

# BITS BYTES &PIXELS



### MERRY CHRISTMAS LIMA 99/4A USERS GROUP **VOLUME 1 NO 5 DECEMBER 1985**

COMMENTARY...

The other day we were talking to a friend who had recently bought a new computer. In the course of our conversation we asked, "Have you joined a user group?" His response was,"What the heck is a user group? Is it a bunch of dopers who buy their stuff from the same dealer?" We attempted to steer the conversation onto a higher plane by pointing out that computer freaks also have user groups.

This set us to thinking about what a user group(computer,that is) really is. We pointed out that a member has the advantage of sharing ideas with people who are experts, of solving problems with the advantage of the group's collective expertise" and having acess to a library that will save a member megabucks in software costs.

And that is just for starters. A user group is one of the few organizations that expects nothing from a member except the sharing of ideas. There is no annual membership drive just to have numbers; we do, however. need a few good members who can be contributors to our knowledge of computers and of software usage.

So you can see that we are a group of computer freaks who want to share their habits with other addicts.

BRAIN TEASERS...

Try this on your brain! A woman goes into a hardware store to buy something for her house. She asks the salesperson the price and he replies, "The price of one is twelve cents, the price of thirty is twenty four cents. the price of a hundred and forty four is thirty six cents. "What does the woman want to buy?(the answer is in the back pages

TIPS FROM THE (LUB....

It has become a part of the Bits ect to include Jim peterson's latest Tips. They are always filled with useful information.

From the Northwest Ohio User's Group cones this suggestion:

### CLEAN DISK DRIVE

by Arthur Author

100 CALL CLEAR

110 CALL SCREEN(13)

1284.74

120 FOR C=1 TO 12

130 CALL COLOR(C, 16, 13)
140 NEXT C
150 PRINT " CLEANING" 140 NEXT C 150 PRINT " CLEANING" 160 FOR X=1 TO 12

170 PRINT

180 NEXT X

190 PRINT "HOLD FOTH CLEAR TO STOP"

200 DN ERROR 220

210 GOSUB 230 220 GO TO 200

230 RUN "DSK1.B"

240 RETURN





THE RESERVE

# MORE HUMOR!

THIS MONTH'S FUNNY
FROM EDMONTON, ALBERTA'S
TT'-- COMPUTER USERS' BOCIETY

The world's greatest computer was powered up for the first time last week. It is so powerful that four CRAY computers are used just to input data into it! The memory is so large that all of man's accumulated knowledge is stored in just 10 percent of the available space. Of course, speech recognition and speech are just two of it's many features.

After powering up the beast and testing it out, the white jacketed compu-wizards proudly announced that the machine was ready for it's first question. Immediately, great arguments arose over the suitability of the various questions that were posed. Some wanted to present mathematical theorems for validation, while others

wanted to test the latest video game for the ultimate thrill. Finally, in the midst of all the hub-bub, the sanitor quietly slipped up to the main console and, taking the input microphone into his hands, he calmly asked the ULTIMATE QUESTION that has plagued mankind since the dawn of history: "Is there a God", he asked?

There was a moment of stunned silence in the crowd of reporters and scientists. Of course! Why hadn't they thought of that? The computer calmly spun disks and blinked its lights for a few moments and then suddenly the room was plunged into darkness and a deep voice boomed, "There is NOW!"





MINI CAL...

This may keep you from missing pay day in 1986!

