Supplement
to
500
POKES
PEEKS 'N EXECS
FOR THE
TRS – 80 COLOR COMPUTER

Kishore M. Santwani

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by
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C O N T E N T S

DISK SYSTEMS

ENHANCEMENTS

PATCHES FOR COCO III

4TH COMMAND ON PAGE 3 SHOULD READ AS FOLLOWS:

COMMAND: CLS:?@@,"NO":POKE 65497,0:?@@,"YES"

5TH COMMAND FROM TOP ON PAGE 3:

Replace POKE 65495,0 with POKE 65497,0
Replace EXEC 49152 with EXEC &HE010

LAST COMMAND ON PAGE 3 IS INCOMPATIBLE WITH COCO 3.

* NOTE: DO **NOT** SET THE 64K ALL RAM MODE BEFORE USING ANY COMMANDS LISTED UNDER THE 'FOR 64K COMPUTERS ONLY' SECTION.

TOP COMMAND ON PAGE 12 SHOULD READ AS FOLLOWS:

COMMAND: POKE &HAD19,126:CLEAR 200,32740:POKE &HAD1A,&H7F:POKE &HAD1B,
&HE4:FORI=32740 TO 32740+&H1D:READ A$:POKE I,VAL("&H"+A$):NEXT:
DATA 8E,7F,FB,BD,B9,9C,BD,A1,B1,81,59,26,07,9E,19,6F,80,7E,AD,
1D,7E,AD,33,20,53,55,52,45,3F,00

2ND COMMAND FROM TOP ON PAGE 12. FIRST LINE SHOULD READ AS:

CLEAR 200,32700:POKE &HA53C,&H7F:POKE &HA53D,&HBC:FORI=32700 TO 32705:

3RD, 4TH & 5TH COMMANDS FROM TOP ON PAGE 12 ARE INCOMPATIBLE WITH III.

LAST COMMAND N PAGE 12. FIRST 2 LINES OF COMMAND SHOULD READ AS:

CLEAR 200,32670:POKE &HA69B,&HFA:POKE &HA6C7,126:POKE &HA6C8,&H7F:
POKE &HA6C9,&H9E:FORI=32670 TO 32670+&H15:READ A$:POKE

1ST COMMAND ON PAGE 13. 1ST LINE OF COMMAND SHOULD READ AS:

CLEAR 200,32590:POKE &H99FF,127:POKE &H9A00,&H4E:FORI=32590 TO 32658:

ROMPAK TRANSFER TO DISK (PAGE 14)

Use CLEAR 200,16384:CLOADM "FILENAME" instead of CLEAR 200,16384:
CLOADM"FILENAME",&H8000. Instead of modifying Lines 140 & 150 of
Program Listing 1, modify Line 110 of Program Listing 2 as follows:

110 INPUT "FILENAME";FI$:LOADM FI$:POKE &HFF40,0:EXEC 3584

3RD COMMAND FROM TOP ON PAGE 18. 1ST LINE SHOULD READ AS:

CLEAR 200,32500:POKE &HCF1C,&HAF:POKE &HCF1D,&HD6:FORI=32500 TO 32508:

4TH COMMAND FROM TOP ON PAGE 18. 1ST LINE SHOULD READ AS:

CLEAR 200,32500:POKE &HCFF8,&HAE:POKE &HCFF9,&HFA:FORI=32500 TO 32508:

7TH COMMAND FROM TOP ON PAGE 18. 1ST 2 LINES SHOULD READ AS:

CLEAR 200,32400:POKE &HD625,126:POKE &HD626,126:POKE &HD627,&H90:
FORI=32400 TO 32415:READ A$:POKE I,VAL("&H"+A$):

PROCEDURE ON PAGE 19

Follow the same steps except do NOT set the 64K ALL RAM MODE.

2ND, 3RD & 5TH COMMANDS ON PAGE 23 ARE INCOMPATIBLE WITH COCO III

**** HIGH SPEED CASSETTE OPERATION ****

Before loading or saving programs, TYPE: POKE 65497,0. This will
allow you to LOAD and SAVE programs at high speed. Use POKE 65496,0
for regular speed.

P R E F A C E

Our book, '500 POKES PEEKS 'N EXECS for the TRS-80 COLOR COMPUTER' was very well received by the CoCo Users. In a short span of two years, this book has seen four reprints and has been widely acclaimed by CoCo Users. Hence, the author decided to continue the good work and compose this supplement.

The SUPPLEMENT TO 500 POKES PEEKS 'N EXECS includes commands to give you even more power of Assembly Language through Basic. It includes commands like Rompak Transfer to Disk, PAINT with 65000 styles, Use of 40 track drives, High Speed Cassette Operation and Printer Routines such as Text and Graphic Dumps. You will also need the 500 PEEKS 'N EXECS to be able to effectively use this supplement.

We shall be glad to receive your views on the book and any changes/additions to be made to make it even more useful.

GOOD LUCK!!

HOW TO USE THE BOOK

The SUPPLEMENT TO THE 500 POKES PEEKS 'N EXECS for the TRS-80 COLOR COMPUTER has been prepared in a style that can be easily followed by a neophyte as well as a professional programmer. It follows a logical sequence of major groups based on different systems - Cassette Only & Cassette 'N Disk Commands, Printer, 64K Computers Only and Disk Systems. An exhaustive Table of Contents has been included to help you locate the major commands in the book.

TYPING IN THE COMMANDS

Before typing in any COMMAND, please read it ensuing RESULT and REMARKS. This will give you a better understanding of the COMMAND and whether or not it can be used with your particular system.

If the COMMAND is a PEEK, for example: PEEK (244), precede it with a PRINT command. For example, PRINT PEEK(244) and press <ENTER>. The computer will return (or display) a value. Then read the RESULT and REMARKS to understand what that particular value stands for. If you wish to use the PEEK command in a Basic Program, you may precede it with a variable, for example: A=PEEK(244):IF A=2 THEN ...

If the COMMAND contains any DATA statements, it must be preceded by a statement number. For example, if the command reads: FORI=1024 TO 1025:READ A:POKE I,A:NEXT:DATA 42,22, you would type it as: 10 FOR I=1024 TO 1025:READ A:POKE I,A:DATA 42,22. Then, type RUN to acheieve the RESULT. If you do not precede such commands with a statement #, you will get an ?OD ERROR. If you wish to use any of the commands with DATA statements in your Basic Programs, make sure they are placed in the BEGINNING of your program.Always make a BACKUP of the programs that contain POKEs, PEEKs and EXECs as a slight error can wipe out your entire program.

Before using any Printer Routines, such as Perforation Skip, make sure the appropriate printer baud rate is set. If you are using any of the commands listed under the 'FOR 64K COMPUTERS ONLY' section, make sure you have typed in and RUN the 64K ALL RAM MODE program from Page 61 of our 500 POKES PEEKS 'N EXECS book. The COMMANDs listed in this section will not work unless the computer is in the ALL RAM MODE. The COMMANDs for EDTASM + (R), COCO MAX (R), and TELEWRITER - 64 (R) and the various arcade games should be used with the particular programs.

