HAPPY'S DISCOVERY CARTRIDGE
by Vern Smith, PAC

After waiting almost a year for my advance ordered Discovery Cartridge, it proved to be a much more useful and effective tool than either advertised, or imagined. This article will cover not only the basic features and use of the Discovery Cartridge, but also the most recent enhancements and modifications, so may also be of interest to those who already have one.

The Discovery Cartridge is available in several configurations for varying tasks, but is basically a replacement for the disk drive controller circuitry in the Atari ST or Mega computers, which plugs into the cartridge and floppy ports of the computer, requiring no internal modification. The hardware portion in itself corrects a CRC error checking bug found in many ST computers, and improves write with verify disk operations, but most of it's power comes from the accompanying software.

Most computer owners are aware of the importance of backing up valuable computer software, and due to a voltage handling problem in the ST, almost all ST users have at some point gotten a "damaged disk" error on perviously working software. Unfortunately, many software producers feel the need to "protect" their software from "pirates" by making it nearly impossible to copy, and then become "pirates" themselves by charging $10 or $15 for a backup copy, on

top of the original purchase price.

The backup software that comes with the Discovery Cartridge will copy more programs than any "software only" utility possibly could, thus protecting your software investment. The program is menu driven and very user friendly for most operations, but is also very flexible and well documented for more advanced users.

For Magic Sac users, by simply inserting your Mac 64K ROMS into the Discovery Cartridge, you can run your Magic Sac software without the need to change cartridges, and for Spectre 128 users, one of the newest improvements is a modification to the cartridge to allow the direct reading of 128K, so you can run your Spectre 128 software as well, with no loss of speed, and no need to change cartridges.

The Discovery cartridge also includes a translation program to convert Macintosh format disks to Magic format or Magic format to Macintosh format, without the need for Data Pacific's Translator One (which even David Small calls "extremely slow"). An example of the speed difference would be a normal "full disk" translation, which on the Translator One takes about 15 minutes, and on the Discovery Cartridge takes about three! Other problems with the Translator One (acknowledged by Data Pacific) include lack of drive speed compensation, which prevents disks formatted with the Translator One from running on a real Macintosh. The Discovery Cartridge does not have this problem, and is fully compatible for translations in either direction. The one

possible advantage of the Translator One, is that neither the Magic Sac nor the Spectre 128 software will read Macintosh format directly from the Discovery Cartridge without conversion, but the Translator One does this so slowly that its usefulness is questionable.

So, is that enough product to satisfy Happy Computers? Not by half! With the addition of a "Drive 3/4 Option", up to two additional floppy drives can be installed to your ST or Mega, with all four accessible from the desktop. Drives (such as IB Computers IB drive) with slower step rates can be run as drive 3 or 4 with no additional drivers needed. A flip of a front panel switch swaps drive three with drive A, where drive A is external, or drive B with drive four where drive A is internal. (It is possible to add a switch to your computer to electrically swap internal and external drives to bring drive four to the drive A position).

I remembered reading an old PAC newsletter article on converting some SF314 double sided

drives to dual single operation, allowing the storing of two single sided disks on opposite sides of a single disk, so while I was doing a 128K upgrade on my Discovery Cartridge, I started tracing side select circuitry and developed an easy modification to create the same effect on any external drive, with no modification to the drives themselves. I talked to the developers at Happy Computers about the mod, who were very helpful with circuit descriptions and who saw no problem with interaction with other circuitry. The mod works great, and I can now boot from either side of a disk (again, those with internal drives would need to modify their computer to select the external drive as drive A), but even if nobody else but me is interested in this particular modification, the most impressive part to me is that the designers at Happy Computers were willing to sit on the phone for twenty minutes going over schematics to help someone that they didn't know make their product do something it was never intended to do. That, to me, is customer support.

PORTLAND ATARI CLUB

This newsletter is written and published by members of the Portland Atari Club (PAC), a group of people with a common interest -- the **Atari Computer**. All articles are written and donated by members or are reprints of public domain material from other groups. Opinions expressed are those of the authors and do not necessarily represent the opinions of PAC or those of any other organization. Material appearing in this newsletter may be reproduced for non-commerial use, providing credit is given to the author and PAC or other originating group. Commercial use must be coordinated through the editor. Material for publication may be submitted either on disk as non-formatted 8-Bit or ST ASCII files, or on hard copy (printed, typewritten, or legibly handwritten). Media may be sent to the editor at the address below. Contact the editor for instructions on uploading submissions to the PAC BBS.

MEMBERSHIP

Membership is $25 per year and includes a mailed subscription to this newsletter and access to members-only functions, such as downloading access to BBS files. A membership application is printed in each issue of this Newsletter. General meetings are open to the public and start at 6:30 p.m. on the first Monday of each month (Except in case of holiday.) at the NW Service Center at NW 18th and Everett in Portland. Exchange newsletters, article, correspondence and ads should be sent to the following address:
Portland Atari Club, Attention: (appropriate board member),
P.O. Box 1692, Beaverton, OR 97005.

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The Pres's Column
BILL PIKE

During rain and sleet and gloom of night nothing shall stand between the computer user and his/her trusty Atari. Ok, maybe somethings like fire, flood, and other types of mass devastation but not much else. Especially during these rainy, damp, cold, winter days. What better way is there to keep warm than to snuggle up to your faithful computer?

Everyone got the latest news from Atari thru Mr. Sig Hartman so what else is there to say?

Well there is a SWAPMEET coming up this month. For the last swapmeet I gave a list of excuses for purchases at the swapmeet, however my better half read the column and suggested that I shouldn't, that there was no need of, and that I had better not do the same again. So this may be a short column.

Anyhow what else is going on?

If you remember when we upgraded PAC #1 from a 10meg to a 20meg hard drive we had the 10 meg unit gone thru. We found out that we would be able to take one of the old diskdrive cases and purchase a host adaptor card and a controller card. This would make a 10meg hard-drive for the use of the newsletter editor. We are also considering the purchase of a Epson FX emulator cartridge for the desk jet printer so that a 8-bit computer as well as ST computers can be used. This would open up the Desk Jet to all of the club members we might need to purchase a inexpensive printer adaptor to get from the 8-bit serial to the printer but that should do it. Remember when we first got the printer we spoke of opening the printer to club usage this will fulfill this committment.

We are supposed to be getting the first upgrade (read that some bugs fixed) for PageStream in the mail anytime now.

We have purchased Hard

Disk Sentry to try to speed up PAC #1 and also to assist in recovery of disk crashes.

The account with Genie has been activated for the club. This account will be accessible to the Newsletter Editor, for down-loading articles, the 8-Bit Librarian, for programs, and the ST librarian, for programs. Hopefully this will enable your club to keep up with the latest programs for both computers also enabling you to get the latest news and rumors.

The club has purchased a almost full set of the 8-bit disks from Antic and Analog along with the corresponding magazines. Your 8-bit librarian now has possession of same. These will be available at the 8-Bit Explorers meetings.

By the time you read this PAC #2 should be operating on Express BBS Pro. This will allow several things: First, the co-sysops will be able to access the board and make changes without being at the site of the hardware. Second, we will be linked to InterNet, the Express network system, thru Great 8 BBS. This will allow direct contact to Canada, Australia, and New Zealand as well as the USA. Third, each SIG Group can have a separate area on the board that the leaders of the SIG can act as sysops for.

The board has decided to help support Great 8 BBS for the basic line charge as we will be linking into this board.

The PAC ST disk library is now on sale at IB Computers, Creative Computing, and Software Depot. The PAC 8-Bit library is on sale at IB Computers and Creative Computing. Both disk librarians are coming out with about 2-4 new disks a month and they are good stuff. These disks will be available at your PAC meeting first.

The club membership is still growing with both full member-ships and Newsletter Subscriptions.

Well I guess that I have said a lot more than I thought was going on and incurred the wrath

of the NewsLetter Editor. I'll see you at the SWAPMEET.

Type to you later.

Bill

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EDITORS COLUMN

Sorry about all the mistakes & the lateness of the last newsletter. My Jan. disk of articles crash on me, & I had to almost do the whole thing again, as fast as I could.
See u later.   / tw

PAC HELP HOTLINES:

BBS USAGE		dBASE III	
Steve Billings	246-1751	Calvin Partridge	297-3641
Melvin Waller	230-0248		

ST LOGO & C		PASCAL	
Randal Schwartz	626-6907	R. Deloy Graham	649-6993

DOS Operation		ST Graphics Adv. games	
Wayne Winterbottom	667-6073	Jim Miller	641-6356

dBMAN		ST GENERAL	
David Addison	645-6985	Chuck Hall	626-3717
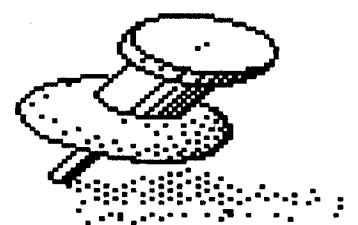
From the World of your 8-Bit Program Director.
Paul Gittens

You no doubt thought you had heard the last of me. (Enough of meanyway?) I am here to tell you that I really didn't go away. I have been playing with my computers and working and thinking about my computers and working and thinking about fishing and working. Once in a while I even got in a little time on the water. You may have noticed that fishing and computing don't mix very well. One real benefit about fishing is that you get to focus your eyes more than three feet away. I imagine some of you forgot that was possible.

