

VOLUME 10, ISSUE 7

JULY, 1988

DALLAS ATARI COMPUTER ENTHUSIASTS

July, 1988

					1	2
3	4 Independence Day	5	6	7	8	9 Main Meeting at Infomart
10	11	12	13	14	15	16
17 8-bit sig	18	19 ST sig	20	21	22	23
24	25	26	27	28	29	30
31						

August, 1988

	1 National Smile Week begins	2	3	4	5	6
7	8	9	10	11	12	13 Main Meeting at Infomart
14	15	16	17	18	19	20
21 8-bit sig	22	23 ST sig	24	25	26	27
28	29	30	31			

Dal-Ace Calendar of Events

July, August, 1988

- July 4 - Independence Day
  - July 9 - Main meeting at Infomart
  - July 17 - 8-Bit Workshop at Jeff Golden's
  - July 19 - ST SIG at Computer Discoveries
  - August 1 - National Smile Week begins (slow month, huh?)
  - August 13 - Main meeting at Infomart
  - August 21 - 8-Bit workshop at Jeff Golden's
  - August 23 - ST SIG at Computer Discoveries
- For more information contact:

8-Bit SIG: Jeff Golden (214)252-3268  
 ST SIG: Morris Stephens at Computer Discoveries(214)484-9104  
 Other: Any board member (number on back page)





## Table of Contents

### Smart REMarks pg. 2

Commentary from the editor

### Turbo BASIC IV pg. 4

More 8-bit programming from Eb Foerster

### Reports from Atlanta pg. 6

Five - count 'em, five - reports from Comdex

### Barnyard Blaster pg. 12

8-Bit review

### Battlezone pg. 13

8-Bit review

### Neo-Desk pg. 14

ST review

### Discovery Cartridge System pg. 16

ST product information

### Dal-Ace Most Wanted List pg. 19

Ask our experts!

## Thanks from the Editor

For the last seven months that I have been your editor, I have gone to the Infomart meetings (most months) and begged for articles from the members. I also got on the BBS and begged there. For the most part, with the notable exception of Eb Foerster and Rene Tucker, both of whom have submitted more than one article this year, and a few members who did give me one article apiece, response was lukewarm, to say the least. I was starting to think no one was listening at all!

But this month you have restored my faith in humanity, or at least in the membership of Dal-Ace! Although most of the material in this issue is not written by members, it was *all* submitted by members! As a matter of fact, I had a heck of a time getting that last one to fit at all.

So, thanks. But don't think that this means I'll lay off of you now. Now that I've seen what you can do, I expect that you'll keep it up. Right? Right!

## Smart REMarks

By Angela Burns

Okay, you probably didn't see me at the June meeting, but I *was* there! I got there at 12:30, just in time to catch up with a few board members on their way out the door! Talk about organized; I really had it together, huh? Only three and a half hours late! Maybe next month, I'll get to the Infomart *before* it's all over.

Our new VP Comm, Terry Borchardt, is getting into the swing of the job nicely; and we hope to avoid some of the recent pitfalls that have arisen in the eternal quest to get the newsletter out. (May was really a killer month. I don't even want to talk about it. Just don't ask!)

I'm seeing more enthusiasm about the club (aside from the fact that hardly anyone ever writes newsletter articles), and I'm glad to see it. We are, after all, the Dallas Atari Computer *Enthusiasts*. Let's not succumb to the summer doldrums just as we're gaining some momentum again.

## July Soapbox

From time to time, I see articles about how you should treat your computer hardware/software dealers. These are usually written by salespersons, programmers, company executives, and the like. They bring out some very good points, such as the following:

- Piracy hurts the consumer, as well as the software company and its employees.
- It's patently unfair to go to your local retailer for advice on your purchases, then make those purchases from a mail order company to save a few dollars.
- If you beat the salesperson down too far on the price of an item, you are losing in good will what you may have gained in dollars.

These are not the only points they have to make, as I'm sure you know, but they illustrate quite well the thrust of most of these articles: *Don't take advantage of the dealers.*

I'm not about to suggest that anyone try to take unfair advantage of a dealer, or pirate software, or anything of the kind. But none of these writers seem to have taken into account a fact of retailing life: the customer is the lifeblood of any company that offers a product or service. If you have no customers, you have no company.

Now, in most cases in the business arena, if you offer a poor product or a sloppy service, *or* lousy customer relations, you soon have no customers, therefore, no business. (And no, I am not suggesting that all business failures can be traced to one of the above causes.) But in





the personal computer industry, that doesn't seem to be entirely the case. Companies release software that they *know* doesn't work properly, often at a stiff price, then charge us a fee to trade it in for software that works a little better, but still not right. Then they charge us another fee to upgrade it to still a better (but possibly still buggy) version. And the amazing thing is that we give it to them! We pay for programs that are "in stock" or "will be in Monday", then wait weeks for the stuff to actually show up on the shelves. I could go on, but you have probably all been through it; you don't want to hear it all again.

So, I thought it was about time that the consumer had a little list of his/her own for the computer software/hardware retailer/manufacturer, et al.

## Dealers:

- Don't tell us you have an item in stock when you don't. If you were honest with us, many of us would be willing to wait for it. Conversely, don't tell us an item is sold out when it *isn't*. (Don't ask me why someone would want to do this; perhaps to make a healthier sale to someone else; I still haven't figured *that* one out!)
- Don't make false claims about your products. If we ask for Hayes compatible, we're going to be upset if you give us semi-compatible and don't tell us about it. Sure, it's a customer's responsibility to know what s/he wants. But are we required to know all the "techie" details of every product? You're the dealer; if you don't know what you're selling, or represent it accurately, why should we come back to you?
- If you sell us a used model (or a demo, or something similar), and it has defects that you don't tell us about, do you honestly expect us to patronize you?
- When you make some sort of "arrangement" with a customer, don't fail to keep your word. We live in a contentious enough world, as it is; I'd hate to think I have to run around with a little pad of contracts to back up every conversation I have.

## Software manufacturers:

- Don't release versions of your product that would better be described as beta test versions. I don't know of anyone who enjoys paying \$50, \$100, and up for a

program to find that it crashes all the time for no reason, or that it doesn't even do what it says on the package.

- When you violate the above tenet of good business sense, don't ask us to pay you another \$50 to get a better version of the same (substandard) program. Product updates that correct defects in the original product should be free or pretty close to it. On the other hand, we recognize your right to charge a reasonable (even hefty, in some cases) fee for a genuine upgrade that provides additional features, rather than correcting mistakes that should have been cleaned up before the first release.

WordPerfect Corp. is a perfect example of what I'm saying here. Although they did release the ST version of Word Perfect before it was really ready, they 1) admitted that they had made a mistake, 2) provided *free* updates and technical support to their customers, and 3) just generally behaved in an honorable fashion about the whole situation. This in the face of the absolutely *meager* profit they can expect to make from a product with such a small user base as the ST (when compared with the other markets they sell to). These people know how to treat their customers, even the small ones.

- Get real with those warranties, will you? If I pay \$150 for a program, I don't want to read a warranty that says any defects in the program are *my* responsibility! If I want a warranty on a *disk*, I can get it for a dollar a disk at Soft Warehouse!

The bottom line is this: *If you do not wish for the customer to take advantage of you, you would be well advised to stop taking the customer for all s/he's worth!* We don't want to take the food out of the mouths of your families. We all understand that you need to make a profit on your product. No one wants you to starve. All we want is what's *fair*. I think it's about time we started getting it.

And what is the consumer supposed to do to achieve fair treatment at the hands of business people who don't care about their customers? Simple. Stand up for yourself. If you aren't treated with respect as a customer after you make it clear that you expect it, just take your business somewhere else. After all, you aren't powerless. You have in your hand the most powerful weapon of all, when it comes to the world of American business: the dollar bill. End of tirade.

I guess that's about it for now. Don't miss our July meeting; it's a great opportunity to see what our disk librarians have up their sleeves (pun couldn't be helped)! See ya!



# TURBO BASIC IV

An 8-bit Tutorial by Eb Foerster

This month we will examine the time functions `TIME` and `TIME$` available with Turbo Basic. The latter function cannot be used on American Ataris except for one limited purpose. We will present a clock program that is better than the function available with `TIME$`, which you can incorporate in your own BASIC programs.

In order to understand the time functions in Turbo BASIC, we must first examine how time is kept in the Atari computer. Atari BASIC does not have any time functions per se. However, the Atari operating system has three memory locations which keep track of time to the nearest 1/60 second. These memory locations are at 18, 19 and 20 and can be monitored or changed with `PEEK` and `POKE` commands respectively. Location 20 is incremented (increased by one) every 1/60 of a second. Each of these locations can hold a number from 0 to 255. When the value in location 20 recycles to zero after reaching 255, location 19 is incremented. Location 18 is likewise incremented when location 19 wraps around. These numbers are similar to an odometer on an automobile. However, instead of each location being a digit from 0 to 9, each memory location contains a number from 0 to 255. Thus, a count of 1 in location 19 is equal to 256/60(4.2667) seconds and each count in location 18 is equal to 256\*256/60 seconds (1092.2667 seconds or 18.20 minutes).

