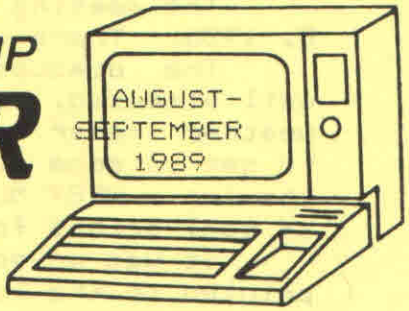
CEDAR VALLEY 99'ER USER GROUP NEWSLETTER



CEDAR RAPIDS/MARION, IOWA

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****NEWSLETTER TOPICS****

1. Future Meeting Dates
2. Next Meeting Notes
3. Minutes from the August Meeting
4. Four-A/Talk (from LA TopIcs)
5. Mechatronics Revisited
6. Tips from the Tigercub #55
7. Plans for "My Disk Holder"
8. Artwork in Hexidecimal
9. Technical Note on Disk Drives

USER GROUPS! Note that the group's mailing address has changed Aug. 1st! Please send your newsletters to us at 377 Cambridge Dr. NE, Cedar Rapids, 52402.

****FUTURE MEETING DATES****

Please mark the following dates on your calendar for future meetings: SEPTEMBER 11, OCTOBER 9, NOVEMBER 13.

********NEXT MEETING********

The regular monthly meeting will be Monday, Sept. 11, at West Music, Cedar Rapids, with open discussion starting at 6:30 PM. Ed hasn't told us what the demonstration will be, so come prepared for a surprise! Bring your favorite program to show!

* MINUTES FROM THE AUGUST MEETING *

The meeting was called to order by President Jerry Canady on August 8, 1988. There were 14 members present.

The discussion period before the official User Group meeting was well attended. Gary Bishop entertained many of us with live action weather radar video from across the street at Rockwell. Others managed to get in some discussion. Come early to the next meeting and join in the fun. WEST MUSIC not only supplied the room but also set out a supply of cool drinks for us. Thanks very much.

It was moved, seconded and passed that the minutes be accepted as printed in the last NEWSLETTER.

The treasurer's report was given by treasurer Bruce Winter. It was moved, seconded and passed that we accept the report as read.

OLD BUSINESS: 1. The UG meeting advertisement on cable channel 20 was to be set up next week. Some confusion about service delayed it until then.

2. Bruce announced that the disk order is in. He also announced that labels and write protect tabs were available. It was moved that labels be included with each disk at a cost of 35 cents per disk. The motion died for lack of a second. It was moved, seconded and passed that the labels be made available to members at the club's cost.

3. Gary announced the schedule for SUMMERFEST 88. He also was busy getting volunteers for our table and selling tickets. The User Group's system will be there. Jim was to get some UG flyers ready. Jerry was to supply some catalogs and the extra NEWSLETTERS to hand out.

NEW BUSINESS: 1. The Chicago TI User GROUP is starting a library exchange program. The no cost program uses CATLIB disk catalog program. For more information, see the MICROpendium/July 1988. It was moved, seconded and passed that the UG participate in the program.

2. Sister Pat reported that she has Funnelweb ver 4.13 which she will be sharing with the UG.

3. On a related subject, Jerry reported that he has sent our donation of $75.00 to the McGovern's in Australia.

4. Gary brought to our attention the letter from Ray Kazmer in the July MICROpendium. Ray describes some of his communication with Sister Pat. He also asked all 99er's to get right in his act and send a little something to her. It was moved, seconded and passed that the UG extend to Sister Pat full 1988-89 membership in the UG at no cost to her.

DISCUSSION: 1. Printers' Apprentice is very complex. Jerry still needs more time before he can demonstrate all its features.

2. The Barry Traver magazine on a disk was discussed. Ed showed what he has received and recommended it to all present. The meeting was closed.

The program was a review of several games recently acquired by Ed Edwards.

Submitted by Bill Paeth, Secretary

(EDITOR'S NOTE:) You will notice that this month's NEWSLETTER covers both August and September. I have decided that since I never send out the NEWSLETTER until one week before the meeting, then the date on the top should represent the sending month, not the month just covered. Therefore, this is the month that I am changing. You will still get 12 issues per year (unless something bad happens to my computer!), but they will be more up-to-date. If you have questions or don't like my decision, let me know! JCG

Look what COLUMNTEXT can do!

FOUR-A/TALK

Random ramblings about things TI.
by Bill Gaskill
August 1989

A HOT SUMMER IN THE 99/4A and 9640 COMMUNITY

WHAT'S HOT:
PPDNU (Page Pro Device Name Utility), COLUMNTEXT, TI-SORT and THE BUGGER.

