$1.50

ATARIFEST ISSUE

# DAL-ACE

INSIDE :

ST One Meg Upgrades Compared

OSS Personal Pascal Lesson – Part 3
Turbo Basic Review
Dollars and Sense Review

## TABLE OF CONTENTS


2 Welcome to the Atarifest

3 Basic Bits

3 CCD News

4 Castle Wolfenstein & Beyond Castle Wolfenstein

5 Atari Planetarium

5 Dollars & Sense

7 One MEG Upgrades for the Atari 520ST

8 Product Updates

12 Sixty Seconds with Andy Rooney

13 OSS Personal Pascal and the beginner - part 3

17 Turbo Basic

18 VIP - The GEM Version


# WELCOME TO ATARIFEST!

or, in *Texican*,

# HOWDY, Y'ALL!

ATARIFEST - Who, What, When, and Where

Welcome to AtariFest, co-hosted by DAL-ACE and NTSTU. We're sure you'll have a good time. Here's some things you'll want to know.

•Your nice stick-on badge is your ticket to all events at AtariFest! Guard it carefully. If you lose of forget it, you'll have to buy another ticket to get back in! If it gets damaged or won't stick, please see the registration desk for help.

•AtariFest hours are Friday from 11 AM to 8 PM and Saturday from 10 AM to 6 PM. The exhibit hall will be open continuously during this time. Friday afternoon and Saturday several guest speakers have volunteered to share their expertise on a variety of topics. Unfortunately, the final schedule was not complete at press time. But you can find the real thing at the AtariFest registration desk and several places around the exhibit hall.

INFOMART and the USER FORUM

Those of you who haven't been here before may wonder about the facilities and the crowds. For almost two years, the folks at INFOMART and an assortment of Dallas area user groups have joined forces to hold monthly meetings at a single time and place - the User Forum. This month, 14 groups, totalling more than 4000 members, will meet on Saturday, May 9th. And each group's meetings are open to any and all. Visitors are WELCOME. Toward that goal, you will see three overhead projectors with time and room schedules for each group. Check it out!

Also, several companies open their facilities during the User Forum. You may want to check them out, along with the INFOMART Resource Center and food service, located on the first floor.

Finally, the User Forum hosts a large dealer area for local computer vendors in the basement. Be sure to check it out before you leave Saturday.

DAL-ACE

DAL-ACE, the DALlas Atari Computer Enthusiasts, will have a normal business meeting on Saturday at 11 AM. The room number is available at the DAL-ACE booth in the exhibit hall or on the overhead projectors as noted above. We'd like to extend a special invitation to all visitors to come by and say hello, either at the meeting or at the booth.

THANKS - HAVE A GOOD TIME!

We'd like to thank y'all for coming down to our show. We couldn't do it without YOU. If there's anything we can do to make the show better for YOU, please let us know. The registration desk will be manned with Enthusiastic volunteers during all show hours. And, special thanks to our exhibitors and speakers - you're what the people came to see. THANKS TO ALL!

## Basic Bits

by Angela Burns

As we learn more about our computers, sometimes we forget that we might know something someone else hasn't yet found out. So for those of you who are still getting to know your Atari, here are a few odds and ends (very basic ones) of those interesting things you can make it do. Some may help you with your programming, graphics or sound, and some are just plain useless, but still interesting.

To keep the screen from going into "attract mode" (flashing different colors when there is no keyboard input for seven minutes or so) POKE 77,0. For a joystick-based game, it is a good idea to put this in the movement routine. That way, the POKE will not execute if you have to leave the game for any length of time, and attract mode will still be enabled.

When writing a program that uses a particular number a lot of times, this will save you some memory. Define a variable as the number (for instance, S1=1, S2=2, S753=753). Then use the variable throughout the program instead of the constant. Why? BASIC needs 7 bytes of memory to store a number, but only 1 for a variable. Don't forget to DIMension the variable before it's used.

PRINT CHR$(253) will ring the console bell (actually a buzzer). You could use this to alert the user to a wrong answer or incorrect keyboard input.

PEEK(53279) looks to see if the START key has been pressed. You can use this in your program to pause until the user is ready to continue. Example:

```
490 Position 8,23:? "Press <START> to
continue"
500 If Peek (53279)<>6 then 500.
```

## CCD NEWS

May '87

The April User Forum, while less crowded than March's, was another fine time at INFOMART. Given the beautiful weather, it is understandable that both vendor and most affiliate attendance were slightly down. A total of 49 tables were rented in the vendor area, plus 14 tables for affiliates. This is down about a half dozen from March. New vendors are eagerly solicited, and don't forget to support the people who make the monthly User Forum possible.

The April User Forum marked the start of the announced policy of requiring all periodicals to be distributed downstairs in the vendor area. Comments on this policy should be directed to any affiliate representative or officer.

6B Labels intends to print new labels showing the scheduled meeting dates in the near future. And badges may be available by mid summer. The surveys collected at the March User Forum are still being tabulated. Since roughly twice the expected number were completed as expected, tabulation has been slow. Expect results this summer. CCD badges, similar to the old INFOMART badges are being investigated. If you think this is a good idea, or not, please let your representative hear from you.

AtariFest will be held at INFOMART on May 8th and 9th, the latter overlapping the May User Forum. Additionally, there will be a banquet at 7 PM on Friday, May 8th, at the Crystal Palace, also at INFOMART. 'Fest tickets at the door will be $5 for the exhibit hall and seminars, both days. Seminars are planned on educational software, desktop publishing for the ST, and more. Speakers will range from independent developers and users to executives at Atari. Tune in to KRLD's Sunday evening computer-related talk show on May 3rd or check the DALACE keyword on Startext for further details.

'87 MEETING DATES: 6/13, 7/11, 8/8, 9/12, 10/10, 11/14, & 12/12.

'88 MEETING DATES: 1/9, 2/13, 3/12, 4/16, 5/14, 6/11, 7/9, 8/13, 9/10, 10/8, 11/12. & 12/10.

As always, dates beyond 60 days are tentative!

# CASTLE WOLFENSTEIN and BEYOND CASTLE WOLFENSTEIN

reviewed by Angela Burns

Castle Wolfenstein (CW) and Beyond Castle Wolfenstein (BCW) are two games put out by Main Street Publishing for the 8 Bit Atari. The first thing I noticed was the price - $5.97 each at a local software retailer. The other titles offered by Main Street, an inventory manager and a spreadsheet program, sold for the same price. If you're on a budget (and who isn't these days), check these people out.

They save you all this money by skipping the fancy packaging and cute little books. This is great, but they do need a little work on their documentation. It consists of one page xeroxed with CW directions on one side and BCW on the other. How 'bout springing for two sheets of paper, guys? Then we might be able to read it without a magnifying glass! Instructions for CW are nice and straightforward, but the flip side is a mess. On one sheet of 8 1/2 x 11 paper we have directions for Atari, Apple, Commodore, and IBM PC & PC jr., complete with a diagram of the screen, keyboard diagrams, and command summary section. This sheet of paper borders on the ludicrous!