CASSETTE ONLY & CASSETTE 'N DISK COMMANDS

COMMAND: POKE 25,PEEK(188):POKE PEEK(25)*256,0:NEW
RESULT: Performs a PCLEAR 0
REMARKS: Provides maximum memory for Basic Programs. Does not
         allow the use of graphics. Clears any Basic Program in
         memory

COMMAND: POKE 159,0
RESULT: Disables all functions/commands
REMARKS: * WARNING * Save any programs before using this POKE

COMMAND: CSAVEM "filename",1024,1535,PEEK(114)*256+PEEK(115)
RESULT: Saves the current text screen to cassette
REMARKS: Use CLOADM "filename" to load screen from cassette

COMMAND: CSAVEM "filename",PEEK(186)*256,PEEK(183)*256,44539
RESULT: Saves a graphics screen which is in memory to cassette
REMARKS: Use CLOADM "filename" to load screen from cassette

COMMAND: INT ((PEEK(223)-128)/4)+1
RESULT: Returns the volume of the most recent PLAY statement
REMARKS: For example, returns 27 in PLAY "V27"

COMMAND: FOR I = 338 TO 345:POKE I,255:NEXT I
RESULT: Improves keyboard reponse in some Basic Programs
REMARKS: This command should be added to precede any PEEK
         between PEEK (338) to PEEK(345) in the program

COMMAND: POKE 359,12
RESULT: Allows the use of graphics screens and 'SCREEN 0,1'
         without returning to normal text screen
REMARKS: Not compatible with Disk System

COMMAND: POKE 359,126
RESULT: Recovers from POKE 359,12
REMARKS: None

COMMAND: POKE 383,158
RESULT: Disables the LIST COMMAND
REMARKS: LIST command produces garbage

COMMAND: POKE 383,126
RESULT: Restores LIST command after POKE 383,158
REMARKS: None

COMMAND: POKE 383,158
RESULT: Disables the DIR + LIST commands in Disk
REMARKS: DIR command produces garbage

COMMAND: POKE 383,126
RESULT: Restores the DIR + LIST commands in Disk
REMARKS: None

COMMAND: EXEC 41393
RESULT: Flashes cursor and waits for a keystroke
REMARKS: Useful in 'PRESS ANY KEY TO CONTINUE' applications

COMMAND: POKE 465,0:EXEC &HA64C:X=1024:A=INT(X/256): B=X-
         (A*256):POKE &H1E7,A:POKE &H1E8,B:EXEC &HA505
RESULT: Loads a ML program from cassette at ANY address
Remark: Set X equal to the desired loading address in the
         above command

COMMAND: K=-1:OPEN "I",#K,"filename":EXEC 44156
RESULT: Loads a Basic Program saved in ASCII, into memory
REMARKS: Works with cassette files. Use K=1 to load disk files

COMMAND: K=-1:J=255 :FORI=243 TO253:READA$:POKE I,VAL(
         "&H"+A$):NEXT:OPEN"I",#K,"filename":POKE 111,J:EXEC
         243:CLOSE#K:DATA BD,A1,76,BD,A3,0A,0D,70,27,F6,39
RESULT: Displays the contents of the cassette data file
         'filename', on the screen
REMARKS: Same as the DUMP command found in other computers.
         For disk files, make K=1 and J=1

COMMAND: K=-1:J=255: FORI=243 TO253:READA$:POKE I,VAL(
         "&H"+A$):NEXT:OPEN"I",#K,"filename":POKE 111,J:EXEC
         243:CLOSE#K:DATA BD,A1,76,BD,A2,BF,0D,70,27,F6,39
RESULT: Displays the contents of the cassette data file
         'filename', on the printer
REMARKS: Same as the DUMP command found in other computers.
         For disk files, make K=1 and J=1

COMMAND: EXEC 44539: A$=CHR$(PEEK(135))
RESULT: Waits for a keystroke and returns the key in A$
REMARKS: Used as a substitute for the following:
      10 A$=INKEY$:IF A$="" THEN 10

COMMAND: EXEC 46481:? (PEEK(35)*256+PEEK(36))-(PEEK(33)*256+
      PEEK(34))
RESULT: Returns the amount of free string space
REMARKS: The amount of free string space is initially set
      by the 'CLEAR xx' command

COMMAND: EXEC &HACEF: CLEAR
RESULT: Restores a Basic Program lost by a RENUM error
REMARKS: RENUM error occurs when the computer tries to
      RENUMber a GOTO or GOSUB statement followed by a
      line # greater than 63999

COMMAND: CLS:?@0,"NO":POKE 65495,0:PRINT@0,"YES"
RESULT: Tests if your computer accepts the High Speed Poke
REMARKS: Prints 'YES' if it accepts the Poke, 'NO' if not

COMMAND: <Turn off computer. Put a scotch tape on the leftmost
      pin of the rompak. Insert Rompak in slot. Turn on
      computer.The 'EXTENDED BASIC' should appear. Type>
      POKE 65495,0:Press <Enter>. Type: EXEC 49152
RESULT: Increases the speed of your rompaks
REMARKS: Some rompaks might not work properly under the
      High Speed Mode

COMMAND: X=PEEK(39)*256+PEEK(40)-30:CLEAR 200,X:X=PEEK(39)*256
      +PEEK(40)+1:FOR I=X TO X+23:READ A$:POKE I,VAL("&H"+
      A$):NEXT:A=INT(X/256):B=X-(A*256):POKE 114,A:POKE 115,
      B:DATA 12,BD,82,9C,0F,E3,0F,E4,B6,FF,03,8A,01,B7,FF,
      03,0F,6F,BD,AD,21,7E,AD,9E
RESULT: Restarts your Basic Program when Reset is pressed
REMARKS: Disk Version of this is in 'DISK SYSTEMS' section

COMMAND: X=PEEK(39)*256+PEEK(40)-50:CLEAR 200,X:X=PEEK(39)*256+
PEEK(40)+1:FOR I=X TO X+34:READ A$:POKEI,VAL("&H"+A$):
NEXT:A=INT(X/256):B=X-(A*256):POKE X+5,PEEK(360):POKE
X+6,PEEK(361):POKE 360,A:POKE 361,B:DATA 0D,6F,27,03,
7E,00,00,34,56,0D,76,27,12,9E,88,8C,05,E0,25,0B,BD,A1,
B1,BD,A9,28,8E,04,00,9F,88,35,56,20,E1:POKE &H76,1

RESULT: Allows single screen LIST / DIR

REMARKS: Divide the command into two statements at DATA. Press
any key to move from one screen to the next

COMMAND: POKE &H76,0

RESULT: Disables the single screen LIST / DIR routine

REMARKS: Use POKE &H76,1 to reenter routine

COMMAND: RE=3584:B=RE/512: A=1:FORI= 65478 TO 65490 STEP 2:POKE
I-((B AND A)=A),0:A=A*2:NEXT

RESULT: Relocates the video display area to address defined
by variable RE in the command

REMARKS: Change RE to the desired address. Make sure RE is
evenly divisible by 512

COMMAND: X=PEEK(39)*256+PEEK(40)-20:CLEAR 200,X:X=PEEK(39)*256
+PEEK(40)+1:FORI=X TO X+14:READ A$:POKE I,
VAL("&H"+A$): NEXTI:EXEC X:DATA 8E,04,00,A6,84,88,40,
A7,80,8C,05,FF,23,F5,39

RESULT: Reverses the text screen

REMARKS: None

COMMAND: DIM RE(200):A=(PEEK(183)*256+PEEK(184))-(PEEK(186)*
256+PEEK(187)):A=A/32:X=128+(128*ABS(PEEK(182)=4)):
FORI=0 TO A STEP 21:PUT (0,I)-(X-1,I+20),RE,NOT:NEXT

RESULT: Reverses the current graphics screen

REMARKS: Works with all PMODEs! Takes approx. 5 seconds

COMMAND: POKE &H114,2:X=PEEK(39)*256+PEEK(40)-30:CLEAR 200,X:
X=PEEK(39)*256+PEEK(40)+1:FORI=X TO X+23:READ A$:POKE
I,VAL("&H"+A$):NEXT: POKE X+5,PEEK(360):POKE X+6,PEEK(
361):A=INT(X/256):B=X-(A*256):POKE 360,A:POKE 361,B:
DATA 0D,6F,27,03,7E,00,00,34,16,B6,01,14, 27,06,5F,
1F,01, BD,A7,D3,35,16,20,EC

RESULT: Slows down character printing rate

REMARKS: Very useful to read listings / disk directories.
Divide command into two statements at DATA

COMMAND: POKE &H114,x
RESULT: Sets character printing rate
REMARKS: Use in conjunction with the previous routine. x is
         any # between 1 to 50. 1=slow, 50 = very slow. Make
         x=0 to disable slow print

