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OUR NEXT MEETING will be on Thursday
DECEMBER 18, 1986 AT 7:30 p.m.

Our JANUARY meeting will be
January 16, 1987 at 7:30 p.m.

PLACE: CAPITAL DISTRICT PSYCHIATRIC CENTER
New Scotland Ave. Next to Albany Medical Center

Topics for December:

Chuck Eacy will show us the Diagnostic software TI sent to Users Groups
Bob Burgess has volunteered to demo Cartridge Emulator from Pilgrims Pride
The Software Club will have TI-OPOLY, Fareware from Australia
Al Smith is prepared with MYARC'S XB-II and public domain programs.

A NOTE to other Users Groups: The articles printed in the Upstate Newsletter
may be reprinted if proper credit is given to the author and to the Upstate New
York 99/4 Users Group.

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Managing SPRITES in TI BASIC

(Write to: Perlini Settino, Via 21 Gennaio 152, 61020 Montecchio (FS) Italy)
Reprinted from 5/85 Central Westchester 99'ers Club Newsletter.

Texas Instruments, in all the guides and manuals published, always repeat that it is impossible to use sprite graphics by using console BASIC. If you read on, you will see that this statement is incorrect. We will be playing a clever trick on the BASIC Interpreter in order to manipulate sprites with the resident TI BASIC and cassette tape. But first, a warning! The sprites obtained by these procedures cannot be controlled by **all** of the commands available in Extended BASIC. (I am still working on finding a complete solution). Nevertheless, my sprites have some useful and interesting attributes. They are not effected by other characters which will pass under the without becoming transparent. They can be placed in each and every one of the 192 x 256 pixels on the screen, so that you can obtain a movement pixel by pixel instead of in the constraints of a 24 x 32 matrix. It is essential that those of you with more hardware than the console and tape recorder, disconnect all peripherals at this point... and now, Please pay attention!!!

When a program is saved on tape, there is a header containing some bytes, which contains the information relating to the size of the program. By changing this information it is possible to pass over the lower memory and write into VDP registers. Because file recording is similar to program recording for the cassette (but not for a disk drive), we are going to use a record on file to write a false header. The program required to do this is PRG1:

```
10 REM FILES GENERATOR
20 REM TO MODIFY THE VDP REGISTERS
30 REM COPYRIGHT IT U.G. BOLOGNA ITALY
100 REM CALL CLEAR
110 INPUT "REGISTER(0-7),VALUE          (0-255)?":R,I
120 A=18429-(256*I-R-D)
130 X#=CHR$(0)
140 OPEN #1:"CS1".OUTPUT,FIXED
150 PRINT #1:X*I*"."$X*CHR$(INT(A/256))CHR$(A)
```

Remember in the ":" T on line 110, you respond with 5,15. Actually the register 5 contains the beginning of the sprite map; the default value is 6 and is poked again every time you press QUIT. If you insert 14, the map is located over the ASCII characters 128 through 143, and if you insert 15 then over the ASCII characters 144 through 159. Therefore always use 5,15.

To access the sprites follow these steps:

1. Record on tape the "false program" obtained with PRG1.
2. Reset RAM memory and stack with BYE or QUIT.
3. Load from the tape the "false program" in the usual way. (i.e."OLD CS1")
4. Wait a short time and when the screen turns black with rows, press a letter on the keyboard and then ENTER. Now you should read the message MEMORY FULL and the screen returns to its normal mode.
5. Delete the false program with the NEW command.

Now you can use 32 sprites (2 required per character) in this way:

```
CALL CHAR(144,"Y1X1F1C1Y2X2F2C2")
CALL CHAR(145,"Y3X3F3C3Y4X4F4C4")
and so on... where the parameters are:
```

Y is the row (0-199)
X is the column (0-255)
F is the form (ASCII code + 96)
C is the color (BASIC color - 1)

Remember all the values must be Hexadecimal.

If Y is put equal to >D0 (208) then sprite and the others characters following

will not be visible! A short demo program follows with a decimal-to-hexadecimal converter:

```
2 REM DEC-HEC CONVERTER
3 CALL CLEAR
10 DIM A$(15),H$(255)
20 FOR I=0 TO 15
30 A$(I)=SEG$( "0123456789ABCDEF",I+1,1)
40 NEXT I
50 FOR I=0 TO 15
60 K=16*I
70 FOR J=0 TO 15
80 H$(K+J)=A$(I)A$(J)
90 NEXT J
100 NEXT I
101 REM SPRITE MAGENTA DEMO
110 F$=H$(128)H$(64+96)H$(14-1)H$(208)
120 FOR Y=0 TO 191
125 CALL HCHAR(12,12,144)
130 CALL CHAR(144,H$(Y)E$)
140 NEXT Y
```

MG Proms for CorComp Disk Controller Card - A Review.