Let's examine the `TIME` function of Turbo BASIC and how it relates to these three memory locations. `TIME` returns a number equal to the total number of 1/60 seconds elapsed since the computer was turned on or since locations 18, 19 and 20 were reset to zero. `TIME` is equivalent to the Atari BASIC statement:

```
TIME=PEEK(18)*65536+PEEK(19)*256+PEEK(20)
```

The value for `TIME` obtained in this manner may actually be quite inaccurate. Take the example when location 18 and 19 contain a value of zero and location 20 contains a value of 255. If location 20 is incremented after BASIC executes `PEEK(19)` but before it executes `PEEK(20)`, then a value of 0 would be returned instead of 256. You could get an error of as much 4.26 seconds. Turbo BASIC actually checks to make sure this does not occur when it executes the `TIME` function. The correct way to simulate the `TIME` function in Atari BASIC is:

```
100 T20=PEEK(20):T19=PEEK(19):T18=PEEK(18)
110 IF PEEK(20)<>T20 AND T20=255 THEN GOTO 100
120 TIME=T18*65536+T19*256+T20
```

`TIME` is a function and cannot be used to set the internal clock. A function returns a value. It cannot be used to execute a command. For example `PEEK(X)` is a function

that returns a value and `POKE X,Y` is a command that changes the value in memory location X.

`TIME$` is a predefined string (it does not need to be dimensioned). Its intended purpose is to read time and set time. This string can be used both as a function and as a command to read time and set time. The string `Time$` has the format "HHMMSS" where the letters H, M and S represent digits for hours, minutes and seconds respectively. `Time$` cannot be used for reading time in American Ataris, because Turbo BASIC was written in Europe where Atari's timer is incremented every 1/50 second instead of every 1/60 second. `TIME$`, however, can be used to reset the internal clock. This command, which is not described in the documentation, is implemented as follows:

```
TIME$="000000"
```

It is important that there is no space between "\$" and "=" or you will get a DIM error message.

I have a solution for the failure of the `Time$` function to work on American Ataris. The program below is a clock program, which you can incorporate into your own Turbo BASIC programs with only slight modifications. This program can display time in either 24 hour or 12 hour format. The output string `T$` incorporates the familiar colon to separate hours, minutes and seconds. The program also corrects for the slight error which results from the internal clock not incrementing at exactly 1/60 second. The values of `TIME` must be multiplied by 0.998722333 to obtain the correct time. For short time periods this is not significant. However if used as a clock in a program running continuously, the clock would gain 1:50 minutes every day. The clock in this program can be used continuously, unlike the function `TIME$` in Turbo BASIC. If `TIME$` worked correctly, the time would be reset to "000000" after 3 days 5 hours and 40 minutes when the internal clock recycles to zero. The clock program below resets the clock at the beginning of each day, thus averting the above problem.

```
100 DIM T$(11)
110 EXEC SETCLOCK
120 CLS :GRAPHICS 18
130 DO
140 EXEC GETTIME
150 POSITION 5,5: ? #6:T$
160 LOOP
1000 PROC SETCLOCK
1010 CLS : ? : ? : ? , " SET CLOCK " : ? : ?
1020 ? , " (USE 24 HOUR CLOCK) "
1030 TRAP 1030: POSITION 2,10: INPUT " HOUR ", HR
1040 IF HR>23 OR HR<0 THEN GOTO 1030
```



```

1050 TRAP 1050:POSITION 2,11:INPUT "MINUTE ",
MIN
1060 IF MIN>59 OR MIN<0 THEN GOTO 1050
1070 TRAP 1070:POSITION 2,12:INPUT " SEC ",SEC
1080 IF SEC>59 OR SEC<0 THEN GOTO 1070
1090 H12=0:?:? "DISPLAY 12 HOUR MODE (Y/N)":
GET A:IF A=ASC("Y") THEN H12=1
1100 TRAP 40000
1110 T=(SEC*60+MIN*3600+HR*216000)*0.998722333
1120 EXEC POKECLOCK
1130 ENDPROC
1140 PROC GETTIME
1150 T$="00:00:00 "
1160 IF TIME>5177376
1170 T=TIME-5177376
1180 EXEC POKECLOCK
1190 ENDIF
1200 T=TIME/59.92334
1210 HR=T DIV 3600:T=T MOD 3600
1220 MIN=T DIV 60
1230 SEC=T MOD 60
1240 IF H12
1250 T$(10)="AM":IF HR>11 THEN T$(10)="PM"
1260 HR=HR MOD 12:IF HR=0 THEN HR=12
1270 IF HR=0 THEN HR=12
1280 ENDIF
1290 T$(1+(HR<10),2)=STR$(HR)
1300 T$(4+(MIN<10),5)=STR$(MIN)
1310 T$(7+(SEC<10),8)=STR$(SEC)
1320 ENDPROC
1330 PROC POKECLOCK
1340 POKE 20,0:POKE 18,T DIV 65536:T=T MOD 65536
1350 POKE 19,T DIV 256
1360 POKE 20,T MOD 256:1370 ENDPROC

```

Three procedures make up most of the clock program. PROC SETCLOCK gets input from the user to set the clock and set flag (H12) which determines whether time is to be displayed using 12 or 24 hour format. PROC POKECLOCK sets the internal clock. The value of T should have the value of time in 1/60 seconds since midnight. Note that location 20 is first set to 0 to ensure that the clock is not updated in the middle of the procedure to avoid the problem described earlier when we discussed reading the clock. PROC GETTIME reads the internal clock and converts it to a printable string in T\$. Line 1150 initializes the string T\$. Lines 1160-1190 reset the clock if time has exceeded 24 hours (TIME = 5177376). Note that if time is not read continuously, the procedure reenters the excess of 24 hours into the internal clock. Line 1200 converts TIME to seconds. Lines 1210-1230 convert seconds to hours, minutes and seconds using the DIV and MOD operators. The equivalent of line 1210 would look like this in Atari Basic:

```
HR=INT(T/3600):T=T-HR*3600
```

Lines 1240-1280 convert 24 hour time to 12 hour mode and add "AM" or "PM" if the H12 flag is set. Lines 130-160 are the main loop of this program where time is displayed. This is the portion of the program you would change and incorporate into the main loop of your program.

### Answer to last month's problem:

To toggle a variable between any two numbers, first set the variable to one of the numbers. From then on, subtract the variable from the sum of the two numbers to be toggled. For example, if you wanted to toggle the variable CHR between 79 and 88:

```

100 CHR=79
120 DO
130 CHR=167-CHR
140 ? CHR$(CHR)
150 LOOP

```

This procedure will also work with negative numbers.

### Problem for next month:

The DPOKE(X) statement will poke a number from 0 to 65535 into two adjacent memory locations placing the least significant half in the location specified by X and the most significant portion in X+1. For example, DPOKE(1536),257 would poke a 1 into both 1536 and 1537. It is equivalent to:

```

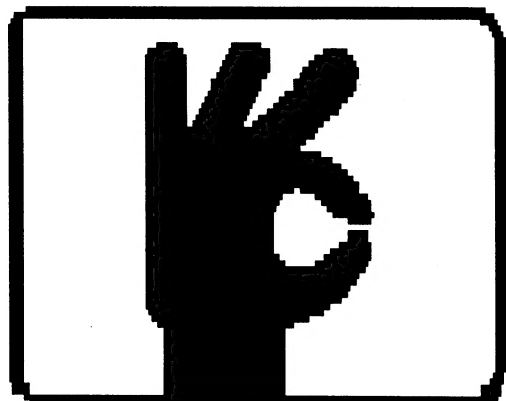
POKE 1536,257 DIV 256
POKE 1537,257 MOD 256

```

In the above program why can't line 1350-1360 be replaced with:

```
1350 DPOKE 19,T
```

So much for this month. Lets see what I can come up with next month.





# REPORT FROM ATLANTA

## Spring Comdex Report Number 1

by Andrew Reese, START Editor

Submitted by John Pellet

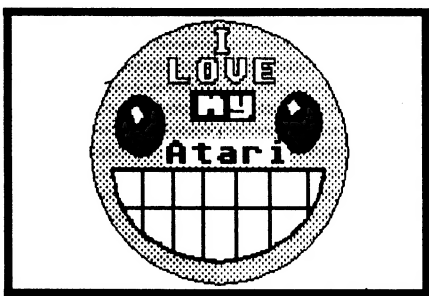
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Atlanta, GA, May 9, 1988 - Atari was at the spring Computer Dealers Exposition (COMDEX) in force this year with a large display area designed around the theme of ST/Mega solutions to business problems. Atari itself did not show any new hardware, but third-party developers presented several exciting add-ons for Atari 68000-based machines and the software houses caught a lot of interest with some highly professional packages.

Although it was not in the booth, word has it that Atari's new 68030-based UNIX machine is progressing nicely, thank you, in the R&D Labs at Atari, Inc.'s headquarters in Sunnyvale, California. Contrary to some earlier press reports, it is not a "stock" Motorola UNIX design, but instead is a custom Atari design with six proprietary chips on the motherboard. The last of the custom chips has been received from the chip house and installed on the new prototype PC board. This baby cooks along at 16 MHz+ and right now the development looks to be on schedule. Watch the pages of START and Antic's ST Resource for more details of this giant step up in the Atari line.