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- 6 13 20 27 5 7 14 21 28	7 14 21 22 8 8 1 5 1 2 2 9	T 18:529 BEFT 29:6330NG	9 153 7 FW 3 107 24 /EMI	7 3 10 17 24 31 4 11 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4 11 10 25 # 5 12 19 26	5 12 19 26 5 6 13 20 27	3 10 17 24 31 9	4 11 18 25 H 4 13 27	T	A 1307 FD 86 1 5 2 9 MI	T: 7122 RT 291238	1 8 122 29 F 3 10 17 24 31	2 9 12 3 3 4 11 18 25
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- 6307 8 714 28 9 2916	7 14 218 5 1 2 2 9 H 3 10 7	T-18:229 BET 29:6330NT- 4:18	W 29 123 FW 3 174 FW 5 17	T-31072431 R 41435 R 7 6 30	4 11 10 25 F 5 12 19 26 F 7 14 21	5 127 5 6 1307 5 6 1307 8 16 152	3 1 7 2 4 3 1 2 9 5 7 141	4 185 H 4 197 M 1852	T: 5:29 26 T 7:44 1 29 163	M	T: 7:128 RT 29:1258T 41	-1 0 13229 F 3 101724 31 F 5 12	2 9 1 2 3 3 0 S 4 1 1 1 8 2 5 S 6 1 3
13 20 27 8 7 14 21 28 9	7 14 218 5 M 18 1229 M 310	T-18:229 PT 29:63300 T- 4:2	W 29 123 FW 3 174 FW 5 12	T-310741 R FT 4185 R FT 63	4 11 10 25 # 5 12 19 26 F 7	5 12 9 6 5 6 13 9 7 9 1 6 1 5	3 1 1 7 2 3 1 1 2 6 7 1 4	4 185 M 6 107 M 185	T 5 12 19 26 0T 7 14 1 2 1 6 0 T 2 9 1 6	N	T: 7122 RT 29123ET 411	-1 8 122 29 F 3 107 241 F 5 12 19	2 9 14 23 3 8 4 11 8 25 S 6 13 20

The software for this is in our library. It originally came from Micropendium.

THE ANSWER TO THE BRAIN TEASER!

"SHE WAS BUYING HOUSE NUMBERS"



#### CHARLIE SAYS

The DISK MANAGER 1000 Program

Those of you with disk systems know how slow the DM2 can be when you have alot of disk work to do. particularly if you are copying disks. When copying with one disk drive you may have to switch disks as many as 127 times. Knowing this, many of you use sector copy programs from our library such as MASS COPY or QUICK COPY, or a purchased program such as NIBBLER when copying disks. These programs will copy a full disk with no more than four disk exchanges when using one disk drive. Unfortunately, sector copy programs also have their problems.

Problem 1: If your destination disk is not pre-initialized you will get an error message unless you tell the copy program in advance to initialize the disk. But what if you don't know whether the disk has been initialized or not? Or what if you are using QUICK COPY which doesn't format disks from within the program.

Problem 2: Sector copy programs require that there be no bad sectors on the destination disk. Even one bad sector will cause a sector copy program to fail when the program attempts to write data to the bad destination disk sector. Until now, the only thing you could do under these circumstances was to go back to the DM2 and use it to initialize your destination disk and make your copy. Here's why.

As the DM2 initializes a disk the actual initialization is done as the disk drive initially grinds away before any sector numbers are displayed. Then, as sector numbers are displayed, the DM2 performs a

MEXT COLUMN PLEASE

test on each sector and marks each bad sector as "used" and not to be written to. The DM2 copies disks file by file and starts filling sectors sequentially starting with sector 2 and ending with sector 359 (in SS/SD systems). Anytine a bad sector is encountered it is skiped over, since the disk map in sectors 0 and 1 already has this sector marked as "used".

NOW FOR THE GOOD NEWS: We have DM1000 in our program library which can take care of the above two problems. This is not just another sector copy program (like MASS COPY, QUICK COPY, or NIBBLER) capable of formatting disks and copying entire disks fast (it is both of these). DM1000 is a complete di,sk manager program. It can do anything the DM2 can do and DM1000 loads automatically from extended basic and is 100% assembly language so it is very fast.

Problem 1 Solution: When you "Copy Disk" the DM1000 automatically senses whether the destination disk is initialized and IF NECESSARY will AUTOMATICALLY initialize the destination disk in the same format as the source disk. Copying requires no more than 4 disk exchanges when using one disk drive in SS/SD format.

Problem 2 Solution: If "Copy Disk" generates an error because of bad sectors in the destination disk, you can reinitialize the destination disk, map the bad sectors, and copy file by file all without leaving DM1000. This method of disk backup, although slower than the "Copy Disk" of DM1000, is faster than anything the DM2 can do. File copying with DM1000 is VERY easy and flexable. For example, you can unprotect a file on the source disk, copy it to the destination disk, and put protection back on the original all with two keystrokes.

Unusual features of DM1000 not found in the DM2 or sector copy programs include BOX FORMAT and SWEEP DISK. BOX FORMAT formats an infinate number of disks without reentering the initialization parameters each time. SWEEP DISK erases data in sectors 0 and 1 of a previously intiialized disk so the disk appears to have no used The result is similar to sectors. a newly initialized disk, but SWEEP DISK takes only a fraction of a second to accomplish.

