DOS
QUICK REFERENCE CARD

On this card, DOS commands are grouped into these 5 categories:

Housekeeping commands:

INIT	LOAD	DELETE	VERIFY	MAXFILES
CATALOG	RUN	LOCK	MON	
SAVE	RENAME	UNLOCK	NOMON	

Access Commands:

FP	INT	PR#	IN#	CHAIN

Sequential Text File Commands:

OPEN	READ	APPEND	EXEC
CLOSE	WRITE	POSITION	

Random-Access Text File Commands:

OPEN	CLOSE	READ	WRITE

Machine-Language File Commands:

BLOAD	BRUN	BSAVE

NOTATION AND SYNTAX

A "parameter" is a capital letter, usually followed by a number (shown here by a lower-case letter), which gives additional information for executing a command. Multiple parameters may appear in any order, but must be separated from each other by a comma. A parameter shown in square brackets [like this] is optional.

A file name (shown here by X) must immediately follow its command word. File names must begin with a letter; only the first 30 characters are used. A comma separates a file name from a following parameter.

CTRL-D (type D while holding down CTRL key) is used in PRINT statements to indicate the start of a deferred-execution DOS command. Integer BASIC example:
```
10  D$ = "" : REM  "CTRL-D"
20  PRINT D$; "CATALOG"
```
Applesoft BASIC example:
```
10  D$ = CHR$(4) : REM  CTRL-D
20  PRINT D$; "CATALOG"
```

The term "BASIC" alone is used to mean either Integer BASIC or Applesoft BASIC. The term "file" alone means any type of diskette file.

COMMAND PARAMETERS

An error message is given if a DOS command quantity is too large or too small.

ALL FILES

Parameter	As shown	Min	Max
Slot	,Ss	S1	S7
Drive	,Dd	D1	D2
Volume	,Vv	V0 *	V254

* Using V0 is like omitting the Vv parameter: the diskette's volume number is ignored. Smallest volume number INIT will actually assign to a diskette is 1.

SEQUENTIAL TEXT FILES

Parameter	As shown	Min	Max
Byte	,Bb	B0	B32767
Relative Field *	,Rp	R0	R32767

* With EXEC, always relative to field 0.

RANDOM-ACCESS TEXT FILES

Parameter	As shown	Min	Max
Record Length	,Lj	L1	L32767
Record Number	,Rr	R0	R32767

BINARY FILES

Parameter	As shown	Min	Max
Starting Address	,Aa	A0	A65535
Number of Bytes	,Lj	L1	A32767

DOS COMMANDS

Command	Quantity	As shown	Min	Max
PR#	slot	PR# s	PR#0	PR#7
IN#	slot	IN# s	IN#0	IN#7
MAXFILES	file buffers	MAXFILES n	n=1	n=16

Commands use Slot or Drive parameters only when changing to a different Slot or Drive.

If a command omits the Volume parameter or uses V0, the diskette's volume number is ignored. A command that uses the Volume parameter Vv will not be executed unless the diskette's volume number is v.

HOUSEKEEPING COMMANDS

INIT X [,Vv] [,Ss] [,Dd]
Initializes a blank diskette to form a slave diskette. Assigns greeting program name X and volume number v (if specified). SAVEs the BASIC program currently in memory, under file name X.

CATALOG [,Ss] [,Dd]
Displays volume number and all files on a diskette, with each file's type and sector length. * indicates a LOCKed file.

Type	Description	(How created)
I	Integer BASIC program file	(SAVE)
A	Applesoft BASIC program file	(SAVE)
T	Text File	(OPEN, then WRITE)
B	Binary memory-image file	(BSAVE)

SAVE X [,Ss] [,Dd] [,Vv]
Stores current BASIC program onto diskette, under file name X. Overwrites any previous file of same type and name, without warning.

LOAD X [,Ss] [,Dd] [,Vv]
Loads BASIC program file X into memory, after clearing memory and (if necessary) changing to the correct BASIC.

RUN X [,Ss] [,Dd] [,Vv]
LOADs BASIC program file X, then RUNs the program.

RENAME X, Y [,Ss] [,Dd] [,Vv]
Changes a diskette file's name from X to Y

DELETE X [,Ss] [,Dd] [,Vv]
Erases file X from the diskette.

LOCK X [,Ss] [,Dd] [,Vv]
Locks file X against accidental change or deletion. LOCKed file shown in CATALOG by *

UNLOCK X [,Ss] [,Dd] [,Vv]
Unlocks previously LOCKed file X to allow change or deletion.