It looks like 1989 is going to be a pretty good year for the 8-bit ATARI computers. The Diamond OS is very nearly herein cartridge and may be in the store by the time you read this. The DOS that Atari promised for the XF551 is being released for those of you who have been holding your breath. Another very nice product should be the Sparta-Dos X cartridge which has been released and should be available soon. Also for the more gadget minded is the new Turbo 8/16 upgrade that makes your tired old XL or XE think it is a true 16 bit machine. I am very anxious to see this myself. And last but not least, the Atari-Writer + for the XEP80 is out and about. Aren't you glad you waited?

I wish I could say more about new software but there hasn't been much going on. Notable exceptions are of course Reeve Software with the Diamond system which not only includes the desktop operating system, but also a word-processor, paint program and developers system as well. Others worthy of support include ICD, Supra, and Computer Software Services. They all have fine products out and still have 8-bit support.

One thing you can be sure of is that we will be demonstrating some of these items just as soon as we get our hands on them. The Diamond OS Cartridge will probably be shown in our March general meeting and will be shown in much greater detail in the 8-bit explorer SIG. We will also be planning to do the Sparta-Dos X cartridge in the near future.

Until next time (whenever that may be) keep those keys clicking and please support your club. The bulletin boards are much easier to access than they used to be and all have something new. Play a round of MULE on me.

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General Meeting Minutes January 2, 1989

The General Meeting opened at 6:45pm with a demonstration of the new menu that is on the 8-Bit library's disks. Each disk comes up with a short, one time, ad for the club. A new multiple operating system for the 8-Bit was also demonstrated.

The business portion consisted mostly of updates to the membership on club projects and goals for the coming year. The ST portion consisted of a demonstration of Microsoft Write followed by a demonstration of Ikari Warriors.

Board Meeting Minutes, January 17, 1989

The Board Meeting opened at the house of Teri Williams at 7:30pm. Present were Randall Leong, Perry Bailey, Bill Pike, Brian Hunt, David Hunt, David Moore, Teri Williams, Paul Karczag. Absent were Paul Gittins (working) and Mel Waller. Ben Smith was a visitor. Previous Minutes were reviewed individually and approved.
President's Report: The Club purchased 300 blank ST disks and 200 blank 8-bit disks from Creative Computer for the libraries at a price of $345. The Club purchased the program Hard Disk Sentry for the ST hard disk drives the club owns specifically PAC #1. This is to try to speed up the disk access to files and to assist in recovering from crashes.

It was reported that the club has a 10meg hard disk that was removed from PAC #1 when it was upgraded. By purchasing a host adaptor card and a controller card (at a cost of $200) and using one of the disk cases from the floppy disk drives removed from PAC #2 we can build a 10meg hard disk (new cost $350 to $400) for the use of the News Letter Editor. The News Letter Editor is currently working with one DSDD floppy disk. The board approved this upgrade.

It was also suggested to consider the purchase of a Epson FX cartridge for the HP DeskJet Printer. This would allow the usage of the DeskJet with any computer and/or program that has a Epson FX driver. This was tabled until the next board meeting for further investigation.

It was reported that the GENIE account had been activated and that the News Letter Editor, 8-Bit Librarian, and the ST Librarian would have access to it to provide more and newer information and programs for the club members.

Permission was asked from the board by the President to contact the leaders of STEP and SWAG to see if the clubs can better serve the Atari owners of the area. The board approved this for the president and one appointed (by the President) assistant.
Treasurer's Report: There is a current checking account balance of $1319.35.
Membership Secretary's Report: There were 2 new membership's, 5 renewals, and 4 newsletter subscriptions for the month of January so far. ST **Librarian's Report:** Currently there are 270 blank disks. There is a order (quantity not sure of) from IB Too. New disks for the month are copier disk and a formatter disk.
8-Bit Librarian's Report: Still revising the library. Working on a picture that comes up when you load the disk.
Special Projects: Working on compiling the data from the survey in the December News Letter.

Creative Computer will give a 5% discount on all purchases to club members.
Advisor: The advisor reported using 4 ribbons for his printer during his tenure in the positions of 8-Bit Disk Librarian and ST Disk Librarian. He requested reimbursement. The club traded 25 blank ST disks in exchange for the ribbons. The meeting adjourned at 9:00pm. Next Board meeting will be at Bill Pike's house on Feb. 21st at 7:30pm. Respectfully Submitted:
Paul Karczag & Bill Pike

"Bad news, sir, the computer is down."

A.C.E. of Salt Lake City

▐BOOKS▐

The Official
Print Shop Handbook
David E. Dvorin - JACG

The purpose of this article is to present a review of The Official Print Shop Handbook, authored by Rasndi Benton and Mary Schenck Balcer. This book shows how to get more out of The Print Shop and its family of software add-ins (this includes The Print Shop; Graphics Libraries 1, 2, and 3; and The Print Shop Companion) regardless of what computer you are using. Although this alone does not qualify the book as a "must" for owners of The Print Shop, I believe its contents do.

The book is divided into four sections. The first section is a description of the book. In the description, it explains why the book was written, what information can be found, and the definitions of symbols used throughout the book. All in all, this section informs the reader how to get the most from the book.

The second section contains applications that can be created with The Print Shop, its family of software add-ins, and the handbook. The 100-plus applications are categorized by Home, Party, Learning Materials, School Organization, and Professional.
To make this section more valuable, the authors include the following information for each application:
What software is used, What steps are taken to create the application, Design notes about the application, and Alternative ideas.

The third section illustrates new and modified icons. Over 60 are presented. To make it easier to create them, they are presented in the same grid used in the Graphic Editor found on the Print Shop program disk. For modifying icons, the illustrations clearly mark which pixels are to be changed. Each illustration indicates the software needed, ideas for applications, and examples.

The last section presents the planning tools. It was with the use of these tools that the authors were able to generate the various icons and applications. The tools consist of templates showing the various icon sizes in the various configurations allowed by The Print Shop. Coupled with the various sizes of various fonts, the user is able to get an idea of how certain designs will look before they are printed on paper. Additional information with the tools includes font and icon specifications and the art grid used in the book and Graphic Editor.

If one looks strictly at the example applications and the additional icons in this book, it is worth the $16.95. However, the authors' intentions for this book are more than just the material printed on its pages. They wish the reader to "find the ideas in this book useful - and inspiring." The real value of this handbook comes from the ideas

the reader generates on his own.

This almost 300 page paperback can be purchased for $16.95 at most major book stores. If you use The Print Shop (regardless of whether you have only The Print Shop or the entire family), The Official Print Shop Handbook by Randi Benton and Mary Schenck Balcer is a must!

▐BOOKS▐

"MUSICAL
APPLICATIONS
OF THE ATARI STs book
by R.A. Penfold

The Atari ST is the proven leader in the music - computer field, with it's unrivaled and rapidly expanding range of available software and add-ons. It's built in MIDI ports, large memory, high processing power, good graphics, and moderate cost have made it the computer of choice for demanding musical applications such as MIDI sequencing.

This book is aimed at musicians who want to exploit the full potential of the Atari ST in music applications. a fundamental knowledge of how to use the ST and run programs on it, (basically, a solid grasp of the information provided in the user's manual), is necessary. For computer enthusiasts, some simple hardware projects are presented, along with information on how to program the ST's sound chip and MIDI programming, including some very useful MIDI processing routines.
Most of the material is easy for non-technical types to understand. Topics include applications programs such as sequencing and score writing; and simple but useful add-on projects. MIDI is covered in depth, with particular emphasis on how it applies to Atari STs. Full details of MIDI messages and coding are provided.

To order a copy:
Catalog #: BP246

Send $11.95 > includes shipping and handling < to:

Electronics Technology Today
PO BOX 240
Massapequa, Long Island,
N.Y. 11762

PS...don't send cash.. (check or M.O. is OK) and be sure to include your full name, address and telephone number.
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ZMAG NEWSWIRE:
November , 1989

Anti-Virus Law
Proposed in Michigan

Michigan state lawmakers are considering a proposal that would impose penalties against anyone convicted of creating or spreading computer viruses.

This proposal came to light based on the virus attack earlier this month on military and research computers linked by ARPANET and other computer networks. Luckily, this virus did not cause any damage other than down time to all involved.

USERGROUPS ARE #1!

1989 - ATARI'S QUEST
by R.F. Mariano

As a result of an exclusive interview with Sig Hartman of Atari, our belief that 1989 will be the year to be remembered as the year of Atari is now stronger than ever before.

First and foremost, Mr Hartmann wanted to make sure the Usergroups understand that the Atari Corp. and Sam Tramiel have designated him (Mr. Hartmann) as the point man in relations with the usergroups. Usergroups are encouraged to contact his office for any assistance or information they may require.