Although loading the DM1000 takes somewhat more time than plugging in the DM2 cartridge, you still save a lot of time with the DM1000 if you have more than one or two disk management functions to perform. This is a recent program, written in May 1985 by Bruce Caron of the Ottawa Users' Group. It comes with extensive on disk documentation written in TI-WRITER format. I highly recommend DN1000. It is probably 1000% better than the DM2 (hence the name DM1000).

#### ADVENTURELAND Adventure Words

Scott Adams adventure #1,
ADVENTURELAND, usually responds to
two word commands, the first word a
verb and the second word a noun.
The computer actually only
recognizes the first three letters
of the word. Thus LEA, LEAVE, and
LEAK are all the same to the
computer in this adventure.

Pelow is a list of all the three letter groups (two letter groups if the word is only two letters in length) that are used in ADVENTURELAND. Capital letters are those the computer responds to. Small case letters are what I believe to be the rest of the word. A question mark (?) means I'm not sure about the rest of the word. If there is nothing after the capital letters this means that the

complete word is only 3 (or sometimes 2) letters in length. This list may help you solve ADVENTURE-LAND.

FIRST WORD	SECOND WORD
(verbs)	(nouns)
AT	<b>ADVertisement</b>
Allack	ANY
BUIld	AROund
BURy	AWAy
CAL1	AX
CATch	AXE
CHOose	BANg ?
CLImb	BEAr BEE-
CROss CUT	BEEs
DAM	BITes BLAdder
DEScribe	BOOoom ?
DRInk	BOTtle
DROp	BRAcelet
EAT	BRICK
ENTer	BUNyon
EXAmine	CHA ?
FEE1	CHIgger
FINd	CONtainer
FLI ?	CROwn
GET	DAM
GIVe	DOO <del>r</del>
HELp	DOWn
HIT	DRAgon
HOLd	EASt
IGNight	EGG
INVentory	FIRestone or
JUMp	FIR <del>e</del>
KICk	FISh
KIL1	FLInt
KISS	FRIII +
LEAve	GAMe GAS
LIGht	
LOCk LOOk	GLAss HAL1 way
MAKe	HELP
OPEn	HOLE
PICk	HONey
POKe	INVentory
POUr	KEYs
QUIL	LAKe
REAch	LAMp
RELease	LAVa
RUB	l FDge
RUN	MED ?

NEXT PAGE PLEASE

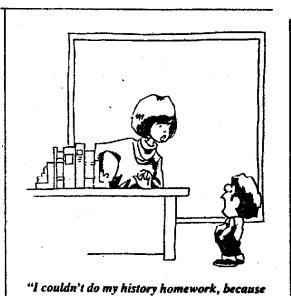
## BITS, BYTES AND FIXELS PAGES

SAVe SCOre SCRape ? SLAy SPEek SPIt STOp. SWIm TAKe THROW TIC ? TOSs TOUCH LINLight WAKe WAVe YEL1

MIRror MUD **NET** NORth OIL OΧ RINa ROCk RUBies RUG SHOre SIGn SLIme SOUth SPIder SWAmp THRough ? TREe UP WATer WEB WESt WINdow WRIting

Charles Good

YOHo



I didn't have the right software."

Mel Monina, our newest menber, has sent this along:

It is amodified program from Micro Pendium (the Jan.'85 issue. He tells us that it has the triple-tech date and time retrofitted in to it; plus the fact that it prints three files across in place of two.

Mel also adds that you can buy the smaller label or the larger label. Most disks will fit the larger label. He adds that to modify your drive to run without triple tech you should drop lines 200,210,220 and put your own date and time in. Example:

30 2\$="12/05/85"