On to the games. In CW, your objective is to escape the castle with the secret war plans. You are given a gun with ten bullets by a dying prisoner. As you move through the rooms you will see guards, SS men, and chests. You must evade or shoot the guards, kill the SS men, and open the chests to find the plans and other useful items (along with some not-so-useful things like bratwurst and sauerkraut). You may also find things by searching dead or surrendered guards. The guards may speak to you in hoarse, whispery digitized sound, in German no less. I've read that the quality of the digitized sound is not very good, but I could understand what was being said and frankly, I just thought it was cool.

Doing anything other than walking around takes some getting used to, because you are forced to use keyboard controls in addition to the joystick. (You have the option of using keyboard or keyboard and one stick, but I found the joystick method to be less confusing.) I'll give you one example of how to control your man. If you wish to fire your gun, you must first stand still, then push the trigger and point in the direction you want to aim, then press the START key. This isn't as bad as it sounds, but I've done easier things in my life.

I found CW to be fairly difficult. When the game begins, you are in a prisoner's uniform, and the second you move the guards converge on you and shoot you. You have to move really fast until you can find a chest with a uniform in it. Then it's somewhat easier. There is a problem, however, when you are ready to leave the game. You can save the game at any point and come back later to pick it up where you left off. BUT you can't save, go on until you mess up, and come back to the saved point. When you get captured or killed, you will start over at the same place in the castle, but you will have lost all the things you found in the chests - uniform, war plans, everything. And unless you make your backup before you ever play the game, you can never just go back to the first room of the castle. (By the way, both games can be backed up using a simple sector copier.)

In BCW, the objective is to find your way through Hitler's bunker, locate a bomb hidden in a closet, place the bomb in the room with the Fuehrer, and escape before the bomb goes off. You are provided with a uniform, 100 marks, some passes, and a loaded gun. As you move from room to room and level to level, guards will order you to halt and show your pass. If you bribe the guards that are seated at desks, they will give you hints for game play, such as the combination of the lock on a closet or the number of the right pass for that floor. You open closets to find the bomb or other items. (Again, some of the things you find are useless, like Eva Braun's coat check.)

I should mention something about these closets. If a closet is locked, you must open it by guessing the combination. To do this, you press number keys and listen for the clicks telling you that you've found a correct number. It's not hard, but if there is a guard in the room , you can hear his footsteps as he walks back and forth across the room. This makes it difficult to hear the clicks of the lock, so you are almost forced to kill him in order to get the closet open.

The controls are much the same as in CW, with a few minor exceptions. For one thing, you may use two joysticks for control, in addition to the other methods. For the most part, if you get used to the controls for one, you will have no problem with the other. BCW is a lot easier to play than its predecessor, mainly because the guards don't jump on you as soon as they see you. Another advantage it has over CW is that you can save your game and go from where you were when you quit or you can start over entirely.

All in all, I found the Castle Wolfenstein duo to be a highly absorbing pair of games. Once you get past the difficulty of controls, they are both fun, but I would have to rate Beyond Castle Wolfenstein higher. It's easier and just more fun. If you only buy one of these games, BCW is the one to go for.

# ATARI PLANETARIUM

A Review by Rene Tucker

The first thing you may notice about ATARI PLANETARIUM is the thick manual that accompanies the program. it is a comprehensive introduction to the science of astronomy as well as a guide to the use and enjoyment of the program. But do not be intimidated. The documentation is easy to understand and follow. The first few pages will be enough temptation to "boot up" and explore the universe.

First of all, ATARI PLANETARIUM invites you to locate your position anywhere on the earth using longitude and latitude or by maneuvering a little target-like image with the joystick so that it shows over your location on the world map. After finding your position on the earth, you can assign the date and time for your observation. One of the neat features of this program is that you can set any date from 9999 B.C. to 9999 A.D. as well as control the duration of your observation and angle of view using the many option settings.

Now you are ready to open the observatory doors and train your simulated telescope on the wonders of the heavens. Select "Sky" and watch a panorama of the southern celestial hemisphere unfold before you. The major constellations will all be marked. So will the stars that are visible to the naked eye. For particular details about any object or star, just position the little target over it and press the fire button on the joystick. The requested information will appear scrolling along the bottom of the screen. You can slew your computer's "eye" up,down,and to each side. It is even possible to peer down through the transparent earth to observe stars that are below the horizon at that particular time. Once you've familiarized yourself with the part of the sky that interests you and are ready to move outdoors for the real thing, it's easy to make your own star chart with one command. The program is completely compatible with the Atari XMM801 printer as well as the Epson FX-80.

Additional features of this program which contribute to its overall excellence include the ability to observe solar and lunar eclipses and the movements of planets in a compressed time mode. Even deep sky objects can be zoomed in on for closer study.

This is a comprehensive and entertaining introduction to astronomy and observation. For the more advanced amateur astronomer, ATARI PLANETARIUM offers a valuable reference that can be used with your sky atlas and observing handbooks. I have used the program for over six months now and do not feel that I have exhausted its usefulness. There is one error, however, that I found; and that is the incorrect identification of several galactic clusters in the constellation Auriga.

ATARI PLANETARIUM is for the XL and XE computers with a 1050 disk drive. It is a little hard to find locally but available by mail for approximately $30.00.

# Dollars And Sense

By Monogram Software
Reviewed by W. M. Garner

I am not an accountant, but I like to keep track of my personal finances. I never did it by computer until I got the "Home Accountant" for my 800XL. That was a good program, but it took forever loading, switching functions, and data entry. Data entry was slow and each transaction had to be ground into the disk. Balancing the checkbook was an hour-long process. When I got my ST, I looked for a similar program that would take advantage of the speed of the ST. First I got Michtron's "Personal Money Manager". It seemed poorly done and the documentation was too brief. Maybe I did not study that one enough. With all the debit and credit terms, it did not seem too "user friendly" to me. Then "Home Accountant" by Haba came along. Entries were made on a checkbook format. When a check was written to Sears, your liability to Sears did not reduce. The Sears credit card file was a completely separate file. The checkbook file first had to be closed, then the Sears file opened, and the check entered all over again. Thus, a complete financial status and net worth had to be figured by pencil and paper. The 800XL version was much more thorough, but slower to use.

Monogram has recently released its popular "Dollars and Sense" program for the Atari ST. It was already available for the IBM and Apple. I bought it as soon as I found it. It has a nice 132 page manual. Technical support is an extra $20 per year, but the program sells for less than the IBM or Apple versions. It comes with two disks, a startup disk and a program disk. When I tried to load the program, I got a "damaged disk error". I called Monogram and was instructed to return the disks with my warranty card. (I should have taken it back to the dealer, but Dallas is 50 miles away.) I waited SIX weeks. After a letter and 3 phone calls, I got my disks two weeks after that. (Eight weeks on a disk exchange is too long! I used two-thirds of my 90 day warranty waiting.)