COMMAND: X=PEEK(188)*256:FOR I=X TO X+94:READ A$:POKE I,VAL
         ("&H"+A$):NEXT:DATA 0F,78,BD,A5,C5,BD,A6,48,BD,AD,19,
         BD,A7,7C,9E,19,9F,7E,DC,7E,4C,BD,AC,37,BD,A7,0B,26,0D,
         96,7C,27,09,96,7C,27,05,2A,E9,7E,A4,EB,BD,A7,E9,9E,7E,
         9F,76,9E,19,9C,76,24,1C,EC,84,27,1E,33,04,11,93,76,24,
         11,A6,C0,27,07,11,93,76,24,08,20,F5,EF,84,AE,84,20,E0,
         6F,80,6F,80,9F,1B,BD,AD,21,7E,AC,73
RESULT: Restores part of cassette based Basic Programs that
         have been lost by ?IO ERRORS
REMARKS: RUN this program. Cassette users: CSAVEM "TRESTORE",
         1536,1536+95,1536. Disk Users: SAVEM "TRESTORE",3584,
         3584+95,3584. To restore a Basic Program, simply
         CLOADM or LOADM "TRESTORE". Press PLAY on cassette
         player, type EXEC and press <ENTER>

HIGH SPEED CASSETTE OPERATION

The following commands will allow you SAVE / LOAD Basic and ML
programs at high-speed. For use with Radio Shack Computer Cassette
Recorders only.

(1) To save a program at high speed, type POKE 65495,0 and press
<ENTER>. Then use the normal CSAVE or CSAVEM command to save program
to cassette.

(2) To load:

COMMAND: POKE 65495,0:POKE 143,14:POKE 144,24:POKE 145,6:
RESULT: Sets up the computer for high speed loading
REMARKS: Follow this command by the CLOAD or CLOADM command to
         load your program from cassette at high speed

COMMAND: POKE 65494,0:POKE 143,PEEK(&HA10D):POKE 144,24:POKE
         145, PEEK(&HA10F)
RESULT: Restores computer for regular speed loading
REMARKS: None

PRINTER

COMMAND: BAUD = xxxx: P=INT(55600/BAUD)-(16/3)+.5)+(2* (BAUD=
110))-(BAUD=9600):P1=INT(P/256):POKE 149,P1: POKE 150,
P-(P1*256)

RESULT: Sets baud rate 110,300,600,1200,2400,4800 or 9600

REMARKS: Substitute xxxx in the command with desired baud rate

COMMAND: X=PEEK(39)*256+PEEK(40)-40:CLEAR 200,X:X=PEEK(39)*256
+PEEK(40)+1:FORI=X TO X+34:READ A$:POKE I,VAL("&H"+
A$): NEXT:POKE X+11,PEEK(360):POKE X+12,PEEK(361):
A=INT(X/256):B=X-(A*256):POKE 360,A:POKE 361,B:DATA
34,02,96,6F,81,FE,27,05,35,02,7E,00,00,35,02,32,62,
34,02,96,77,97,96,35,02,7F,FF,D6,BD,A2,BF,7F,FF,D7,39

RESULT: Allows you to operate your printer with the high
speed poke

REMARKS: Divide the command into two statements at DATA.
After typing in this command, type in the following
commands for the appropriate baud rate

COMMAND: POKE 149,1:POKE &H77,242

RESULT: Sets up printer for Baud Rate 110 for use with the
High Speed Poke

REMARKS: Use after previous command

COMMAND: POKE 149,1:POKE &H77,180

RESULT: Sets up printer for Baud Rate 300 for use with the
High Speed Poke

REMARKS: See REMARKS for previous command

COMMAND: POKE 149,0:POKE &H77,87

RESULT: Sets up printer for Baud Rate 600 for use with the
High Speed Poke

REMARKS: See REMARKS for previous command

COMMAND: POKE 149,0:POKE &H77,41

RESULT: Sets up printer for Baud Rate 1200 for use with the
High Speed Poke

REMARKS: See REMARKS for previous command

COMMAND: POKE 149,0:POKE &H77,18

RESULT: Sets up printer for Baud Rate 2400 for use with the
High Speed Poke

REMARKS: See REMARKS for previous command

COMMAND: POKE 149,0:POKE &H77,6
RESULT: Sets up printer for Baud Rate 4800 for use with the
         High Speed Poke
REMARKS: See REMARKS for previous command

COMMAND: POKE 149,0:POKE &H77,1
RESULT: Sets up printer for Baud Rate 9600 for use with the
         High Speed Poke
REMARKS: See REMARKS for previous command

COMMAND: POKE 360,&H82:POKE 361,&H73
RESULT: Disables the routine which allows printer operation
         under the High Speed Poke
REMARKS: For ECB Only. For Disk Basic 1.0, use POKE 360,&HCB:
         POKE 361,&H4A; Disk Basic 1.1 - POKE 360,&HCC:POKE
         361,&H1C

COMMAND: X=PEEK(39)*256+PEEK(40)-30:CLEAR 200,X:X=PEEK(39)*256+
         PEEK(40)+1:FORI=X TO X+21:READ A$:POKE I,VAL("&H"+A$):
         NEXT:POKE X+11,PEEK(360):POKE X+12,PEEK(361):A=INT(
         X/256):B=X-(A*256):POKE 360,A:POKE 361,B:DATA 34,02,
         96,6F,81,FE,27,05,35,02,7E,00,00,B6,FF,22,44,25,FA,35,
         02,39
RESULT: Corrects the Bug in Color Basic 1.1 which causes the
         printer to miss the first character occasionally
REMARKS: Divide the command into two statements at DATA. This
         routine not necessary for Color Basic 1.2

COMMAND: X=PEEK(39)*256+PEEK(40)-30:CLEAR 200,X:X=PEEK(39)*256+
         PEEK(40)+1:FORI=X TO X+25:READ A$:POKE I,VAL("&H"+A$):
         NEXT:POKE X+11,PEEK(360):POKE X+12,PEEK(361):A=INT(
         X/256):B=X-(A*256):POKE 360,A:POKE 361,B:DATA 34,02,
         96,6F,81,FE,27,05,35,02,7E,CC,1C,96,9C,91,F3,25,05,86,
         0D,BD,A2,BF,35,82
RESULT: Allows you to define the right margin for your printer
REMARKS: Divide the command into two statements at DATA. This
         routine is helpful for setting the right margin so
         that the printer doesn't print off the PAPER . See
         next command

COMMAND: POKE &HF3,x
RESULT: Sets the right margin for the previous command
REMARKS: x is the right margin between 10 and 132

COMMAND: POKE 360,&H82:POKE 361,&H73
RESULT: Disables the Right Margin Printer Routine
REMARKS: For ECB Only. For Disk Basic 1.0 - POKE 360,&HCB:POKE
         361,&H4A. For Disk Basic 1.1 - POKE 360,&HCC:POKE 361,
         &H1C

COMMAND: X=PEEK(39)*256+PEEK(40)-60:CLEAR 200,X:X=PEEK(39)*256
         +PEEK(40)+1:FOR I=X TO X+57:READ A$:POKE I,VAL("&H"+
         A$):NEXT:POKE X+11,PEEK(360):POKE X+12,PEEK(361):A=INT
         (X/256):B=X-(A*256):POKE 360,A:POKE 361,B:DATA 34,06,
         96,6F,81,FE,27,05,35,06,7E,00,00,A6,E4,BD,A2,BF,81,0D,
         27,0B,D6,9C,C1,50,25,19,86,0D,BD,A2,BF,0C,F4,D6,F4,C1,
         3C,25,0C,C6,06,86,0D,BD,A2,BF,5A,26,FA,0F,F4,35,06,32,
         62,39: POKE 244,0
RESULT: Perforation Skip Routine
REMARKS: Divide the command into two statements at DATA. This
         routine allows your printer to skip over perforations
         and automatically skip to the next sheet when it
         reaches the bottom of a sheet