By Scott Darling, Copyright 1986.

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The MG proms are available from MG, W. 1475 Cypress Ave, San Dimas, CA. 91773 for \$34.95. This includes postage and handling.

Good points!:

-
- 1: Removes the CC title screen! This eliminates problems with some modules.
 - 2: Improved error handling on all utilities. E/A would sometimes lock up on me!
 - 3: Decrease error time out- Disk Not Initialized now comes back faster!
 - 4: For GK owners: Tool Shed and NEW calls can be used in an MSAVED program.
 - 5: For A/L programmers: you can now perform Direct Sector I/O in VDF or CPU.
- There are 2 short programs that show the format.

New Calls:

-
- 1: CALL ILR This clears out low memory and load the E/A Utilities. CALL LR does this automatically.
 - 2: CALL LR This loads a D/F B0 Compressed/uncompressed file. Same as E/A # 3.
 - 3: CALL LLR This starts a non-auto start program, same as E/A #4.
 - 4: CALL RUN This loads the default "DSK1.UTIL1", same as E/A #5.
 - 5: CALL RUN("DSK2.PROGFILE") Loads the PROGRAM IMAGE file, same as E/A #5.
 - 6: DELETE "XILR" Allows all of the above calls from a running XB program. This must be done before using the links. 7: And lastly there is a patch for ADVANCED DIAGNOSTICS to load from CALL LR. NOW the Bad points!:
- 1: The only BAD point I can find is that Ramdisks and Hard Drives are negated from the CALL RUN command. The reason I was given is that "only one DSR can be used at one time", thusly the one on the CC Card is the only one that can be active! Altho, it is possible to use the CALL LR with the Ramdisk and Hard Drive. Because the DSR is turned off when the loader loads the file!
- 2: Bad point #2, this only applies to A/L programmers. 'B >A' or 'B >70' can not be used. You have to use the old save R11 to GPL space and then restore the GPL, retrieve the R11, and R7. Minor details I know.....but it took me along time to find out the other way! So much for optimizing code! Well, that is all I could find Wrong and Good! Should you buy the proms? That is up to you to determine their value. I hope I have provided the info you will need for that conclusion.

PRESIDENTS_COMPUTER_CORNER

Meeting_Notes

It's the season to be jolly, so come to the XMAS December meeting in order to receive multiple disks of software.

(1) Texas Instruments has sent to established User Groups software for testing different components of the TI home computer. The diskettes are designed to work with Extended Basic or the Mini-Memory. The documentation has about thirty pages, so if you desire a copy I will have to charge about \$5 to make the copies which will be available at the January meeting.

(2) FAREWARE OFFERING - an XB version of Monopoly called TI99-DPOLY from Australia will be expertly shown by Mrs. Stan Hard.

(3) Al Smith has worked with Myarc's XB-II for a little while and will share his experiences with us.

(4) Bob Burgess has had two weeks to become familiar with the Cartridge Emulator from Pilgrim's Pride. This package allows a person to backup cartridge software to disk.

TI-NOTES

There are still TI related publications being printed. They deserve to be supported:

MICROPENDIUM \$20.50 First Class
P.O. Box 1343 \$17.00 Third Class
Round Rock, TX 78680

Genial TRAVeler \$30.00 Six Diskette Issues
835 Green Valley Drive
Philadelphia, PA 19128

R/D Computing (Ryte Data) \$14.00
210 Mountain Street
Haliburton, Ontario K0M 1S0
Canada

The Smart Programmer \$18.00 First Class
Bytemaster Computer Services
171 Mustang Street
Sulphur, LA 70663-6724

A sad note: Jim Peterson of Tigerclub Software has announced that he is ceasing publication of "Tips from the Tigerclub". Jim will however continue his software business.

HARDWARE AND SOFTWARE

Ivan Stilwell wishes to acquire a July 1983 issue of 99ER. He is willing to trade a September issue or purchase if necessary. Ivan also has 2 TI consoles for sale at \$50.00 each. If interested, please phone (518) 399-1254.

Nick has a PEB system with 32K, disk controller card, and a ss/sd disk drive along with other assorted hardware and software. If interested, please phone (518) 372-1178.

This writer still wishes to acquire a CORCOMP disk controller card. If you wish to sell one please phone (518) 370-5215.