Let's turn our attention to the two add-ons that were shown by third-party developers. The first is the amazing ST Accelerator from Megabyte Computers of Webster, Texas. Despite the unfortunate circumstances of having their car stolen (with their demo computers, hard drive and Accelerator inside!), Megabyte demoed their hard-wire 16 MHz mod for the ST. Yes, that's right: 16 MHz clock rate or twice the standard ST clock rate! Installation of the add-on board is not for the cautious or technically inexperienced, however -- it requires the removal of the 68000 and the addition of a turbo board, a 68000-16 chip and a panel switch for choosing turbo/standard rate from the keyboard. Speed can be switched in the middle of an application and let me tell you that it sure makes the ST F-L-Y! It hasn't been tested on all applications yet and there are certainly times when a mere 8 MHz is plenty fast enough (want to go against the Dark Lord at twice the real-time speed????), but since it is easily switchable, it looks like a winner for any power ST user. Should be available within the month; I put my order in!



And for the power user with math-intensive software needs -- like CAD, graphics, spreadsheets, etc. -- plug Xetec's XCEL hardware floating point math processor into your cartridge port. Improvements in math calculations are dramatic: on the order of 2-30 times! XCEL is complete and awaiting FCC approval, which should take no more than two months. Price? \$199. Compare that to the price of an 80387 chip! One note, however, XCEL does require that the software be recompiled using their custom math libraries, so you won't see any immediate improvement in off-the-shelf software, but more than one leading developer of ST power software told me that they would be more than happy to support the new processor.

The ST desktop publishing market is certainly getting crowded -- and with quality products as good as or better than anything available on those "Brand X" machines. Timeworks showed their nifty Desktop Publisher ST, now available at \$129; SoftLogik's powerful Publishing Partner Professional is getting closer to its announced June release (they really want to kill all the bugs first and it sure looks like they're doing it); and ISD was demoing their marvelous Calamus DTP package, due on the market within the next several months. Which to choose? We'll test them all and give you our recommendations over the next few months in the pages of START and

Antic's ST Resource.

If you liked Barbarian from Psygnosis, get ready for Obliterator. It uses the same interface, but is set in the future. Great graphics and sound and now shipping.

Microprose was featuring Gunship on the ST in their booth and announced that they were shooting for a September release of the ST version of Pirates, their hot new game on those other computers. Microprose promises that they will take full advantage of the ST's capabilities; their past performance with Silent Service, F-16 Strike Eagle and Gunship seems to bear this out.

Antic showed the newest version of Cyber Paint, Version 2.0. This is truly fantastic graphics and animation software from the incredibly creative mind of Jim Kent, who brought you the first version AND Aegis Animator. For stand-alone 2D animation, there's nothing that can touch it on the ST -- and nothing in its price range on any other computer. Period. Also being shown was Antic's first venture into the Amiga world. Now, don't panic, folks, Antic's not leaving you Atarians behind. PHASAR, the popular ST home accounting package has been ported over to the Amiga to a very favorable reception. Antic also showed several other new ST packages including new design disks for CAD-3D and Shadow, a background terminal program that lets you go online and download files in the background while word processing or whatever at the same time.

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# Report from Spring COMDEX, Part II

BY ANDREW REESE, START EDITOR

Submitted by John Pellet

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**ATLANTA, MAY 10, 1988** - The second day in Atlanta featured thunderstorms, traffic jams and record crowds at COMDEX. It also featured Atari and Commodore sharing the dais without bloodshed in a presentation called "Alternate Systems in Niche Markets: Amigas and Ataris."

Neil Harris, now the Director of Product Management for the Computer Division of Atari U.S., and Ken Weber, Vice President of Sales for Commodore, traded jibes and optimistic views of their respective markets, but the bottom line seemed to be that the two companies will now target their marketing at specific "niche" markets. What this means is that you will probably see ad campaigns aimed at specific uses of the two computers. Commodore is aiming at the "Desktop Presentation" market, while Atari is focusing their efforts on such uses as MIDI and Desktop Publishing.

Atari is not shy about declaring or displaying their intentions: the Atari booth at this primarily business-related show is notable for the predominance of monochrome monitors and business-related software. Now, if the DRAM shortage eases a bit, Atari should be well positioned for a strong push in the third and fourth quarters of the year.

Speaking of monitors, one of the most dramatic developments in ST displays was unveiled today when ISD hooked up a 19-inch high resolution **Moniterm** monitor to a Mega 4 and displayed their Calamus DTP package in crisp, bright 1280-by-960 resolution. The display requires a videocard that plugs into the Mega's internal bus port and using a patched TOS on disk to get around the TOS-in-ROM video definitions. Pricing and availability has not been set for this spectacular product, but look for it during the second half of the year. Oh, and it can put out a high-resolution color signal, too...

While it's not an Atari product, I have to mention that RasterOps of Cupertino, California displayed an amazing display for the Mac II. Their **TrueColor 104 board** and **Model 1948 Monitor** combine to display 1024 by 768 pixels with 24 bit planes per pixel. In plain language, this means 786,432 colors on the screen at once from a palette of 16.7 million colors! Sigh! But this graphics power definitely has a price -- the board and monitor are each \$3195 -- and that's on top of the price of a Mac II. (Oh, even the swivel and tilt base for the 19-inch monitor costs...are you ready?...\$295!)

Back to Atari. Atari's **CD-ROM player** was shown in its final production version. The developer's

systems should be shipping within a few weeks and you should be seeing it in your local Atari dealers this summer. Atari waited to sell the CD-ROM until they could get it out the door at their chosen price, in this case \$599. That's half of what Apple's recently-announced CD-ROM will list at and the Atari CD-ROM will play audio CD's as well. With the Atari's support of High Sierra and other major formats, software should become available quickly.

If you've been wondering when you can buy the new **TOS ROMs**, the short answer is that you can't -- for now. This upgrade was an interim re-design and a second upgrade is in the works. Atari has been soliciting suggestions for re-works on the various online services and are now finalizing their plans for redesign. They are focusing their attention right now on the **GEMDOS** portion of the ROMs with an eye toward greatly increasing the speed of screen operations. Look for these ROMs to hit the market in the fall. The price for what Atari announced as a "major improvement" has not been set.

If you're worried about viruses infecting your ST's operating system, you can breathe a small sigh of relief -- Neil Harris announced that Atari U.S. has yet to see any evidence of a virus on the ST. With TOS in ROM, ST's are a bit safer than other brands with significant portions of their operating systems on disk (I won't mention any names, but their initials are MS-DOS, Mac and Amiga). As Harris said, "No one is going to come to your house with an EPROM burner!" (Oh, and by the way, rumor has it that a minor virus even infected the Amiga Developer's conference recently held in Washington, D.C.!)

Robtek Ltd. announced two new programs for the ST, available now. **Dizzy Wizard** is "the game that Marble Madness should have been." While I haven't been able to boot it up at the show, the screen displays on the packaging look great. \$19.95. Aimed at the low-end DTP market, **Home Publisher** has many of the same basic features as higher-priced programs, but at a cost of \$39.95.

Scott, Foresman and Company announced a new book of interest to the ST community. "**Learning C on the Atari ST**" looks like a good tutorial and reference for budding C programmers -- and also for those old flowers among us.

If you have a lot of disks or just need a convenient system to store those you have, Seima International Corp. showed their **Exponent modular drawer and attache-style systems**. Each drawer holds 180 3-1/2-inch disks and lists for \$69.95, while the attache case holds 64 disks in a convenient hard plastic case that lists for \$39.95. Looks like an attractive Italian import.

SBT announced their **Series Six upgrades** to their **Database Accounting Library**. Final debugging of the ST version is about complete, so look for these new products within the next few months -- and look for a review of these powerful packages in the October, 1988 issue of START, on sale September 1st.

One of the most remarkable new products for the

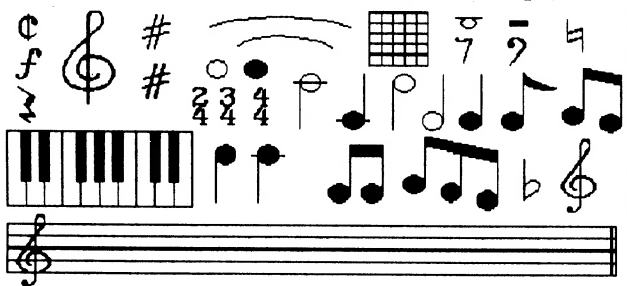


ST was shown by Intersect Software, makers of Interlink. **Revolver** allows the user to "take a picture" of the ST's memory at any time, during any application, and save it to disk in compressed format. Then, when you want to come back to it, you just "roll it in" and you're back where you were -- exactly where you were, whether you were about to be killed by a monster in a game or were checking the fourth quarter's performance of your company in a spreadsheet. It should be available at the end of June for a price of \$49.95.

Michtron will be shipping **Leatherneck** for the ST within a few weeks. This Viet Nam-style combat game is slated to list at \$39.95.