COMMAND: PEEK(244)
RESULT: Returns the row # the printer is printing on
REMARKS: To be used in conjunction with the previous command

COMMAND: POKE 360,&H82:POKE 361,&H73
RESULT: Disables the Perforation Skip Routine
REMARKS: For ECB Only. For Disk Basic 1.0 - POKE 360,&HCB:POKE
         361,&H4A. For Disk Basic 1.1 - POKE 360,&HCC:POKE 361,
         &H1C

COMMAND: 10 FORI=1024 TO 1535
         20 A=PEEK(I):A=A AND 127:IF A>95 THEN A=A-64
         30 PRINT #-2,CHR$(A);
         40 IF (I+1)/32=INT((I+1)/32) THEN PRINT #-2
         50 NEXT
RESULT: Text Screen Dump to Printer
REMARKS: RUN this program to dump the current text screen

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```
COMMAND: 10 PMODE 4:SCREEN 1,0:POKE 111,254
         20 K=PEEK(111):K=(2*(K=254))+(K=255):     DIM A(192)
         30 X=0:PRINT #K,CHR$(18)
         40 FOR Y=191 TO 0 STEP -1:S=128
         50 S=S+(3*PPOINT(X,Y)):S=S+(12*PPOINT(X+1,Y)):
            S=S+(48*PPOINT(X+2,Y)):S=S+(64*PPOINT(X+3,Y)):A(Y)
            =PPOINT(X+3,Y)
         60 PRINT #K,CHR$(S);CHR$(S);:NEXT:PRINT#K:IF X>=252
            THEN 110
         70 FOR Y=191 TO 0 STEP -1:S=128
         80 S=S+(A(Y)): S=S+(6*PPOINT(X+4,Y)): S=S+(24*PPOINT
            (X+5, Y)): S=S+(96*PPOINT(X+6,Y))
         90 PRINT #K,CHR$(S);CHR$(S);:NEXT:PRINT #K:X=X+7
        100 IF X<256 THEN 40
        110 PRINT#-2,CHR$(30)
```

RESULT: Dumps the PMODE 4 graphics screen to a DMP printer

REMARKS: Before RUNning this program,make sure you have the
         graphics screen in memory. Since this dump is in
         Basic, it takes approx. 15 minutes to print

FOR 64K COMPUTERS ONLY

Note: All the commands listed under this section require the 64K ALL RAM program from Page 61 of our '500 POKES PEEKS 'N EXECS'

COMMAND: X=PEEK(39)*256+PEEK(40)-10:CLEAR 200,X:X=PEEK(39)*256
+PEEK(40)+1:A=INT(X/256):B=X-(A*256):POKE 114,A:POKE
115,B:FOR I=X TO X+6:READ A$:POKE I,VAL("&H"+A$):NEXT
DATA 12,7F,FF,DF,7E,80,C0
RESULT: Sets RESET protection for the ALL RAM MODE
REMARKS: CoCo does not enter the RAM/ROM mode when Reset. Not
for disk systems

COMMAND: X=PEEK(39)*256+PEEK(40)-10:CLEAR 200,X:X=PEEK(39)*256
+PEEK(40)+1:A=INT(X/256):B=X-(A*256):POKE 114,A:POKE
115,B:FOR I=X TO X+6:READ A$:POKE I,VAL("&H"+A$):NEXT
DATA 12,7F,FF,DF,7E,C0,D4
RESULT: Sets RESET protection for the ALL RAM MODE
REMARKS: CoCo does not enter the RAM/ROM mode when Reset. For
Disk Basic 1.0 only

COMMAND: X=PEEK(39)*256+PEEK(40)-10:CLEAR 200,X:X=PEEK(39)*256
+PEEK(40)+1:A=INT(X/256):B=X-(A*256):POKE 114,A:POKE
115,B:FOR I=X TO X+6:READ A$:POKE I,VAL("&H"+A$):NEXT
DATA 12,7F,FF,DF,7E,C0,E7
RESULT: Sets RESET protection for the ALL RAM MODE
REMARKS: CoCo does not enter the RAM/ROM mode when Reset. Only
for Disk Basic 1.1

COMMAND: POKE &HFFDE,0
RESULT: Returns to the normal RAM/ROM mode
REMARKS: Useful for returning to normal after 64K ALL RAM MODE

COMMAND: POKE &HFFDF,0
RESULT: Reenters the 64K ALL RAM MODE after POKE &HFFDE,0
REMARKS: None

COMMAND: POKE &HA19B,PEEK(&HA262)
RESULT: Creates an invisible cursor
REMARKS: None

COMMAND: POKE 41804,5:POKE 41805,n*32
RESULT: Sets up a text window
REMARKS: Scroll protects top half of the screen and the 'n' #
         of lines from the bottom half. n can be any # 0 to 6

COMMAND: FOR I =&HAC4C TO &HAC50: POKE I,18:NEXT
RESULT: Disables MOTOR OFF / AUDIO OFF upon error
REMARKS: Can be useful when listening to music through the
         TV speaker (set through MOTOR ON:AUDIO ON)

COMMAND: POKE &HB816,4
RESULT: Makes Packed Basic Lines visible
REMARKS: Useful for Rainbow (R) One - Liners

COMMAND: POKE &HADF5,12
RESULT: Allows you to pause listings/program through CLEAR
REMARKS: Eliminates pause through the cumbersome SHIFT - @

COMMAND: POKE &H9537,x: PCLS 1
RESULT: Creates multi-colored backgrounds for various PMODEs
REMARKS: Use PCLS 2 instead of PCLS 1 for PMODEs 0 & 1. Try
         values of x (between 0 and 255) for different patterns

COMMAND: POKE &H968E,18:POKE &H968F,18:POKE &H9690,18:POKE
         &H96A3,18:POKE &H96A4,18
RESULT: Allows PCLEAR 0
REMARKS: None

COMMAND: POKE &H9692,15
RESULT: Allows you to PCLEAR from 1 to 14
REMARKS: None

COMMAND: POKE 49152,0:POKE &H134,0:POKE &H139,0: EXEC &H8002
RESULT: Creates an EXTENDED BASIC only system.
REMARKS: Useful for loading most programs from cassette that
         work in a non-disk environment, without unplugging the
         disk controller. Erases any Basic Program in memory

COMMAND: POKE 49152,68:EXEC &H8002
RESULT: Returns to normal after the previous command
REMARKS: Erases any Basic Program in memory

COMMAND: POKE &HAD19,126:POKE &HAD1A,&HE0:POKE &HAD1B,0:FOR
I=&HE000 TO &HE01D:READ A$:POKE I,VAL("&H"+A$):NEXT:
DATA 8E,E0,17,BD,B9,9C,BD,A1,B1,81,59,26,07,9E,19,6F,
80,7E,AD,1D,7E,AD,33,20,53,55,52,45,3F,00

RESULT: Enhances the NEW command

REMARKS: NEW command prompts with SURE? before erasing the
Basic Program. Prevents accidental erasures

COMMAND: POKE &HA53C,&HE1:POKE &HA53D,0:FORI=&HE100 TO &HE105:
READ A$:POKE I,VAL("&H"+A$):NEXT:DATABD,A7,E9,7E,A5,45

RESULT: Combines the CLOADM and EXEC commands

REMARKS: CLOADM loads and EXECutes a ML program from cassette

COMMAND: FORI=&HE150 TO &HE17A:READ A$:POKE I,VAL("&H"+A$):
NEXT: DATA 9E,BA,BF,E1,66,CE,E6,00,A6,80,A7,C0,9C,B7,
23,F8,9E,B7,BF,E1,68,39,00,00,00,00,8E,E6,00,FE,E1,66,
A6,80,A7,C0,11,B3,E1,68,23,F6,39

RESULT: Allows you to hide the current graphics screen
and recall it later

REMARKS: Same as the OOPS command found in other computers.
See next two commands for more info

COMMAND: EXEC &HE150

RESULT: Hides the current graphics screen

REMARKS: To be used in conjunction with the previous command

COMMAND: EXEC &HE16A

RESULT: Restores the hidden graphics screen

REMARKS: To be used in conjunction with the previous two
commands

COMMAND: POKE &HA69B,&HFA:POKE &HA6C7,126:POKE &HA6C8,&HE2:
POKE &HA6C9,00:FORI=&HE200 TO &HE200+&H15:READ A$:POKE
I,VAL("&H"+A$):NEXT:DATA 27,11,B6,04,00,81,46,27,06,
88,40,81,46,26,01,39,7E,A6,96,7E,A6,86

RESULT: Enhances the CLOAD / CLOADM command

REMARKS: CLOAD / CLOADM "filename" will continue to look for
'filename' while ignoring ?IO ERRORs in any other
file in the process

COMMAND: POKE &H99FF,&HE2:POKE &H9A00,0:FOR I=&HE200 TO &HE244:
         READ A$:POKE I,VAL("&H"+A$):NEXT:DATA 34,76,1F,10,90,
         BA,DD,F5,86,20,97,FD,8D,1F,1F,89,4F,DD,F5,86,02,97,FD,
         8D,14,DC,F7,5D,26,06:DATA 96,FE,97,B5,20,04,96,FF,97,
         B5,35,76,7E,93,77,86,08,97,FC,DC,F5,58,49,91,FD,25,03,
         90,FD,5C,0A,FC,26,F3,1E,89,DD,F7,39
RESULT: Allows 65000 PAINT styles instead of the usual 8
REMARKS: Divide the command into two statements at the second
         DATA statement. See next two commands

COMMAND: POKE 254,a:POKE 255,b:PAINT (x,y),0,c
RESULT: PAINTS starting at coordinate x,y with the pattern
         defined by 'a' and 'b' till it hits border 'c'
REMARKS: To be used in conjunction with the previous command.
         Try different values of 'a' and 'b' for different
         patterns

COMMAND: POKE &H99FF,&H93:POKE &H9A00,&H77
RESULT: Restores normal PAINT
remarks: None

The next eight POKEs are Problem Pokes for various ROMPAKs. They are
to be used in conjunction with the ROMPAK TRANSFER program from Page
65 of our 500 POKES PEEKS 'N EXECS. Type in the appropriate POKEs in
statement 145 of Program Listing 1. Note: The names of these Rompaks
are registered trademarks of the Tandy Corporation.

COMMAND: X=20895:POKE X,142:POKE X+1,159:POKE X+2,254:POKE
         X+3,191:POKE X+4,PEEK(&H8A):POKE X+5,96:POKE X+6,57
RESULT: Patches the SPECTACULATOR (R) Rompak
REMARKS: None

COMMAND: POKE 16487,62:POKE 16488,128
RESULT: Patches the MICRO PAINTER (R) Rompak
REMARKS: None

COMMAND: POKE 19465,PEEK(&H8A)+57
RESULT: Patches the REACTOIDS (R) Rompak
REMARKS: None

