

TI - D - BITS

Volume 13 Issue 6

PHILADELPHIA AREA TI-99/4A USER GROUP

Sept/Oct. 1993

MORE ABOUT MIDI MASTER 99

By Jim Peterson

Bruce Harrison advises that Service Merchandise carries the Casio Model CT-700 (catalog number CT700ECD) at \$277.94 and the Yamaha model PSR 500 (catalog number 500YMA) at \$399.97. They also carry the power adapters for these models under catalog numbers AD5ECD for the Casio and PA5YMA for Yamaha, at \$19.97 and \$22.63 respectively. Each of these is a five octave (61-key) instrument, with MIDI interface, and each has 100 selectable instrument voices.

Service Merchandise has 365 stores in the U.S.. 14 in Ohio, including one on South Hamilton Road in Columbus. To find the closest store, or to place an order by VISA, DISCOVER or MASTER CARD, call toll free 1-800-251-1212.

I had been rather dissatisfied with the results I was getting with Midi Master 99, and didn't know whether to blame Midi Master 99 or my Casio MT-240 keyboard. After listening to the two disks of "pop classics et al" written by Dolores Werths and released by Harrison Software (5705 40th Place, Hyattsville MD 20781, \$10.00 each ppd), I realize that I should have been blaming my own lack of skill in writing SNF files.

Dolores has been doing some wonderful things with MIDI, and

I hope that she will write some articles to teach the rest of us. She has learned all kinds of neat tricks, such as beginning with a short rest too avoid "clipping" the first note of music.

Dolores tells me that I was wrong in saying that the organ is almost inaudible in the lowest octave - when heard through a good sound system rather than through the keyboard's speaker, it is indeed audible and effective.

Maksimik's documentation mentions that Midi Master 99 can be run from any drive, but he takes it for granted that you will know how to do so - the disk-name must be MIDI. If you want to run it from your ramdisk, the ramdisk must be named MIDI - and if your ramdisk also contains another program that only runs from a specific disk name, you will have to do some renaming back and forth. If you want to avoid that, Bruce Harrison

told me how. Use DSKU to edit the file MASEXB. Change DSK.MIDI.CHAR1 to DSK4, which is drive 4. Change DSK.MIDI.OPTIONS to DSK4.OPTIONS and then, in hex mode, change 0F44534B to 0B44534B and 1044534B to 0C44534B. Then change the LOAD program to run DSK4.MASEXB.

If the disk that Mike sold you is like mine, it also contained some sample pieces of music and some work files and odds and ends. The necessary files that you must transfer to the ramdisk or whatever are MASEXB, CHAR1 and OPTIONS.



The copy of Midi Master 99 that Maksimik sent to me had the percussion patched into three of the other instruments. You might want to check to make sure that yours has not been tampered with. To do this, select (6. Program Patch Librarian) from the main menu. It will ask you for a program number from 0 to 127 - what it wants is an instrument number. These are normally numbered from 0 upwards, from left to right, on your keyboard panel. Enter 0. It will show you the current value: if that is other than 0, it has been patched. Anyway, enter 0 for the new patch value, then continue with 1 and so on for as many instrument voices as your keyboard has. Then use FCTN 9 to escape back to the main menu.

If you corrected any patches, you must now select 5. Program Setup to make them permanent. It will ask you for a foreground color and then a background color, from 0 to 15. These are the assembly color codes, which may confuse an XBASIC programmer and will confuse a non-programmer even more, resulting in some strange color combinations or even a blank screen. Use 15 for foreground and 5 for background, to keep the usual white on dark blue.

You are then asked for an RS232 port number. If you use a Y-Cable to connect your modem and Midi Master 99 to the serial port of the RS232, you can select 2 and keep both hooked up permanently. Finally you are asked for the duration value, which is usually 400. Then you have the option to make these changes permanent.

If you also purchased Midi Album 99, you may have to fix another of Mike's mistakes. On my disk, although the README file says the MALDOCS documentation file is a DV80 file, it is actually a DV254 file which cannot be printed through Funnelweb etc.