DISCOVERIES:
-Inscebot Inc. has released the commercial version of TI-SORT. It contains all of the features mentioned in a previous Four-A/Talk column, but now has some of the neatest "windows" you have ever seen for on-screen help. It loads quickly and has performed flawlessly. If you don't have it, you WILL want it. The program sorts almost any kind of file, in ascending or descending order, by multiple fields. It also makes sorting a TI-Base file a "dream". Grab it! For $14.95 plus $2.50 shipping and handling, you can't go wrong.

Inscebot Inc.
P.O. Box 291610
Port Orange, Fl. 32029

-Richard W. Lauhead, a member of the Minneapolis/St. Paul 99ers, has written a neat assembly language coded utility to convert disk/path names on a floppy or ram disk to other paths/names. The program was originally written to convert Ed Johnson's Page Pro 99 so that it would run from a hard drive, but according to the author, the program will work on any application, not just Page Pro. The utility may be ordered from Richard or downloaded from GEnie and probably the other major on-line information services by now. The program is not Fairware, but Richard wouldn't turn down any donations that you care to send. Here's a short explanation of the program from him;

"Page Pro 99 Device Name Utility is a utility program I wrote to convert all the device names on the Page Pro example disk from DSK1 to WDS1.PAGEPRO (the directory on my hard disk where I put all the examples). This allowed me to load all the example pages without getting I/O errors, or having to use the method detailed in the manual for getting around this problem. I also used it on the three program files to convert all the default DSK1 prompts to WDS1.PAGEPRO prompts. The utility is really very simple. It reads each sector of the disk on the drive you specify and searches for the string DSK1. If it finds the string, it replaces it with the device name you specify, and corrects the device/file length byte. The program uses low level disk controller sector read/write routines. It has been tested on a CorComp controller on the Geneve, a Horizon RAM disk on the Geneve and a TI controller on the TI99/4A, but it should work on any controller. It has not been tested on the hard disk controller."

Richard's address is;

Richard W. Lauhead
3985 Clover Ave.
St. Paul, Mn. 55127

-Ron Prewitt, a member of the Tacoma 99ers, has released version 4.1 of Columntext and version 3.1 of MarginText. Both are companion programs designed to produce columnized output of DV/80 files. Both programs are menu driven and almost don't need any documentation to figure out. If you want to spruce up the appearance of your newsletter, this may be the package for you. Ron asks a paltry $5.00 for his efforts. You may write to him at;

Ron Prewitt
6429 South Fife
Tacoma, Wa. 98409

-Mike McCasline has compiled a listing of over 200 TI-99 Bulletin Board Systems around the country. I don't know if Mike is interested in sharing the list or not, but a couple of dollars might help sway him if you are interested. Mike's address is;

Mike McCasline
Box 885
Monrovia, Ca. 91016

NEWS:
-The official "final" version of Advanced Basic for the Geneve was released June 30th. It may be downloaded from GEnie in either one arc'd file (#3330) or as 7 un-arc'd files.

-MDOS version .95H for the Myarc Hard Disk was released on June 6th by Lou Phillips. It may be downloaded from GEnie. It is recommended that you download the un-arc'd version, apparently because of a "possible" problem with the compression of the file when it is archived. Both versions are available for download. The un-arc'd version is file #3299.

-As of July 15th, the word is that the most recent version of MYWORD for the Geneve will be the last one produced. Apparently since Peter Hoddie has moved to the Silicon Valley area of California he is no longer working for Myarc. Paul Charlton, who at last report was working in the Boulder or Fort Collins, Colorado area, is still working for Myarc. More good things to come I hope.

-A rumor is circulating that John Johnson will take over as sysop for the TI RoundTable on GEnie and that Scott Darling, who took over from Mark Sumner, way back when the TI RoundTable was first formed, will move on to "other" things.

-Another rumor I picked up is that Norm Sellers, master of music fairware, is nearing completion on a new assembly language coded utility for the 99/4A. Although I don't have a name for it, the program supposedly will read disk files and tell you virtually anything that there is to know about the files. A real "Innermost Secrets" type application.

-Ernie Pergrem, the Educationan Program Chairman for the Chicago TI Users Group, has undertaken a project to put together a 20-25 page booklet of non-copyrighted articles from other newsletters? It will be patterned after the very successful Hardware Projects Manual that the Chicago Group produced via Nick Iacovelli et al.

-Tom Freeman and Jim Lohmeyer of T and J Software have announced the release of THE BUGGER, an assembly language debugger that sends output to the RS232 port to avoid corrupting the program being debugged. The program lacks print routines at this point apparently, but will have them included as soon as the necessary code for "all" RS232 cards is available. THE BUGGER is available for $18.50 (which includes S/H) from;

T and J Software
515 Alma Real Drive
Pacific Palisades, Cal.
90272

-Barry Traver has uploaded over 15 files of public domain graphics data files (that contain pictures) that can be used with a program called TIPS, by Ron Wolcott, to convert the pictures to TI-Artist Instances. As soon as I locate Ron's address I will let you know. I also haven't been able to find the TIPS program either.