```
COMMAND: A=PEEK(PEEK(114)*256+PEEK(115)):POKE 17444,A:POKE
         17445,A
RESULT:  Patches the CANYON CLIMBER (R) Rompak
REMARKS: None


COMMAND: A=PEEK(PEEK(114)*256+PEEK(115)):POKE 17851,A:POKE
         17852,A
RESULT:  Patches the MICROBES (R) Rompak
REMARKS: None


COMMAND: A=PEEK(PEEK(114)*256+PEEK(115)):POKE 20772,A:POKE
         20773,A
RESULT:  Patches the SLAY THE NERIES (R) Rompak
REMARKS: None


COMMAND: A=PEEK(PEEK(114)*256+PEEK(115)):Y=22141:FOR I=Y TO
         Y+3:POKE I,18:NEXT
RESULT:  Patches the MEGABUG (R) Rompak
REMARKS: None


COMMAND: A=PEEK(PEEK(114)*256+PEEK(115)):B=16421:POKEB,A:POKE
         B+1,A:POKE B+47,A:POKE B+48,A:POKEB+49,A:B=22646:POKE
         B,A:POKEB+1,A:POKE B+29,A:POKE B+30,A:B=23778:POKEB,A:
         POKE B+1,A:B=17565:POKE B,A:POKE B+1,A:POKE B+1424,A:
         POKE B+1425,A:POKE B+1500,A:POKE B+1501,A
RESULT:  Patches the DOWNLAND (R) Rompak
REMARKS: None
```

ROMPAK TRANSFER TO DISK

This procedure is to be used with the ROMPAK TRANSFER program
on Page 65 of 500 POKES PEEKS 'N EXECS.

First, transfer the ROMPAK to cassette as described on Page 64. Then,
turn off computer, plug in disk controller, turn on computer, rewind
cassette and type: CLEAR 200,16384:CLOADM "FILENAME",&H8000: When the
program   loads,   insert   disk   in   Drive   0   and   type:
SAVEM"FILENAME",16384,32767,0. Then make the following changes to the
PROGRAM LISTING 1 and save the modified PROGRAM LISTING 1 to disk:

```
140 INPUT "FILENAME";FI$:LOADM FI$
150 POKE 243,254:POKE 244,255:POKE &HFF40,0
```

COMMAND: POKE 52152,PEEK(33376)
RESULT: Corrects the bug in the COPY COMMAND
REMARKS: For Disk Basic 1.1. Now the COPY function does
         not lock up when it encounters an error

COMMAND: POKE 51942,PEEK(33376)
RESULT: Corrects the bug in the COPY COMMAND
REMARKS: For Disk Basic 1.0. See REMARKS for previous command

COMMAND: POKE &HD66F,x
RESULT: Determines how many times the computer will try to
         read the disk before it issues an error
REMARKS: For Disk Basic 1.0. x is # of tries between 2 to 5

COMMAND: POKE &HD762,x
RESULT: Determines how many times the computer will try to
         read the disk before it issues an error
REMARKS: For Disk Basic 1.1. x is # of tries between 2 to 5

COMMAND: POKE &HD6CD,0:POKE &HD723,23
RESULT: Sets up disk drive for 30 ms step rate
REMARKS: For Disk Basic 1.0. Some drives, especially Radio
         Shack drives, might not work with lower step rates

COMMAND: POKE &HD6CD,0:POKE &HD723,22
RESULT: Sets up disk drive for 20 ms step rate
REMARKS: See REMARKS for previous command

COMMAND: POKE &HD6CD,0:POKE &HD723,21
RESULT: Sets up disk drive for 12 ms step rate
REMARKS: See REMARKS for previous command

COMMAND: POKE &HD6CD,0:POKE &HD723,20
RESULT: Sets up disk drive for 6 ms step rate
REMARKS: See REMARKS for previous command

COMMAND: POKE &HD7C0,0:POKE &HD816,23
RESULT: Sets up disk drive for 30 ms step rate
REMARKS: For Disk Basic 1.1. Some drives, especially Radio
         Shack drives, might not work with lower step rates

COMMAND: POKE &HD7C0,0:POKE &HD816,22
RESULT: Sets up disk drive for 20 ms step rate
REMARKS: See REMARKS for previous command

COMMAND: POKE &HD7C0,0:POKE &HD816,21
RESULT: Sets up disk drive for 12 ms step rate
REMARKS: See REMARKS for previous command

COMMAND: POKE &HD7C0,0:POKE &HD816,20
RESULT: Sets up disk drive for 6 ms step rate
REMARKS: See REMARKS for previous command

COMMAND: POKE 243,&HCC:POKE 244,&H41:POKE 245,&H42:POKE 246,
         &HFD:POKE 247,&HD7:POKE 248,&HAC:POKE 249,57:EXEC 243
RESULT: Allows use of double sided disk drives
REMARKS: For Disk Basic 1.0. Drive 2 becomes the other side of
         Drive 0,Drive 3 the other side of Drive 1

COMMAND: POKE 243,&HCC:POKE 244,&H41:POKE 245,&H42:POKE 246,
         &HFD:POKE 247,&HD8:POKE 248,&H9F:POKE 249,57:EXEC 243
RESULT: Allows use of double sided disk drives
REMARKS: For Disk Basic 1.1. Drive 2 becomes the other side of
         Drive 0,Drive 3 the other side of Drive 1

The next 16 commands are for use of 40 track disk drives. The first 8
POKEs are for Disk Basic 1.0 and the next are for Disk Basic 1.1.
These commands allow you an extra 22K of disk storage space on your 40
track drive. However, please note that a maximum of three 40 track
drives can be used with the CoCo

COMMAND: POKE 50952,78
RESULT: Patches the KILL command for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 50986,84:POKE 51083,78
RESULT: Patches the FAT for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 51104,78:POKE 51135,78:POKE 52300,78
RESULT: Patches the GAT for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 52697,78
RESULT: Patches the FREE command for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 53680,40
RESULT: Patches the BACKUP command for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 54111,78
RESULT: Patches the COPY command for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 54342,39
RESULT: Patches the DSKI$/DSKO$ command for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 54642,40:POKE 54677,40
RESULT: Patches the DSKINI command for 40 track drives
REMARKS: For Disk Basic 1.0

COMMAND: POKE 50997,78
RESULT: Patches the KILL command for 40 track drives
REMARKS: For Disk Basic 1.1

COMMAND: POKE 51034,84:POKE 51131,78
RESULT: Patches the FAT for 40 track drives
REMARKS: For Disk Basic 1.1

COMMAND: POKE 51183,78:POKE 51152,78:POKE 52518,78
RESULT: Patches the GAT for 40 track drives
REMARKS: For Disk Basic 1.1

COMMAND: POKE 52917,78
RESULT: Patches the FREE command for 40 track drives
REMARKS: For Disk Basic 1.1

COMMAND: POKE 53917,40
RESULT: Patches the BACKUP command for 40 track drives
REMARKS: For Disk Basic 1.1

COMMAND: POKE 54349,78
RESULT: Patches the COPY command for 40 track drives
REMARKS: For Disk Basic 1.1