Also due to be released soon is **Paperboy**, a port from the popular arcade game. It's from Mindscape and will list at \$49.95.

More tomorrow from Atlanta. We'll put some **Band-aids** on our blisters and hit the show floor for another round. Who sez that Editors shouldn't get combat pay?



# REPORT FROM ATLANTA, PART III

BY ANDREW REESE, START EDITOR  
Submitted by John Pellet

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ATLANTA, MAY 11, 1988 - Day 3 of the Computer Dealers Exposition (COMDEX) dawned bright and clear and the show floor was jammed with suits and nerds. Expectations are that by the time all of us make our way through the show, our number will have set a new record for a Spring COMDEX of over 60,000! That's a lot of suits and nerds, folks.

More news of interest to Atarians:

\* -- Liz and Kevin Mitchell of Migraph were displaying **EZ-Draw with Supercharger**, their fine DTP/page layout package; expect to see some further refinements of this versatile package in the months to come. Liz had a great suggestion for user groups around the continent: please find out the dates of the major computer shows and try to schedule your own Atari expositions around them. You'll have a much better chance of seeing the majors at your shows if they're not off in Atlanta or Chicago or somewhere at COMDEX, CES, NAMM, etc. Watch the pages of START and Antic for upcoming show dates.

\* -- Neocept was proudly displaying their word processor package called **Word Up**. They're making improvements and enhancements every day and upgrading their purchasers' copies diligently. If you haven't taken a look at this very capable WYSIWYG program, do so before choosing among the wealth of Atari word processors available now. **Word Up** has some excellent features not found in any other package I've seen.

\* -- Michtron has announced a whole series of new products centered around their emerging standard BASIC, **GFA BASIC**. **GFA BASIC Training ReBoot Camp** is their new beginners guide to programming in GFA. It presumes no prior experience in programming and takes you step-by-step through the development of your program; \$19.95, out now. At the other end of the spectrum from "ReBoot" is **The GFA BASIC Programmers Reference Guide, Vol. 1**. This is the first half of the definitive work on GFA BASIC by George W. Miller. It should hit the bookstores in late June with a bang; \$29.95 for 576 pages of all you ever wanted to know about GFA BASIC. **GFA BASIC 3.0** was announced at CeBIT, the Hannover computer show, and will be shipping in mid-July. It adds over 300 new commands to GFA BASIC and a substantial increase in speed: 40 to 60 percent! Finally, the **GFA-BASIC Reference Card** is shipping with a \$4.95 price tag. Michtron also showed **GFA Draft, Juggler II, Master CAD** and **Utilities Plus** -- it looks like Gordon and company have

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been very busy this spring!

\* -- ICD was showing their quiet and convenient line of ST hard drives called the **FA-ST Hard Drive**. Available in sizes to fit almost every need and budget from 20 meg at \$699.95 to 100 meg (dual 50's) at \$1699.95. Or if you already have an IBM-compatible hard drive lying around, they have a kit to transform that paperweight into an asset for your ST. Ask for the **FA-ST Hard Drive Kit**. Or look for the **ST Host Adapter** at \$135.95 if you want to build up your own drive from components available for IBM's, etc. And there are still more options available for hard drives from ICD - -check with your dealer.

\* -- If your data has not been saved, Saint Silicon Incorporated can save it and your sense of humor. Just pick up **The Binary Bible** by Jeffrey Armstrong for a load of laughs; Any Key Press, Santa Cruz, California, \$14.95

\* -- There's lots of new printers and modems here. We'll look at some of them in the next report -- and take another look around the Atari booth. We'll focus on MIDI and make sure that you know what we saw in Atlanta.

## REPORT FROM ATLANTA, PART IV

Closing day of Spring 1988 Comdex

by Andrew Reese **START** Editor

Submitted by John Pellet

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Atlanta, Georgia, May 13, 1988 - The numbers held up well as the Spring, 1988 version of Comdex came to a close. Floor traffic stayed high and the Atlanta airport resembled Manhattan at rush hour. There was general agreement that the hottest item shown at Comdex was a new Dell PS/2 clone and the hottest giveaway was a yellow nylon bag with a logo of "WingZ," a new Mac II integrated spreadsheet package. The WingZ pavilion with their flashy Leonard Nimoy-narrated laser, sound and light show was just across the way from the Atari booth and the lines stayed long for the entire show.

MIDI software publishers were well represented in the Atari booth itself with Hybrid Arts, Dr. T, Passport, Sonus and Midisoft all showing their wares. Announced today by Frank Foster of Hybrid Arts is their new **ADAP II**. To be shown in June at the Consumer Electronics Show (CES), **ADAP II**, which stands for Analog-to-Digital Audio Processor, is the first Random Access Editing System for Digital Audio Tapes (DAT). It will be available this summer and carries a \$3,000 price tag for the hardware and software package. It requires a minimum of 1 meg of RAM in an ST (or a Mega, of course) and a Hard Drive. The hardware consists of the sampler and a coprocessor box. Just like the present **ADAP**, it allows 80 seconds of stereo to be stored in a digital form on a 20 Meg hard drive. A truly professional package and the first allowing DAT editing...and only on the ST!

A.L. Hospers, Jr. of Dr. T's was demonstrating their **Multi-Program Environment (MPE)** system for MIDI. It's a shell for Dr. T's line of MIDI software, but it's more than just a shell, because it allows for interactive data sharing among the programs. Version 1.6 of the **Keyboard Controlled Sequencer (KCS)** is shipping now at \$249 with MPE and new edit features. You can play around with 55,000 notes in a one meg ST and still have a sequencer, MPE and three patch editors in RAM at the same time, but if you want to add in Dr. T's impressive scoring software, better have more than 2 megs of RAM. All in all, a very powerful and impressive package.

Passport's **Master Tracks Pro Version 2.1** was unveiled at Comdex. With enhancements over their already powerful Version 2.0, Passport remains in the hunt for ST MIDI leadership. **Master Tracks** uses a unique interface for editing and allows the musician to lay down up to 64 tracks. Watch for new developments from Passport in the

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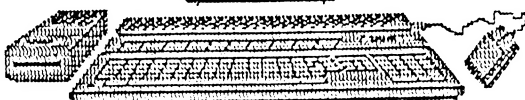
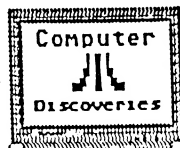
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very near future.

**Superscore**, the 32-track sequencer and scoring program from Sonus, made its first Comdex appearance. This is a powerful program designed to let the musician polish his/her work and then print out a finished score on an Epson-compatible printer. It's priced at \$249 and shipping now.

Midisoft Corp. showed their **Advanced Edition of Midisoft Studio**, due for June release. Midisoft has added new event editing features, programmable tempo changes and support for the emerging standard MIDI file format, while still retaining the clarity for which the Standard Edition has become known. Only \$149.

An editorial aside here: your editor doesn't come from a MIDI background. In fact, many who know me would say that I don't even come from a musical background. But be that as it may, seeing these five fine packages side-by-side impressed me with three things. First, they each use a distinctive approach to the tasks, so that whichever interface you prefer and whatever your needs, one of these packages will fill the bill. Second, I was impressed by the level of activity in this segment of the ST market; the ST has forged into the overall lead in the MIDI industry in no small measure due to the efforts of these and other inventive ST publishers. Finally, I was struck by the incredible power these packages give the musician or even non-musician. I think that even I could knock out something listenable with one of these -- and that's no small accomplishment. Cheers for these guys who have made a name for the ST.

There were a number of new printers at the show. The trend continues to be more power for less money as prices for 24-pin printers drop below the \$500 level. But the most spectacular printer at the show had to be the new **Tektronix 4693D**, a full-color wax printer that produced thick, but gorgeous pictures. Unfortunately, the price was \$8,495...and Tektronix has produced drivers only for the IBM, Mac and Amiga so far. I'm sure that an ST driver could be produced without too much trouble, if the ST market would support it. We'll just have to see what happens as Atari increases its push into the business markets.

Well, that's about it from Atlanta. There were more booths and more products than one person could possibly see in four days, so I'm sure that I missed a few. But my feet will vouch for what I hope was a valiant effort! It was a success as far as lining up some good writers for the pages of **START** and **Antic**, however. Watch for the likes of George Miller (formerly of the now defunct **Compute's ST** magazine), Denis Labreque (one of **Passport's** musical geniuses) and Kenneth George (wizard of the **ST Accelerator**) to grace our pages in the months to come. And oh, did we find some great topics to cover! Like...well, we better just keep things under wraps for now.