40 q\$= 08:40:25

SEE MEL'S PROGRAM ON DACK PAGE

WANT AD FOR SALE PERIPHIAL EXPANSION BOX \$107 CALL TOM MCCABE AT 419-692 3641





```
DSK - 1 - DISKNAME - MATH/PROG
                                         TIME
                                                      DATE
AVAILABLE = 0
                  USED = 358
                                       08:40:25
                                                    12/04/85
Filename Siz Typ
ADDSUB 43 PR
                      Filename
                                  Siz Typ
30 PR
                                                       Siz Typ
2 DF
                                           Filomano
ADDSUB
                      CALC
                                            CAT
                                                                                 Sample printout
from program below
EUCLIDTRAS
           .35 PR
                      GEOM/CAL
                                   39 PR
                                            GEOM/COORD
                                                         18 PR
IRA/SAVING
            14 PR
                      LOAD
                                   19 PR
                                            MORT/PR/XB
                                                        11 PR
MORT/PRINT 30 PR
TRIANGLE/X Y PR
                      MORTGAGE/X
                                   26 PR
                                            SOLD/GEONT
                                                        29 PR
TRIANGLE/X
                                   53 IV
                      TRIG/CALC
                                                          0
```

```
10 ! MODIFIED BY MEL NOMINA FOR THREE COLUMN PRINTING 5/23/85
20 ! LINE 330 CHANGE THE VALUE OF 2 FOR THE LABLE YOU ARE USING 30 OPEN #22: "CLOCK"
40 INPUT #22:L$, 7$, Q$
50 CLOSE #22
60 CALL CLEAR
70 DISPLAY AT(12,8): "MELS -3- LABLES"
80 DISPLAY AT(10,5): "ARE YOU READY (Y/N)?"
90 DISPLAY AT(16,4): "TODAY'S DAIL - ":/5
100 DISPLAY AT(18,4): "TIME OF DAY - ;9$
110 ACCEPT AT(10,26)SIZE(8)BEEP:R$
 120 Z=0
130 DIM TYPE$(4),B$(3)
140 DIM A(3),B(3),C(3)
150 TYPE$(1)="DF" :: TYPE$(2)="DV" :: TYPE$(3)="IF" :: TYPE$(4)="IV" :: TYPE$(5)
= #PR*
190 OPEN #2: "RS232/2.DA=8.BA=9600" :: PRINT #2:CHR$(27);CHR$(48);CHR$(15);
200 OPEN #22: "CLOCK"
210 INPUT #22:L$,Z$,Q$
210 INPUT #ZZ:L>,L>,L>,L>,E>
220 CLOSE #ZZ
230 CLOSE #ZZ
230 OPEN #1: "DSK1.",INPUT ,RELATIVE,INTERNAL
240 INPUT #1:A$,J,J,K
250 PRINT #2,USING 160:A$ :: PRINT #2,USING 170:K,J-K,Q$,Z$
260 PRINT #2,USING 180: "Filename", "Siz", "Typ", "Filename", "Siz", "Typ", "Filename", "Ci>" "Typ"
"Siz", "Typ"
270 Z=3
280 FOR X=1 TO 3
290 INPUT #1:B#(X),A(X),B(X),C(X)
 300 NEXT X
310 Z=Z+1
 320 IF LEN(B$(1))=0 THEN 370
330 PRINT #2, USINE 180:89(1), B(1), TYPE*(ABS(A(1))), B*(2), B(2), TYPE*(ABS(A(2))), B
$(3), B(3), TYPE*(ABS(A(3)))
340 IF Z<9 THEN 360
350 PRINT #2:" " :: Z=0
360 G0T0 280
370 CLOSE #4
 370 CLOSE #1
380 IF Z=9 THEN 390 :: PRINT #2:" " :: Z=Z+1 :: GOTO 380
390 DISPLAY AT(20,2): Another Copy or Disk ? Y"
400 ACCEPT AT(20,25)SIZE(-1)BEEP: Y$
410 IF Y$<>"Y" THEN 440
410 IF 19(7) 17 INEN 440
420 DISPLAY AT(20,2)SIZE(25): "INSERT DISK INTODRIVE" :: CALL KEY(0,X,Y):: DISPLAY AT(20,2): " :: IF Y=0 THEN 420
430 GOTO 230
440 PRINT #2:CHR#(27); "0" :: CLOSE #2 :: STOP
```

TIPS FROM THE TIGERCUB

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Tigercub Full Collections, just \$12 without getting a status postpaid! Each of these code \$ (no key pressed) and contains either 5 or a of my regular 13 catalog programs, and the remaining dist space has been filled with some of the best public domain 150 CALL KEY(0,K,S):: PRINT programs of the same K,S:: 50TO 188 category. I am NOT milling public demain programs - my

public domain is a FREE ionus! TIGERCUB'S BEST PROGRAMMENG TUTOR
PROGRAMMEN'S UTILITIES BRAIN GAMES **DRAIN TEASERS** MAIN BUSTERS! MANEUVERING SAMES