The program is great and the documentation is good. The manual has a few errors in it, and says nothing about printer set up. After the program and data is loaded, a statistics screen appears showing your net worth and net income. Also shown is your data file and extension number along with the date of last entry. The number of transactions in the file and the percent of file space used are shown last. When the data file is 95% full, it is time to extend the data file to a new one. The program has several pull down menus with "help" on each one. Accounts are set up for assets, liabilities, checking, expense, and income. It uses double entry bookkeeping. If a check is written to Sears, it reduces your Sears account. If money is transferred from savings to checking, your savings account is reduced while your checking is increased. Payments, income, or any other transaction can be split for multiple categories or distribution accounts. It cannot be split wrong. The total of the multiple categories has to equal the total before the system will let you move to another transaction.

About 100 transactions can be entered before you have to save them to your data disk. It is best to save every 20, so that in the event of a power failure, only a few minutes are wasted. The program is very user friendly. When transactions are entered, the system remembers the previous date and advances check numbers, and the distribution accounts are easy to find. The user just types in a couple of the first letters, hits return, and the program finds the category that matches. If that is not the correct one, the arrow keys can be used to find the one you want. Editing a transaction is very easy. You just click on an entry and change it before the transactions are saved to disk. Afterwards you may call up past transactions and click on an item to edit.

Checkbook reconciliation is a snap. Enter that a check is cleared and it advances to the next uncleared item while the system keeps a running total of what should be in your account. When you are done, a screen appears with a recap of the results.screen at once. The program allows up to 120 accounts (only 50 were available in "The Home Accountant" for the 800XL). You can put in budgets and variable budgets, but these are optional. Up to 12 checking accounts are allowed with check writing on pre-printed checks. Twenty-five sets of automatic transactions are allowed. Data capacity is 2000 transactions per file. Several reports can be on the screen at once.

Getting a report or graph on paper is another matter. The manual says 100% Epson compatible printers are supported, but says nothing of how to set up those or any alternate printer. The "control" help screen lists printer set-up as an option on the pull-down menu, but it is not there. My Star SG-10 does not work except that it will print checks (I tried it with plain log paper).

Three complete standard sets of accounts are included on disk. The sets are: household accounts, business accounts, and tax preparation accounts. It would be a good idea to practice with these and play around with what it will do and how to do it before actually trying to enter data on your own. A practice tutorial is suggested in the manual to get you familiar with the program's functions. Suggestions are made on how to use all three sets of suggested accounts. Of course you can make your own to suit your needs.

All in all, I am pleased with the program. I have version 1.1, but I am sure an update will follow to fix the printer problem. If net worth and balance sheets are important, then this is the program you need. If they are not then Haba's "Home Accountant", a single entry system, will do. I like the double entry system of "Dollars and Sense", and you do not have to be an accountant to use it.

# One Meg Upgrades for the Atari 520ST

The following comments are based solely on personal observation and do not represent an in-depth engineering evaluation of memory expansion boards for the 520ST.

Over the last four months I have collected information on three memory expansion boards for the ST, prior to purchasing one for my own use. Each has its strong points, as discussed below. Hopefully, this will help you to make a more informed decision when you decide to expand your 520ST. The three boards to be reviewed are from ThoughtSpace, AERCO, and Terrific Peripherals. All provide utilities on disk for checking your memory upgrade after installation.

THOUGHTSPACE DOUBLETHINK (TS1A)

Without a doubt, this is the most professionally promoted and detailed memory expansion of the three discussed here. All requests for information were promptly answered and neatly typewritten. For $1.00 they will send you a copy of their 25 page installation guide. Installation requires removal of two IC's and several resistors, as well as cutting of selected circuit traces. The instructions are detailed and well illustrated. This is not for amateurs. The board then installs in the desoldered holes left from the IC's removal. This is a direct link to the motherboard, unlike the other expansion kits, which use ribbon cables. The memory board sits approximately in the same area as the space bar on the keyboard, completely under the RF shield. The idea is to leave plenty of space for the blitter chip, RF modulator and other add-ons which may be provided at a later date by Atari. ThoughtSpace claims that their board results in a system which is electronically identical to the 1040ST. For an additional $20, ThoughtSpace will install the expansion board for you. ThoughtSpace retails for $165. Last January, they ran a special at $149. Doublethink has a 1 year warranty. Shipping for Doublethink costs $3, $5, or $13, depending on whether you want regular UPS service, two day, or next day delivery. Shipping for the 520ST is $6, $16, or $25 for similar UPS services. ThoughtSpace Development's address is 2450 Warring St., No.21, Berkeley, CA, 94704. Phone:(415)845-1415.

AERCO easiST

This is the most flexible board in terms of future memory upgrades. The basic board supplies an additional 512K RAM for the ST, with room for up to 4 megabytes total memory. 2.5 meg of memory can be installed without modification to the board other than adding 16 1 meg RAM chips and sockets. Upgrades to 4 megabytes requires some soldering and cutting on the expansion board. Since 1 meg chips are approximately $30 for the general public, upgrading past 1 meg is currently a very expensive option. Hopefully by next year the price of chips will have dropped to around $5 or so. Promotional materials for the AERCO board are professional, though not as detailed as ThoughtSpace. The eight page installation guide is concise and clearly illustrated. Installation requires removal of the MMU chip. This is the trickiest part of the procedure, since you need two jeweler's type precision screwdrivers to pry the chip out of its socket. If you're not careful, you can crack the socket and/or the chip. The MMU chip is reinstalled in a special MMU adapter socket, which is then plugged into the MMU socket on the motherboard. Two pressure-type pin connectors install over two data buffer chips. While the MMU connector is very solid, the pin connectors appear less so. AERCO provides a special string for tying around the connectors to strengthen the fit, though they suggest that it is not necessary for dependable use. Ribbon-type cables run from the connectors to the expansion board. The board sits on the upper left corner of the motherboard, under the RF shield. One major advantage of this installation is that if you should develop problems with the expansion board or chips in the future, you can easily deinstall the board and still have a working computer while the board is being repaired. A note of caution: the board covers ROM chip number 1, which is the installation point for the some clock chips. Both the memory board and clock chip will not fit under the RF shield. Terrific Peripherals sells a cable adapter which is designed to relocate ROM number 1 and allow simultaneous use of both the memory expansion and clock. TP originally designed the cable to be used in the 1040ST, with their clock chip, since ROM number 1 on the 1040 is under the power supply. List price for the AERCO board is $189. For an additional $20, they will preinstall 20 more sockets which will simplify future upgrades to 2.5 megabits. If just the thought of opening the case of your ST gives you the shivers, AERCO will install the board for a fee of $25. There is no charge for UPS ground shipping, $5 for two day, and $12 for next day air. They did not quote shipping prices for the 520ST, but they are probably comparable to the ThoughtSpace quotes. AERCO supports a 1 year warranty. AERCO's address is Box 18093, Austin, TX 78760. Phone:(512)451-5874.