## ATARI SEES ITS UNIT NEAR BREAKEVEN

Author Unknown, Submitted by John Pellet

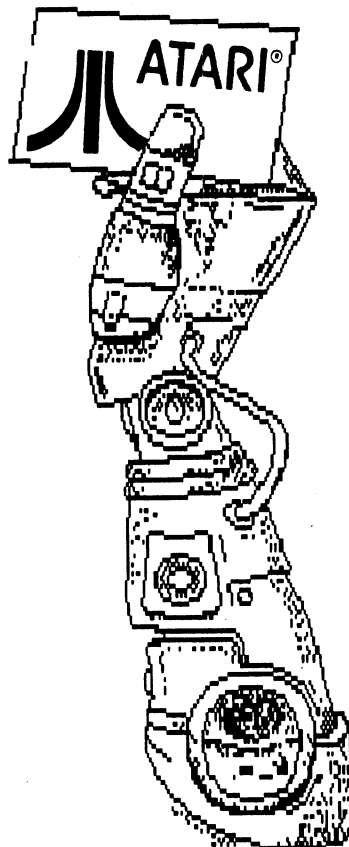
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According to Reuters, though losses from Federated Group continue to hurt earnings, Atari said it expects Federated to just about break even in the second and third quarters and a modest profit in the fourth quarter. Atari also said it is reducing costs and improving product mix, margins and sales.

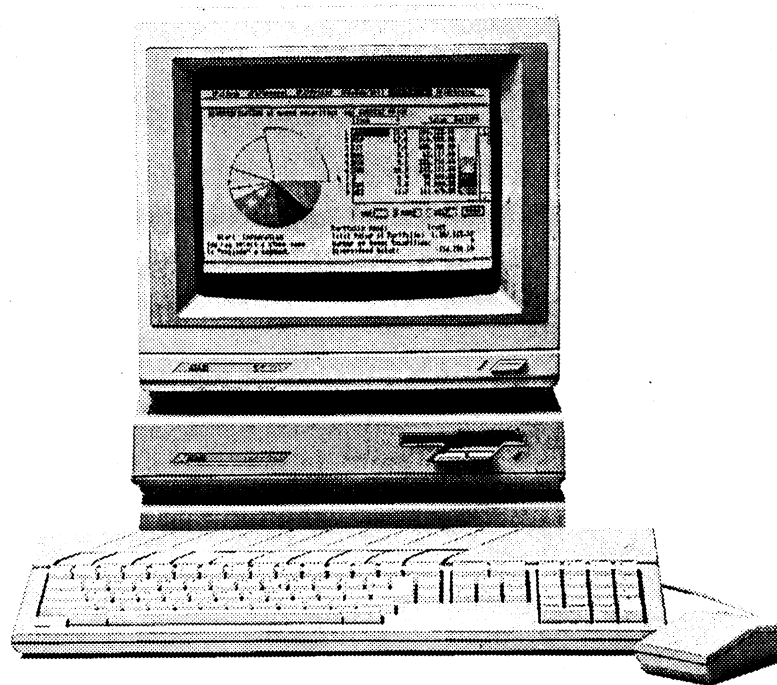
Without Federated, Atari said it would have earned \$15.3 million, or 26 cents per share, on sales of \$97.7 million in 1988. Atari's net income was \$5.67 million, or 10 cents per share, on net sales of \$169.23 million for the first quarter, down from \$15.26 million, or 26 cents, on sales of \$65.13 million a year earlier. Last year's results included a gain of \$5.89 million.

In addition, the company said the Atari computer and video game segment generated "significant" increases in sales volume. The continuing shortage of Dynamic Random Access Memory, however, has had a negative impact on sales, but Atari expects the DRAM shortage and related high cost will begin to ease later this year.





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# BARNYARD BLASTER REVIEW

By Howard H. Wen, Submitted By Jeff Golden

## BARNYARD BLASTER

Atari Corp.  
1196 Borregas Ave.  
Sunnyvale, CA 94086  
(408)745-2000  
Atari XE Game System; \$30.00

In **BARNYARD BLASTER**, Atari's second light gun game for their XE Game System and 8-bit computers, you and your "Gramps" have bought the farm -- literally. As the two of you sit back on your porch for some country relaxation, birds, animals, and other critters begin to infest your entire farm. Determined to have the peace and quiet you've always sought (and already paid for), you strap on your gun and prepare to finish off the vermin, who have taken over your new investment.

**BARNYARD BLASTER** consists of four screens: the barnyard, the cornfield, the barn, and Gramps' bonus screen. In the barnyard, you practice your aiming by shooting cans and bottles off a wooden fence. Out in the cornfield, you blast away watermelons and pumpkins for easy points and then progress to hitting scurrying rabbits and crows flying across the screen. Next, your shooting skills are tested to the limit in the barn. Here, a cavalcade of critters run by--ducks, chickens, birds, owls, rabbits, and mice. As a breather, a bonus screen comes on after every other screen, where Gramps tosses bottles spinning into the air for you to earn extra points and hone your marksmanship. There's also a pesky gopher which may or may not appear after the completion of a screen, challenging you to hit it before it goes back into its hole.

In each of **BARNYARD BLASTER**'s four screens you are given 40 bullets. The more accurately you shoot and the fewer bullets you use, the more points you earn. But the more screens you complete, the more precise your aiming must be in order for you to advance to the next screen. The game ends if your accuracy percentage is too low for you to progress to the following screen or if you happen to finish screen 36. If you complete screen 36, the animals give up and leave you and Gramps in peace.

The scoring for **BARNYARD BLASTER** is somewhat complicated. The longer it takes for you to shoot something, the fewer points you'll earn. The smaller an object is or the faster it moves, the more points you'll receive if you hit it. When the game ends you're ranked anywhere from a "Total Dud" to a "Blaster" depending on the number of screens you've completed.

The graphics in **BARNYARD BLASTER** are impressive. All four screens are illustrated with careful

detail, displaying many bright colors. Animation is smooth and flicker-free. In particular, the ducks waddling by the barn look amusing. Bottles, pumpkins, and watermelons explode nicely when hit, while the animals neatly -- and nonviolently -- disappear in a blink.

The sound effects are also good in **BARNYARD BLASTER**. The bottles actually sound like glass shattering when hit. Realistic-sounding gunshots go off whenever the light gun's trigger is pulled, and the gun makes the sound of a clicking hammer when you've run out of bullets. However, the game's rendition of "Old MacDonald" quickly becomes annoying, even though its played only at the end of each screen. Fortunately, the music can be turned off simply by pressing the [Option] key.

Unlike Atari's **BUG HUNT**, the light gun fires with precise accuracy in **BARNYARD BLASTER**, even on a standard television set. However, this game isn't as fast-paced as the former. Light-gunners used to the lightning speed of **BUG HUNT** might find **BARNYARD BLASTER** much too easy and slow. But those who couldn't ever make a hit in **BUG HUNT** might find this game's slower pace a blessing. **BARNYARD BLASTER** is easy to play, but it's definitely not an easy game to beat. Reaching screen 36 is very difficult and seemingly impossible--so far I haven't been able to do this.

Despite its lack of excitement in gameplay, **BARNYARD BLASTER** is still a good game. Its colorful graphics and sound effects make up for its one fault. If anything, **BARNYARD BLASTER** makes for an excellent diversion on a lazy afternoon.



"Peaceful" country life?





## BATTLEZONE REVIEW

By Howard H. Wen, Submitted by Jeff Golden

BATTLEZONE  
ATARI CORP.  
1196 Borregas Ave.  
Sunnyvale, CA 94086  
(408)745-2000  
Atari XE System  
\$20.00

Regardless of what faults there might be with this game, one thing is for sure: it's a very faithful translation of the arcade classic. Unfortunately, this means that if there were things you didn't like about the arcade BATTLEZONE, you're going to find them here in this cartridge version for the XE system and Atari 8-bit computers.

The scenerio of BATTLEZONE takes place in the near-future when all nations of the earth have agreed to world peace. However, a "power-hungry rabble of military malcontents" don't really like the idea of living in a world without war. So they do what typical "military malcontents" would normally do -- they send out hordes of robot tanks programmed to destroy the world! Naturally, this is where you come in. Your job is to destroy these tanks before they destroy you on a battlefield littered with three-dimensional objects--cubes, pyramids, and rectangles. And you do this driving a slow-moving tank, which only shoots shells one at a time.

BATTLEZONE is played from a first-person perspective, appearing as if you're looking at the battlefield through the tank's window. The top part of the screen displays an information panel. The left side of the panel tells you of the existence of enemy tanks and if your tank's movement is being hindered by an object. The radar scanner is a circle in the middle of the panel, which shows the overhead, entire view of the battlefield -- the wedge-shaped area representing the player's point of view. Enemy tanks and other weapons appear as blinking dots on the radar. Finally, the right side of the information panel displays your score and the number of tanks you have remaining.

The object of BATTLEZONE is simply to locate enemy weapons on the radar scanner, move in on them, zero in with your gunsight, and blast the target to bits as soon as you see the gunsight narrow on it. You do this by moving your tank around the battlefield with your joystick and firing shells with the joystick button. Of course, the enemy tanks will try shooting back at you. Plus, there are three-dimensional shapes scattered throughout the field, which may be used for cover from enemy fire -- but tend to

be more of a nuisance, blocking your way.

Besides the slower-moving, normal tanks, you also have to deal with more aggressive supertanks, which move just as fast as you do. And for bonus points, non-attacking saucers move across every now and then. But the toughest of the enemies are the missiles that suddenly drop from the air and quickly zigzag to collide into your tank.

