TRSDOS
Commands and Utilities

APPEND   Adds one disk file onto the end of another.
APPEND FTW/TXT NORTX/TXT

ATTRIB   Changes protection of specified file. (I or V, ACC, UPD, PROT)
ATTRIB OLD/DAT (I ,ACC=JUL14 ,UPD=MOUSE , PROT=READ)

AUTO command   Automatically executes the specified TRSDOS command each time TRSDOS starts up. (AUTO by itself erases the automatic command.)
AUTO CLOCK   AUTO BASIC   AUTO

BACKUP   Duplicates a system or data diskette.
BACKUP   BACKUP :0 :1

BUILD   Creates an automatic command input file.
BUILD JOBFILE

BASIC   Loads Disk BASIC interpreter. BASIC * allows recovery of the program that was in memory before the return to TRSDOS.
BASIC   BASIC *

CLEAR   Clears user memory and set top memory address.
CLEAR (START=8000 ,END=0A000 ,MEM=7000)
CLEAR

CLOCK   Turns real-time clock display on/off.
CLOCK (ON)   CLOCK   CLOCK (OFF)

CLS   Clears the screen.
CLS

CONVERT   Model I to Model III program/data file conversion.
CONVERT

COPY oldfile newfile   Copies a file.
COPY FILE1/BAS UPDFL/BAS
COPY FILE/A FILE/A:1   COPY FILEA/BAS:0 :1

CREATE filename(LRL = aaa, REC = bbb)   Creates a preallocated file.
CREATE JOBFILE (LRL=256 , REC=50)

DATE newdate   Sets or displays the current date.
DATE 07/18/80   DATE

DEBUG   Starts debug monitor.
DEBUG (turns monitor ON) Q (turns monitor OFF)

DIR :d(INV, SYS, PRT)   Lists the diskette directory (INVisible or SYStem) on drive d on the Display or Printer (PRT).
DIR :1 (INV)   DIR :0 (PRT)

DO command-line   Begin auto command input from disk file.
DO BEGIN

DUAL (switch)   Duplicates output to video and printer.
DUAL (ON)   DUAL   DUAL (OFF)

DUMP file   Dumps content of RAM into a machine-language program disk file. (START = aaaa,END = bbbb,TRA = cccc,RELO = dddd)
DUMP DATA/C:M:1 (START =8000 ,END=8050)

ERROR number   Displays an error message.
ERROR 47

FORMS (WIDTH = aaa,LINES = bbb)   Set printer parameters.
FORMS (WIDTH=80 , LENGTH=55)

FORMAT   Initializes a diskette into tracks and sectors.
FORMAT :1   FORMAT

FREE   Lists a diskette's allocation map to the Display or Printer (PRT).
FREE :1   FREE :0 (PRT)

HELP command   Explanation of TRSDOS command.
HELP BACKUP

KILL file/EXT:d   Deletes a file from directory; frees space allocated to that file.
KILL FL/BAS:1   KILL /CMD:0

LIB   Lists library commands.
LIB

LIST file (PRT, SLOW, ASCII)   Lists contents of a file to the Display or Printer.
LIST PROG1/TXT (PRT)   LIST JOBFILE/BLD (ASCII)

LOAD file   Loads a machine-language file into memory.
LOAD GRAPHICS

LPC   Special printer driver for some printers.
LPC

MASTER (DRIVE = a)   Forces a drive to be the Master Read/Write drive. MASTER releases any drive defined as Master Drive.
MASTER (DRIVE=1)   MASTER

MEMTEST   Test memory (ROM and RAM).
MEMTEST

PATCH file (ADD = aaaa,FIND = bb,CHG = cc)   Change the contents of a disk file.
PATCH JOBFILE/BLD (ADD=5280 ,FIND=C02C25, CHG=C32C27)

PAUSE message   Pauses for operator action or message.
PAUSE INSERT DISKETTE #2!

PROT :d (PW, LOCK)   Changes file and diskette passwords.
PROT :1 (PW, LOCK)

PURGE :d (file-type)   Deletes files. (SYS, DATA, ALL, INV).
PURGE :1 (INV)   PURGE :0

RELO file (ADD = aaaa)   Changes location where program loads into memory.
RELO JOBFILE/BLD (ADD=8578)

RENAME file TO file   Renames a file.
RENAME MRS/BAS TO MS/BAS

ROUTE (SOURCE = aa,DESTIN = bb)   Routes I/O devices.
ROUTE (SOURCE=PR , DESTIN=DO)

SETCOM (OFF,WORD = a,BAUD = bbb,STOP = c, PARITY = d, mode)   Sets up RS-232C communications or display status.
SETCOM (WORD=7,BAUD=300 ,STOP=1 ; PARITY=0 ,WAIT)   SETCOM

TAPE (S = a,D = b)   Executes tape transfer operation.
TAPE (S=D ,D=T)