However, it is in 80-character format, so can be converted by this little program -

```
1 OPEN #1:"DSK1.MALDOCS",VAR
  IABLE 254,INPUT :: OPEN #2:"
  DSK1.DOCS80",OUTPUT
2 LINPUT #1:M$ :: PRINT #2:M
  $ :: IF EOF(1)<>1 THEN 2 ELS
  E CLOSE #1 :: CLOSE #2
```

CURSOR CONTROL IN TI BASIC

By Jim Peterson

Many programs require the movement of a cursor or a figure around the screen by the use of the arrow keys, and it is usually also desirable to be able to move diagonally using the W, R, Z and C keys, and to avoid crashing the program by preventing any attempted movement beyond the 24X32 area of the screen, or to permit 'wrap-around'.

The programming routines often used for this purpose are quite lengthy, requiring 35 lines or more in BASIC for 8 directional movement. However, they do move the cursor quite rapidly, which may be essential in game programs. Much more compact routines are available, but they may be slower. The following very compact little routine is attributed to Kurk Garcia of the Houston User's Group.

```
100 R=1
110 C=3
120 CALL KEY(3,K,ST)
130 IF (L<>68)*(K<>69)*(K<>8
  3)*(K<>88)+(ST=0)THEN 120
140 C=C+((K=68)*(C<30))-((K=
  83)*(C>3))
150 R=R+((K=88)*(R<24))-((K=
  69)*(R>1))
160 CALL HCHAR(R,C,42)
```

```
170 GOTO 120
```

That routine is a bit slow, taking about 20 seconds to move the cursor around the screen, and it does not permit diagonal moves. This next routine allows diagonal moves but is even slower, requiring 26 seconds to traverse the perimeter.

```
90 CALL CLEAR
100 R=1
110 C=3
120 CALL KEY(3,K,ST)
130 IF ST=0 THEN 120
140 C=C+(ABS((K=82)+(K=68)+(K=67))*ABS(C<32))+((K=87)+(K=83)+(K=90))*ABS(C>2)
150 R=R+(ABS(((K=90)+(K=88)+(K=67))*ABS(R<24))+((K=87)+(K=69)+(K=82))*ABS(R>1))
160 CALL HCHAR(R,C,42)
170 GOTO 120
```

The following is perhaps the best compromise between compactness and speed. It permits diagonal movement, goes around the perimeter in about 20 seconds, and is extremely adaptable.

```
100 R=1
110 C=3
120 CALL KEY(3,K,ST)
130 IF ST=0 THEN 120
140 ON POS("WERDCXZS",CHR$(K),1)+1 GOTO 120,210,190,180,160,150,240,220
150 R=R-(R<24)
160 C=C-(C<31)
170 GOTO 260
180 C=C-(C<31)
190 R=R+(R>1)
200 GOTO 260
210 R=R+(R>1)
220 C=C+(C>2)
230 GOTO 260
240 C=C+(C>2)
250 R=R-(R<24)
260 CALL HCHAR(R,C,42)
270 GOTO 120
```

You will usually want the cursor to erase itself as it moves along. The movement will be smoother if you 'SAVE' the values of the old position while the

new position is being computed, then use them to erase the cursor just before it is reprinted.

```
102 R2=1
112 C2=3
260 CALL HCHAR(R2,C2,32)
265 CALL HCHAR(R,C,42)
266 R2=R
267 C2=C
```

In this version, the cursor will stop at the screen border, or will run along it if struck diagonally. If you prefer it to 'wrap around', change lines 150 and 250 to $R=R+1+(R=24)$. Change lines 160 and 180 to $C=C+1+(C=32)$. Change 190 and 210 to $R=R-1-(R=1)$ and change 220 and 240 to $C=C-1-(C=1)$.

If you want the program to also respond to joystick input, change line 130 to read `IF ST=0 THEN 142`, and add the Lewis routine:

```
142 CALL JOYST(1,X,Y)
143 Z=((X+3*Y)/4)+5
146 ON Z GOTO 240,250,150,220,0,120,160,210,190,180
```

That will activate joystick #1. If you want response from either joystick, you can add:

```
143 IF (X<>0)(Y<>0) THEN 145
144 CALL JOYST(2,X,Y)
```