The screen display of BATTLEZONE simulates the three-dimensional, vector graphics of the original arcade version. At first, it's particularly difficult to identify what objects are. Things look especially confusing when an enemy tank hides behind a see-through obstacle. The animation of the kamikaze missiles is very erratic, thus making it extremely hard to shoot them. A nice visual touch added to BATTLEZONE is that when your tank is hit with an enemy shell, the screen "cracks".

The sound effects in BATTLEZONE are well done and important to game play -- sometimes more so than what you see on the screen. Certain sounds warn whether a normal tank or supertank is approaching you, alert if a missile is about to appear, or indicate that a saucer is moving across the field.

Veteran Atarians, who have played similar tank games, such as DIMENSION X or ENCOUNTER, may find BATTLEZONE sluggish in movement and lacking in features. But the slowness of the player's tank is probably done so on purpose to emulate a real tank. There are five levels to chose from on BATTLEZONE. On level 1, tanks and other enemy weapons are easily blown away. Level 5 is the most challenging -- even for a hard-core videogamer. The game itself doesn't progress from one level to another, but instead, enemy tanks come after you endlessly -- one after the other. The game only ends when you've lost all your tanks.

BATTLEZONE will probably satisfy fans of the arcade version and the many new owners of the XE system most, but Atari 8-bit old-timers might be disappointed. Nevertheless, this one-player game is one of the best, pure shoot-'em-ups to come along for the Atari 8-bits in a long time.¢

### Food for Thought

There is nothing new under the sun, but there are lots of old things we don't know.

Ambrose Bierce



# NeoDesk

An ST Review, Author Unknown

Submitted by Gary Fuquay

Gribnif Software  
P.O. Box 350  
Hadley, MA 01035  
Suggested Retail: \$29.95

Being the monthly author of *Hacking the Sac* has its advantages. First, I have access to two worlds of software -- Atari and Apple. Second, I have a unique perspective of both Atari and Apple software/hardware worlds. One of the disadvantages of this perspective I can mention right off is that sometimes I get spoiled by Apple. Sure, the Atari ST is a work horse, otherwise I wouldn't own one, and there are things done with this system that no other system can do. But it is just that -- a workhorse. Dependable, trustworthy, almost idiot-proof, yes, but it's not a Porsche. I daydream of the Atari with a plush, interface, of intuitive programs and the easy transfer of data from one application to the next. Ah... if only it were true.

And lo, what is this upon the software horizon, light gleaming off its sleek, polished surface? A new desktop for the Atari? Yes! I must learn its features, look under the hood, kick the tires, and most importantly, take it for a test drive. Vvvrrroom... Screech! NeoDesk has arrived.

On the outside, I am pleased to note that the creators from Gribnif Software are a subsidiary of The Computer Bug -- straight from my home state of Massachusetts. Not all software springs from the West Coast, eh? Moving onto the manual, with relief I see that it is simple and complete, with type that is easy to read and well aired out with white space to make it easy on the eyes. Being a desktop publisher and graphic designer, these features have more of an impact on me, but anyone who agrees that manuals are an essential piece of software will be glad to see this. Not only is it well designed and concise, but honest, too. They even include a section with reported problems (not to worry, we'll get to these later). Otherwise, there are only three discrepancies that I could see in the manual, one concerning the ability to change a volume name on a disk (you can't), a typo making what should be one sentence, two sentences (under section "F", the second and third sentences in the paragraph starting with "Opening any standard data file..."), and the information regarding mouse on/off calls in section "G" (discussed later).

Requirement-wise, the cover states that it takes up 145K, yet will still work with a 512K ST, although 1MEG is recommended. Also, crucial to the viability of the program, it runs on monochrome and color systems, original ST or Mega's. Be careful of memory requirements, though, a large program may fight for space on a system

that has a ramdisk and many desk accessories, even with 1MEG.

Installation of the program is unique but uneventful. You need only run the `INSTALL.PRGM` on the original, non-write protected disk, and input your name and address. It initializes the main program and removes itself. From this point on, you can copy it freely for your own use. If you are using a one monitor (mono or color) system, you need only copy `NEODESK.PRGM` and either `NEODESKM.RSC` or `NEODESKC.RSC`, the "M" standing for monochrome, the "C" standing for color, to get started. You need both resource files if you use both types of monitors concurrently.

After placing a copy of these files on your floppy or hard disk, you're ready to roll. Other files that are inclosed include the latest `CONTROL.ACC` and several very useful public domain files/accessories -- `STARTGEM.PRGM`, `MEMFIL14.ACC`, and `COMMAND.TOS`. There is also NeoDesk's icon editor to help customize your new desktop.

When first loaded, NeoDesk will look for a configuration file, and if one is not found, will give you a dialog box telling you so and then it will run using its default values. Then, it will install all active drives (floppy, hard, or RAM). There may be initial confusion between a RAMdisk and a hard disk partition, but once configured, NeoDesk will be able to install itself properly (Note: this is not a defect -- NeoDesk has no easy way to distinguish between the two). The icons are familiar, if slightly redesigned, and the standard icons have two new additions, the ramdisk icon and the printer icon.

The RAMdisk icon represents any RAMdisk you have installed, and the printer icon signifies a printer queue, which is part of the NeoQueue desk accessory covered later. Everything works the same way as on the original desktop in terms of icons -- single/multiple selecting, dragging, etc. -- with some great additions. The mouse can now select multiple icons with its "rubber band" starting from any direction instead of just upper left, lower right. And after selecting any number of icons, NeoDesk gives you the option of choosing additional ones. Probably one of the best features of this program is its ability to drag icons from a disk right onto the desktop and then configure them to appear everytime you run NeoDesk so that your most used programs are always right at hand. The icons on the desktop are not the "real" program icons, though. If you trash them, they won't affect the program in any way. They just represent the path and directory to the program for the ST to follow and they also alleviate frequent user frustration





from going through all those folders to get to the program you want.

Another one of NeoDesk's nifty features is a simple yet

insightful solution to "window shopping." When you're working with multiple windows for disk drives and multiple folders, it is difficult to allow ample space for each window to display its contents, especially since the icons continue off the right, outside any window not the entire width of the screen. NeoDesk solves this problem by automatically wrapping the icons to fit the window horizontally so you only have to scroll up or down to see the contents. Even the Macintosh doesn't have this option (although you can manually command it to wrap after every resizing)!

Windows also now display the status of any selected file icon: its size, date stamp, and read/write status. This is a helpful feature which in no way distracts or hinders the user from working on the desktop. Also, it allows the user to calculate single or multiple file size for use in copying files.

All of NeoDesk's commands can be found in the standard menu bar at the top of the screen. All of these commands can be alternatively accessed through keyboard commands (CONTROL+COMMAND), which is a great help to "power users" who don't always use the mouse. I'll go through a quick rundown of the commands (^=CONTROL, F=Format Key):

About... (^A): Displays version number and shows amount of memory installed (minus ramdisk) and memory available. Saves you from using up one of those few desk accessory positions.

Show Information (^S): Similar in content, but different in format to the original desktop, with the two exceptions being 1.) When a drive is selected, you have the option of creating a volume name, if it doesn't already have one. (Note: the manual says that you are able to change the disk's volume name, but the program will not let you.) 2.) When a file is selected, you have the option of time and date stamping to the current system clock setting.

Close Folder (^)

Close Window (^W)

Create New Folder... (^N)

Format Floppy... (^F): Allows choice between 79 and 82 tracks, single or double sided, and 9 or 10 sectors per track. The speed of formatting is average and certainly much slower than the DCFORMAT accessory or program, but it is nice to see that you now have the option of different formats within the desktop. Maybe a future revision could include the Magic and IBM formats...

Quit NeoDesk (^Q)

Sort Items by Name (F1)

Sort Items by Date (F2)

Sort Items by Size (F3)

Sort Items by Type (F4): Sorts by file type and then how they are stored on disk (folders, executable files,

data files, and batch files).

No Sort (F5): Allows the user to see how the files are physically stored on the floppy (order of processing).

There is no View as Text command, since the information contained within that option appears on the status line in the window and makes it unnecessary. However, you do have the option of viewing the information in a DOS-like fashion by using a CLI (command line interpreter).

Select Template... (^T): Makes a window display only specified files (i.e. only \*.ACC files) which can be modified for each window.

Update Window ([ESC]): A not well-known feature of the original desktop, which can now be accessed through the View menu.

Install Desktop Icon... (^D): Installs a desktop icon without having to highlight an existing one, and allows you to change one icon to another.

Install Application... (^I): Allows you to specify two file extensions for a selected program or batch program icon. Then, when you double click on the file, the program will automatically run (if the program allows, it will also call the file up within the program).

Edit Environment... (^E): For serious users, this option provides for compiling from the desktop. Up to ten environmental strings can be passed to any program executed.

Set Preferences... (^P): Same as the original with the additional ability to pause the display after executing .TOS programs to read the info displayed and to reset NeoDesk without having to quit the program.

Save Desktop... (^X): Saves all configurations currently installed on NeoDesk for the resolution currently selected.

Print Desktop ([ALT][HELP]): What I would like to see different from this (and the original) command would be the option of printing landscape so you can print on a normal width printer.