TERRIFIC PERIPHERALS EZ-RAM

TP says they've sold thousands of their boards over the last year. They were one of the first on the market. Installation is the easiest of the three. A special MMU socket adapter connects directly to the socket on the motherboard without removal of the MMU chip. A ribbon cable connects to the memory expansion board. The video chip is removed from the motherboard and reinstalled on the EZ-RAM board. Instructions are printed on a single large page which folds out to cover your work area while you follow the easy to read diagrams and notes. The illustrations are clear and professionally drawn. EZ-RAM sits over the video chip socket under the RF shield. This leaves room for other add-ons later, such as the blitter chip or RF modulator. The video chip sits in its own RF "box", approximately under the arrow keys on the keyboard, prior to installation of the memory expansion. The top of the box is replaced by the expansion board. TP says that they have not had any problems with RF interference due to removal of the shield top and relocation of the video chip. EZ-RAM has a 6 month warranty and retails for $199, though I found it for $159 mail order at the Atari Station (800)-225-5878. Terrific Peripherals' address is 17 St. Mary's Court, Brookline MA, 02146. Phone: (617)-232-2317.

SO WHICH ONE DID I BUY?

I bought the AERCO board and installed it in approximately an hour. It would have taken less time, but I fiddled around trying to get the Z-Time clock chip to fit as well. AERCO has started using an improved MMU adapter which made installation fairly painless. In fact actual installation was anticlimatic after waiting the two weeks it took to get my board: AERCO is running about 7-10 days backlog on orders. However, with some new production techniques, they expect to reduce that in the near future. The board survived a 12 hour "burn-in" while running diagnostics, without error. My reasons for choosing the AERCO board are personal and based on intuitive reasoning, which may or may not be the best overall solution. I'm not expert enough to attempt the ThoughtSpace installation and I'm unwilling to give up my ST for even a few days. I have few doubts that I'll want to upgrade to 2.5 Meg when it's more economical - simply because it's there. As for installation approach, the AERCO board appears to be a reasonable compromise between the more complex DoubleThink and the simple EZ-RAM, in terms of how one plugs into the necessary data lines to provide the additional memory. The 1 year warranty is also a big plus for me. All three vendors were very helpful and sincerely enthusiastic about their technical approach and the 520ST over the Telephone. Unfortunately, I have been unable to make the Terrific Peripherals clock chip work with the cable adapter which they sell for the 1040ST: I kept getting buss errors. I guess I'll have to settle for an external clock, or find out who manufactures clock chips which fit over other chips. The TP clock is nice since it keeps track of leap years, which some clocks do not.

Now all I have to do is figure out what to do with all that memory. With visions of ramdisks and large VIP spreadsheets dancing in my head, I'm sure I have a good start.

One final note: for those of you who have had printing problems with Dollars and Sense, all of my problems were solved with the memory expansion. Hopefully Monogram will squeeze DAS down in the near future. For those of you who are as impatient as I, I recommend an expansion board.

# Product Updates

Migraph, Inc. has recently announced enhancements for its line of products for the ST.

Enhancements to EASY DRAW 2.0 include:

1. Font Pack 1 - $39.95
2. Supercharger - $50.00. Allows importing bit-images into EASY DRAW.
3. Draw Art 1 and Technical Draw Art 1 - $29.95 each. These are clip art disks containing predrawn objects for EASY DRAW.
4. Printer drivers for HP Laserjet, 24-pin printers, and postscript compatible printers - $19.95 each.

Sample output from EASY DRAW using their new HP Laserjet printer driver.

# Megamax C

for the

## Atari ST

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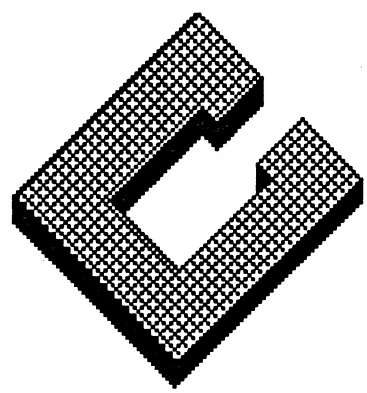

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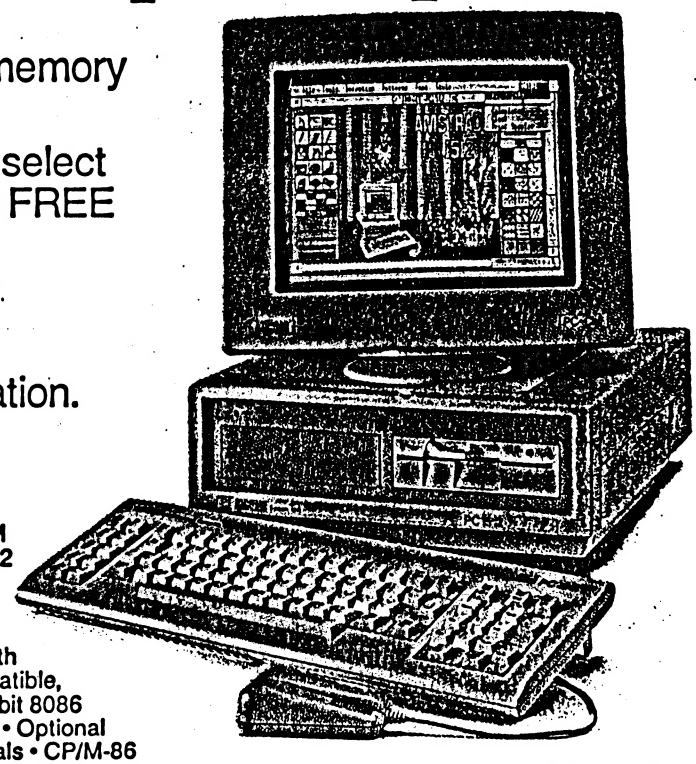

Unit pictured with optional RGB Color Monitor

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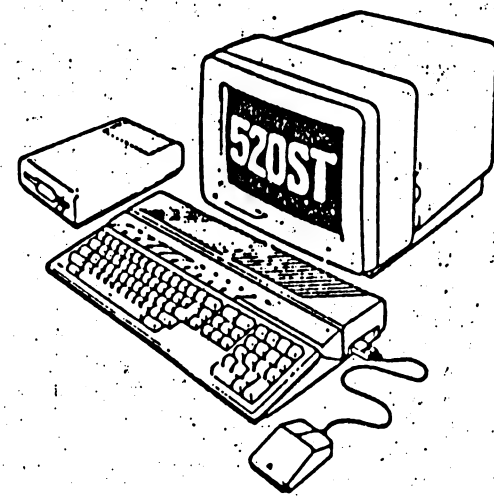