MECHATRONICS REVISITED

by Gary Bishop

Several months ago, I reviewed the Mechatronics XBII+ module. In that review, I made the comment that John Johnson's Menu program didn't detect the presence of the module. On a recent visit to see Bud Mills, he gave me the latest Menu, version 7.38. This version does properly detect the module. Not only does the Menu program detect the XBII+, but it will cycle through all grams available, even those in a Gram Kracker or P-gram card. This allows the capability to have several modules accesable from the menu, even console Basic. A very useful and worthwhile enhancement!

TIPS FROM THE TIGERCUB

#55

Tigercub Software
156 Collingwood Ave.
Columbus OH 43213

I am still offering over 120 original and unique entertainment, educational and utility programs at just $1.00 each, or on collection disks at $5.00 per disk.

The contents of the first 52 issues of this newsletter are available as ready-to-run programs on 5 Tips Disks at $10 each.

And my three Nuts & Bolts Disk, $15 each, each contain over 100 subprograms for you to merge into your own programs to do all kinds of wonderful things.

My catalog is available for $1, deductable from your first order (specify TIGERCUB catalog).

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TI-PD LIBRARY

I have selected public domain programs, by category, to fill over 200 disks, as full as possible if I had enough programs of the category, with all the Basic-only programs converted to XBasic, with an E/A loader provided for assembly programs if possible, instructions added and any obvious bugs corrected, and with an autoloader by full program name on each disk. These are available as a copying service for just $1.50 postpaid in U.S. and Canada. No fairware will be offered without the author's permission. Send SASE for list or $1, refundable for 9-page catalog listing all titles and authors. Be sure to specify TI-PD catalog.
****

The Tigercub has dipped a cautious paw into the cold dark mysterious waters of asembly, while still keeping a firm grip on trusty old Extended Basic. The result is an XBasic program that writes an assembly program!

The following subprogram, when merged into any program which has reidentified characters, and called after the characters have been reidentified, will write a source code which can be assembled into object code, loaded from XBasic and linked to instantly access the character set.

The source code is based on 2FONTS/S by Barry Traver, who gives credit to Mac McCormick, David Migicovsky and Karl Schuneman.

```
19000 SUB CHARSUB(HX$())
19001 DISPLAY AT(12,1)ERASE
ALL:"Source code filename?":
"DSK" :: ACCEPT AT(13,4)SIZE
(12)BEEP:F$ :: OPEN #1:"DSK"
&F$,OUTPUT
19002 DISPLAY AT(15,1):"LINK
ABLE program name?" :: ACCEP
T AT(16,1)SIZE(6):P$
19003 DISPLAY AT(18,1):"Rede
fine characters from  ASCI
I  to ASCII"
19004 ACCEPT AT(19,7)VALIDAT
E(DIGIT)SIZE(3):F
19005 ACCEPT AT(19,21)VALIDA
TE(DIGIT)SIZE(3):T
19006 PRINT #1:TAB(8);"DEF";
TAB(13);P$ :: PRINT #1:"VMBW
  EQU >2024" :: PRINT #1:"
STATUS EQU >837C"
19007 NB=(T-F+1)*8 :: CALL D
EC_HEX(NB,H$):: A=768+F*8 ::
 CALL DEC_HEX(A,A$)
19008 FOR CH=F TO T :: IF CH
<144 THEN CALL CHARPAT(CH,CH
$)ELSE CH$=HX$(CH)
19009 IF FLAG=0 THEN PRINT #
1:"FONT";:: FLAG=1
19010 FOR J=1 TO 13 STEP 4 :
: M$=M$&">"&SEG$(CH$,J,4)&",
" :: NEXT J :: M$=SEG$(M$,1,
23)&"  *"&CHR$(CH)
19011 PRINT #1:TAB(8);"DATA
"&M$ :: M$="" :: NEXT CH
19012 PRINT #1:P$;TAB(8);"LI
  R1,FONT" :: PRINT #1:TAB(
8);"LI  R0,>"&A$ :: PRINT #
1:TAB(8);"LI  R2,>"&H$
19013 PRINT #1:TAB(8);"BLWP
@VMBW":TAB(8);"CLR @STATUS"
:TAB(8);"RT":TAB(8);"END" ::
 CLOSE #1
19014 SUBEND
19015 SUB DEC_HEX(D,H$)
19016 X$="0123456789ABCDEF"
:: A=D+65536*(D>32767)
19017 H$=SEG$(X$,(INT(A/4096
)AND 15)+1,1)&SEG$(X$,(INT(A
/256)AND 15)+1,1)&SEG$(X$,(I
NT(A/16)AND 15)+1,1)&SEG$(X$
,(A AND 15)+1,1):: SUBEND
```

Now to try it out. You probably know that CALL CHARSET will restore reidentified characters below ASCII 96 to normal form, but not those above, so let's write a routine to restore those. Clear the memory with NEW, merge in the above, which you should have SAVED with -

SAVE DSK1.CHARSUB,MERGE

by MERGE DSK1.CHARSUB. Add a line -

100 CALL CHARSUB(HX$()) and RUN. Answer the filename prompt with DSK1.OLDLOW/S, the next prompt with OLDLOW and select ASCII 97 to 127.