For example, he detailed, if a usergroup would like to have us (Atari Corp.) attend one of their monthly meetings, then they should have a "regional" meeting. To explain further, have a number of groups from a larger geographical area than that of one group plan to have a joint meeting and thus assure a large number of attendees.

Mr Hartmann made it quite clear that there would be strong support at these meetings in the form of software and hardware (donated by Atari).

Mr. Hartman also pointed out that the Usergroups are very high on the priority list at Atari and that he will be there to help, especially for Atari Fests and Jamborees. He did emphasize that the help could also be in the form of financial assistance (a loan) for hall reservations and such.

"Part of our goal is to show the memberships of the Usergroups that Atari fully intends to strongly support the usergroup in as many way as possible...for example:

a)- Help in detailing a show and provide promotional materials.

b)- Attend regional meeting to further display Atari's commitment to support Usergroups.

c)- Set up displays and demonstrations of Atari Computer Equipment in booths at the Atari Usergroup Shows.

d)- Provide financial assistance where needed.

e)- Donate Prizes for these affairs.

Editor Note: (Mr. Mariano)
It is imperative to impress upon all the users that Atari is aggressively engaged in taking back it's rightful place in the US marketplace and will achieve this goal as a result of it's strong efforts in 1989. Sam Tramiel has placed the responsibility of the Usergroup support squarely on Mr. Sig Hartmann's shoulders and as such, Mr. Hartmann has made it abundantly clear that he will "bend over backwards" to help the usergroups be successful.

We asked Mr. Hartmann a number of rather pointed questions about the future of Atari and he answered each and every

one with ease.

o   Mr. Hartmann, how does the future appear for Atari in the USA?

There will be a more than ample supply of 520, 1040, and Mega machines all throughout the US market, we will be aggressively adding a large quantity of new dealers during the first quarter of the year. We have no foreseeable delivery problems, in fact, the market place will have all it requires as far as ST gear is concerned. Atari will be very strong as far as product availability is concerned. He said.

o   Have you any news for us about the portable (laptop) or Stacy II as it is called?

That particular unit is being developed in the UK and therefore I have very little information that is more up-to-date than you already have...

o   Is there any truth to the stories we keep hearing about Federated getting preferential treatment? for example, having the 5.25" drive for the PC.

You must understand that Federated is a mass merchandiser and as such, we must attempt to place product of that type where we can move the largest quantity and thereby establish the market. We will not however, allow the same thing to occur with the high end items like The Mega2/4 or the SLM804 for example.

Editor Note: (Mr. Mariano)
Atari has made the first big step forward as far as we are concerned in letting us know that usergroups are one of it's primary concerns. Also the fact that the drams are in very good supply means that the flow of machines in the STATES will be at it's highest level yet. There are many more plans for the Atari marketplace 'in the works' that Mr. Hartmann stressed "we cannot air before the right time" so...we are sworn to wait until we are given the green light to let you know. We will say this, Atari IS on the right track and IS going to "bring the bacon home".
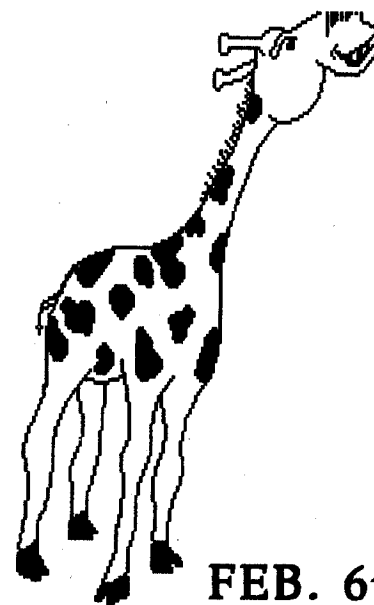
Super Dos Press Release

SUPERDOS, the most popular DOS in Australia, is finally available in the United States. It is an easy to use, powerful replacement for DOS 2.0 and 2.5. Although SUPERDOS is more compact than the other DOSes and uses less disk space, it has several new commands, such as RESTORE DELETEd files and PATCH damaged ones.

The convenient, high speed menu is available instantly with all computers, even 400s and 800s (no MEM.SAV, no lost data). It closely resembles DOS 2.5 in appearance, but is optimized for ease of use and speed.

SUPERDOS supports Atari 1050 and 810 drives as well as double density drives. Automatic density sensing configures SUPER-DOS for each disk as it is used. Copying between densities is easy, even with only one drive.

SUPERDOS also supports 130XE-compatible RAMdisks up to 320K bytes and Axlon compatible RAMdisks up to 288K bytes. SUPERDOS automatically sets up the largest RAMdisk possible and copies designated files into it.

SUPERDOS is NOT a public domain program. It was written in Australia by Paul Nicholls who retains sole ownership of it. It is marketed in the United States by Technical Support. If you have not paid for the copy you are using, please send $20 (plus $1 shipping) to:

Technical Support
205 Peoria Street

Daly City, Calif 94014 USA
(California residents add 6.5% sales tax.)

SUPERDOS is warranted to perform satisfactorily. If you are not satisfied with SUPERDOS, your purchase price will be cheerfully refunded.

SUPERDOS is fully compatible with DOS 2.0 and 2.5. It even looks and feels like Atari DOS, there's nothing new to learn. However, it's much easier to use, and much more powerful. It supports most Atari configurations, including Single, Enhanced (Dual), and Double density disk drives, Axlon and XE RAMdisks, and most memory expansions. We are convinced that SUPER-DOS is the most convenient Atari DOS ever created. If you use it for a week, you'll never want to return to another DOS.

SUPERDOS features:

1. SUPERDOS works with all Atari 400/800/600XL/800XL/1200 XL /65XE/130XE computers and the XE Game Machine.
2. Supports Single, Enhanced (Dual), and Double density.
3. Automatically configures to the density of the disk in the drive.
4. Density of each drive is displayed at the top of the screen.
5. Copy files between different density disks with only one drive.
6. Automatically finds and sets up largest RAMdisk possible.
7. Supports 130XE compatible 128K, 256K, and 320K RAMdisks.
8. Supports Axlon compatible 128K and 256K RAMdisks.
9. Automatically copies files with .RAM extender to RAMdisk.
10. I/O defaults to RAMdisk if drive 1 is not available.

11. SDUP.SYS available instantly, no MEM.SAV (even on 800s)
12. Short DOS.SYS and SDUP. SYS files leave maximum space for you.
13. RESTORE files which have been DELETEd or left OPEN.
14. Directory can display DELETEd and OPEN files.
15. Automatically TRACE and PATCH to recover damaged files.
16. Single keystroke menu (no Returns).
17. Clear English prompts.
18. Concise double column display lists 40 files at once.
19. Full screen scroll, won't wipe out filename you were about to use.
20. Screen border color indicates type of operation.
21. Use upper and lower case, inverse and numbers in filenames.
22. Adjust the key delay and repeat rate for XL/XE (fast keyboard).
23. Write with or without verify, toggle from menu.
24. A Binary Save that even saves cartridges.
25. Support for high speed transfer with SUPERMAX and US Doubler.
26. Skewed sectors for even higher speed with SUPERMAX.
27. Format disks in any density.
28. Write DOS.SYS and SDUP.SYS or DOS.SYS only.
29. Copy all .SYS files except DOS.SYS using wild cards.
30. True sector copier copies boot disks, skips empty sectors.
31. Option to format destination disk during disk copy.
32. Copy sectors and display bad sector numbers.
33. Copy to and from cassette (C:) using long or short IRG.
34. Display the configuration block for non-Atari disk drives.
35. Enter sector numbers and addresses in hexidecimal or decimal.
36. Handle up to eight double density files open concurrently.
37. Handle up to four double density drives plus a RAMdisk.
38. Easy to change file buffers and drive buffers, no POKEs.
39. Copy from DOS 3 files using one or two drives and wild cards.
40. SUPERBIN - a compact boot program which displays menu of binary files and runs them.
41. SUPERBAS - a compact AUTORUN.SYS program which displays menu of BASIC files and runs them.

Note: SUPERMAX is an enhancement for the Atari 1050 disk drive. It provides true double density and SUPERSPEED data transfer. SUPERMAX is a product of:

SUPER Products,
P.O. Box 507,
Beenleigh, Queensland 4207,
Australia

Note 2: We have just discovered that the current version of SUPERDOS (V4.4) only supports 128K of the Newell 256K memory upgrade.

CONTACT:

Charles Cherry
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205 Peoria Street
Daly City, CA 94014

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Issue #137
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Pirates of the Barbary Coast
by Lincoln Hallen
Reprinted from
Current Notes, 6/88

Pirates of the Barbary Coast has an interesting mix of strategy and action I like to see in any game. The game is set during the times when pirates ruled along the Barbary Coast off North America. Players trade goods in various ports to survive and to make enough money to pay a ransom to Bloodthroat the Pirate, who has kidnapped your daughter.

Going from port to port is dangerous, since there are other pirates out to sink you. You defend yourself by loading and firing your cannon. If you inflict enough damage, you can board the pirate ship and read the ship's log for clues or seize its booty.