A quick overview of the file and disk utilities: NeoDesk uses all available memory for file and disk copies for faster processing, it preserves the time/date stamp of the original file, it also allows the disk icon to be either dragged to the trash can, which deletes all the files without reformatting, or to another disk, which offers a selection of options (Copy All Files, Copy All Sectors Without Format, and Copy All Sectors With Format). You can also select multiple files and then add additional items by using either the shift/click method or by using the "rubberband" method. NeoDesk also includes a high-speed file renaming function, which is an optional method than using the Show Information command. Using the Shift key plus the drive designation selects the drive icon, twice executes the directory command. Also, you can do a batch rename by selecting all the files necessary, then Control/Shift/Click on one of those selected to initiate the sequence. The Undo key (or Control-C) halts file and disk copying as well as disk



formatting.

Control/Alternate/Delete and Control/Alternate/Undo executes the warm boot and the cold boot respectively. Another function mimicked by NeoDesk is the selection of icons in a non-selected window. This is accomplished by simply holding down the right mouse button while selecting with the left mouse button. For displaying purposes, you have several options. 1.) Double click on a standard data file and it will be displayed. 2.) Pressing the Alternate key while clicking will display ANY file. 3.) While displaying you can use the standard next page (Space Bar) or next line (Return) commands. 4.) Or, if you toggle into Control-Z mode, you can hit any key to pause and continue. 5.) Lastly, while in either mode, you can use the Escape, Q, or Control-C commands to quit the display and return to the desktop.

The NeoQueue desk accessory allows the user to drag single or multiple (up to ten) files to the printer icon to pass on to the printer. You can then remove or reorder the items by clicking on the printer icon or selecting the desk accessory from the menu to access a special dialog box.

The last feature I would like to discuss is the Icon Editor, which is included free in the purchase of the NeoDesk program. It can only be accessed from within NeoDesk, so you can't modify any of the original desktop icons, but that's what you bought the program for anyway -- to replace the old desktop. Inside the editor you can then tailor the icons to suit your preferences, save them, load them, and even restore the original ones. Plus you can even alter the desktop itself -- the backgrounds and borders.

Now, after all this, what possibly negative things can I say about NeoDesk? Not much other than the items I mentioned earlier, but there are one or two other things: it's not forgiving. In some cases, other programs will cause a mouse-pointer error, leaving screen "garbage" in the wake of the mouse's passing. Some examples are most notably, Publishing Partner and ST Writer (two of my favorites). The manual explains two controls for controlling the mouse on/off commands, but they don't explain when or how to use them. And when I tried it, nothing seemed to happen. Also, CAD 3-D 2.0 and GRAPH.PRG (from Timeworks) overwrites all available RAM, which then removes the copy of NeoDesk from memory (but, I think that's a problem with the aforementioned programs). With Easy-Draw, the OUTPUT or OUTPRINT program does not execute from within Easy-Draw, it just brings you back to the desktop. The easy way around that is to just exit the program and then run the printer program. The writer claims that the company has tested "hundreds" of programs which work without a hitch, so I am led to believe that this is only a minor setback that may be corrected in a later version. The one other problem comes from NeoQueue. The accessory accepts the files and the reorder/remove commands fine, yet seems not to accept formatted documents. It's reminiscent of the Show/Print/Cancel dialog box on the original desktop. There appeared to be some compensation made

for the form-feed, but it was off by about an inch on my printer (Panasonic 1080i), and the printer was in the right top of form position. Also, it printed with no spaces between the words. A larger problem there. You still should print within the application, for now.

That's it. For an original version of a program, NeoDesk is quite impressive. It's fast, slick, and demonstrates that you can upgrade your Volkswagon to a Porsche. And if their Customer Support continues to be as helpful and accommodating as they were to me, we'll be seeing a lot of good things coming from Gribnif Software in the future. Tired of you're old desktop? Now there's an alternative -- NeoDesk.

## THE DCS SYSTEM

Submitted by Gary Fuquay

*(Ed note: The following article is gleaned from two ad flyers uploaded by Happy Computers, the manufacturers of the Discovery Cartridge system FOR THE ST. While Happy is known for producing quality products for the Atari, do bear in mind that the claims made in this article are from an advertisement. Both ads, in their original form, are in the newsletter upload area of the Dal-Ace BBS, file name HAPPY\_ST.ARC. The two files, when unARCD, will run about 16 pages in length. If this product interests you, I highly recommend that you download the file.)*

The Discovery Cartridge System (DCS) is a hardware/software combination from Happy Computers that will enable your ST computer to read, analyze, format, write, and verify virtually any floppy disk format used on any computer. The only limitation is the type and size of disk drive plugged in. This power is focused into DCS's main purpose, disk backup of copy protected disks, but it has many other uses that qualify it as much more than just a powerful copying device.

DCS requires no internal installation. It plugs into the cartridge port and plugs in-line with the disk drive cable. It can be used with any Atari ST or MEGA computer, foreign or domestic. DCS does *not* require an external power supply and can be used with computers that have any combination of internal and external drives.

Happy Computers has designed their own custom chip for maximum versatility in disk reading and writing. This one integrated circuit chip contains "the equivalent of over a hundred other chips in one small package", and makes the DCS possible and affordable.

Most so called "bit copiers" are still very limited by their hardware design, which reduces disk reading accuracy and restricts the type of disks that can be read or written. However, even a simple bit copier can do more than the WD1772 chip in the ST computer. Happy Computers did not repeat the mistakes of other bit copier designs. They designed their own custom disk analyzer and formatter chip to eliminate these limitations. The DCS



SYSTEM design utilizes Happy's custom chip, the speed of the 68000 processor, and the huge RAM memory of the ST computer to greatly surpass the typical bit copier. Happy's DCS allows your ST to precisely read and write disk data with control at the flux transition interval level. To accomplish this, the DCS fully utilizes the ST's maximum data rate of over 10 million bits per second. To provide this control and accuracy, the DCS magnifies each bit interval of disk data by 64 times.

## **DISK SYSTEMS**

**STANDARD ST COMPUTER** The ST computer uses a WD1772 chip for disk reading and writing. It can only read and write in MFM double density at the 250k bits per second rate. It can be used with 3.5 and 5.25 inch floppy disk drives. The 1772 chip uses CRC error detection for data integrity. This system is very limited by the fact that it cannot write some clock/data patterns during disk formatting, and cannot vary the data separation method and bit rate for reading and writing. All "software only" disk backup programs for the ST that do not require special hardware have all of these limitations.

## **ST COMPUTER WITH THE DCS SYSTEM**

The custom designed chip used in the DCS system allows complete flexibility in programming the data separator used for disk reading and analysis. When writing, this custom chip permits complete control over the placement of each data and clock bit. Any bit pattern at any data rate from 0 to 800k bits per second can be read and written. The DCS can vary the bit density for each and every bit being written. Since the DCS software reads disk data by analyzing flux transition intervals, it can not only detect data errors, but also correct some of them. Other inferior disk systems may sometimes incorrectly read data that is normally error free.

With the proper drive mechanism and media, virtually any floppy disk format can be read or written. High density 5.25 inch disks used with IBM AT type computers, and 8 inch double density disks require a data rate of up to 500k bits per second. The high density 5.25 disk also requires 300k bits per second. Macintosh disks placed in a standard 300 rpm Atari ST drive require data rates that vary between 200k and 400k bits per second. The DCS can simulate the effect of changing the drive speed without the need of special circuitry and drive modifications to actually change the speed. By varying the data rate, the DCS can compact the bits written on a track, allowing more sectors and/or data to be written on each track. This has the same effect as slowing the drive speed down, without the need to change the speed at all.

## **MACINTOSH DISK ACCESS**

Happy says that the DCS is a better value for using

Macintosh disks than the Translator One from Data Pacific, since it costs less and does more. However, DCS does not work in the same way as the Translator; instead of enabling you to run Macintosh software directly, you use it to convert Mac disks to Magic Sac format, then run them with the Magic Sac.

## **DISK BACKUP WITH YOUR ST**

With the correct drive mechanism and media, your DCS SYSTEM can backup virtually any floppy disk format. Using the software provided with the DCS, the task of disk backup may range from completely automatic to semiautomatic. Disks that probably cannot be copied (without special media) are those that have physical damage such as holes, laser burns, or scratches as the protection method. In this case, it really depends on how accurately the disk damage is utilized. There are also some very high density floppy disk systems that go beyond the 800k bits per second of the DCS. Floppy disk systems with 5 or 10 megabytes may use data rates more like hard disk systems, or require special stepper motor control circuitry. These high density floppy disks may require a specific custom disk controller chip which may be outside the DCS's intended bandwidth.

## **DISK FILES**

The DCS SYSTEM will allow the user to convert an image of a copy protected floppy disk into a file. The "disk image" contains not only the disk's sector data, but also the disk format and structure information. The "disk image" file will require more disk space than the original sector data. It may be possible to store the image of a single sided disk into a file on a double sided disk. A hard disk drive can be used to store larger files.