When done, insert the Editor/Assembler module and its disk Part A. Select Assembler, Y to load assembler, give the source code DSK1.OLDLOW/S, object code DSK1.OLDLOW/O, just press Enter at next prompt, and R for options. You should get 0000 ERRORS.

Now key in this routine to test your program.

```
100 CALL INIT :: CALL LOAD("
DSK1.OLDLOW/O"):: FOR CH=33
TO 126 :: CALL CHAR(CH,"FF81
8181818181FF"):: PRINT CHR$(
CH);:: NEXT CH
101 CALL KEY(0,K,S):: IF S=0
 THEN 101 ELSE CALL CHARSET
102 CALL KEY(0,K,S):: IF S=0
 THEN 102 ELSE CALL LINK("OL
DLOW")
110 GOTO 110
```

Press any key to restore the upper case characters by CALL CHARSET, any key again to use the CALL LINK.

You are now ready to use the routine to copy all kinds of character sets from the programs in your library. You don't have any such programs? Not to worry. You don't have to reidentify characters one by one with one of those graphics editor programs. You can just manipulate the existing hex codes of the normal characters. I have created nearly 50 different character sets by that method!

The space occupied by a character on the screen is really an 8x8 square of 64 tiny dots. Various dots are turned on (colored) and off (transparent) to create a pattern - just the opposite of light bulbs on a scoreboard.

And those on-and-off dots are really the binary numbers which the computer uses. But fortunately the computer lets us use hexadecimal numbers rather than binary. The following will print out a reference chart of decimal to binary to hexadecimal. You can easily convert it to dump to a printer.

```
10 DISPLAY AT(6,1)ERASE ALL:
"DEC BIN HEX"
100 FOR J=0 TO 15 :: CALL DE
C_BIN(J,B$):: CALL DEC_HEX(J
,H$):: DISPLAY AT(J+8,1):J;T
AB(5);B$;TAB(10);SEG$(H$,4,1
):: NEXT J
21020 SUB DEC_BIN(D@,B$):: D
=D@ :: IF D=0 THEN B$="0000"
 :: SUBEXIT
21021 IF D=1 THEN 21022 :: X
=D/2 :: B@$=STR$(ABS(X<>INT(
X)))&B@$ :: D=INT(X):: IF D>
1 THEN 21021
21022 B@$="1"&B@$ :: B$=RPT$
```

```
("0",4-LEN(B@$))&B@$ :: B@$=
"" :: SUBEND
21039 SUB DEC_HEX(D,H$)
21040 X$="0123456789ABCDEF"
:: A=D+65536*(D>32767)
21041 H$=SEG$(X$,(INT(A/4096
)AND 15)+1,1)&SEG$(X$,(INT(A
/256)AND 15)+1,1)&SEG$(X$,(I
NT(A/16)AND 15)+1,1)&SEG$(X$
,(A AND 15)+1,1):: SUBEND
```

And this routine will show you how each letter is formed, by binary 0's (off) and 1's (on), for each key you press. I put it in merge format so you can MERGE it into any program and CALL it to examine the characters.

```
17000 SUB CHARVIEW
17001 !programmed by Jim Pet
erson Feb 1989
17002 DISPLAY AT(1,1)ERASE A
LL:"CHARACTERS IN BINARY & H
EX":;;"Press any key to see
the binary representation
of thescreen character and
its hexcode."
17003 DISPLAY AT(8,1):"Press
Enter to see the char-acter
."
17004 CALL KEY(0,K,S):: IF K
=13 THEN 17005 ELSE IF S=0 O
R K<32 OR K>143 THEN 17004 E
LSE 17007
17005 CALL CHAR(48,"FF"&RPT$
("81",6)&RPT$("FF",9))
17006 CALL KEY(0,K,S):: IF S
<1 THEN 17006 ELSE CALL CHAR
(48,"003844444444443800103010
10101038"):: GOTO 17004
17007 CALL CHARPAT(K,CH$)
17008 R=12 :: FOR J=1 TO 15
STEP 2
17009 H$=SEG$(CH$,J,1):: CAL
L HEX_BIN(H$,B$)
17010 DISPLAY AT(R,8):B$
17011 H$=SEG$(CH$,J+1,1):: C
ALL HEX_BIN(H$,B$)
17012 DISPLAY AT(R,12):B$ ::
DISPLAY AT(R,18):SEG$(CH$,J
,2):: R=R+1 :: NEXT J :: DIS
PLAY AT(22,6):CH$ :: GOTO 17
004
17013 SUBEND
17014 SUB HEX_BIN(H$,B$):: H
X$="0123456789ABCDEF" :: BN$
="0000X0001X0010X0011X0100X0
101X0110X0111X1000X1001X1010
X1011X1100X1101X1110X1111"
17015 FOR J=LEN(H$)TO 1 STEP
-1 :: X$=SEG$(H$,J,1)
17016 X=POS(HX$,X$,1)-1 :: T
$=SEG$(BN$,X*5+1,4)&T$ :: NE
XT J :: B$=T$ :: T$="" :: SU
BEND
```