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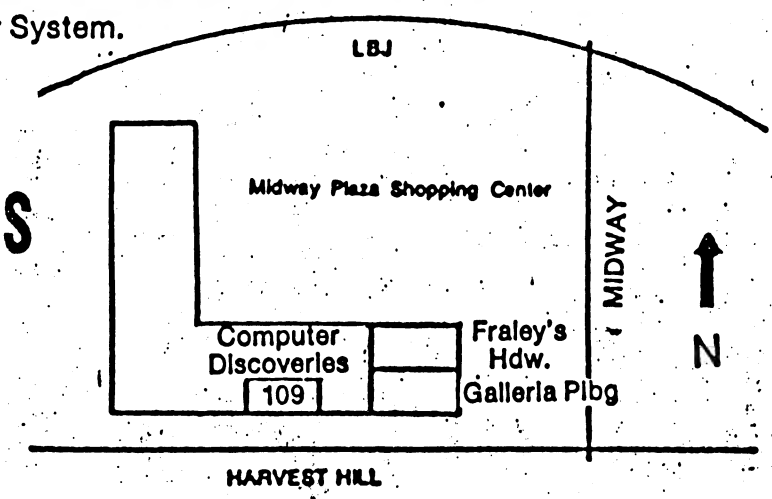

# "SIXTY SECONDS WITH ANDY ROONEY"

a parody reprinted from HACK
the newsletter of Atari Anonymous of R.I.

J'ever notice all the fuss everyone is making over computers these days? It seems you can't go anywhere without hearing "home computer this" and "personal computer that." Why is that? What's so great about computers, anyway?

J'ever notice everyone says, "you need a computer" or "9 in 10 homes will soon have a computer"? Why do I need a computer? And why will 9 in 10 homes have one? Is the government going to pass a law or something? Right now, the only one on my block that has one is 17 years old, weighs 98 pounds, wears glasses and has acne. He is a "NERD". J'ever notice how popular NERDS have become? Why is that? Maybe because they have computers, which are popular too. If I buy a computer, will I become popular?. Or will I become a NERD?

J'ever notice there are "home" computers and then there are "personal" computers? Why is that? Are they the same, or are they different? Can you use a home computer outside your home? Do you have to keep a personal computer to yourself, or can you share it with your friends? There are also LAPTOP computers. Are they for people who can't afford a desk?

J'ever notice people who use computers are called "HACKERS"? Just what is a hacker, anyway? To me, it sounds like someone you wouldn't want to meet in a dark alleyway. When I think of HACKER, I think of Jason in "Friday the 13th". He hacked people with a large knife and lived in the woods. Did he have a computer? Was it a "FOREST" computer?

J'ever notice that if a computer is easy to understand it is called "USER FRIENDLY or just "FRIENDLY"? Why is that? Does it mean that easy to understand means friendly? If Jason comes up to me and says, "I'm going to hack you up with my knife," I can sure UNDERSTAND him, but I don't think that he is FRIENDLY. Why is that?

My friend, the NERD, once told me, "My computer speaks BASIC, FORTRAN, and LISP." I don't know about Basic and Fortran, but if his computer has a LISP, why doesn't he take it to a speech therapist? Come to think of it, the Nerd has a lisp, too!

J'ever notice all those computer commercials on TV? Alan Alda showed how easy an ATARI computer is to understand. Atari must be "friendly". William Shatner presses a button on a Commodore and disintegrates! Commodore doesn't sound very friendly to me. Maybe Jason has one. Charlie Chaplin does a commercial for IBM. Why is that? I mean, he was born in the 1800's. They didn't even have computers then.

And finally, j'ever notice how stupid they name computers nowadays? They used to call them ENIAC or UNIVAC. I could relate to that. But now they are called things like Apples or Oranges or Apricots. When I eat apricots, I get the runs. If I use an Apricot computer, will I get the runs? Then you've got the TI 99/4A. What the heck is a 99/4A anyway? Isn't that Dolly Parton's size? The Nerd has a TRS-80, but he calls it a TRASH-80. If it was TRASH, why did he buy it in the first place? Do only nerds buy TRASH-80's?

Well, that's about all for now. J'ever notice how many times I say "J'ever notice"? Why is that? J'ever notice I ask a lot of questions? Why is that?

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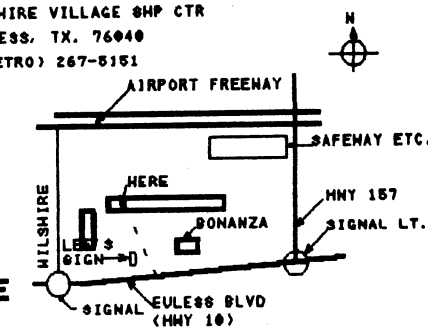


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# OSS Personal Pascal

## and the beginner - part 3

written by David Meile

[Copyright 1987 David Meile, all rights reserved. Permission is given to Atari user groups to reprint this article, as long as this statement is included. OSS Personal Pascal is a product of Optimized Systems Software, Inc. I am not related to the company, I simply bought their compiler.]

### Looking at files

One of the most useful things about a computer is that it can store and retrieve information on a more-or-less permanent basis. Without this ability, you could not be reading this article in the first place ... I'm typing at my computer, I'll then STORE what I've typed onto a disk file, then I'll transfer the disk file electronically, where it will once more be stored as a disk file (on a somewhat more powerful computer, mind you, but the principle remains the same!).

So, how do I get OSS Personal Pascal to store things? And, more important, how can I retrieve what I've stored? There are a small number of Pascal routines that will read and write things onto a disk drive.

### A simple text file copy program

```
PROGRAM filexfer;

{ Take lines from an input file and place them in an
output file Works on TEXT files with 80 characters
or less per line }

CONST
   {$I gemconst.pas }

TYPE
   {$I gemtype.pas }

VAR
   ifile     :     file of TEXT;
   ofile     :     file of TEXT;
   istring   :     string;
   ipath     :     Path_Name;
   iname     :     Path_Name;
   oname     :     Path_Name;

   {$I gemsubs.pas }

BEGIN
   IF Init_Gem >= 0 then
    BEGIN
     ipath := 'A:\*.*';
     iname := '';
     IF Get_In_File( ipath, iname ) THEN
      BEGIN
       Reset( ifile, iname );
       oname := '';
       IF Get_Out_File( 'Write to ...', oname )
        THEN
         BEGIN
          Rewrite( ofile, oname );
          WHILE NOT( eof( ifile )) DO
           BEGIN
            Readln( ifile, istring );
            Writeln( ofile, istring );
           END;
          Close( ofile );
          Close( ifile );
         END;
      END;
     Exit_Gem;
    END;
END.
```

### What's going on?

The program above is an EXTREMELY simple copy program. It reads in a line of text from a file and writes the line out to another file. It also makes use of the two ready-made dialog boxes that OSS Personal Pascal has provided.