Even though the file contains all of the information from the copy protected original disk, the program will not be executable in the file form. The DCS software can be used to recreate the executable form of the disk using the information contained in the file. HAPPY COMPUTERS does not intend for the DCS to be used for the purpose of "breaking" programs. HAPPY COMPUTERS cautions that using a modem to send a file which contains a copyrighted computer program may be illegal.

DCS is the first and only system to offer low cost custom disk formatting, with almost unlimited capability. Their analyze and edit software combined with the DCS hardware helps simplify the task. Custom formatted floppy disks can be created that meet the needs of most other personal computers as well as the Atari.

## **USER CONFIGURABLE OPTIONS**

The DCS comes out of the box "factory configured." The average user will just plug it in and use it. However, the custom chip and circuit board design allows the user to further customize and configure their DCS disk





system. By adding a few components, it is possible for the user to add several features. For example, you can configure your DCS to allow up to 4 floppy drives to be installed.

You can add a feature to SAVE MONEY. Along with the extra drives, you can add a switch to further control drive selection. Let's say you had two 3 1/2" drives as the normal drives A and B, and a 5 1/4" drive as a 3rd drive, connected through the DISCOVERY CARTRIDGE. By toggling one switch you could cause the 5 1/4" drive to become selected as drive A, allowing you to boot your computer from the 5 1/4" drive. Therefore, you could use the cheaper 5 1/4" disks to backup all of your programs. This feature would not work with ST and MEGA series computers that have an internal drive A.

You can add a battery backed up clock. You can allow another cartridge to be plugged in at the same time as the Discovery Cartridge, while resolving address conflicts. You can utilize extra control and sense lines in any manner according to the needs of a special application, including special control of extra signals during the disk writing process. The instruction manual explains how you can custom configure your DCS. These options are not currently available for installation in our factory, and must be added by the user. With a little soldering, a user can configure his DCS as needed. Most users will not need to add any options.

#### COMPARISON TO 8 BIT HAPPY

The DCS for the ST shares the purpose of disk backup with the HAPPY 810 and 1050 ENHANCEMENT for the 8 bit Atari home computers. Both were invented by the same person at Happy Computers. That's where the similarity ends.

Happy Computers has never provided software for format analysis that operated with the 8 bit Enhancement. The Happy Backup program for the 8 bit Enhancement does some analysis, but does not display the information. Happy does sell a Happy Customizer program that permits some limited custom formatting with the 810 HAPPY. Products are available from other companies that allow limited format analysis and custom formatting with Happy Enhanced 810 and 1050 drives. The 8 bit Enhancement doesn't have the hardware to perform format analysis as well as the DCS, since it also uses a floppy disk controller chip which is limited. Happy has used a machine like the DCS to do disk analysis in their laboratory for many years. Superb format analysis that doesn't miss any detail, and maximum control of custom formatting are the underlying keys that make the DCS more powerful than the 8 bit Happy.

The 8 bit HAPPY requires that some of the backups only be run on a Happy Enhanced disk drive. The DCS does NOT have to be present to run the backup. In fact, with a 5 1/4" drive connected to your ST, the DCS can backup many of these 8 bit Atari programs and produce a copy which does not need to run on a special drive. The custom formatting ability of the DCS is vastly improved

over the Atari 8 bit drives, even with their Enhancement.

The 8 bit Happy can emulate a disk with physical damage, such as a laser hole, but requires that the backup be run only on a Happy drive. The DCS does not have a laser hole emulation mode, and provides no method to backup disks that have physical damage.

With our 8 bit Happy Enhancement system, a Happy Enhancement circuit board had to be installed inside each disk drive. The DCS for ST computers plugs in externally. Only one DCS is needed to support all features for every drive connected to that computer.

**THE CUSTOM CHIP** The heart of the DCS is Happy's custom designed HART-D chip (integrated circuit). This is the third custom HART chip Happy has designed. The letters H A R T stand for "HAPPY ATARI ROTATING THING!" Our previous HART chips were ROM-processors for the 810 Enhancement's version 7 upgrade and the 1050 Enhancement's control program.

Although a simple bit copier can be constructed from standard "off the shelf" components, a circuit board with over 100 standard components would be needed to match the performance and capability in the HART-D chip. Such a large circuit board may have more chips and use more electrical power than the ST computer itself. Not very practical.

The same technology that allows a complete computer in a wristwatch which runs for years on a small battery allows Happy to reduce the size and electrical power requirements of most of the circuitry of the DCS to a single chip. Although other companies may offer a bit copier made from off the shelf components, Happy's commitment to quality and value dictates that they must utilize the newest technology to offer their customers the DCS, a product that meets the need now and in the future.

#### ADVANCE ORDER?

The first ad flyer was dated 11/87. At that time, Happy had begun taking advance orders. It was "likely" that they would begin shipping ADVANCE orders during January of 1988.

The advertised introductory price for the complete DISCOVERY CARTRIDGE system is \$249.95 in US funds. They offer an advance order discount price of \$147, a savings of almost \$103.

To get these savings, you must place your order and pay before they ship the first unit. After that, you will have to pay the higher introductory price. You can check to see if this discount price is available by writing or calling their office or by calling their information machine.

*More Ed notes: Ordering information can be found in the text of the file on the Dal-Ace BBS. I simply could not fit anymore of this thing in the newsletter. I hope someone reads these little notes I add, because in this one I want to thank you for actually FILLING UP THE NEWSLETTER! To tell the truth, I never thought it would happen, but I'm glad it did!*





## Most Wanted List

### (Dal-Ace Experts)

- Donny Arnold .....240-4966..... call before 10 p.m.  
8-bit general knowledge.
- Joe Camblin ..... 221-7825..... call from noon to 2 a.m.  
MIDI & desktop publishing
- Larry Dineen ..... (817)668-7296.... call during day.  
ST general knowledge
- James Duke .....404-8569  
BBS, ST programming.
- Eb Fcerster..... 357-7602..... call from 7 to 10 p.m.  
Turbo BASIC, SynFile, SynCalc, Assembly.
- Ron King ..... (817)283-0674.... call from 5 to 10 p.m.  
8-bit hardware.
- John Saunders .....(817)566-0318  
C & Assembler languages.
- Michael Trombley ..... 298-5958  
8-bit general knowledge.
- Ralph Tenny..... 235-4035..... call from 7 to 10 p.m.  
ST general knowledge & hardware.
- Rene Tucker..... 223-6176  
8-bit general knowledge.
- Wally Wilinsky.. 506-0352..... call from 6 to 10p.m.  
MIDI
- John Winer ..... 907-1348  
Systems programming and general knowledge.

## Infomart Directions

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

**GUESTS ARE WELCOME!!!**

### NOTICE

The editor of the Dal-Ace newsletter reserves the right to edit all submissions for spelling, grammar, punctuation, clarity, and for reasons of space limitation.

Under *no* circumstances will s/he alter the meaning or basic content of your work.

## Newsletter Submissions

Submissions are welcome in any format. It is requested of the 8-bit user that s/he upload articles to the club BBS (number on back page).

## Newsletter Advertisements

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

### Commercial Rates

Full page.....\$35.00  
Half page.....\$25.00  
Quarter page..... \$15.00  
Business Card .....\$10.00

Ads must be CAMERA READY. Copy must be received prior to the submission deadline. Mail copy to the address on the back page, or contact the advertising manager, editor, or Vice President of Communications. Copy received after the deadline will be run the following month. For contract advertisers, if no new ad is received prior to the deadline, the most recent ad will be run.

## Disclaimer

The material printed in this newsletter reflects the opinions of the authors. Opposing opinions are solicited. Unless otherwise stated, the material in this newsletter is *NOT* copyrighted and no rights are reserved.

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

## Infomart Meeting Dates

**1988**

Firm dates: July 9, August 13.  
Tentative dates: September 10, October 15,  
November 19, December 17.

## Meeting Information

10:00 - 11:00..... 8-bit SIG  
11:00 - 11:30..... Disk sales  
11:30 - 12:00..... Main meeting  
12:00 - 12:30..... BBS users SIG  
.....New users SIG  
.....Newsletter Exchange  
12:30 - 2:00..... ST SIG



## DAL-ACE OFFICERS

PRESIDENT ..... Donny Arnold ..... 289-6746  
VICE PRES ..... Joe Camblin ..... 221-7825  
VP COMM .... Terry Borchardt ... 296-4699  
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M.A.L. .... Dave Gramm ..... (214)370-7143

*Check for March '89 newsletters!*

## DAL-ACE VOLUNTEERS

\*EDITOR ..... Angela Burns ..... 368-4725  
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BBS ..... Michael Trombley .... 298-5958  
..... Gary Fuquay ..... (817)267-2510  
8-BIT LIBRARY ..... Brenda Arnold ..... 289-6746  
ST LIBRARY ..... John Winer ..... 907-1348

\* *Due to personal circumstances,  
you must call any time from 7 p.m.  
to 7 a.m. - no Fridays*

## DAL-ACE BULLETIN BOARD

Metro (817)429-6134

## 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 membership as well as for the dissemination of information about Atari computer products.

DAL-ACE membership is \$16.00 per year. BBS-ONLY membership is \$10.00 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. A pink address label indicates that your membership expires this month.

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

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