I found the mix of action, strategy, and planning the most interesting feature of this single person game. You have to remember to keep your crew fed, to keep notes on which ports give the best deals, and to keep track of clues and riddles. In addition, you must also become efficient in loading your cannon. This requires that you practice loading your cannon, just as sailors had to long ago (put in the powder, tamp it down, put in the ball, and brush out the barrel). Finally, you are ready to fire the cannon (which also takes practice, since you must judge the correct elevation before firing.)

You are also able to look for buried treasure and may have to fight Bloodthroat if you meet him while going around the islands.

The clues and trading features change each time you play, but after a few times you can figure the game out, and the challenge is not as formidable.

Pirates performed very well, although I did run into a few problems. I got stuck a few times when learning the game and had to reboot and start over. The cover of the box showed a number of interesting graphics, but the graphics must have been for an ST or Mac, because the 130XE I used displayed mediocre pictures of only about six scenes.

In addition, the developers advertised "animated graphics," but the only animation I saw was a picture of a pirate ship moving across the horizon like a home-made arcade game. Although sound is used, its use is so minimal that it has little impact on the performance of the game.

The traders, on the other had, are very clever, always looking for the highest demand on the various items they trade in. Such demands can change frequently, and once the word gets out that certain items are bringing high prices at certain ports, many people trading them there causes the prices to fall. However, if you try to cheat or lower the price too much, you are locked out of doing any trading! A good player will take notes to figure out the best places for trading and to keep track of the other clues.

The software simulation from this standpoint is quite good.

Documentation is of average quality. Certain key facts were not given, which made learning to play a bit frustrating. For example, the instructions do not tell you that, when loading your cannon, you can load several cannons at the same time. It was nearly impossible to keep up by trying to load a single cannon each time to take a shot at the pirate's ship.

I think the game is easy to use. By folloing the instructions and skillfully moving the joystick around, you can attain the skills necessary to play the game. Pirates of the Barbary Coast, by StarSoft Development Laboratories, should complement anyone's software library.

TDC Distributors, Inc.
3331 Bartlett Boulevard
Orlando, FL 32811

GOLF
Paul Gittins

When Tony over at IB Too asked me to look at a minature golf game I inwardly cringed. Thoughts raced back to another time and place when I reviewed a minature golf game that just didn't make it. I relented anyway and took a look at this new one called ZANY GOLF by Will Harvey and distributed by Electronic Arts. As the package says "Unbelieve-a-ball Minature Golf beyond your wildest imagination".

So, let's just set the imagination on "wild" for a moment or two and see. Hole number 2: "Get an ace or indigestion!" has a huge catsup bottle and a bouncing hamburger which rests right over the top of the hole. You start the burger bouncing by clicking the mouse a few times and then putt away. When the ball bounces off the base of the catsup a few large drops of this stuff squirt out and splash around as the ball wizzes on by. This burger looks so good your nose begins to search expectantly and your mouth waters.

Hole number 4: "Rubber bogey birdie bumpers" includes a pinball machine which you must play properly in order to get your ball down to the putting surface. This one is tough and can stop you cold. Just keep flipping those flippers and you may make it.

Hole number 6: "Magic ball to ball carpet" has a magic carpet in parts of the putting surface

which allows you to guide your ball via the mouse whenever you get on the carpet. Naturally it's harder than it looks and there are bar gates which rise and fall at the worst possible times.

Hole number 7: "From lifestyles of the rich and famous goof balls" includes a pond and a medieval castle complete with rising gate. As you would expect the gate is u ually down about the time your ball is near.

Hole number 9: "Dr. Frankenstein's private country club". Where else can you find plasma cannons, laser beams and energy fields moving around the course. This is a par 5 hole and believe me you need it. There are no hints for this one and although I have gotten this far several times I have yet to complete this hole. When was the last time your golf ball was blasted into dust by a plasma cannon or vaporized by an energy field? This is one hole you had better be careful where you step.

I have to admit I had some good old fun playing this game. It allows four players to compete although I wouldn't really call it competetion in the regular sense. As in true golf the real test is between you and the course.

One thing I have not seen before is the limit on the number of strokes you may take. Starting on hole number 1 you get 5 strokes. If you don't get down by the fifth stroke you are out of the game. If you should get down sooner you save the extra strokes for the next hole. Believe me you'll need them. Each hole gives you an additional few

strokes based on what ever the par is for that particular hole.

I should also mention the little fairy that turns up from time to time and the time clock which also comes up on random holes. Hit the fairy or beat the clock for extra strokes. In this game you take 'em any way you can get 'em.

I truly enjoyed this game and highly recommend it for almost anyone. The graphics are superb and the game play is very good. It is hard but not impossible and each game is different. I frequently found myself playing for at least two players just so I could get around far enough and enjoyed every minute. You can play for 5 minutes or 5 hours if you choose, which is also nice. If you do get this game and solve the last hole you might tell me how you did it. I think I am getting close but in order to get to the last hole you have to finish the other 8 first. This could easily become one of my all time favorites.

++++++++++++++++++++++++

Guide to Computer Language Humor from the NAMU BBS via BACE Newsletter

BIT - (n); A word used to describe computers; e.g. "Our son's computer cost us quite a BIT."

Bug - (adj); The condition of your eyes after a normal session with your computer.

Chips - (n); The fattening,

non-nutritional foodstuff computer USERs eat to avoid leaving their machines for meals.

Disk - (disks) - (n); These are the little bone in our back that become very painful after bending over your keyboard for several hours.

Dump - (n); The place all of your former hobbies ind up in, soon after you buy your computer.

Error - (n); The thing you did the first time you went into a computer store, "just to look."

Error Message - (n); This is the paper, usually issued by a court of law, that tells you that your wife has decided to leave because you spend too much time with your computer and not enough with her.

Expansion Unit - (n); The new room you have to build just to house your computer and peripherals.

Floppy - (adj); The physical condition of a computer USER. Due mostly to lack of exercise and a steady diet of junk food. (See Chips.)
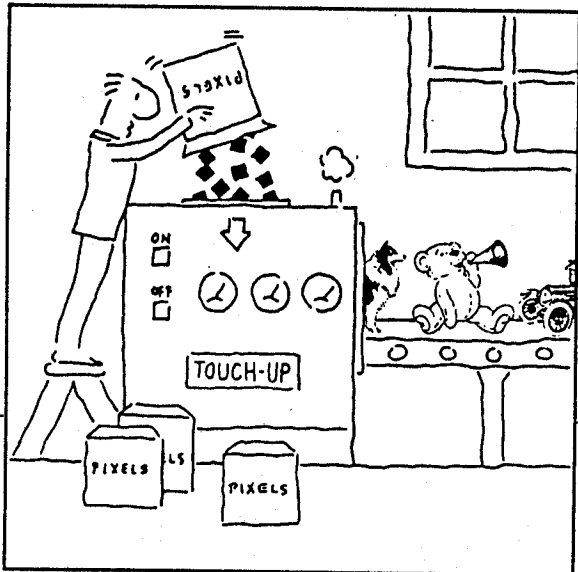
Hardware - (n); Equipment, such as lawnmowers, rakes, etc... that you haven't laid a hand on since you got your computer.

IBM - (adj); The kind of missile that your wife would like to drop on your computer, so that you would pay attention to her again.

Menu - (n); What you will never see again after buying your computer. You will be too poor to eat in a restaurant.

------{ ST TRANSFORMER }------

January Update   (C) 1989 Darek Mihocka

- pinout of the Xformer cable
- new Xformer utilities
- other odds and ends

This file may be reprinted provided that it is kept in its entirety.

Last month, I made available the pinout of the Xformer serial cable, which allows 8-bit disk drives to be connected directly to the ST so that files can be moved back and forth between GEMDOS disks and Atari 8-bit 5 1/4" floppy disks.

There was an error in the pinout diagram of the DB-25 connector. I am repeating some of the information, along with the corrected diagram.

To build the cable, you require one (1) DB-25 male connector, and one (1) B-13 3-foot Atari 8-bit serial cable (the black disk drive cable).

The pin numbering of the DB-13 is as follows. If you hold the connector so that the row of 6 pins is at the top, and the other 7 pins are on the bottom, the pins are numbered:

```
-----------------------------
 / 12  10   8   6   4   2  \
/13  11   9   7   5   3   1\
-----------------------------
```

1. Cut one end off the cable, so that you have a 13 pin connector at one end and 13 bare wires at the other.

2. You now require a male DB-25 connector. These are the 25 pin connectors found at one end of your ST printer cable. Radio Shack sells them cheap.

The DB-25 cables have the pin numbers printed in very small print on the actual connector. If you hold the connector with the 13 pin row on the top and the 12 pin row on the bottom, the pins are numbered as follows:

```
-------------------------------------------------------------
 \ 13  12  11  10  09  08  07  06  05  04  03  02  01 /
  \  25  24  23  22  21  20  19  18  17  16  15  14 /
   \-------------------------------------------------/
```

The pins you need are 1, 3, 5, 7, 11, and 18. The following table shows which colored wire gets soldered to which pin of the DB-25 connector. Again, these are usual colors, but vary from cable to cable, so use an ohm-meter to find the exact wires that correspond to pins 2, 3, 4, 5, 7 and 10.