And to reidentify a character, you just change the numbers and letters in the 16-digit hex code which represents the binary pattern. By writing little routines to switch those digits around, all kinds of things can be done.

For instance, the normal characters always have the top row of dots turned off, to provide spacing between lines of text on the screen. If you want taller characters you will have to double-space the lines, but you can create them by making the numerals and upper case characters consist of the 2nd-7th rows, the 7th row again, and the 8th row - it just happens to work out.

```
18000 SUB HIGHCHAR :: FOR CH
=48 TO 90 :: CALL CHARPAT(CH
,CH$):: CALL CHAR(CH,SEG$(CH
$,3,10)&RPT$(SEG$(CH$,13,2),
2)&SEG$(CH$,15,2)):: NEXT CH
:: SUBEND
```

I made that a subprogram so you can MERGE it in and use it to modify other character sets.

If we take the hex code apart, 2 digits at a time, and reassemble it backward,

```
100 CALL CLEAR :: FOR CH=33
TO 90 :: CALL CHARPAT(CH,CH$
):: FOR J=1 TO 15 STEP 2 ::
CH2$=SEG$(CH$,J,2)&CH2$ :: N
EXT J :: CALL CHAR(CH,CH2$):
: CH2$="" :: NEXT CH
110 DISPLAY AT(12,1):"?NWOD
EDISPU":"VT EHT DENRUT OHW !
YEH" :: GOTO 110
```

That one was in my first Tips newsletter, years ago, but it is much more effective at assembly speed.

This one shades characters on their left edge by turning on the pixel to the left of the leftmost "on" pixel, if any. Also try it in combination with HIGHCHAR.

```
18001 SUB NEWCHAR3 :: FOR CH
=48 TO 122 :: CALL CHARPAT(C
H,CH$):: FOR J=1 TO 15 STEP
2
18002 CH2$=CH2$&SEG$("0367CD
EF",POS("01234567",SEG$(CH$,
J,1),1),1)&SEG$(CH$,J+1,1)::
NEXT J :: CALL CHAR(CH,CH2$
):: CH2$="" :: NEXT CH :: SU
BEND
```

This one uses HIGHCHAR to heighten the character and then blanks out three rows. Try following it with NEWCHAR3.

```
18030 SUB NEWCHAR10 :: A$="0
0" :: FOR CH=48 TO 90 :: CAL
L CHARPAT(CH,CH$):: CH$=SEG$
(CH$,3,10)&RPT$(SEG$(CH$,13,
2),2)&SEG$(CH$,15,2)
18031 CH$=SEG$(CH$,1,4)&A$&S
EG$(CH$,7,2)&A$&SEG$(CH$,11,
2)&A$&SEG$(CH$,15,2):: CALL
CHAR(CH,CH$):: NEXT CH :: SU
BEND
```

The next one, which works only on ASCII 97-122, makes tall characters ridiculously elongated above.

```
18050 SUB NEWCHAR20 :: FOR C
H=97 TO 122 :: CALL CHARPAT(
CH,CH$):: CALL CHAR(CH,SEG$(
CH$,7,2)&RPT$(SEG$(CH$,9,2),
4)&SEG$(CH$,11,6)):: NEXT CH
:: SUBEND
```

This one has the chaacters raised by one line, widened one column at left and two columns at right to make a full 8x8 character which must be double-spaced horizontally and vertically.

```
18090 SUB NEWCHAR27 :: FOR C
H=48 TO 122 :: CALL CHARPAT(
CH,CH$):: CH$=SEG$(CH$,3,10)
&RPT$(SEG$(CH$,13,2),2)&SEG$
(CH$,15,2):: FOR J=1 TO 15 S
TEP 2
18091 CH2$=CH2$&SEG$("014589
CD",POS("01234567",SEG$(CH$,
J,1),1),1)&SEG$("0129",POS("
048C",SEG$(CH$,J+1,1),1),1)
18092 NEXT J :: CALL CHAR(CH
,CH2$):: CH2$="" :: NEXT CH
:: SUBEND
```

Those who have my Nuts & Bolts disks will see how valuable this assembly can be to make instantly available the routines for double height and double width characters, etc., etc. And if you have Todd Kaplan's amazing ALSAVE routine from the Genial Traveler Vol. 1 No. 3, you can imbed them in your XBasic program for fast loading.