```
COMMAND: POKE 54580,39
RESULT:  Patches the DSKI$/DSKO$ command for 40 track drives
REMARKS: For Disk Basic 1.1


COMMAND: POKE 54879,40:POKE 54914,40
RESULT:  Patches the DSKINI command for 40 track drives
REMARKS: For Disk Basic 1.1


COMMAND: POKE &HCF1C,19:POKE&HCF1D,&HE2:FORI=&HE300 TO &HE308:
         READA$:POKE I,VAL("&H"+A$):NEXT:DATA 7F,FF,40,BD,A4,
         2D,7E,A5,45
RESULT:  Combines the LOADM and EXEC commands
0emarks: LOADM loads and EXECs a ML program. For Disk Basic 1.0


COMMAND: POKE &HCFF8,&H13:POKE &HCFF9,6:FOR I=&HE300 TO &HE308:
         READA$:POKE I,VAL("&H"+A$):NEXT:DATA 7F,FF,40,BD,A4,
         2D,7E,A5,45
RESULT:  Combines the LOADM and EXEC commands
REMARKS: LOADM loads and EXECs a ML program. For Disk Basic 1.1


COMMAND: FORI=&HD262 TO &HD265:POKE I,18:NEXT:POKE &HD26B,&H4F
RESULT:  Uses default drive # when BACKUP is not followed by a
         drive #
REMARKS: For Disk Basic 1.1


COMMAND: FORI=&HD175 TO &HD178:POKE I,18:NEXT:POKE &HD17E,&H62
RESULT:  Uses default drive # when BACKUP is not followed by a
         drive #
REMARKS: For Disk Basic 1.0


COMMAND: POKE &HD625,126:POKE &HD626,&HE3:POKE &HD627,&H50:
         FORI=&HE350 TO &HE35F:READ A$:POKE I,VAL("&H"+A$):
         NEXT:DATA 4F,D6,EC,BD,BD,CC,BD,B9,58,10,8E,FF,4B,7E,
         D6,29
RESULT:  DSKINI displays the track it is currently initializing
REMARKS: For Disk Basic 1.1