ACTION GAMES REFLEX AND CONCENTRATION THO-PLAYER GAMES KID'S SAMES HIRE SAMES WIRD GAMES ELEMENTARY MATE N:DDLE/HIGH SCHOOL NATH VICABULARY AND READING MISICAL EDUCATION KALEIDOSCOPES MO DISPLAYS For descriptions of these

send a dollar for ay catalog! The offer made last month is still good until 1 January a ISZ rebate directly to the user group if one of their ambers mentions the user group when ordering from me. So far, I've had only if responses - and I suspect

that 8 or 9 of those dida't

evm know about the offer!

I quofed again. In the I/D ERIOR routine is Tips 628, the ON ERROR STAP will do no good in the place where I sut it. It should be placed after the file is spened in lier 186 sp that it will become the current error trup if the file is opened correctly.

And the CALL KET example in Tips #28 will look better if I was among, and the panual key is being pressed as was keyscan, and that it could have been released and repressed in the interim. This may be, but try this routine and set if you can Disk release and repress a key stalus code 1 (different key pressed) before another stalus code -1.

George Steffen has responded

are greatly discounted from Tips, by publishing in the RELATIVE files; and that their usual price, and the LA There Topics a recentably therefore the only way to compact mutine to translate the internal format string representation of momeric data back into numbers. The following lines will speate the Menu Loader accordingly.

> 108 thy A. Kludge/N. Gordon/ T. Boissem/J. Peterson/S. S telfen/str. Version 88, 11/85 145 8,00,4,65,8,C,85,E,F,FLA 6, 1, 3, K, KI, KK, N, HS, NS, NN, P, P 8,768(),P1,PP8,D8,S,ST,T8(), TT,VT,V(,,W6,1,T8,Y,K2,S2 BID F=1 :: E=ASC(SE68(M6,1,1 )):: M=A50(SE6#(H),2,1)):: 1 F E=# AND N=# THEN GOTO B17 ELSE IF EX128 AND MALE THEN F=-1 :: [=255-E :: #=256-H 015 FOR 1-1 TO 6 :: N=N-(ASC (SE6#{#\$, ]+2, 1}))/188^| :: N EXT [ :: #=M#F#186^(E-64) BIT PRINT RPP:M

878 FOR Pal TO MI-1 :: PRINT #2:P6# (P):TAB(15);V(P,3);TA 0(20); T9(MS(V(P,1))); Th8(25 ): V(P, 2): TAB(31): CHR\$ (87#ABS (V(P,1)(D):: NEIT P :: CLOS E #2

The change in the last line I have received several is my ow, because it was sointed ou; to as that the Catalog output to the describe here. You can all printer did not indicate protected tiles. That last line is a good

example of the power of relational expressions to accometish programming. The variable the pre-scan. And remember, V(P,1) picks up its value from the variable a which is read from the disk directory in line 35f. This is a number from 1 to 5. indicating the type of file, and if the file is R=14. A couple of very write-protected the number knowledgeable programmers is negative. A true have written to tell me that expression has a relational value of -1. If the file is is right, about CALL KEY protected, P(P, 1) (6 is true, status -1. They say that -1 and its value is -1, simply means that the same converted by ABS to +1 and mattiplied by 89 to give pressed during the last ASCII 89, converted by CHRs to "Y". If not protected, V(P,1) is a positive number, V(P, 1) (f is false and his a relational value of 0; 89 times # is still #, and CHR\$(\$) prints mothing.

George also mentioned in a letter that my remarks on the UPDATE mode applied only to VARIABLE files; that RESTORE without a number, to return the record pointer to the beginning of a file, works only with VARIABLE files: that RESTORE with a own programs on these disks to the challenge in the last mamber mores only with

therefore the only way to RESTORE & SEQUENTIAL FIXED file is to close it and reopen it.