13 pin connector	color	DB-25	serial port function
2	red	3	CLOCK OUT
3	orange	11	DATA IN
4	black	18	GROUND
5	green	5	DATA OUT
7	purple	7	COMMAND
10	blue	1	+5 volts

Sometimes the black wire corresponds to pin 6 rather than pin 4. This is okay since both pins 4 and 6 are GROUND in the Atari serial cables.

3. Once soldered, screw the DB-25 covers over the connector, and use the ohmmeter once again to test the connections. If you made any mistakes, you could fry your ST!

Recently I updated the Quick Transfer Utility and the File Xfer Program, two utilities provided with the ST Xformer II emulator, which are used in conjuction with the Xformer serial cable. Both programs are documented in the ST Xformer User's Manual (October 1, 1988).

Both programs are available, ARCed, on the two ST Xformer support BBSs. If you are not yet a user of these boards, the numbers are listed below: ST Xformer supports boards (300/1200/2400 baud, 24 hrs):

Golden Gate BBS, Gatesville, Texas (817)-865-6352
L.U.ST BBS, London, Ontario, Canada (519)-432-5144

Online services support:

Compuserve - ST XFORMER library in ATARIPRO I am 73657,2714
    Delphi - ST databases in the ST Log SIG   I am DAREKM
    Genie - ST download library 14   I am DAREKM

As always, I can be reached by voice in case you have some problems. My phone number is (519)-747-0386. I will be hard to track down over the next few months, so most likely if you call you will get my answering machine. Leave a message and I'll get back to you within a few days. Remember that the ST Xformer emulator and the Xformer utilities are part of a shareware package, and if you use the software, or build the Xformer cable (which then requires that you use the

software), you are expected to register by sending in the $20 shareware fee. If you wish to buy an assembled and tested Xformer serial cable, add $23 US or $28 Canadian. Postage is included.

The mailing address for registering yourself or buying cables is:

Darek Mihocka
Box 2624, Station B
Kitchener, Ontario N2H 6N2
CANADA

If possible, include a mailing label, but don't send a SASE.

Be on the lookout on February 1, 1989, for a major ST Xformer II announcement. I will upload text files to Compuserve and GEnie on that date with availability information of the new 130XE/320XE emulator. The emulator is faster, supports the extra memory of the 130XE, and provides considerably improved disk support. And, it will now work on the 520ST! Full details, February 1.

Registered users: do NOT send in your disks for updating yet. They will just sit around here until February. Wait until the last week of January, then mail in your Xformer disk and $1 to cover return postage, and sometime in February you will receive the updated Xformer software, including the new versions of the File Xfer Program and the Quick Transfer Utility.

PIRATE ???

I'd like to open up a can of worms again regarding the 8 bit emulator. I'm sure this will stir up discussion, which I feel is necessary so that I know exactly how far I can go with it. I didn't really like having certain people brand me a "pirate" over the 8 bit ROM issue, and over the idea that some people feel that the 8 bit emulator has helped to promote piracy of 8 bit software.

An upcoming version of the emulator will have a new feature, called "save context", which allows the address space of the 130XE to be saved out, so that at some later time it can be reloaded and execution of the 8 bit software continued. For example, rather than installing a virtual disk and then booting it to load some piece of 8 bit software every time you wish to run it, you can boot and run it once, and then save context. From then on, each time you wish to run the software, you simply restore context, which will usually be much quicker. It also allows software that doesn't particularly have a "save" option to be frozen it time, saved to disk, and reloaded later.

I have seen this implemented as the Roll In Roll Out feature on the ST program "Revolver", and is also implemented in one of the C64 emulators out on the Amiga. Since these programs have not been attacked by goody goody anti-piracy freaks, I figure it's OK for me to add this feature to the Xformer.

However, the whole concept of saving and restoring context can lead to a few problems. For example, (this applies to all 3 programs), if you have a copy of some copyrighted 8bit or ST or Amiga software, which you then run on the ST (or Amiga), and proceed to save context (or Roll Out) to disk, you have just created a new copy of the software. Or have you? Even super heavily protected software can be saved out since you are saving the image of the computer's RAM. The saved file is not identical to the original software, since relocation, data, and other parts of RAM will alter the code.

Question 1: does this violate any copyright laws, since theoretically, you can create an unlimited number of copies of the software (although it is for your use).

If the answer to the above question is yes, then some serious rethinking as to be made by a few software authors. If the answer is no (which I suspect is the answer)...

Question 2: is the answer no because it is for personal use, or because the code has been changed as it was loaded from disk into RAM? Still assuming the answer to Q1 was no and the answer to Q2 was the latter...

Question 3: Is it then considered piracy to give someone a copy of the context file? Afterall, it is virtually impossible to recreate the original software file or disk from a RAM image. More specifically, with regards to the Xformer, it is also near impossible to recreate the original file.

I suspect the answer to Q3 is yes, but I'd like to hear what other people think. Remember, the context file generated by Xformer would be useless on a real 8 bit Atari, since it could only be used on another ST running Xformer.

I would especially like to hear from some 8 bit authors of commercial software (if any still exist). Here is another scenario. Supposed I'vejust booted up Xformer with SpartaDOS, and then loaded some other 8 bit program, that has no option for returning back to DOS. Also, let's assume this second program is P/D. Would it then be piracy to give the context file to someone else, since they could not enter back into SpartaDOS?

Hope to hear some comments soon!

- Darek

Compuserve: 73657,2714
Delphi, Genie: DAREKM

PCP "TO BE OR NOT TO BE?"

These items were uploaded to STReport system BBS, we print them here for your information.

The "good" news for them:

NOTIFICATION OF PRICE CHANGE for PC PURSUIT

Dear PC Pursuit customer:

The PC Pursuit service is in the midst of dramatic change. Three major programs were instituted in 1988, including:

o   Outdial City Expansion. Nine new cities were added for a total of 34. Additionally, all the cities now support 300, 1200, and 2400 bps service.

o   Increased Capacity. All existing outdial rotaries were significantly expanded to support more callers in each city.

o   New Netline Exchange. The old 4 line PC-based Netline Exchange bulletin board system was recently replaced with a powerful minicomputer. The Netline Exchange is available 24 hours a day at no charge to you and is the place to leave all of your service questions and comments. When PC Pursuit was launched over three years ago, it was viewed as a way for residential consumers and hobbyists to take advantage of off-peak network time at a bargain price. The growth and varied use that followed far exceeded expectations. To satisfy demand and to continue to offer this unique consumer oriented communications service on as wide a basisas possible, we now have to change our prices. The change will provide for continued expansion and other future improvements of PC Pursuit.

Included with this letter is a copy of the new PC Pursuit terms and conditions, as well as the new pricing details. You will notice that for the average residential consumer, the change is entirely in the monthly charge. For those who use PC Pursuit at increasingly professional levels, we offer two tiers of hourly charges which still provide for the best value in the industry. Here is a summary of the price change:

o   Monthly Charge. The new fixed charge is $30 per month.

o   Cap on Free Usage. Your $30 per month will now pay for up to 30 monthly hours of non-prime time usage. Using the full 30 hours in one month amounts to an hourly rate of only $1.00 -- more than 85% less than you would pay with the most popular long distance discount service. Only a small fraction of you will even be affected by this cap.

o   Over Cap Rate. Non- prime time usage, above the 30 hour cap, will be billed at $4.50 per hour, which is about half of the next lowest rate in the market place.

o   Second Tier Rates. There will be a second level of rates for those who use the service at

business levels. When your total monthly usage exceeds 60 hours, both prime time and non-prime time rates will increase for those hours in excess of 60, as follows:

PRIME TIME 2nd tier rate:
$ 14.00 /hr
NON-PRIME 2nd tier rate:
$ 7.50 /hr

These rates are still significantly less expensive than the most popular alternatives.
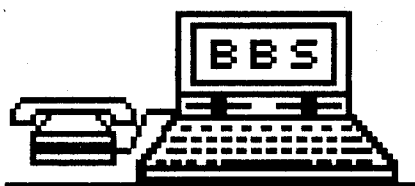
THESE PRICE CHANGES WITH THE NEW TERMS AND CONDITIONS WILL BECOME EFFECTIVE ON FEBRUARY 1, 1989.

In addition to the price change, several other significant events will occur in 1989, including:

o Rotary Consolidation. Today, you must specify both a city and speed to access an outdial rotary. In 1989 new network software will be deployed to combine each city's rotaries into one, resulting in easier use and increased service quality.

o   New Billing System. Scheduled for operation by the second quarter, the new system will automatically collect all charges from your credit card, including flat rate and hourly charges. If your bill exceeds the fixed monthly fee, you will receive a statement prior to incurring charges.

o Additional Payment Methods. In addition to American Express, VISA, and Master Card credit cards, the new billing system will support two new payment methods - The Discover credit card. - Direct checking account debiting via Checkfree.
o   New Outdial Service. In the next few months, we will be launching a new business outdial service. Details will follow. There will be many other Outdial service enhancements in 1989. We look forward to this exciting new year, and the improvements it will bring. The input and support of our many thousands of satisfied customers has helped shape the future of the PC Pursuit Service. For this, we extend our deepest thanks. You have helped make PC Pursuit the best end-user data communications value in the industry.