However all of these options will slow up the response time. Usually it will be better to require a choice of keyboard or joystick at the beginning of the program. This routine utilizes Doug German's neat little routine which activates whichever joystick is being held when the fire button is pressed.

```
50 PRINT "Will use":"(1) Arrow Keys, or":"(2) Joystick?"
52 CALL KEY(3,Q,ST)
54 IF (ST=0)+(Q<49)+(Q>50) THEN 52
56 IF Q=49 THEN 100
58 PRINT "Press Fire Button"
60 CALL KEY(1,K1,S)
62 CALL KEY(2,K2,S)
64 IF K1+K2<>17 THEN 60
66 J=INT(K1/18+18+K2/9+1)
114 IF Q=50 THEN 142
```

```

130 IF ST=0 THEN 120
142 CALL JOYST(J,X,Y)
      (Delete Lines 143 AND 144)
146 ON Z GOTO 240,250,150,22
0,142,160,210,190,180
270 IF Q=49 THEN 120 ELSE 142

```

Perhaps you will want to move the cursor around the screen without erasing any text or graphics already on the screen. This is easily done:

```

260 IF (R=R2)*(C=C2)THEN 270
262 CALL GCHAR(R,C,G)
264 CALL HCHAR(R2,C2,G2)
268 G2=G

```

And if you want to also use keys for program input, just add more letters to the string in line 140, and more line numbers in the corresponding positions. For instance, if you want to use "F" key to file at the alien invaders,

```

140 ON POS("WERDCXZSF",CHR$(
K),1)+1 GOTO 120,210,190,180
,160,150,250,240,220,600
600 CALL SCREEN(16)
610 CALL SCREEN(4)
620 GOTO 120

```

USING TI-WRITER TO LF FROM AN RS232

Fm LIMA(Ohio)TI USER GROUP
Newsletter

You can hook two different kinds of computers together with a cable linking the RS232 ports of both computers. The TI serial printer cable will do the trick. You can then load text files directly into TI-Writer (or the Funnelweb editor) from a word processor program on any other computer. You don't need a modem or a terminal program, and the other computer doesn't have to be compatible with TI.

After cabling the two computer's RS232 ports together, boot

TI-Writer, type LF Load File) and press <<ENTRE>. Then type RS232.CR for the file name and Press <ENTER>. The TI's screen will appear to look to lock up as the TI waits to receive the file from the RS232 port. It may be necessary to specify a baud rate in the RS232.CR file name if the default 300 baud is not satisfactory. However, TI Writer (and Funnelweb) will not accept baud rates higher than 600. With the other computer, save or send a text file already in memory, specifying RS232 as the save file name. (PC users may have to specify a COM port rather than RS232 - Ed.). Text will then flow into TI-Writer. When transfer is complete, press FCTN-4 on the TI and the received text file will be displayed.

Since I don't have the TI99/4A HexBus interface, this is how I transfer text from my CC40 to my TI for processing with Funnelweb and printing with my Star printer.

TRYING TO GET RXB ON A CARTRIDGE

Taken Fm MICROpendium
May issue

Richard Gilbertson is a TI'er on a mission. Over the past two years he has developed several editions of his Rich GKXB, an extensive update of Extended BASIC. Unlike other versions of XBASIC, Gilbertson's RXB is compatible with all TI hardware and software. Unfortunately, it is available only for use with a GRAM device or a Geneve.

Those who are familiar with Super Extended BASIC know how XBASIC can be improved through the addition of subroutines.

Gilbertson's RXB is similar in this regard, but offers far more power than even SXB. Unlike SXB, RXB is not available on cartridge. Not yet, at least.

Gilbertson would like to see his RXB available in cartridge format so that it can be used with any TI99/4A. But the problem has been finding a suitable hardware company to produce it. He says he has not found a single hardware company that is willing to put RXB on a cartridge without adding all kinds of embellishments, to boost the price.

Rich says he has ben talking with four possible cartridge producers and is hopeful that something will come of it. I hope so, too. Making the power of RXB available to all TI users would be a public service.

NEW LOAD/SYS, MDOS
RELEASED

FM MICROpendium

Berry Miller of 9640 News has released a new version of LOAD/SYS on GENIE, Delphi and on his BBS. Miller has also released MDOS V1.50H, GPL 1.5 and MDM5 V1.50. Phone number for the 9640 News BBS in Memphis, Tennessee, is (901)368-0112.

According to Miller, James Schroeder has modified LOAD/SYS so MDOS can now be loaded from Hard and Floppy Disk Controller floppies by user who have only one controller card.

Miller says support for SCSI for GPL mode (and WDS support for GPL mode on the HFDC) has been built into MDOS and GPL interpreter. EXEC will not be able to use WDS until a new version is released, he notes.