And you can merge CHARSUB into any character editor or sprite defining program and, with a bit of modification, use it to convert your creations into fast-loading assembly.

These assembly loads are compatible with my BXB, so you can also load character sets into sets 15 and 16, ASCII 144-159. However, the CHARPAT statement cannot access ASCII above 143, so in this case you must dimension an array in the program you are copying from, as DIM HX$(159), and place the hex codes in the array using the ASCII as the subscript number, such as
CALL CHAR(CH+64,CH$) ::
HX$(CH+64)=CH$, so that they will be passed to the subprogram. And don't CALL INIT after you have called BXB!

So, now you try creating your own screen fonts!

Memory full,

Jim Peterson

WHERE DID I PUT THAT #$%) (* DISK JACKET???

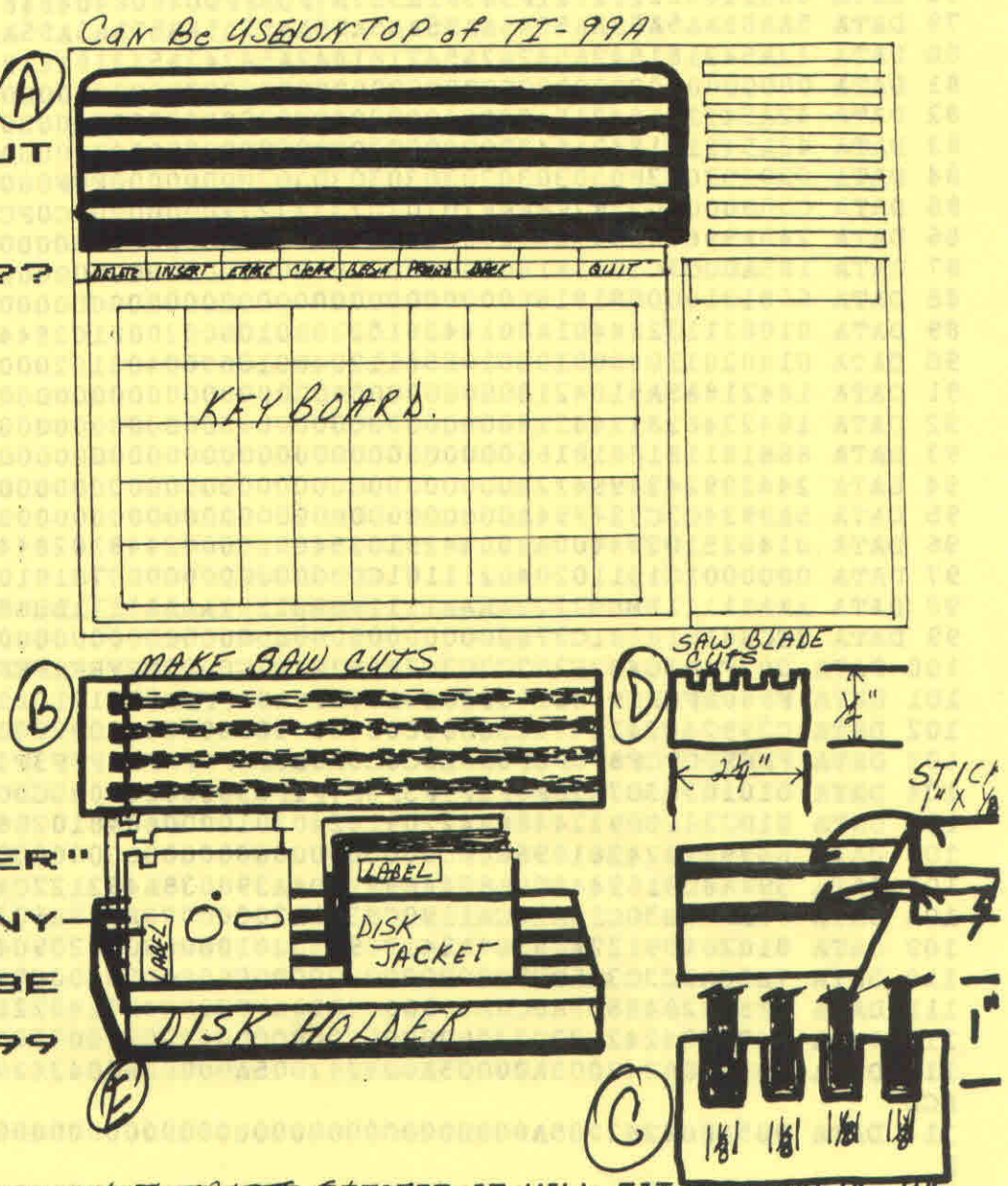
I don't wonder

any more !!