Sincerely, Peter Naleszkiewicz
Outdial Services Product Manager

The "good" news for users:

Hi! No doubt you have learned of the rate hikes scheduled to go into effect on February 1, 1989 for the use of Telenet's PC Pursuit service.

The following letter was posted on the Portal System in California. The author has requested it be distributed to as many commercial and non-commercial systems as possible.

If it is at all possible please bring the attention of the System Users to this letter.

Well it had to happen!

Just as 1988 was going down in the history books as the year that we in the telecomputing world finally got attention in Washington by getting the FCC to drop a proposal to levy access charges against the networks, one of the networks appears to be preparing to sock it to us by raising its rates by the very amount the FCC declined to approve!

Is there a weird sense of logic here? Not so long ago the networks and the network users were united in a common effort to combat what was perceived as a move by the FCC to place an economic stranglehold on the computer information industry. Independent surveys indicated that a $5.50/hr increase would have caused a 55 per cent decline in growth rates for residential use and a 20 % decline for business use of the online networks.

Over 20,000 letters were received by the FCC and it appeared as though we had achieved a say in the future of networking.

Well the honeymoon is over! The networks were quite willing to solicit and openly encourage the PC user base to respond to the FCC. A press campaign actively publicized the deleterious effect these charges would have on our schools, students, information providers, BBS's, and the whole slew of creative activity on the networks. But now, we see the first network reaching out and attempting to unilaterly collect for themselves the very access charges we succeded in defeating. Where is the truth in the testimony given by Telenet to the panels in Washington? We have to view United Telcom's (parent company of Telenet) actions in their true light.

Telenet is a Value Added Network (VAN), and as such is unregulated, but does benefit from federal restrictions on Regional Bell Operating Companies (RBOCS). These restrictions are intended to allow a healthy competition to exist while the networks evolve and grow without undue pressure from the telecomunications giants (AT&T & RBOCS). However, United Telcom has other problems. It is also the parent company of Sprint which lost $112 million in the 2nd qtr. 1988 and $19 million in the 3rd qtr. Wall street analysts are skeptical that United Telcom will be able to further boost returns and some have predicted that United Telcom may have to sell off Telenet.

It appears that United Telcom feels that the average PC Pursuit user should now help pay for Sprint's losses. The empty rhetoric in the 30-day letter issued by PC Pursuit shows no legitimate business reason for the proposed increases. The phony cost comparison against mythical "competitive" networks does not stand up. The fact that PC PURSUIT has a MINIMUM $25 month usage charge separates it from the other networks and makes hourly cost comparisons invalid. The actual revenue per hour usage figure is only available to PC Pursuit, but given the

statistical fact that not all users use their accounts at the same level it is possible that PC Pursuit is effectively earning comparative profits to the other networks on an hourly rate.

The other contradictory factor in the proposed price increase seems to be putting the cart before the horse in the sense that PC Pursuit is of the opinion that we would be foolish enough to pay more dollars per hour to obtain "access" to an information provider whether it be Portal or a BBS, than the cost of communicating with AND using the facilities of online services such as CIS or GEnie.

It appears that PC Pursuit believes we should pay the same hourly charge for using their communications network alone as we would normally pay for accessing AND using the host computers on CIS, etc.

PC Pursuit wants the same revenues without providing the host computers, the online data bases, the access to other e-mail systems, conferences, online chat, or all the other services provided by these systems.

o   Part of the phoney justification for this is to talk about expanding the penny-ante bulletin board system they presently run. Do they feel we are stupid?

o   Does this mean that PC Pursuit is looking to compete with the BBS systems that give it its reason for existence?

o   What does the owner of the BBS get out of this deal?

o   What will systems like Portal get out of this?

o   What will the telecomputing community get out of this?

o   What will United Telcom get out of this?

o What SHOULD United Telcom get out of this?

It has not been demonstrated that PC Pursuit is in trouble. Therefore it appears that the strategy being followed by United Telcom is to see "what the market will bear".

Perhaps we should let them know?

Let's not whimper and whine....let's ROAR!

Soon to appear here:

A draft of the letter we intend to send to our Congresspersons, the FCC, the president of Telenet, and the president of United Telcom, and our state representatives. If you think this has merit, please post it to whatever other network or BBS you use.

Jas and Sean appended: 01/01/89

**President of Telenet:
Apollo Guida, President
12490 Sunrise Valley Drive
Reston, VA 22096**

PJIC
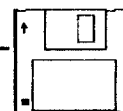
Findex V

Victor T. Albino

Although computers were first built and used for doing difficult and time consuming computations, it did not take long for early designers to realize that information management was also possible. In order to count, search, and sort various forms of data, special kinds of programs called data base managers were created. As time passed, two general types of data base programs evolved. First, there as the plain "Defined Field" program. It required a certain degree of pre-planning because the amount and type of data used had to be fixed before the information could be put in. In general, these programs ere not too difficult to use once the data had been entered. However, this type of manager was not very flexible and did not allow for the sharing of information between different data files. The second type of program called the "Relational" data base manager also required careful preplanning but did allow much more flexible output and data could be shared among different files. This power was available, however, only after one mastered a specialized programming language used for data base control.

FINDEX V is a program that was originally written for the MS-DOS environment which has some of the elements of both the defined field and relational approaches. But perhaps its most endearing quality is simply its ease of use. One can literally just type in one item after another, without regard to field length or type, and create a data base. Afterwards, when a specific piece of information is needed, just typing the word you are looking for will quickly bring all its occurrences to the screen. One can even direct the search more specifically through the use of modifiers which will select only certain combinations of data.

Since FINDEX V was initially written for MS-DOS machines and ported over to the ST, it looks and operates just like other MS-DOS programs. This means there is no GEM, no drop down menus, and no mouse control. When you want to do something, you can not just point and click, you must ype in the necessary command. This is not quite as bad as it may sound, however, because FINDEX V has a list of commands on the screen to help you remember what to type. Unfortunately, all the commands can not be put on display at the same time, so, until you memorize them, you have to type the "MORE" command to see the next section of commands listed. There is also a status box that keeps you updated with the type of information you might normally expect to see in a GEM window. All' of the command lines are well prompted and error trapped which also makes it fairly easy to know what to do next.

FINDEX V is ideally suited to such applications as inventories, customer lists, name and address files, etc. But because of its many special features, FINDEX V can do much more than simply locate a particular record. You can, for example, define different output formats for the same data base. Say that you had a listing of ancient castles in Spain that included a complete history and description of each. Since each record can contain up to sixty lines of data, this could not be difficult to do. Later you might wish to sort the castles on the basis of location or date of construction. You could tailor make the output format to suit your individual needs. Furthermore, when you had a specific format you liked, you could save it for future use in other data bases.

Although it is not necessary to create a definite data format such as that used in defined field type data bases, you can do so if you wish. FINDEX V permits you to construct prompts for each field too. This enables you to sort on individual items and to do calculations too. You can direct the work to be done either by the line number of the record or by the name of the field you are interested in. If you have information from other data base programs, it can be very quickly and easily merged directly into FINDEX V as well.

One especially interesting feature of FINDEX V is the word processor that comes built-in. While it does not have all the bells and whistles of a full-fledged word processor, it certainly includes many of the functions one would usually expect to find in such a program. In fact, you can use it either as a stand alone editor or to put information directly into the FINDEX V database. In addition, this feature works quite well with the FORM command which allows one to create a form letter and then to give instructions to FINDEX V to search its data base and insert the proper information, such as a name and address, automatically into the location specified. FINDEX V also allows you to send or receive information directly from our modem through the serial port. The BAUD command allows for transmission rate settings from 300 to 9600 baud.

As indicated earlier, the format for data entry into FINDEX V may be either completely free-form or structured, depending upon ones needs. The only restriction is that a record cannot be longer than sixty lines, which is about the size of a full type-written page. Also, only 19 lines can be displayed at any one time. Another potentially more serious limitation is that the total size of the file is limited to either 131,072 or 262,144 bytes even though your machine may have much more free memory available. This may be due to the MS-DOS origin of the program where addressable memory in such machines is limited to far less than it is on the Atari ST.

The commands used are either short words or mnemonics such as MERG for "merge" or NNAM for "new name." With a little practice, they are quickly memorized. One thing that should be changed, however, is the method for doing a search. If you type in anything but one of the recognized commands, the program thinks that you want to search for that string and immediately exits to the record screen and starts looking. Instead there should simply be a SEARCH command that requests a string argument. The program should not recognize anything else as valid input, and should not assume that any typo is a search parameter.

Unfortunately, the manual currently being shipped ith the progrm is only a preliminary version. Certainly more elaboration and examples are in order for the beginning data base user. Since one of the primary qualities of this program is its significant friendliness, it should have wide appeal to new users, despite the absence of GEM. However, a tutorial would be most helpful and should include some sample data files on the disk which could illustrate different types of storage and report output. Such additional help would be especially beneficial for using the DEFO or Define Output Format command.