(continued from Page 8)

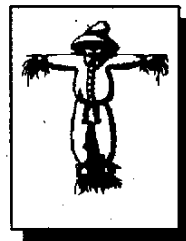
program books.

Maybe next class I'll do nothing but educational books, like my favorite, THE ACADEMIC TI.

Meanwhile, do your homework and maybe you can reach Sue or Chick for extra-credit material.

The software, Mr bell? We'll get to the tapes and cartridges during another session, right after we finish discussing the rest of the testware. What? The SYLLABUS, MrBell. Must follow the syllabus.

No, Mr Shakespeare, a syllabus is not like a hexbus. perhaps if you'd care to walk out with me to my car, I'll explain the differences on my way.



~~~~~ TI-101 ~~~~~

OUR 4/A UNIVERSITY

by Jack Sughrue  
Box 459  
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#4 ROOTS

Last session, Class, we had a couple questions from Mr. Shakespeare over there by the window. He said he had a nephew in junior high and two elementary school grandchildren.

Okay. Okay, Mr. Shakespeare. Just put your grandchildren's pictures away. So long as we know one's 8 and one's 4 and that your nephew in junior high is having trouble reading.

Got that, Class.

He wants to know what the TI can do for him. Or, more specifically, for the significant kiddies in his life.

There are so many directions one can go here that I'm not sure where to begin. Because I'm so text oriented, I think I'll begin with some sources that may not be dried up yet. There are real books like Fred D'Ignazio's TI PLAYGROUND, which I'll discuss during another class. But, first, I want to discuss Newsletter Childrenware.

Zounds, Mr. Shakespeare! Just be patient. I'm sure I'll answer your questions before you even have to ask them.

Now.

Er, oh, yes; the newsletters.

There were so many great newsletters over the years that provided good, solid, educational material in so many enterprising ways - ways that let the adults learn along by typing in the programs. It would be impossible to even list them all on the blackboard here.

Let me just take a super example and hope that her materials are still on disk in the club's library for new massive circulation.

Sue Harper (the present librarian of the Pittsburgh User Group, P.O. Box 8043, Pittsburgh PA 15216) for years wrote a wonderful column called "Kiddie Corner" (note she didn't succumb to the temptation to misspell "Corner" with a "K") and reviewed material for young (and old) learners. Sometimes the older learners could type the programs for the younger learners.

Although I never met Sue, I have been an admirer of her creativity and writing talent for years.

Anyway, Class, while I was preparing some notes I uncovered some of the old "PUG Peripheral" newsletters and want to share a bit of a Fall '89 issue (when her son was 9 and daughter 11):

"This month, since we are all getting back into the swing of things with school, I thought I would give you a little quiz. Yes, indeed, you can tell I used to be a school teacher! Really, it's not a hard quiz; it's a take-home (for sure) and you have a month to do it! Just five questions, and then a little program to amuse you until next month, when I will give you the answers!

1. Write a program that will make the screen blink the colors of fall.

2. Write a program that will play 'Mary Had a Little Lamb.' I'll

help you on that one - the notes are A,B,A,G,F,G,A.

3. Write a program that will make your name blink on and off until you use FCTN 4 to stop it.

4. Write a program that will turn your name red and make the screen blue.

5. Take all the programs 1 through 4 and make one long program that blinks fall colors, plays the little song, and blink a red name on a blue screen.

GOOD LUCK!