There are two text files, designated by 'ifile' and 'ofile'. One is our input file, the other will be our output file. I'm assuming that the input file has lines of text 80 characters in length. 'Iname' and 'oname' are assigned the actual names of the files to be involved. After GEM gives us some space to work, the initial path name is set to 'A:*.*' and the initial file name is cleared. This is IMPORTANT, as the 'Get_In_File' procedure uses the initial path to search for a file, and strange things happen if the initial file name is left up to the whim of the machine. In Pascal, you should set up the initial value of a variable, as you cannot depend on the compiler to do it for you.

Get_In_File is a dialog box, thoughtfully provided for you by the people at OSS. It should look familiar, as it is the "standard" GEM file-choice box, and works in the typical GEM manner. If we don't select a valid file name, the program ends.

Once we have a file name (and path), we can open the file and point to the the beginning of the text file using 'Reset'. Now, whenever we want to refer to our text file, we use the variable 'ifile'. You can have several files open at one time, as long as you use different variable names for each file.

'Oname' is cleared, and a call is made to the other dialog box that OSS provides. 'Get_Out_File' is simpler; a box with a message that you can provide (like 'Write to ...'), and space to type in a file name. If you choose a file that already exists, you will get an alert box asking you to confirm your choice. Neat! And you didn't even have to set it up...

When you want to write to a file, you use the procedure 'Rewrite'. This actually creates the file, and sets a file pointer to the beginning of the file. If you rewrite to an already existing file, you destroy its contents, so be careful. If you are at the end of a file, the value of 'eof( ifile )' is TRUE. This is the basis of the WHILE loop in the program. It means "Peek at the file. If there is still more to read then do so, otherwise we're done".

The 'readln' and 'writeln' work the same here as they do when you are typing away at the keyboard. In fact, you are actually reading from a file called INPUT when typing at the keyboard, and writing to a file called OUTPUT when printing something on the screen. These are "implicit" files, and save you a lot of typing when in the editor. The full syntax is:

```
READLN( input_file, var1, var2, ..., varx);
WRITELN( output_file, var1, var2, ..., varx);
```

Of course, you should also CLOSE a file once you are done with it, and that's what the 'Close' procedure does.

That's it! You should be able to use these examples to do things with any text file. You can read and write to text files in exactly the same way you read and write from the computer's hardware. You just have to set things up in advance.

## Records and other file types

There are other types of files. You can have files of integers, files of characters, files of records... They all follow the same basic rules, which are somewhat different from those of text files.

Here are two more short programs, one to get information INTO a file and another to read information back OUT of a file.

==========

```
PROGRAM make_data;

{ Create a data file of 3 records }

  CONST
    {$I gemconst.pas}

  TYPE
    {$I gemtype.pas}

    rating = ( chief, cook, bottle_washer );

    info = record
             name : string [30];
             rank : rating;
           end; {info definition}

VAR
    myfile : file of INFO;
    myrec  : info;
    iloop  : integer;

{$I gemsubs.pas}

BEGIN
  IF Init_Gem >= 0 THEN
    BEGIN
      Rewrite( myfile, 'A:\INFO.DAT' );
      FOR iloop := 1 to 3 DO
        BEGIN
          Write( 'Name: ');
          Readln( myrec.name );
          CASE iloop OF
            1 : myrec.rank := chief;
            2 : myrec.rank := cook;
            3 : myrec.rank := bottle_washer;
          END; {case}
          myfile^ := myrec;
          Put( myfile );
        END;
      Close( myfile );
    END;
  Exit_Gem;
END.
```

==========

```
PROGRAM read_data;

{ Read from the file created by the program
make_data }

  CONST
    {$I gemconst.pas}

  TYPE
    {$I gemtype.pas}

    rating = ( chief, cook, bottle_washer );

    info = record
             name : string [30];
             rank : rating;
           end; {info definition}
```

```
 VAR
   myfile : file of INFO;
   myrec  : info;

{$I gemsubs.pas}

BEGIN
  IF Init_Gem >= 0 THEN
    BEGIN
      Reset( myfile, 'A:\INFO.DAT' );
      WHILE NOT( EOF( myfile )) DO
        BEGIN
          myrec := myfile^;
          WITH myrec DO
            BEGIN
              Writeln( name );
              CASE rank OF
                chief       : Writeln( 'chief' );
                cook        : Writeln( 'cook' );
                bottle_washer: Writeln( 'bottle washer' );
              END; {case}
            END; {with}
          Get( myfile );
        END; {while}
      Close( myfile );
    END; {if}
  Exit_Gem;
END.
```

---

And now ... an explanation

---

A lot of things are going on in these two short programs! If you've never seen a record before, or an "enumerated ordinal type" pay close attention as we go through Program Make_Data.

The first thing you see are several TYPE statements. There is 'rating', an "enumerated ordinal type". That's a fancy way of saying that the words within the parentheses increase in value as you go from left to right. (I.e. "chief" is actually a lower ordinal value than "bottle_washer"!) Do not confuse this type for strings. The string 'chief' is NOT equivalent to the ordinal value chief.

Enumerated ordinal types can save a lot of space in files. They don't take as much room as an equivalent string, and Pascal works with them quite easily. They also have an advantage in that, while you can't use a string constant in a CASE statement, you can use an enumerated ordinal value.

The 'info' type is a record. Records are groups of variables that are related to each other in some way. For example, you might want to keep track of your albums using a record (pun intended).

You might define it thus:

```
album = record
        title      : string [30];
        catalog_num: string[10];
        year       : integer;
        artist     : string [40];
      end; {album record definition}
```

All those variables relate to one album. A file of records would be able to track many albums in a collection. In the program make_data, we have a 'file of INFO', relating name and rank in each record.

Again, we use 'rewrite' to let Pascal know that it should associate the file name 'A:\INFO.DAT' with the file variable 'myfile'. This also opens up a disk file called 'A:\INFO.DAT'. I ask for a name, and assign it to the record variable 'myrec'. Note, the record variable name is 'myrec'; the variable WITHIN the record is 'name'. So, I use 'myrec.name' to refer to the name portion of the record 'myrec'. Likewise for 'myrec.rank'.

OK. I've assigned values to both parts of a single record. I want to write them to my file. First, I need to 'point' to the record. So, I assign 'myfile^' (that's a carat mark at the end) the value of myrec. Myfile^ is a file pointer. Think of the statement

```
myfile^ := myrec;
```

as putting the value of the record I want to store into the file output buffer (in this case). When I 'Put( myfile )', I write the file output buffer (which contains the value for my record) to the disk. Got it?
Close( myfile ) wraps things up, and I'm done.