On trying this out, I find that you can wite to a FIXE) BEQUENTIAL file and still be able to read the fallwing records - but you can't Simply "real a record. change it in some way, and then write the altered record back out on the file', as the Reference Suid indicates, because you will change the record FOLLOWING the one you read! It is possible to MPDATE a FEXES SEQUENTIAL file without reading it all into an array and writing it back out, but you must read sequentially to the record you want, close the file, reopen the file, read back to the record just before the one you want to update, then mite in the updated recort.

other suggestions regarding the Minu Loader, to many to modify it to your een tastes and needs. Resember to turn off the pre-scan and QN ERROR while you're working on il, then add any new compact variable names or CALLs to that last line MIST be the LAST line of the program! You can resequence it higher, and change the GOTO accordingly, but don't put anything after it!

I did change my version to slash the zero, since this will tarry over into a program that is loaded. If you do this, be sure to add a CAL. CHAR to the list in line 154

198 CAL CLEAR :: F)R S=1 TO 14 :: CALL COLDR(S.7,16):: MEXT S :: CALL COLOR(\$,2.16) 1: CALL CHAR(48, "883A444C546 444RR\*

When you just want to load a program, waiting for it to be read from the disk directory can be a drag. And, you may have trouble recognizing the filename. So, here is the linercub Buicklander which I have placed on all my Collection Disks.

First you will need Catwriter, another program that writes a program. This

one will read the disk 15/ MEXT J at BISPLAY AT 124, directory, ignore everything other than programs, ask you for a complete program name for each filename, and write all that into a NEREL format program called CATHEIGE.

186 !CA'MRITER by Jis Peters

118 OPES 01: "BSK1.", IMPUT ,R ELATIVE INTERNAL I: IMPUT BI 185.A.J.K 11 OPEN 42: 05K1.C ATHERSE', VARIABLE 16 11 LN= 1888 :: F#=1188

126 1=1-1 :: INPUT 0::P6.A.J .B :: If LEM(PS)=0 TIEN 168 :: 1F AIS(A)=5 DR ABS(A)=4 A HD B=254 THEN 130 ELSE I=1-1 30100 RINK "DSK1.1234567896" :: 60T0 129

136 BISPLAY AT(12,1) PRASE AL LzP4;" PROGRAM NAME?" :: ACCEPT (1(14,1)SIZE (25):F8 148 PRIST 02: CHR\$ (INT(FN/256 )) kCHR4 (FN-256+1)(T (FN/256)) k CHR\$ (143) & CHR\$ (288) & DHR\$ (LEN (F8))%F4CHR8(8):: FN=FN+1 156 INSENSECHRS (200) LOWIS (LEN (P\$))&P#ECHR\$(179):: IF K(11 THEN 126

166 IF #5="" THEN 186 178 PRINT #2: CHR#41H1(LN/256 ) } &CHR\$ #\_M-256# [MT (LN/256) ) & CHR\$ (14)) & SE6\$ (N\$, 1, 1EN(N\$) -" to Ind to IF LEN(PO)()4 TH EN 120

100 PRINT #2:CHR\$(INT(LN/256 1)&CHR\$ 4.#-256=1HT(LN/256))& CHR\$ (147) &CHR\$ (288) &CHR\$ (3) & "END" &CIR+(#)

196 PRINT 92: CHR# (255) &CHR# ( 255):: Q.OSE #1 :: CLOSE #2

Next, key in the Quickleader. Do not change the lime mumbers, to mot RESequence, because CATHERGE will be perged into the middle of it and that last line must be the last. Then. enter MERGE DSK1.CATTERGE and then SAVE DSK1.LBAD .

188 CALL CLEAR :: DIN MS(48) :: CALL CHAR(94, "3C429941419 9423C"):: CALL SCREEN(2):: F OR SET=1 TO 14 :: CALL COLOR (SET, 15, 1):: NEXT SET :: BIS PLAY AT(1,4): TIGERCUD QUICK LOADER"

110 1=X+: :: READ MB()):: 1F M#(1)<>'END" THEN 111 115 CALL PEEK (B198. A):: IF A O174 THEN CALL INIT 128 R=3 :: FOR J=1 TO X-1 :: READ X6 :: DISPLAY AT(R.1): STRS(J); AB(4); XS :: F=R+1 ; : IF R(2) THEN 150