```
10 CALL CLEAR
20 FOR H=1 TO 10
30 RANDOMIZE
40 LET R=INT(RND)+32
50 LET S=INT(RND)+3
60 CALL SCREEN(S)
70 CALL HCHAR(12,12,R)
80 CALL KEY(0,K,S)
90 IF S=0 THEN 100 ELSE 80
100 NEXT H
110 PRINT "PEACHY-KEEN!!!!" : : : : :
120 STOP
```

"This little program ... well, what will it do? Try it and see!  
"See you next month!"

Now this short "Kiddie Corner" article is filled with the stuff of learning. First, Class, it made me go back and dig out a couple manuals to solve those five small problems of hers. Very enticing, very educational little problems. Suffice it to say that previous columns of hers led up to skills levels that could achieve these creative extensions. These are real, relevant logic problems for any age. They also include things that younger children must know for a solution even if parents, grandparents, or older siblings are typing some things in (i.e., What ARE the colors of fall? How does the song go?).

And then that tiny program you have to type in to see what it is supposed to do. I modified it slightly upon the suggestion of Harold Hoyt of the St. Louis TI user group. But is that program a motivator or what?

And the safety net of all the answers next month. But could anyone wait a full month. Nope! This is a true leaning situation for everyone, including those who DO wait the month and type in all the answer programs. However, if you don't wait the month your correct answers are guaranteed to be different from hers. Thus, Lesson Uno: there are many ways to skin a cat.

Although why one would actually WANT to skin a cat has always been beyond me. What does one DO with a skinned cat? Do you use the skinless cat part or the skin itself? Or both?

Anyway, Class, the point does not have anything to do with cats; the point has to do with the great learning tool called the 99/4A.

Sue Harper is only one of many people throughout the whole TI World who wrote excellent early-learner articles.

If every newsletter editor and every librarian in the country looked back in the old issues and disks and tapes and dug out the old programs and articles written by club members about education or for young people and transferred them all to disk for an educational clearinghouse, there would be piles of materials which would constitute a marvelous resource for all clubs, particularly as the new generation of grandchildren,

nephews and nieces are arriving at the right ages for using these services. Remember, Mr. Shakespeare, and all the rest of you who have questions similar to his, that what may be old stuff for oldtimers is new stuff for newtimers.

You may quote me.

But let's get back to Sue Harper. I hope she has all her stuff on disk.

Anyway, she always began her column with a nice graphic (teddy bear in the case mentioned). This was at a time when not too many newsletters used graphics for their local columns.

Sue also did program reviews, as I said, that dealt with learning. These were all excellent, too. For example, in this same '89 issue, she reviewed Jim Peterson's "KINDERTIMES," which I have had the good fortune to use with some younger children with much success.

Here's Sue:

"This program, listed as TCX-1062 on the disk ... is a very nice little program which uses only 12 sectors, and yet has quite a bit to offer.

"The main audience for this program would be third graders learning their multiplication tables, or for a review for the next few grades. The program will accept parameters higher than one digit numbers, but working these problems in your head becomes difficult.

"At the beginning, the program asks the user for the highest number desired and the lowest number desired. These two answers set the parameters for the multiplicands. The format of the program is:

7 X 6 =

and waits for the answer. The answer must be typed in with the highest digit first, which is why I say this program is not suited for 'hard' questions like 167 X 639. In the 7 X 6 example, the user types in 42 and presses ENTER. The user is rewarded with a graphics display for correct answers."

And so on.

Actually, Jim (TIGERCUB) has upgraded this program. He even has a nice, new program that prints out simple worksheets (with answers on a separate sheet). Ideal for any adult who spends time helping children with math. Refer to your notes from previous classes to learn more about this extraordinary (and extraordinarily inexpensive) resource called TIGERCUB.

These rich resources of newsletter and disk and tape libraries of clubs throughout the country are some of the very best sources all of you can use for learners even in today's "high-tech wizardry" marketplace. The TI STILL does what it was made to do better than anybody else.

No, Mr. Shakespeare, I am not going to give you or Ms. Bronte or anyone else in the class the answers to Sue's five problems. That is homework for next class.

Please, please, Class! Give me your attention! Stop that moaning and groaning back there! These five questions will be on the mid-term, so I would definitely have them ready for the next class.

Yes, yes. There were many other people who did such articles for newsletters and magazines. I remember Chick De Marti of the Los Angeles Group often had similar fascinating items in his "Did You Know That...?" column. I wonder if he has all those great columns on disk?

And Fred D'Ignazio ran a regular children's column in COMPUTE. I think. Anyway, TI PLAYGROUND is one of his tested for-and-by-kids



The Philadelphia Area TI-99/4A Users' Group meets once a month. On the first saturday of the month at the Church of the ATONEMENT, 6200 Greene St. Germantown (Corner of Greene St. and Walnut Lane) at 10 AM. We invite anyone that is interested in the TI-99/4A or Geneve to visit us. Stop in and see what is available to you for your TI and how membership can benefit you!

**Current executive board consists of:**

REMEMBER to be considerate when calling

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any of the above people. Limit your calls to early evening hours. (6pm to 9pm)

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