Now I have a data file. How do I read things back out? It's fairly simmple, and we do it in the program Read_Data. Instead of rewrite, we use 'reset' to open a file for reading. Once the file is open, we go into a WHILE loop. If there is information in the file, NOT( eof( myfile )) is TRUE and the WHILE loop is executed.

Reset actually puts the first record into the file buffer 'myfile'. It's pointer is myfile^, and we can assign myrec the value of the file buffer using the reverse of the previous statement

```
myrec := myfile^;
```

It gets tiresome typing 'myrec.name' and 'myrec.rank', so Pascal provides a "shortcut", called the WITH statement. When I write

```
WITH myrec DO
```

it's like saying "pretend there's a 'myrec.' in front of variable names." So, 'name' is really 'myrec.name', etc.

The last statement in the WHILE loop is 'Get( myfile )'. It reads another record into the file buffer and, if it's NOT the end-of-file (eof) marker, then the WHILE loop gets executed once more. When I reach the end of the file, I close it and end the program.

### Some other file handling procedures

Here are some short program fragments to explain some of the other file handling procedures...

To rename a file, use the Rename procedure:

```
...
Reset( ifile, 'A:\OLDFILE.DAT' );
Reset( nfile, 'A:\NEWFILE.DAT' );
Rename( ifile, nfile );
...
```

To erase a file:

```
...
Reset( ifile, 'A:\BYEBYE.DAT' );
Erase( ifile );
...
```

Standard Pascal files are SEQUENTIAL. You read record 1, then record 2, then record 3, etc. OSS Personal Pascal allows you to use RANDOM ACCESS files (but NOT for text files). You use the Seek() procedure:

```
...
Seek( ifile, position );
Get( ifile );
irec := ifile^;
...
```

The program fragment means "Get the record indicated by the integer value 'position' in file 'ifile', read it into the file buffer, and assign the value there to the variable 'irec'."

To use random access files properly, you need to keep track of where things are. Think back to the golden days of BASIC for ideas on how to accomplish this. (HINT: you can SORT an ARRAY on some key RECORD VARIABLE and SAVE the SORTED ARRAY in another FILE...)

### Wrapping up

There's a LOT of information in this article. It will take practice to use it well. Files and records are some of the hardest parts of Pascal to use correctly and efficiently. I hope I've set you well on your way to finding useful methods for implementing files in OSS Personal Pascal!

Next time ... Remember the alert box with Now What? Well, I've managed to turn it into a DESK ACCESSORY. How? Find out in part 4.

I'm open to answering some SIMPLE questions regarding Personal Pascal. You can reach me via GEnie as D.MEILE, or
write (include a stamp, please) to:

David Meile
Box 13038 - Dinkytown Station
Minneapolis, MN 55414

### Minor notes

Were you disappointed to learn that the "special" characters are unavailable in OSS Personal Pascal? According to the manual, the CHR() function accepts values from 1..127. It will actually accept more [I assume from 1..255, but have not tested EVERY value]. For example:

```
...
mystring := Concat( 'Copyright ', chr(189), '
1987' );
writeln( mystring );
...
```

How do you tell what resolution your computer is in? Use this function:

```
FUNCTION getrez : integer;
  XBIOS( 4 );
```

Then, call it like this:

```
CASE getrez OF
  0 : Lo_res_stuff;
  1 : Med_res_stuff;
  2 : Hi_res_stuff;
END; {case}
```

# TURBO BASIC COMPILER XL/XE

## An Outstanding Public Domain Program

(Reprinted from the Jan '87 edition of A-BUG, the newsletter for the ATARI BOSTON USER GROUP)

Turbo Basic XL is a public-domain BASIC interpreter from Germany. It was written by Frank Ostrowski for the German magazine HAPPY COMPUTER.

The command summary lists only the new commands of TURBO BASIC. Turbo also supports all the commands of Atari Basic, and will load SAVED Atari BASIC files. Turbo programs will load into Atari BASIC if none of the new commands are used.

Many of the new commands will be familiar to users of BASIC XL and BASIC XE. Turbo is not identical to either of those languages, however. Some of the new commands have the same syntax, and others differ. Turbo has commands that the OSS BASICs lack (CIRCLE and PAINT, for instance); the OSS languages have commands that Turbo doesn't (player-missile graphics, for one).

Turbo pays no attention of LOMEM; you get the same amount of space no matter what DOS you use. It is Incompatible with the 850 RS-232 handler; the BASIC program loads over part of it. You can also have 256 variables in your program. Instead of only 128. Statement labels count as variables.

Since Turbo uses the space under the OS ROM, it will not run on a 400 or 800. It is incompatible with the under-the-ROM and under-cartridge DOS systems.

The compiler will handle most BASIC program. None of the immediate commands (LOAD, SAVE, etc.) will compile; nor will FOR loops with more than one NEXT statement. The compiled code is larger than the BASIC source, so some big BASIC programs can't be compiled.

Turbo BASIC XL is an outstanding public-domain program. It offers many of the best features of other extended BASICs, plus a few of its own. It is fully compatible with Atari Basic, and very fast. The price is right, too. I recommend it to all XL and XE owners.

I tried some simple benchmark programs on various BASICs to compare their speed. Turbo Basic is a very fast BASIC interpreter; it turned in times comparable to BASIC XE. The compiler is even faster.

The BASIC XE version 4.1 with extension 4.11, and Atari BASIC Rev.b. Three times are reported for BASIC XE. The FAST time is with the statement O FAST added to each program; the SLOW time is without that statement. The BARE time was run without loading the extension file. (BASIC XL in slow mode will be about the same speed as the BARE times for BASIC XE. FAST mode times will be slower than the BASIC XE FAST times. BASIC XL with a FAST CHIP installed will be about as fast as BASIC XE.)

| BASIC | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Turbo BASIC XL: | 56.0 | 41.5 | 58.1 | 59.4 | 43.5 |
| Turbo Compiler: | 54.1 | 26.7 | 12.5 | 12.5 | 20.7 |
| BASIC XE Fast: | 61.6 | 57.1 | 41.2 | 43.7 | 42.5 |
| BASIC XE Slow: | 61.8 | 62.2 | 51.2 | 5790. | 64.4 |
| BASIC XE Bare: | 237.0 | 70.8 | 97.6 | 5820. | 83.6 |
| ATARI Basic: | 237.0 | 109.9 | 163.2 | 6060. | 104.5 |

Test 1: savage 500. This benchmark is a version of Savage floating-point benchmark. This version was scaled down to 500 iterations (instead of the standard 2500) to stay within my patience limits.

The times on this test are determined almost totally by the speed of the floating-point code. Note the nearly identical times turned in by BASIC XE (without extensions) and Atari BASIC.

Test 2: for loop. This one is very simple; a FOR loop that goes around 50,000 times. 1 FOR I=1 to 50000: next I.