COMMAND: POKE &HD538,126:POKE &HD539,&HE3:POKE &HD53A,&H50:
         FORI=&HE350 TO &HE35F:READ A$:POKE I,VAL("&H"+A$):
         NEXT:DATA 4F,D6,EC,BD,BD,CC,BD,B9,58,10,8E,FF,4B,7E,
         D5,3C
RESULT:  DSKINI displays the track it is currently initializing
REMARKS: For Disk Basic 1.0
```

This procedure will let you LOAD and RUN most of those 'Cassette Only' Basic Programs from disk. First, transfer the Basic Program from cassette to disk. Then, set the 64K ALL RAM MODE as described on Page 61 of our 500 POKES PEEKS 'N EXECS. LOAD the Basic Program disk and type in the following command:

COMMAND: POKE &H134,0:POKE &H139,0:POKE 49152,0:POKE 248,PEEK(25):POKE 249,PEEK(27):POKE 250,PEEK(28):EXEC &H8002

RESULT: Puts the computer in EXTENDED BASIC ONLY mode and preserves the Basic Program in memory

REMARKS: None

Then, type this command:

COMMAND: POKE 25,PEEK(248):POKE 27,PEEK(249):POKE 28,PEEK(250): LIST

RESULT: Recovers the Basic Program

REMARKS: None

If the Basic Program requires a POKE 25,6:NEW before it loads, type in the following commands; otherwise type: PCLEAR 4:RUN

COMMAND: POKE &H968E,18:POKE &H968F,18:POKE &H9690,18:POKE &H96A3,18:POKE &H96A4,18:PCLEAR 0:RUN

RESULT: Sets PCLEAR 0 and RUNs the program

REMARKS: None

DISK SYSTEMS

COMMAND: POKE 2376,9:POKE 2378,10:POKE 2377,&H89:POKE 2379,&H89
RESULT: Prevents ?OB ERROR message after COPY error
REMARKS: Type in this command AFTER the COPY error

COMMAND: PEEK(&HC155)
RESULT: Returns 49 in Disk Basic 1.1
REMARKS: Used to ascertain between Disk ROMs

COMMAND: PEEK (&HC155)
RESULT: Returns a <>49 number in Disk Basic 1.0
REMARKS: Used to ascertain between Disk ROMs

COMMAND: SAVEM"TEXT",1024,1535,PEEK(114)*256+PEEK(115)
RESULT: Saves the current text screen to disk
REMARKS: Use LOADM"TEXT" to load screen back from disk

COMMAND: SAVEM"GRAPHICS",3584,PEEK(183)*256,44539
RESULT: Saves the current graphics screen to disk
REMARKS: Use LOADM "GRAPHICS" to load screen back from disk

COMMAND: PEEK (&HEC)
RESULT: If used after a DSKINI error, it returns the track #
        where the error occurred
REMARKS: See next command

COMMAND: PEEK (&HED)
RESULT: If used after a DSKINI error, it returns the sector #
        where the error occurred
REMARKS: None

COMMAND: CLEAR 200,32766:POKE 25,14:POKE 3584,0:NEW
RESULT: COPY command requires fewer SWAPS with larger files
REMARKS: Erases any Basic Program in memory

COMMAND: A=2000:EXEC 44609 A:DSKI$ 0,0,1,A$,B$
RESULT: Restores head to track 0 on Drive 0
REMARKS: Use before turning off computer. Next time you turn on
         the computer and type DIR, the disk drive head will
         not restore to track 0.Prolongs the life of your drive

COMMAND: A=2000:EXEC 44609 A:DSKI$ 1,0,1,A$,B$
RESULT: Restores head to track 0 on Drive 1
REMARKS: Use before turning off computer. Next time you turn on
         the computer and type DIR, the disk drive head will
         "bang" to track 0.Prolongs the life of your drive

COMMAND: A=2000:EXEC 44609 A:DSKI$ 2,0,1,A$,B$
RESULT: Restores head to track 0 on Drive 2
REMARKS: See REMARKS for previous command

COMMAND: A=2000:EXEC 44609 A:DSKI$ 3,0,1,A$,B$
RESULT: Restores head to track 0 on Drive 3
REMARKS: See REMARKS for previous command

COMMAND: UNLOAD:OPEN"D",#1,"filename/bas",1:FIELD #1,1 AS A$:
         GET #1,2:A=ASC(A$):GET #1,3:A=A*256+ASC(A$):PRINT"
         LENGTH ="A: EXEC &HA426
RESULT: Gives LENGTH of Basic Program on disk
REMARKS: Substitute 'filename' with the appropriate filename

COMMAND: 10 UNLOAD:OPEN"D",#1,"filename/bin",1:FIELD #1,1 AS
            A$:P=1
         20 GET #1,P+1:A=ASC(A$):GET #1,P+2:A=A*256+ASC(A$):
            P=P+A+5:GET #1,P:IF ASC(A$)<>255 THEN 20
         30 GET #1,P+3:A=ASC(A$):GET #1,P+4:A=A*256+ASC(A$):
            PRINT "EXEC ="A:EXEC &HA426
RESULT: Gives EXEC address of ML program on disk
REMARKS: Substitute 'filename' with the appropriate filename
         RUN this program to achieve the RESULT

COMMAND: UNLOAD: OPEN"D",#1,"filename/bin",1:FIELD #1, 1 AS
         A$:P=1:GET #1,P+1:A=ASC(A$):GET #1,P+2:A=A*256+ASC
         (A$):GET #1,P+3:B=ASC(A$):GET #1,P+4:B=B*256+ASC(A$):
         PRINT"START ="B;:? TAB(15)" END ="A+B-1:EXEC &HA426
RESULT: Gives the START / END address of ML program on disk
REMARKS: Substitute 'filename' with appropriate filename. For
         ML programs that do NOT have multiple start addresses

COMMAND: 10 UNLOAD:OPEN"D",#1,"filename/bin",1:FIELD #1,1 AS
         A$:P=1
         20 GET #1,P+1:A=ASC(A$):GET #1,P+2:A=A*256+ASC(A$):
         GET #1,P+3:B= ASC(A$):GET #1,P+4:B=B*256+ASC(A$):
         PRINT "START ="B;:?TAB(15)" END ="A+B-1:P=P+A+5:
         GET #1,P:IF ASC(A$)<>255 THEN 20 ELSE EXEC &HA426
RESULT: Gives the START / END address of a ML program on disk
REMARKS: Substitute 'filename' with appropriate filename. For
         ML programs that do/don't have multiple start
         addresses. RUN this program to achieve the RESULT

COMMAND: UNLOAD: OPEN"D",#1,"filename/bin",1:FIELD #1,1 AS A$:
         X=xxxx:A=INT(X/256):B=X-(A*256):LSET A$=CHR$(A):PUT
         #1,4:LSET A$=CHR$(B):PUT #1,5:EXEC &HA426
RESULT: Changes the start address of a ML program on disk
REMARKS: Substitute 'filename' with appropriate filename. Not
         for files with multiple start addresses. Substitute
         xxxx with the desired start address

COMMAND: SAVE"filenam"+CHR$(PEEK(138)+143)
RESULT: Saves a Basic Program on disk with simple protection
REMARKS: Substitute 'filenam' with appropriate 7 letter
         filename. Although the file appears normal when you
         DIR, it can only be loaded by the next command

COMMAND: LOAD "filenam"+CHR$(PEEK(138)+143)
RESULT: Loads a protected Basic Program from disk
REMARKS: Substitute 'filenam' with appropriate filename. To be
         used in conjunction with the previous command

COMMAND: A$="filename/ext":EXEC 51512 A$:EXEC &HC68C:A=PEEK
         (&H973)
RESULT: Tests to see if the filename 'A$' exits on disk
REMARKS: For Disk Basic 1.1. If filename is not found, then
         A=0; if found, then A is a non zero number

COMMAND: A$="filename/ext":EXEC 51338 A$:EXEC &HC65F:A=PEEK
         (&H973)
RESULT: Tests to see if the filename 'A$' exits on disk
REMARKS: For Disk Basic 1.0. If filename not found, then
         A=0; if found, then A is a non zero number

COMMAND: POKE 234,2:POKE 238,6:POKE 239,0:FOR I=0 TO34:FOR J=
         1TO18:POKE 236,I:POKE237,J:EXEC PEEK(&HC004)*256+PEEK(
         &HC005):IF PEEK(240)<>0 THEN ?"TRACK"I"SECTOR"J:NEXTJ,
         I ELSE NEXT J,I
RESULT: Verifies disk and lists all bad track/sectors
REMARKS: None

COMMAND: X=PEEK(39)*256+PEEK(40)-40:CLEAR 200,X:X=PEEK(39)*256
         +PEEK(40)+1:FOR I=X TO X+29:READ A$:POKE I,VAL("&H"
         +A$):NEXT:A=INT(X/256):B=X-(A*256):POKE 114,A:POKE
         115,B:DATA 12,BD,C0,F0,BD,D2,D2,BD,82,9C,0F,E3,0F,E4,
         B6,FF,03,8A,01,B7,FF,03,0F,6F,BD,AD,21,7E,AD,9E
RESULT: Restarts your Basic Program when Reset is pressed
REMARKS: For Disk Basic 1.1. Divide the command into two
         statements at DATA

COMMAND: POKE 114,&HC0:POKE 115,&HE7
RESULT: Restores normal RESET
REMARKS: For Disk Basic 1.1

COMMAND: X=PEEK(39)*256+PEEK(40)-40:CLEAR 200,X:X=PEEK(39)*256
         +PEEK(40)+1:FOR I=X TO X+29:READ A$:POKE I,VAL("&H"
         +A$):NEXT:A=INT(X/256):B=X-(A*256):POKE 114,A:POKE
         115,B:DATA 12,BD,C0,DD,BD,D1,E5,BD,82,9C,0F,E3,0F,E4,
         B6,FF,03,8A,01,B7,FF,03,0F,6F,BD,AD,21,7E,AD,9E
RESULT: Restarts your Basic Program when Reset is pressed
REMARKS: For Disk Basic 1.0. Divide the command into two
         statements at DATA

COMMAND: POKE 114,&HC0:POKE 115,&HD4