138 BISPLAY AT424, 1): CHOICE ? OR # TI CONTINUÉ 9" :: ACC EPT AT (24, 26) VALIBATE (01611) 512E(-2)-N

146 IF N<>0 THEN 155 :: R=3

I) "CHOICE?" 11 ACCEPT AT(24 . 9 VAL IDATE (DIGIT): N

161 IF SEGS (MS (J), LEN (MS (N)) ,11="x" THEN DISPLAY AT (12,1 JEMASE ALL: "Return to BASIC" : 1"Type OLD BS01, "SMS(M)::

171 CALL CHARSEI :: CALL CLE AR :: CALL SCREEN(B):: CALL PEIK(-31952, A, B):: CALL PEEK (A:256+B-65534, 4, B):: C=A=25 4+1-45534 1: A\$="BSK1."4M\$ (N 1:1 CALL LOAD(CLEW(AS)) 181 FOR Jal TO (EN(As):: CAL L 10AD (C+J, ASC (9EG\$ (A4, J, 1)) ):: MEXT 1 :: CALL LOAD(C+J, 91 st 6010 38999

If you don't want to hive your Basic-only programs a filename ending in an asterisk, you can leave out that warning routine, or you can modify it to warn of E/A or MiniMemory programs. If Caturiter has picked up any unimadable program-format files, etc., just delete than from the DAFA lines.

The first issue of the SENIAL TRAVELER has arrived. and it is SUPERS! This is a magazine-on-a-disk, a SS/SD flippy loaded with 788 sectors of some of the finest articles and programs you'll ever see! And the programs are ready to run, you don't have to key anything íı. subscription price, until the end of 1985 it least, is 938 for 6 issues, which computes out to 45 per disk - siny of you are paying you own user group that much for a one-sided disk of public domain!

If the subscribers will only have the guts to refuse to 1:CHR\$(27); E" let their friends copy this for free, this venture will surely survive and contribute greatly to the advincement of the TI. The address is -

GENIAL COMPUTESWARE, 835 Green Valley Brive, Philadelphia PA 1912B.

Bena Burchfield asked if I had a program to print bangers vertically. I had never heard of such a thing, so I wrote one.

100 DISPLAY AT(12.1) ERASE AL L: "TIGERCUB STREMER PRINTER \* !by Jim Peterson 115 DATA 8565.868.9615.9611 ,8100,8181,8188,8681,1888,18 118 CALL CLEAR :: FOR CH≔ISO \$1,1810,1811,1180,1181,1118, TO 128 STEP 4 :: FOR L=1 TO

120 RESTORE 110 :: DIN ES116 P\$(1)=CHR1(238)

D? "178 11 PRINT 11 IMPUT "P RINTER DESIGNATION? ":PBF :: DPEN BI:PDS 148 PRINT :: IMPUT "SIZE? (1

-18) "22 to IF 2(1 OR 2)18 T 推 146 158 FOR J=1 TO LEN(T\$):: A=A SC(SE6#(T#,J,1)):: JF A=32 T

HEN GOTO 200 168 CALL CHARPAT(A, MS) 1: FOR #=1 TO 15 STEP 2 :: K\$=\$E6\$ (NO. N. 2):: FOR L=1 TO 2 :: L 

170 MS=85 (B) z: FOR M=1 TD ( :: N=VAL(SESS(H4.M.1)):: NS= 188 !DISK MATCHER by Jim Pet MSERPIS (PS (IL) , Z1:2 MEXT 1 +.5 :: PRINT #1:TAB((81-!#8) /2+.5); H4 :: NEXT B :: 14=\*\* :: NEXT N :: FOR R=1 TO Z/2 +.5 :: PRINT #1: " :: NEIT R 198 NEXT J :: STOP 266 FOR T=1 TO Z#4 :: PRINT #1:"" :: MEKT T :: 6010 194

210 CALL KEY (0, K, S):: IF S=0

THEN 210 ELSE RÉTURN If your printer doesn't have the special characters of the Gemini, substitute B8 instead of 23d in line 12s, to print I's, or whatever else you want. If you do have the special characters, try some others, such as The 239, for this and other graphics printing programs. This routine will print a handy reference chart of thee. LOS IMAGE DIS & BER & BR 0 0 000 0 000 0 001 0