Test 3: goto loop. This uses a different sort of loop: a GOTO statement in an IF. This loop goes around 20,000 times: 10000 I=0, 10010 I=I+1:if I<20000 then 10010.

Test 4: GOTO loop part 2. This is the same as test 3, except that there are 5000 REM statements added to the beginning of the program. The long times in the table were gotten by looping 200 times and multiplying the run time by 1000. This test shows the time spent searching for the line to branch to.

The results suggest that Turbo preprocesses line numbers in a manner similar to FAST mode in the OSS BASICs.

Test 5: DISASM.BAS. I ran the program DISASM.BAS, a public domain disassembler, I disassembled the locations $0711-$087f to the screen.

# VIP - The GEM Version

Reviewed by John Pellet

ISD Marketing has been shipping the GEM version of VIP Professional for some time, and I recently received my upgrade. It cost me $19.95 - a VERY reasonable price for what appears to be a complete rewrite.

For those few of you unaware, VIP Professional is the most powerful spreadsheet currently available on the Atari (to my knowledge). In its original text version, it closely imitated the command structure and appearance of Lotus 1-2-3 on the MS-DOS machines. But the GEM version is much more a superset than a direct clone. In addition to the standard slash and macro commands, VIP can now do most anything with the mouse.

This review is NOT going to delve deeply into the power and function of VIP - just take it for granted if 1-2-3 or the original TOS version could do it, the GEM version does it better, faster, and easier than ever before, unless otherwise indicated.

So, you might well ask, what do you get for your $19.95 upgrade? Very simply, as the name suggests, rather than a Lotus look-alike, the new version implements the desktop metaphor of GEM. You can use the mouse to select any of the functions, or ranges, instead of the slash and cursor keys of the TOS version originally shipped. Unfortunately, you cannot use a mixture: for any command you use either the mouse of the slash. If you select an option with the slash (like /F for file options) then the mouse can't pick the desired option, nor vice versa. You can also have multiple windows open, resize them, and relocate them, all standard GEM functions. But none can grow to full screen - only about 80% (the description window cannot be removed or covered, as described further below).

You also get several identified bugs removed, plus unfortunately, the addition of new ones. The major fix, in my view, is the "TODAY" function now correctly posts the system date on any recalc, rather than requiring an edit, as was necessary in my TOS version. Additionally, while not as fast as I'd hoped, the recalculation speed is, literally, more than an order of magnitude (x10) faster than my previous version. And COPY PROTECTION HAS BEEN REMOVED! These three improvements make the upgrade a GREAT improvement. Plus, while memory utilization is not as good as in Lotus 1-2-3, (you can fit a bigger spreadsheet in a 256K MS-DOS machine than in a half meg 520ST), the ~80K limit of the TOS version has been considerably expanded.

Unluckily, I can't tell for sure how by how much. One of the questionable changes is that while previous versions told you how many bytes were used and how many are available, the GEM version uses percentages. Not nearly as useful to me. Also, this version does not work correctly with GDOS installed: the functions are correct but the menu bar is scrambled and puts extraneous lines in the display area.

But there are two "features" that really are hard for me to understand. When printing a spreadsheet, VIP now prints one line at a time. Before it would quickly fill up any buffer or spooler you had, and consequently allow you to get going again quickly. This version sends data to the printer more slowly than my printer can print it (~200 cps). This is VERY hard to understand! And it really slows down my routine jobs. The other "feature" relates to display area. The original TOS VIP used three lines at the top of the screen for status and commands, leaving you about 20 lines of data. The GEM version takes the top line for the menu bar, and the bottom ~4 lines for command explanations, plus the standard couple of lines for window scroll bars. This leaves you with 13~15 (depending on whether color or monochrome) lines of data. Isn't nice to know this update give you about 30% less data display area than before? And it will not allow you to resize a window as full screen. Oh well.

That about wraps up the changes I found. Given these pluses and minuses, what do I recommend? Upgrade! For me, the removal of copy protection, improvement in memory utilization, increase in calculation speed, and ability to look at more than one window at once outweigh the reduced data display area and reduced printing speed.

## ATTENTION !!!!

TURBO BASIC (reviewed p. 17)

Is Available now in the DAL-ACE

8 bit Disk Library.

# DISK # 82

## NEWSLETTER SUBMISSIONS

Submissions are welcome in ANY form. However, it is extremely helpful if submissions conform to one of these formats:

1. ASCII files with no formatting information
2. Publishing Partber File
3. Mailed to Dal-Ace or Given to Editor at Meeting
4. Or uploaded to either Dal-Ace BBS

## CURRENT DAL-ACE SCHEDULE

| | | |
|---|---|---|
| Sunday | May 24 | Newsletter Production Meeting - 1:00 P.M. James Duke's house |
| Saturday | June 13 | Main Meeting |
| Sunday | June 28 | Newsletter Production Meeting - 1:00 P.M. James Duke's house |
| Saturday | July 11 | Main Meeting |

## INFOMART DIRECTIONS

From North Dallas, take either Stemmons (I-35 E) or the Dallas North Tollway. 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 ***

| | |
|---|---|
| 11:00 - 12:00 | Club Sales |
| 11:00 - 11:30 | BBS Users Meeting |
| 12:00 - 1:00 | Main Meeting |
| 1:00 - 1:30 | New Users Sig |
| 1:00 - 2:30 | ST Sig |
| 1:30 - 2:30 | 8 Bit Sig |

Since we will all be busy at the Atarifest, there will be no SIG meetings this month. All SIG meetings will be back next month as usual. The Main Meeting will be at 11:00 am.

## NEWSLETTER ADVERTISEMENTS

Personal sale ads are free to members. See editor for details.

## COMMERCIAL AD RATES

| | |
|---|---|
| Full Page | $35.00 |
| Half Page | $25.00 |
| Quater Page | $15.00 |

Long term rates are available. Contact our advertising manager for details.

Ads must be CAMERA READY. Copy must be recieved PRIOR TO the production meeting. Mail copy to address on back page, or contact the advertising manager. 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 recent ad will be re-run.

## SPECIAL THANKS!

We would like to express our appreciation to Megamax, Inc. for allowing us to use their laser printer for our newsletter.

Special thanks also to our advertisers for supporting Atari and Dal-Ace. Be sure to let them know how much their support means to Dal-ace.

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| ST Library | Joe Camblin | 221-7825 |

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| Dal-Ace BBS #1 | 214-255-8833 |
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## DAL-ACE
Dallas Atari Computer Enthusiasts

DAL-ACE is an independent, user education group not affiliated with the ATARI Corporation. This is the official newsletter of DAL-ACE and is intended for the education of its members as well as for the dissemination of information about Atari computer products.

DAL-ACE membership is $16.00 per year. This newsletter is written, edited, and published by volunteers. Its availability and/or distribution may, at times, be subject to circumstances beyond the control of the club officers. Members will note that their renewal date appears on their address label. A pink label means that your membership expires this month!

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

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