RESULT: Restores normal RESET
REMARKS: For Disk Basic 1.0

COMMAND: A=2000:EXEC 44609 A:DSKI$0,17,2,A$,B$:DSKO$0,17,1,
         A$,B$:FOR I=3 TO 10:DSKI$0,17,I,A$,B$:DSKO$0,17,I+8,
         A$,B$:NEXT
RESULT: Keeps a spare copy of the directory on Track 17
REMARKS: Helpful when directory crashes. See next command.
         Only for disks with less than 60 files

COMMAND: A=2000:EXEC 44609 A:DSKI$0,17,1,A$,B$:DSKO$0,17,2,
A$,B$:FOR I=3 TO 10:DSKI$0,17,I+8,A$,B$:DSKO$0,17,I,
A$,B$:NEXT

RESULT: Restores directory

REMARKS: To be used in conjunction with previous command.
Only for disks with less than 60 files

The last two commands allow you to scramble the disk directory so that other users may not be able to use the disk. The first command scrambles the directory. To tell if the directory is scrambled, type: DIR. If the program PROTECT/BIN is displayed (in lowercase), then the disk is scrambled. DO NOT save any programs to the scrambled disk. To restore the directory, type use the second command. Do NOT use these commands if you are keeping a spare directory on Track 17.

COMMAND: CLEAR 2000:SAVEM"protect/bin",243,243,243:DSKI$0,17,
2,A$,B$:DSKO$0,17,1,A$,B$:A$=STRING$(128,255):B$=A$:
DSKO$0,17,2,A$,B$:DIR PEEK(235)

RESULT: Scrambles the disk directory

REMARKS: See next command. 'protect/bin' should be typed in
lowercase

COMMAND: CLEAR 2000:DSKI$0,17,1,A$,B$:DSKO$0,17,2,A$,B$:KILL"
protect/bin"

RESULT: Unscrambles the scrambled directory

REMARKS: See previous command

ENHANCEMENTS

EDTASM + (R) Disk Version

COMMAND: LOADM"EDTASM":POKE 15364,57:SAVEM"EDTASM",5632,19071,
         5632
RESULT: Patches the FCC command in the EDTASM+
REMARKS: Only the ASCII equivalent of the first character of
         the FCC string is printed. Saves paper when listing
         to printer

COMMAND: LOADM"EDTASMOV":POKE 16456,57:SAVEM"EDTASMOV",5632,
         20863,5632
RESULT: Patches the FCC command in the EDTASMOV program
REMARKS: See REMARKS for previous command

COCO MAX (R)

COMMAND: POKE 20347,PEEK(138)+224
RESULT: Changes graphics screen to PMODE 3
REMARKS: None

COMMAND: POKE 20347,PEEK(138)+255
RESULT: Returns to normal after previous command
REMARKS: None

COMMAND: POKE 18729,x
RESULT: Changes the radius of edges in rounded box icon
REMARKS: Use values of x between 12 and 40

COMMAND: POKE &H5C09,33
RESULT: Changes the action of pull down menus
REMARKS: None

COMMAND: POKE 22283,ASC("B"):POKE 22284,ASC("I"):POKE 26880,
         ASC("I"):POKE 26881,ASC("N"):POKE 27017,ASC("B")
RESULT: Replaces the MAX extension with BIN
REMARKS: Add these statements to the Basic Loader. From now,
         all graphics screens will be saved to disk under the
         extension BIN

COMMAND: POKE 32767,x
RESULT: Moves the left margin of drawing window x spaces to
         the left
REMARKS: None

TELEWRITER - 64 (R)

COMMAND: POKE 12525,240
RESULT: Changes the screen color for 16/32K Cassette Version
REMARKS: Add this POKE to the Basic Loader (after the CLOADM
         "",OF command in statement 59)

COMMAND: POKE 12525,248
RESULT: Restores normal screen color for 16/32K Cass Version
REMARKS: See REMARKS for previous command

COMMAND: POKE 61125,240
RESULT: Changes the screen color for 64K Cassette Version
REMARKS: See REMARKS for previous command

COMMAND: POKE 61125,248
RESULT: Restores normal screen color for 64K Cass. Version
REMARKS: See REMARKS for previous command

COMMAND: POKE 12732,240
RESULT: Changes the screen color for 16/32K Disk Version
REMARKS: Add this POKE to the Basic Loader (after the
         LOADM"TW64",OF command in statement 200)

COMMAND: POKE 12732,248
RESULT: Restores normal screen color for 16/32K Disk Version
REMARKS: See REMARKS for previous command

COMMAND: POKE 61262,240
RESULT: Changes screen color for 64K Disk Version
REMARKS: See REMARKS for previous command

COMMAND: POKE 61262,248
RESULT: Restores normal screen color for 64K Disk Version
REMARKS: See REMARKS for previous command

The next commands allow you to define the format values of various
parameters to the ones you use most often. Add the POKE(s) to
statements 306,307 or 308 of the Basic Loader for the Disk Version

COMMAND: POKE &H96,x
RESULT: Sets default Baud Rate
REMARKS: x is the Baud Rate value.

COMMAND: POKE &HB4,0
RESULT: Turns off Auto Page Numbering
REMARKS: None

COMMAND: POKE &HB4,1
RESULT: Turns on Auto Page Numbering
REMARKS: None

COMMAND: POKE &HC6,x
RESULT: Sets Top Margin to 'x'
REMARKS: None

COMMAND: POKE &HD2,x
RESULT: Sets # of Lines Per Page to 'x'
REMARKS: None

COMMAND: POKE &HD5,x
RESULT: Sets Line Spacing to 'x'
REMARKS: None

COMMAND: POKE &HF3,x
RESULT: Sets Bottom Margin to 'x'
REMARKS: None

COMMAND: POKE &HFD,x
RESULT: Sets Line Width to 'x'
REMARKS: None

COMMAND: POKE &HFF,x
RESULT: Sets Left Margin to 'x'
REMARKS: None

COMMAND: POKE &H102,x
RESULT: Sets Page Number Placement to 'x'
REMARKS: Sets the 'WHERE' parameter in the Format Menu

COMMAND: POKE &H11A,0
RESULT: Sets Lowercase
REMARKS: None

COMMAND: POKE &H11A,255
RESULT: Sets Uppercase
REMARKS: None

COMMAND: POKE &H3EE,0
RESULT: Turns off Single Sheet Printer Pause
REMARKS: None

COMMAND: POKE &H3EE,1
RESULT: Turns on Single Sheet Printer Pause
REMARKS: None

COMMAND: POKE &H3FA,0
RESULT: Turns off Right Justify
REMARKS: None

COMMAND: POKE &H3FA,1
RESULT: Turns on Right Justify
REMARKS: None

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GAMES

Note: Type in these POKES AFTER '(C)LOADM'ing the game and
      BEFORE typing 'EXEC'.

COMMAND: POKE &H1D77,255
RESULT: The invaders throw fewer bombs at your ship in
         Space Invaders
REMARKS: None

COMMAND: POKE 7690,88
RESULT: Speeds up Colorpede (R)
REMARKS: If you think you have mastered Colorpede (R), try this
         POKE!

COMMAND: POKE 7689,0
RESULT: Slows down Colorpede (R)
REMARKS: None

COMMAND: POKE 11271,203
RESULT: Improves keyboard reponse in 'The Frog' (R)
REMARKS: For disk systems. Might work with cassette

COMMAND: POKE 18888,23
RESULT: The barrells stop coming down after the first one hits
         the 'OIL' tank in Donkey King (R)
REMARKS: None

COMMAND: POKE &H3693,x
RESULT: Gives 'x' # of lives in Bag-It-Man (R)
REMARKS: None

COMMAND: POKE &H5439,x
RESULT: Gives 'x' # of lives in Mr. Dig (R)
REMARKS: None

COMMAND: POKE &H5761,x
RESULT: Gives 'x' # of lives in Lunar Rover Patrol (R)
REMARKS: None

For those with the EDTASM+ assembler and a autostart version
of Lunar Rover Patrol (R), try the next command

COMMAND: <Turn off computer, insert EDTASM+ Rompak, turn on
computer,type Z and press <ENTER>, B and press
<ENTER>, L LUN-ROV1 and press <ENTER> twice, type XC4
and press <ENTER>, type G9F and press <ENTER>,type I10
and press <ENTER>, type 22369/ and type the number of
ships you want and press <ENTER> Type C and press
<ENTER>
RESULT: Gives you 'x' # of lives in Lunar Rover Patrol (R)
REMARKS: None

COMMAND: POKE &H73BD,x
RESULT: Gives 'x' # of lives in Mudpies (R)
REMARKS: None

COMMAND: POKE &H441D,x
RESULT: Gives 'x' # of lives in Tutankam (R)
REMARKS: None

COMMAND: POKE &H2052,x:POKE &H207E,x
RESULT: Gives 'x' # of lives in Zeus (R)
REMARKS: None

COMMAND: <Turn on computer, type: POKE 25,100:POKE 25600,0:NEW
and press <ENTER>. Then load Bedlam, Raaka-Tu or
Pyramid and type in the following:
FORI=1536 TO 16384:PRINT CHR$(PEEK(I));:NEXT
RESULT: Lists commands available in these adventures
REMARKS: Garbage will appear in the beginning but the commands
will appear by the end

The names of the various arcade games used in this section are
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of easy comprehension.

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