TIME hh:mm:ss   Resets or gets the time.
TIME 14:12:30   TIME

WP (DRIVE = a)   Write-protects a diskette.
WP (DRIVE=1)   WP

XFERSYS   Transfers system files.
XFERSYS

TRSDOS Error Messages

0	No Error Found
1	CRC Error During Disk I/O
2	Disk Drive Not in System
3	Lost Data During Disk I/O
4	CRC Error During Disk I/O
5	Disk Sector Not Found
6	Disk Drive Hardware Fault
7	"Undefined Error Code"
8	Disk Drive Not Ready
9	Illegal I/O Attempt
10	Required Command Parameter Not Found
11	Illegal Command Parameter
12	Time Out On Disk Drive
13	I/O Attempt To Non System Disk
14	Write Fault On Disk I/O
15	Write Protected Disk
16	Illegal Logical File Number
17	Directory Read Error
18	Directory Write Error
19	Invalid File Name
20	GAT Read Error
21	GAT Write Error
22	HIT Read Error
23	HIT Write Error
24	File Not Found
25	File Access Denied Due To Password Protection
26	Directory Space Full
27	Disk Space Full
28	Attempt To Read Past EOF
29	Attempt to Read Outside of File Limits
30	No More Extents Available
31	Program Not Found
32	Invalid Drive Number
34	Attempt To Use Non Program File As a Program
35	Memory Fault During Program Load
36	"Undefined Error Code"
37	File Access Denied Due To Password Protection
38	I/O Attempt To Unopen File
39	Invalid Command Parameter
40	File Already In Directory
41	Attempt To Open File Already Open

Disk BASIC Functions

CVD(str)   Converts to double-precision after GET.
A=CVD(CRSPAY$)

CVI(str)   Converts to integer after GET.
PRINT CVI(I$)

CVS(str)   Converts to single precision after GET.
FK=CVS(T$)

EOF(b)   End-of-file detector for buffer b.
IF EOF(3) THEN CLOSE 3

INSTR(pos, mainstr, substr)   Returns number which indicates the position of the main string where the substring begins. If substring not in main string, zero is returned. If pos is omitted, pos = 1.
PRINT INSTR(S$, "VA")   X=INSTR(S$,Q$)
Y1=INSTR(8 , S$, Q)

LOC(n)   Gets current record number.
PRINT LOC(1)

LOF(n)   Determines number of last (highest-numbered) record in specified file.
Y=LOF(5)

MKD$(x)   Makes double-precision number ready for disk write (random access).
LSET AVG$=MKD$(3000 ,00001)

MKI$(n)   Makes integer number ready for disk write (random access).
LSET AVG$=MKI$(3000)   LSET V$=MKI$(Y$)

MKS$(x)   Makes single-precision number ready for disk write (random access).
LSET AVG$=MKS$(3000 ,1)   LSET M$=MKI$(N)

USRn(x)   Calls any one of up to 10 machine-language subroutines, n=0-9. If n is omitted, zero is used. See DEFUSRn.
X=USR0(T)   F=USR7(Y)

Disk BASIC Statements

CLOSE — Closes all open file-buffers or specified buffer(s).
`CLOSE    CLOSE 1,2,6    CLOSE N`

CMD "A" — Returns to TRSDOS on error.
`CMD "A"`

CMD "B" — Enable/Disable (BREAK) key.
`CMD "B","ON"    CMD "B","OFF"`

CMD "C" — Deletes program remarks (R) or spaces (S).
`CMD "C",R    CMD "C",S    CMD "C"`

CMD "D" — Displays directory for specified drive.
`CMD "D:1"`

CMD "E" — Displays previous TRSDOS error.
`CMD "E"`

CMD "I", command — Executes a command to TRSDOS, may overwrite BASIC.
`CMD "I","HELP"`

CMD "J" — Changes calendar date from source to destination. mm/dd/yy can be changed to ddd/yy — yy/ddd can be changed to mm/dd/yy
`CMD "J","08/12/81",D$`
`CMD "J","-64/201",D$`

CMD "L", routine — Loads Z-80 routine or program file into RAM.
`CMD "L",JOBFILE`

CMD "O", x, array (start) — Alphabetizes (sorts) contents of an array. x is the number of items to be sorted; start is where the sorting process begins.
`CMD "O",50,A(1)`

CMD "P", status — Checks printer status. status is a string variable.
`CMD "P",X$`

CMD "R" — Turns real-time clock display ON.
`CMD "R"`

CMD "S" — Returns control to TRSDOS.
`CMD "S"`

CMD "T" — Turns real-time clock display OFF.
`CMD "T"`

CMD "X", target — Cross-references program lines and line numbers. target can be a reserved word, string, or string variable.
`CMD "X",GOTO    CMD "X","PRINT"`

CMD "Z" — Simultaneous output to Printer and Display (dual routing).
`CMD "Z","ON"    CMD "Z","OFF"`

DEFFN — Defines a user-created function.
`DEF FNA$(X)=STRING$(X,45)`

DEFUSRn — Defines entry point for machine-language subroutine called by USRn. If n is omitted, zero is used.
`DEFUSR=&H5500    DEFUSR4=&H7D7E`

FIELD — Organizes a random file buffer into fields.
`FIELD 3,16 AS NM$,25 AS AD$`