Any one can make

a "Handy Dandy--

--DISK- HOLDER"



"MY-DISK-HOLDER" CAN BE USED ANY-WHERE OR CAN BE SET ON MY TI-99

I USED A 2&1/4 INCH X 10 INCH BLOCK OF WOOD BECAUSE IT WILL FIT THE TOP OF THE TI-99 CONSOLE. I DON'T BELIEVE IT WILL CAUSE ANY HEAT PROBLEMS IF YOU DON'T COVER THE AIR-VENTS AT THE TOP RIGHT SIDE.

ALL YOU DO IS TO MAKE FOUR CUTS IN THE BLOCK OF WOOD DEEP ENOUGHT TO SLIDE THE 1/8 TH INCH X 1 INCH X 10 INCH STICKS INTO THE GROVES TO HOLD IN UP-RIGHT POSITION AS INDICATED IN EXAMPLES (B)(C)(D).

ANY WOOD GLUE WILL HOLD STICKS IN, BUT USE SPARINGLY.

I'M NOT TRYING TO BE REAL SPECIFIC BECAUSE YOU CAN USE YOUR IMAGINATION TO IMPROVE THE DESIGN...I EVEN GOT CARRIED AWAY AND MADE A 5 INCH X 10 INCH BLOCK THAT WILL HOLD SEVEN (7) DISK SIDE BY SIDE, (14) TOTAL. THIS DESIGN WILL HOLD THREE (3) DISK SIDE BY SIDE, (ONE PER GROVE)

AS INDICATED IN EXAMPLE (E), I PERFER TO SET ANY DISK, NOT IN IT'S COVER, ON IT'S SIDE SO TO KEEP IT 'OPENING' FROM BEING DAMAGED OR GETTING DIRTY.

KEEP ON T I ' N

E.L.EDWARDS (CEDAR VALLEY 99ERS)

```
76 DATA 243CC34242C33C24243CC34242C33C24243CC34242C33C24243CC34242C33C24,AFAV
77 DATA 5AA55AA5A55AA55A0000000000000000000000000000000000000000000000000,1
78 DATA 000210021212121F363F2E357B7FDAFF00400840484848F86CFC74ACDEFE5BFF,CAKE
79 DATA 5AA55AA5A55AA55A5AA55AA5A55AA55A5AA55AA5A55AA55A5AA55AA5A55AA55A,1ABCD
80 DATA 42A542181842A54242A542181842A54242A542181842A54242A542181842A542,2ABCD
81 DATA 00000000000000000000000000000000000000000000000000,BLANK
82 DATA 42A542181842A5420000000000000000000000000000042A542181842A542,2AD
83 DATA 42A542181842A54200000000000000000000000000000000000000000000000,2A
84 DATA 030303033F030303030303030303000000000F0F000000000000000000000000,CROSS
85 DATA 00000000033F7FFFFF7070707377727400000000C0FCFEFFFF0E0E0E4EEE4E2E,CRIB
86 DATA 245A996666995A2400000000000000000000000000000000000000000000000,3A
87 DATA 185A00C3C3005A1800000000000000000000000000000000000000000000000,4A
88 DATA 668181000081816600000000000000000000000000000000000000000000000,5A
89 DATA 0108211028440 1A80144281021080100002008102844002A0044281008200000,6ABCD
90 DATA 014020110800019B0100081120400100000408102000 0B2000020100804 0000,7ABCD
91 DATA 184218A5A5184218000000000000000000000000000000000000000000000000,8A
92 DATA 184224818124421800000000000000000000000000000000000000000000000,9A
93 DATA 668181181881816600000000000000000000000000000000000000000000000,10A
94 DATA 244299242499422400000000000000000000000000000000000000000000000,11A
95 DATA 5A9924C3C324994A0000000000000000000000000000000000000000000000000,12A
96 DATA 014825102944 00A80044291025480100002448102844002A0044281048240000,13ABCD
97 DATA 0000001C101102040211101C000000000000007010108040801010700000000,14ABCD
98 DATA AAAA1111BBBB2222AAAA1111BBBB2222AAAA1111BBBB2222AAAA1111BBBB2222,15ABCD
99 DATA 7EC381818181C37E000000000000000000000000000000000000000000000000,16A
100 DATA 007F4040407F7E7C7C7C7E7F7E7E7E0000FEFEFEFEFE7E3E2E3E7EFE7E7E00,DISK
101 DATA FF80BFBFBF8081838383818081818 1FFFF010101010181C1D1C18101818181FF,DISKI
102 DATA C39924424224 99C3000000000000000000000000000000000000000000000000,17A
103 DATA FEFEFCFCF8F8F0F0E0E0C0C0A0E0FCFCFFFF7F7F3F3F1F1F0F0F0707030F7F7F,TREEI
104 DATA 0101030307070F0F1F1F3F3F7F1F030300008080C0C0E0E0F0F0F8F8FCF08080,TREE
105 DATA 0102241009224488442209102402010000804810208844224488201048800000,18ABCD
106 DATA 669981424281996600000000000000000000000000000000000000000000000,19A
107 DATA 394A8D91694480B8804469918D4A390038A462122C44023A02442C1262A43800,20ABCD
108 DATA 00A241B30C19A16CA1190CB341A20000008A049A60300A6C0A30609A048A0000,21ABCD
109 DATA 0102040912244890482412090402010000804020904824122448902040800000,22ABCD
110 DATA 7EDBA5C3C3A5DB7E000000000000000000000000000007EDBA5C3C3A5DB7E,23AD
111 DATA FF85828488D0A0C0A0D088848285FF00FE42824222160A060A1622428242FE00,24ABCD
112 DATA 243CC34242C33C2400000000000000000000000000000243CC34141C33C24,FAV/AD
113 DATA 005A004242005A00005A004242005A00005A004242005A00005A004242005A00,FAV2/A
BCD
114 DATA 005A004242005A000000000000000000000000000005A004242005A42,FAV2/A
D
115 DATA 834160150114009300140115604183008204 0C500050009200500050 0C048200,FAV/1
116 DATA 7F809FA0A0A3A4A4A4A3A0A09F807F00FC02F20A0A8A4A4A4A8A0A0AF202FC00,25ABCD
117 DATA 1824668181662418000000000000000000000000000000000000000000000000,FAV/3
118 DATA 0101010702050412 3E3113141412292BE0E0E0F8102808D10F114804440850F8,SNOWMA
N
119 DATA 5A8118BDBD18815A5A8118BDBD18815A5A8118BDBD18815A5A8118BDBD18815A,FAV/4
120 DATA 3C1881C3C381183C3C1881C3C381183C3C1881C3C381183C3C1881C3C381183C,FAV/5
121 DATA 241899666699182424189966669918242418996666991824241899666699182 4,FAV/6
122 DATA 5462916A41A0904890A0416A91625400548C12AC040A1224120A04AC128C5400,26ABCD
```