> 53),21):: X=4 120 OPEN \$1: "PID" :: PRIST # 130 PRINT \$1:P6: ASCIL COD ES FOR BEMINI SPECIAL CHARAC

118 PS=RPTS|CHR\$(251)&CHR\$(2

TERS":P\$ 148 FGR J=148 TO 175 :: #=J-

150 PRINT 41,USING 104:K,CHR \$(J) .K+16. CHR\$ (J+16) .K+32. CH R\$ (J+32) . K+48. CHR\$ (J+48) . K+6 4, CHR\$ (J+64), K+84, CHR\$ (J+89) ER MEXT J

168 IF FLAG-1 THEN STOP ELSE FLAG=1 :: PRINT #1: ": ": PS : "TI-MRITER CODES FOR GENIN] SPECIAL CHARACTERS":P\$ :: I =128 :: 60TO 146

Another one that just looks pretty -144 !KALEIDOSPRITES by Jin P eterson

4 :: RANDONIZE :: (\$=\$E6\$(" ##182GC425A667E8199A58BC3DB ):: FOR J=1 TO 16 :: READ BS E7FF\*, INT(16=RND+1102-1.2) (J):: NEXT J :: PS(S)=" " :: 120 BS-BSAIS :: CONTSACS :: MEXT L 1: CALL CHARCCH. RPTS ( 130 IMPUT "TEXT TO BE PRINTE BOLCS,4)):: BS,C6=" :: NETT CH :: Z=2 :: CALL SCREEN(5) 138 CALL MAGNIFY(Z):: K=1 :: FOR J=1 JO 7 :: S=96+4=3 :: R#1647 :: C=1884RID+28 148 IF JOS AND Z=4 THEN T=5 :: 60TD 165 158 T=ENT(15\*RMD+2):: IF T=5

THEN 158 168 CALL SPRITEINK, 3, T.R.C. . K+1,5,1,177-R,C,6K+2,5,1,R,2 41-C, K+3, S, T, 177-R, 241-C) i: K=K+4:: NEXT J

186 MEXT L :: FOR 8=1 TB I/2 118 PIPLAY AT(8,9)ERASE ALL I\*DISK MATCHER": : I TO C capare a backup dist\*; "with a master and list any : file s fount on one but sot" 128 DISPLAY AT(15, 1: on the other.": : : : " any key 138 CALL KEY(8, K, S): IF S=8

THEN 138 146 DISPLAY AT(12, I ERASE AL LE INSERT MASTER - MESS ENT

ER" :: CALL KEY(0, K.S):: 1F S=# THEN 148 150 OPER #1: "DSK1.". INPUT .R ELATIVE, INTERNAL :: INPUT #1

IDIS, A J.K 11 DIN F \$(127) 164 I=(+1 :: IMPUT 11:F1\$(I) A.J.B :: IF LEN(F11(X))()4 THEN I.D ELSE CLOSE 01 170 DISPLAY AT(12.1)ERASE AL L: "INSIRT BACKUP DISK": : "PR ESS ENIER" :: CALL JEY(4,K,5 ) :: IF S=8 THEN 174

189 OPIN \$1: "DSK1.". INPUT . R ELATIVE, INTERNAL :: [NPUT \$1 :D24,A,J,K :: DIN F/4(127) 196 Y=1+1 :: INPUT (1:F25(Y) ,A,J,B:: IF LEN(F2((Y)) <>4 THEN 150 ELSE CLOSE 01

266 D1) F(127):: FOF J=1 TO I :: FOR L=1 TO Y :: 1F F2\$( L)=F14(J) THEM F(L)=1:: 60TO

221 210 NEXT L :: PRINT F18(J); NOT ON BACKUP"

224 NEXT J 238 FOR #=1 TO Y :: [F F(N)= \$ THEN PRINT F28(M);" NOT ON MASTER\*

248 NEXT M :: END A very useful tip from Jim Swedlow, in the Grange County 10% newslette -IMPUT respects any trailing print separator on a preceding PRINT commind. Try

100 PRINT TAB(20)::: IMPUT B

HEMPRY FULL IN LINE 480 Jin Peterson

NEW MOROZONS BOMPUTER USERS GROW

RAM DISK PROJECT DEUELOPMENT TEAM

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with 90 day warranty on parts and labor. 2) as a bare printed circuit board with parts list and instructions (no warranty). 3) as a schematic	4.4	1.5	6.4	READ 15 SECTOR D/V SO FILE
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NOTE