GET b, record number — Gets specified or next record from a disk file (random access); stores it in buffer b
`GET 1    GET 1,25`

INPUT #b — Inputs data from buffer b (sequential access).
`INPUT #1,A,B`

KILL — Deletes a disk file.
`KILL "PROG/BAS"    KILL "FILE:1"`

LINE INPUT — Line inputs from keyboard; (ENTER) ends input.
`LINE INPUT A$    LINE INPUT "ENTER YOUR NAME?";N$`

LINE INPUT # — Line inputs from disk into specified buffer; carriage return, end-of-file. 255th character ends input.
`LINE INPUT #1,A$`

LOAD — Loads program file from disk. R option causes program to run, leaving open files open.
`LOAD "PROG/BAS"    LOAD "PROG:2",R`

LSET — Left-justifies data into a random access field.
`LSET CITY$="DULUTH"`

MERGE — Merges disk program with resident program. Disk program must be in ASCII format.
`MERGE "PR/BAS"`

MID$ (old, pos, len)=repl — Replaces one portion of a string with another. If length option is omitted, same number of characters in the old string will be changed as the number of characters in the replacement string.
`MID$(A$,3,4)="USAFX"    MID$(A$,5)="01"`

NAME newline, startline, increment — Renumbers program line numbers. newline is the new number of the first line which is to be renumbered. If omitted, 10 is used. startline is the line number where renumbering is to begin. If omitted, entire program will be renumbered. increment is the increment between successive renumbered lines. If omitted, 10 is used.
`NAME 100, 10, 100    NAME    NAME , ,5`

OPEN mode, b, file, n — Opens file; assigns mode (I = input, O = output, R = random, E = Output to end-of-file); assigns buffer number b, file specifies filename; n specific number of files.
`OPEN "R",1 CLIENTS/TXT`

PRINT #b — Writes data to file-buffer b (sequential access).
`PRINT #1,A`

PUT b, record number — Moves data from file-buffer b into the specified record (random access). If record number is omitted, current record number is used.
`PUT 1,25    PUT 1    PUT C,N`

RSET — Right-justifies data into a random access field.
`RSET CITY$="SPOKANE"`

RUN program — Loads and executes disk program. R option leaves open files open.
`RUN "PROG/BAS"    RUN "PRG:1",R`

SAVE filename — Saves BASIC program on disk. A option causes file to be stored in ASCII format.
`SAVE "FL1/BAS:3"    SAVE "PRT/TXT",A`

Disk BASIC Debug Monitor Commands

D	Displays memory contents. D ADDRESS? = aaaa where aaaa is a hexadecimal number.
X	Half-screen display.
S	Full-screen display.
M	Modify RAM. M ADDRESS? = aaaa where aaaa is a hexadecimal number.
R	Change Register contents. Raa,bbbb (SPACEBAR) where aa is one of the register pairs AF, BC, DE, HC, PC and bbbb is a hexadecimal value.
I	Single-step.
C	Single-step executing call.
U	Up-dates display.
;	Increment the first location on a half-screen display by 16; on full-screen, by 256.
—	Decrement the first location on a half-screen display by 16; on full-screen, by 256.
J	Jump the transfer of control from one location to another. J ADDRESS? = aaaa,bbbb where aaaa specifies the hexadecimal location where execution begins and bbbb specifies the hexadecimal location of the breakpoint.
Q	Quits or exits from debug.
F	Disk file utility which allows you to load disk file into memory and change it.

Disk BASIC Error Codes

51	Field Overflow
52	Internal Error
53	Bad File Number
54	File Not Found
55	Bad File Mode
58	Disk I/O Error
62	Disk Full
63	Input Past End
64	Bad Record Number
65	Bad File Name
67	Direct Statement in File
68	Too Many Files
69	Disk Write-Protect
70	File Access

Disk BASIC Abbreviations & Special Characters

&H	Indicates following number is a hexadecimal constant.
&O	Indicates following number is an octal constant.
(↑)	Lists previous line.
(↓)	Lists next line.
(←)	Lists current line.
(→)	Edit current line.
(SHIFT) (↑)	Lists first line.
(SHIFT) (↓) (Z)	Lists last line.
Lxx	List line xx.
Exx	Edit line xx.
Dxx	Delete line xx.
Axxx, xxx	Automatic line numbering beginning at line xxx, incrementing by xxx.

TRS-80® MODEL III MICRO-COMPUTER SYSTEM

Start-Up

The entire system (Computer and peripherals) should be OFF and the disk drives empty.

1. Turn all peripherals ON.

2. Turn the Computer ON.

3. Insert a System diskette into Drive 0. Close the drive door.

4. Press the RESET button. Once the system is initialized, TRSDOS will load and take control.

5. To start Disk BASIC, type BASIC (ENTER)

6. When BASIC asks HOW MANY FILES? type in the number of concurrent files you need or press (ENTER) (three concurrent files).

7. Then BASIC will ask MEMORY SIZE? Answer by typing in a specific number or press (ENTER) to enter Disk BASIC.

8. The Disk BASIC start-up message will appear followed by the READY prompt. The Computer is now ready for use.