ARTWORK IN HEXIDECIMAL

from Sister Pat Taylor

The above was sent to us from Sister Pat. This is a new set of borders for Jiffycard or for Jiffy flyer. Your editor must admit to ignorance with this type of program, so I cannot explain the code printed above. Perhaps one of my (few) readers will shed some light on the subject at the September meeting!

LIMA 99/4A USERS GROUP

Bits, Bytes & Pixels

A TECHNICAL NOTE ON ORIGINAL T.I. DRIVES

by Michael Martinko
Lima Ohio User Group

My disk system presently is composed of corcomp's disk drive controller, and TI's original SS/DD disk drive. Over the past year I have been noticing more and more disk errors, particularly in initializing new disks in a double density format. In fact they had become so predominant that I could no longer initialize in DD. In observing the problem there appeared a pattern to the maddness, i.e., the bad sectors were in multiples of 18. Mr. Randy Belisle of Belisle Interactive Systems here in Lima has proven to be a great source of computer technical information. He suggested that the TI drives are probably divided into 18 sectors, and that the drives are running slow, hence not leaving enough room for the last sector on each rotation. He also suggested that many drives are belt driven and that over the years the belt may stretch, slowing the operating speed of the drives.

The procedure for examining the drive was simple. After removing the drive from the expansion box and unpluging the connecting wires, the metal housing is removed by staightening the metal tab that protrudes into the drive and sliding off the cover. Please note that if you have previously replaced the shunt that was originally installed with dip switches to determine which drive number your drive will respond to, it will be necessary to first remove the dip switches before the cover can be removed. You will find a series of dots on a white disk on one side of the drive. Using a flourscent light on these dots will show if the drive is slow, fast, or within tolerable range. Merely plug the wires into the drive, proceed to initialize a disk, and shine the light on the drive. Mine was running slow. Noticing that the belt was smooth on the inside and textured on the out I simple reversed the belt. Testing the drive proved my suspecions. The drive functioned perfectly. The cost was $00.00. I will however order a new belt from TI, not knowing how long this one will last! But at least I have bought enough time, maybe years, before I will need it. Thank you Randy for your advise. I hope others who are having similar problems will find help in this article.

NOVEMBER 1988

NEXT MEETING

MARCH 13

7:00 PM --- JA BUILDING

NEW PROGRAM REVEIW - ETC.

JOIN THE FUN!!!!!!!

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