VERIFY X [,Ss] [,Dd] [,Vv]
Checks file X for internal consistency.
If X was saved without error, no message
is given.

MON [,C] [,I] [,O]
Causes display of disk Commands (C),
Input from the disk (I), and Output
to the disk (O). With no parameters,
MON is ignored.

NOMON [,C] [,I] [,O]
Cancels display of disk Commands (C),
Input from the disk (I), and Output
to the disk (O). With no parameters,
NOMON is ignored.

MAXFILES n
Reserves n file buffers for disk input and
output (booting reserves 3 file buffers).
Use before LOADing or RUNning a program.

ACCESS COMMANDS

FP [,Ss] [,Dd] [,Vv]
Puts system into Applesoft BASIC,
erasing any program in memory.

INT
Puts system into Integer BASIC,
erasing any program in memory.

PR# s
Sends subsequent output to slot s . Boots
disk if slot s contains disk controller
card. PR#Ø sends output to TV screen again.

IN# s
Takes subsequent input from slot s . Boots
disk if slot s contains disk controller
card. IN#Ø takes input from keyboard again.

CHAIN Y [,Ss] [,Dd] [,Vv]
RUNs Integer BASIC program file Y , but does
not clear variables developed by previous
Integer BASIC program.

SEQUENTIAL TEXT FILE COMMANDS

OPEN X [,Ss] [,Dd] [,Vv]
Opens or creates sequential text file X ,
allocates one file buffer and prepares to
WRITE or READ from beginning of file.

CLOSE [X]
Completes WRITE X, if necessary, and de-
allocates file buffer assigned to text file
X . Without file name, CLOSEs all OPEN files
(except an EXEC file).

WRITE X [,Bb]
Subsequent PRINTs send characters to
sequential text file X . WRITEing begins
at current file position or (if specified)
at byte b . Cancelled by any DOS command.

READ X [,Bb]
Subsequent INPUTs and GETs take response
characters from sequential text file X .
READing begins at current file position or
(if specified) at byte b . INPUT response
is one field (all characters to next
RETURN). Cancelled by any DOS command.

APPEND X [,Ss] [,Dd] [,Vv]
Opens existing sequential text file X ,
similar to OPEN, but prepares to WRITE
at the end of the file.

POSITION X, Rp
In OPEN sequential text file X , subsequent
READ or WRITE will proceed from p-th field
following current file position.

EXEC X [,Rp] [,Ss] [,Dd] [,Vv]
Executes successive fields in sequential
text file X as if typed at keyboard.
With Rp parameter, execution begins with
p-th field. Fields may include numbered
BASIC program lines and direct-execution
BASIC or DOS commands to control the Apple.

RANDOM-ACCESS TEXT FILE COMMANDS

OPEN X, Lj [,Ss] [,Dd] [,Vv]
Opens or creates random-access text file X ,
allocates one file buffer, and defines record
length as j bytes. Prepares to WRITE or READ
from beginning of Record Ø. Same Length param-
eter must be used each time file X is OPENed.

CLOSE [X] [,Ss] [,Dd] [,Vv]
Completes WRITE X, if necessary, and de-
allocates file buffer assigned to text file
X . Without file name, CLOSEs all OPEN files.

WRITE X [,Rr] [,Bb]
Subsequent PRINTs send characters to random-
access text file X . With no parameters,
WRITEing begins at current file position.
With Rr parameter alone, WRITEing starts at
byte Ø of Record r . With Bb parameter,
WRITE starts at byte b of current or spec-
ified Record. Cancelled by any DOS command.

READ X [,Rr] [,Bb]
Subsequent INPUTs and GETs take response
characters from random-access text file X .
With no parameters, READing starts at cur-
rent file position.   With Rr parameter
alone, READing starts at byte Ø of Record r.
With Bb parameter, READing starts at byte
b of current or specified Record. INPUT
response is one field (all characters to
next RETURN). Cancelled by any DOS command.

MACHINE-LANGUAGE FILE COMMANDS

BSAVE X, Aa, Lj [,Ss] [,Dd] [,Vv]
Stores on diskette, under file name X ,
the contents of j memory bytes starting
at address a .

BLOAD X [,Aa] [,Ss] [,Dd] [,Vv]
Loads binary file X into same memory
locations from which file was BSAVEd or
(if specified) starting at address a .

BRUN X [,Aa] [,Ss] [,Dd] [,Vv]
BLOADs binary file X , then jumps (JMP)
to loaded file's first memory address.