad will be run.

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

Infomart Meeting Dates:

Firm Dates: March 11, April 8, May 13.

Tentative dates: June 10, July 8, August 12, September 23, October 14, November 11, December 16.

Meeting Information

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

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You must leave a message with Angela's husband, Ray, between 7 p.m. and 7 a.m., no Fridays. She will get back to you as soon as possible.

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Metro (214)255-8256

Dal-ACE

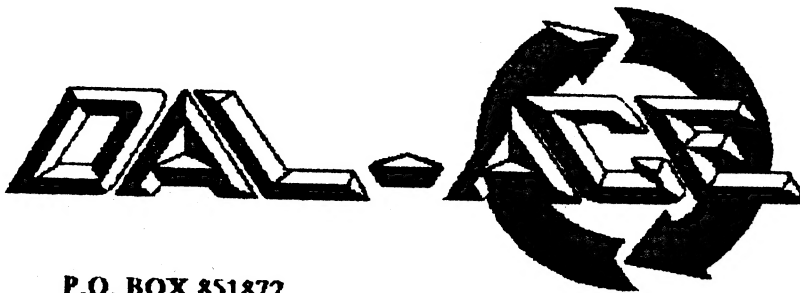
Dallas Atari Computer Enthusiasts

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

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