FINDEX V is a unique program ith many fine features. There are disk utilities within the program, keyboard macros to help prevent the unnecessary typing of repetitive entries, data base record sampling commands, and even the ability to change the colors of the program screen. Fortunately, the program is not copy protected so it can easily be transferred to your hard disk for even faster input and output. If you have a need for a data base manager and do not require the sophistication of one of the relational programs, or do not want to invest the time required to learn a new language, you might want to give this program a look.

Since FINDEX V is sold with a money back guarantee, you can evaluate it without risk. You may find that you will save both time and money.

FINDEX V is available for $49.95 from:

E. Arthur Brown Company
3404 Pawnee Drive,
Alexandria, MN 56308.
1-800/322-34405.

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HAPPY..Continue from page 1

Problems? As mentioned earlier, due to the way the ST computers handle some drive voltages during power up and power down operations, disks tend to get "glitched" if not write protected. Most of us have seen this problem, and have blamed it on the brand of disks or each others' drives, etc., but whether using a Discovery Cartridge or not, disks should always be backed up or write protected before booting. If the glitch does not disable the disk, it will usually change data wherever it occurs. This may show up as strange characters in a directory or data base, or may cause a program to fail certain functions while appearing otherwise normal. A CRC error check should prevent a program from loading if any data has been changed within it, but as also mentioned earlier, the CRC error checking does not work on many ST computers. Some people have mentioned an increase in the number of "data damaged" errors received after installing the Discovery Cartridge, and rumours were spreading that the Discovery Cartridges were damaging disks. It is much more likely that the incidence of errors has not increased, but is instead, now being detected by the repaired CRC detection, plus, already damaged disks not previously recognized are now being caught by the Discovery Cartridge's CRC checks, so the rate of current failure looks artificially high until all previously damaged disks are repaired or replaced. In any case, this problem does not occur if the disk is write protected, and if the particular program must be booted without write protection, at least the Discovery Cartridge gives you the means of backing it up first.

The Discovery Cartridge offers many other features, including a floppy to file mode which copies the contents of a protected disk into an unexecutable file form, which can then be "arced" for maximum storage efficiency, and then reconverted to floppy with all protection intact when it becomes necessary to reconstruct a working copy; an optional battery backed up clock; optional cartridge through ports for running other cartridges with your Discovery Cartridge, etc., and is available locally at :

IB Computers
1519 S.W. Marlow
Portland, OR 97225
(503) 297-8425
            or from:

Phantasy Software &
Electronics, Inc.,
P.O. Box 13474,
Portland, OR 97213,
(503) 257-3195

or check with your favorite Atari dealer.

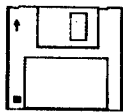## Mega 2 UPGRADE to Mega 4

BRYAN HAL

So you have a Mega 2, but would like 4 megs of memory. In the eyes of Atari, you should sell your Mega 2 and buy a Mega 4.

However, I disagree that you should have to do this, and thus decided to upgrade "the hard way" instead. If you have had no soldering or de-soldering experience this project is not for you.

There are 18 pins on each chip socket, with 16 chips. That's 288 connections, each one has to be de-soldered and then re-soldered perfectly to work well. There are also a few resistors that you must add for a successful upgrade.

And now for some legal mumbo-jumbo to keep me off the hook:

This upgrade WILL violate any and all warranties on this computer product. I do not promise that this upgrade will work, and hold no responsibilities to the equipment or person doing this upgrade.

Ok, enough of that. You will need the following products to do this upgrade:

3-33 ohm 1/4 5% resistors
16-1 Megabyte chips of the same speed as the present ones in your mega 16-18 pin low profile chip sockets also:
  a pair of needle-nose pliers
  a pair of small wire cutters
  a 25-35 watt soldering iron
  a 30-50 watt solder sucker iron -or- solder braid
  a roll of miniature solder
  a small flathead screwdriver
  a medium sized phillips screwdriver
  a can of solder flux remover
  a ohm-meter to check for shorts * And most important....
A GROUND (electrical) & A CEMENT OR TILE FLOOR to work on (So that you do not zap all these expensive parts, or your computer).

Steps in upgrading a Mega 2 to a Mega 4:

1.   Open up plastic case by removing ALL the screws on the bottom of the case first. Then remove the top. Be careful with the clock cable, it is very fragile.

2.   Bend the RF shield tabs so that they are strait, and then remove the shield. Note, there is a tab underneath the disk drive that is hard to see (and get to).

3. Unplug the internal disk drive from power supply and drive bus. To remove the power supply plug, use a small screwdriver to pry the connector clasp up.

4.   Unscrew the power supply, and unplug it from the board and remove.

5. Turn the computer so that the expansion ports face you. Unscrew all of the screw posts. This is required for you to be able to

remove the bottom RF shield.

6.   Now, remove the circuit board from the bottom of the plastic case.

7. Remove the bottom RF shield from the circuit board so that you can access the bottom.

8. Turn over the circuit board so that you can start solder-sucking out the solder where the chip sockets will go. This is the trickiest part of the operation. If you have never done this before, find someone else to do it for you (or at least show you how). There will be 16 blank chip areas, this is where your sockets will go.

9.   Now, check for any shorts that may have developed in solder-sucking. If there are any, correct them before continuing.

10. Spray some solder flux remover on the back of the board (over a sink, or paper towels). This will allow for a better solder contact.

11. Plug the power supply back into the board and plug in a monitor (DO THIS ON A NON CONDUCTIVE SURFACE!). Turn the unit on. You should get the normal GEM screen in 30 seconds or so. You of course will not see any drive icons, as you have no drive attached.

    >> If you do not get this screen, but instead get bombs or wierd patterns on the screen, turn off the computer immediately and check for shorts. Correct these before continuing.

12. Take the power supply back out (I bet you are getting good at this).

13. Now, install the 16, 18-pin chip sockets into the newly solder-sucked holes. Make sure to put the notches in the same direction as marked on the PC board. A trick to keep the sockets in the holes while turning over the board is to bend opposite corner pins outward. You may wish to do one socket at a time, rather than putting them all in and then soldering them all at once. (This is your choice.)

14. Again, put the power supply back in to check for shorts. After checking and correcting problems, remove the power supply.

15. Now you need to install 3, 33 ohm 1/4 watt resistors in the empty resistor sockets located near the chip banks (normally toward the inside of the Mega). The direction does not matter, but they look better if your new resistor's stripes match the present ones. Put them in snug to the board, and then clip off the excess leads.

16. Again, use the solder flux remover to clean up the PC board. This will make your project look more professional, and keep the flux from attracting dust.

17. Now, install all of the 1 megabyte chips, making sure to put the notch in the correct position (Normally pointing to the middle of the Mega). Usually chips come too wide to fit in sockets, use the corner of a desk

to gently bend all the pins on one side at the same time. Be very careful not to bend any pins inserting them into the sockets. If you do, use the needle-nose pliers (after touching them to a ground) to straighten the pins.

18. Install the power supply again and test for shorts. After all tests out ok, re-assemble the computer in exactly the reverse that you took it apart.

19. You now have a mega 4! Enjoy. If you have any problems, leave me a message on GEnie to BDHALL.

VDOS Prodigy Press Release

2 January 89 From: Marathon Computer Press

To: All ATARI ST Retailers, Wholesalers, and Enthusiasts

Subject: Commercial Release of The VDOS Prodigy Software System Effective 2 January, 1989 Marathon Computer Press has released the VDOS Prodigy Operating System Manager for all models of ATARI ST Microcomputers.

Prodigy is an extremely innovative Software Librarian, DOS Manager, and Operating System Executive for the GEM Based ST. It has been likened to IBM counterparts Norton Utilities tm), Norton Commander (tm), and Power Menu(tm) all bundled into one nice integrated package and it's available NOW for the ATARI ST.

Main Features

Define 100 autoexecute programs (More Slots can be defined if you like) Over 50 DOS Utilities with a graphical interface UNIX(tm) utility similarity Virtual to Disk or RAM capability

(Only requires 42K RAM to run programs in Virtual to Disk mode) 520 ST, 1040 ST, and Mega ST compatibility Nearly complete compatibility with all existing ST software

Who Needs Prodigy?

Any business users, programmers, writers, power users, hard disk owners, or any enthusiast that owns a lot of ST software will fall in love with Prodigy. This is the ultimate productivity tool and time saver for those that routinely use many programs each day. Imagine defining a slot in one of prodigy's 7 autoexecute menu systems to contain your program name, its location on one of your floppy or hard disks, and all other pertinent information. Just a couple of easy steps and you'll never have to go farther than Prodigy's point

and click interface to run your programs again. And if it's your 10 most used applications, just press a function key to execute it. This operating environment has to be experienced to be believed. It is compatible with nearly all ST software including the Beckemeyer Micro-RTX(tm) multitasking kernel. It goes beyond the competition, and was the first Virtual to Disk Operating System Shell ever written for the ATARI ST. As a matter of fact the original VDOS is located in the DL libraries of this Billboard System. VDOS was a ShareWare quality, experiment that led to the Full Scale Development of its Prodigal Son, VDOS Prodigy. Feel free to take a look at the original ShareWare version of VDOS, if you haven't already done so. It's just a taste of what is possible with the Powerful Commercial version of the program.

Documentation

No skimpy little stapled documentation packs with this product! We have produced a >170 page professionally prepared manual that is bound in a durable and attractive Vinyl 3 Ring "D" binder. Attractive inserts distinctively adorn the manual and the optional slipcover. The body of the manual contains information on the following:

>Software Ethics
>The Prodigy Concept of Operation
>How to Get Started
>The Program Slots

Reading IBM Disks with your ST
By Wm. Price
Excerpted from Current Notes, 10/87

Surprise! You can read PC disks under TOS. Here's how you do it: Click on the drive icon and a directory will be displayed. Change from icons to text, or view by type, and it all works. Click on a text file and it will bisplay on your screen or print.

Here is an example of the ST-IBM compatibility. I had trouble printing several DOC files from a PC disk magazine with DOS. The paper feed wouldn't advance, and when displayed to the screen, the text wouldn't scroll. A single line window was displayed at the bottom of the screen, and all text was scrolled through this thin window. Next, I tried TOS, but the same single line window was displayed. Then I loaded the DOC files into ST Writer. It produced a perfect display, and all lines had terminating carriage returns. The text printed perfectly. These files were saved as STW files for future use.
You can bring home IBM 5.25" disks from the office and use them with your ST word processing software. This ST facility has been there all the time. Tsk, tsk Atari! The equality ends there ecause DOS is less catholic -- it cannot read TOS disks.
However, you can drag ASCII files on the GEM disk directory to copy them to your DOS formatted disk. Take the disk to work and use it in your PC.

HARD DRIVE MYTHS & MYSTERIES
(C) 1988 David C. Troy, Toad Computers

(This file explains many myths & unravels the mystery of hard drives a bit. It may be distributed freely, and is considered to be public domain, provided it remains unmodified, and credit is given to the original author.)

SO, you want to get a hard drive? Well, I am going to quickly go over a few solid facts about hard drives, so that you may become better acquainted with the technology, and thus pose more probing questions, allowing you to learn more on your own. I do not intend to go over every little detail, as I don't believe it's necessary.

THE FIRST THING we need to recognize is that the DMA plug coming out of the back of our ST is NOT STANDARD. It's heart is in the right place, but in order to hook up a hard drive to our DMA port, we need some more circuitry. That more circuitry is called a Host Adapter. It Converts the ST's NON STANDARD DMA port into something that is standard, called SCSI, or to draw it out, small computer systems interface.

Now that we have a SCSI (pronounced scuzzy) connection, we can attach standard SCSI devices. Standard SCSI devices include: Hard disk drive controllers, hard disk drives with imbedded controllers, tape back-up controllers, and other amazing things.
What Atari & Supra drives use are MFM hard drive controllers. ICD FA*ST drives use drives with imbedded controllers. You can't use a hard drive without a controller. It may be an imbedded controller, but you need a controller. You can't use an IBM hard drive controller. They aren't SCSI — they use the IBM bus (another non-standard interface.) So at this point, just for laughs, let's say that we have an ICD ST Host Adapter with an Adaptec 4000 MFM Hard Drive controller hooked up to it.

Now that we have a hard drive controller, we can hook a hard drive up to it. (See, this does make sense.) Virtually all hard drive controllers connect to ST506/412 flavor hard drives (don't taste Them - they have 1 20 pin card edge connection and one 34 pin card edge connection, that's how you can tell - most HDs are ST506/412 though, so don't worry too much.) You CAN hook up IBM hard drives (not hard cards) to your ST by way of your SCSI controller, but be sure to chuck the IBM controller - remember, it won't work. So at this point, you have an ICD ST Host Adapter, an Adaptec 4000 MFM hard drive controller, and a Seagate ST225 20 Mb hard drive connected to your ST.

What's missing from this picture? Power, and cabling too. Electricity makes it work better. You will need: a power supply with 2 disk drive connections (+5 & +12 Volts). Let's say, just for laugh, that you're using the power supply & case from Toad Computers. You'll have a fan & all the power you need to get this thing going.
As far as cabling goes: You need to connect your ST to your host adapter. The DB1 9 cable

comes with the host adapter. You need to connect your host adapter to your controller. For this, you need a 50 pin array female to female cable, which comes with a ST Host/Controller Kit, but may need to be purchased/manufactured separately based on your needs. You need to connect your controller to your hard drive. For this you need a 34 pin cable, as well as a 20 pin cable. Can be purchased with ST Host/Controller Kit, or with whole drive system kit.
Things you should know: Most SCSI controllers can handle 2 drive mechanisms each, but some take as many as 4. You can run up to 7 controllers on one host adapter board (which means probably 14 hard drives.) Drives with imbedded controllers cannot handle a second slave drive. To expand such a system, a second controller, or second drive with imbedded controller, must be purchased. MFM and RLL are terms which refer to capacities of hard drives. Think of MFM as single density & RLL as double. Some mechanisms are certified for RLL, and others are not. It is possible, and is becoming increasingly discouraged, to format MFM drives in RLL, although with older drives it can be done usually successfully. RLL controllers cost more, as do RLL drives, but they don't cost much more, and they provide about 150% increase in storage over their MFM counterparts. But different people have different needs.
Ask a dealer like TOAD COMPUTERS for advice if you have any questions....

TOAD COMPUTERS:
US Mail: P.O. Box 1315,
Severna Park, MD 21146
Voice Phone: (301) 544-6943
(My name's Dave)

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PRACTICAL SOLUTIONS UPDATE

VideoKey has been on the market long enough to pay off some of the expensive manufacturing setup costs. Thus we are happy to announce a price reduction!

VideoKey debuted for $119.95 last year. Effective immediately, the price has been reduced to $99.95, making it more affordable than ever. There are some ads out with the old price since advertising has to be done so far in advance, but we and our dealers are honoring the new pricing. For those of you not familiar with the VideoKey, a description follows:

The VideoKey converts the RGB output of the ST into color composite video. We have put a lot of effort into making the colors brillant and true, the picture excellent in low resolution. You now have the ability to record the fantastic graphics of the ST. Games take a new dimension when watched on your television or big screen TV!

The VideoKey has several nice features as well:

1. The exclusive Colorlock(tm) circuitry locks the color burst to the ST's system timing with no modification needed to the ST, so that there is no color flickering or crawl on sharp vertical edges.

2. The Auto power circuit detects when the ST is on, and in color mode, and powers up the VideoKey as needed. No power supply required!

3. A 13 pin din socket is supplied (just like the monitor port on the ST) so that a RGB monitor can be connected to the VideoKey at the same time. Perfect for doing all of your work on the RGB monitor, and viewing the composite monitor or TV for final product! This causes no signal loss to the RGB monitor. In addition, VideoKey is compatible with Monitor Master, our monitor switchbox. You can still switch between your monitors with ease.

VideoKey is compatible with all low resolution software, and comes with a limited 90 day warranty. Call Practical Solutions, or write for further details (or better yet, order!):

Practical Solutions
1930 E. Grant Rd.
Tucson Az, 85719
(602) 884-9612

Mark Sloatman 74206,356

Avant-Garde systems announces upgrade policy for pc-ditto owners

JACKSONVILLE, Florida, January 1, 1989 -- Due to popular request, AvantGarde Systems now announces its upgrade policy for owners of our highly successful IBM PC(tm) emulator, pc-ditto.

Later this quarter, Avant-Garde will announce its next product, pc-ditto II -- a hardware-based PC emulator which runs at the 4.77MHz speed of the IBM PC XT(tm). To thank those consumers who have supported us, registered owners of pc-ditto will receive a discount coupon worth 50 percent towards the purchase of pc-ditto II.

To receive the coupon, pc-ditto owners must register their product with Avant-Garde by returning their product registration card (included with each pc-ditto package). Also, owners of pc-ditto Version 2.0 should register now to receive their next update to pc-ditto, Version 3.01, free.
The discount coupons will be mailed just prior to the announcement of pc-ditto II and will be good for six months following the date of announcement.

FEBRUARY, 1989

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Love			1	2	3	4
5	6 GENERAL MEETING	7	8	9 EASTSIDE ST BEGINNERS Call Teri for info afternoons or eves. 771-7337	10	11
12	13 MIDI SIG Call Dave Holliday for info 642-4717	14 8-BIT EXPLORERS SIG Call Dave Moore for info 297-3702	15	16 ST WESTSIDE SIG Call Bill Pike for info. 646-4471	17	18
19	20	21 PAC BOARD MEETING 7 pm For location,call Bill Pike, 646-4471	22	23	24	25
26	27 MIDI SIG Call Dave Holliday for info 642-4717	28 8-BIT EXPLORERS SIG call Dave Moore for info 297-3702	28 MARCH 6TH IS THE NEXT GENERAL MEETING			