Addendum

Model III Hard Disk Operating System Reference Manual
LDOS 5.1.4 Update

LDOS 5.1.4 has had numerous internal changes to most of the system files and contains two new utilities: QFB and FED.

Configuration Files

Do not attempt to use any configuration file created by 5.1.3. A new configuration file should be created under LDOS 5.1.4.

Hard Disk Use

You will need to re-initialize LDOS 5.1.3 hard drives to 5.1.4. The Model III Hard Disk Start-up Manual gives details of the procedures to be followed to re-configure your hard drives.

Floppy Disk Use

To update any LDOS 5.1.3 systems which you run from system floppy disks, we recommend the following procedure:

1. Make several mirror image backups of your new hard disk operating system diskette, then put the master in a safe place.

2. Boot up with your new working system diskette. Place your old system diskette in floppy Drive 1, and execute the following command:

   BACKUP $:Ø :1 (old)

   This command transfers all the updated files to your old diskettes.

3. Ascertain whether your old diskettes contain a configuration file with the following command:

   DIR CONFIG/SYS:1 (S,I)

   If the file does not exist, proceed to Step 4. If the file exists, you must purge it off the diskette, then place the disk in floppy disk Drive Ø. Follow the procedure which you previously used under 5.1.3, to custom configure the system floppy diskette for use under 5.1.4.

4. The new utilities QFB and FED may now be backed up to any new 5.1.4 diskette that has sufficient free space (15K).

LDOS 5.1.4 Changes

1. The method of allocating space on a disk has been changed and LDOS now searches sequentially forward, starting with the lower numbered tracks. If you want to use the previous method (5.1.3) of random allocation, type in the following patch command:

   PATCH SYS8/SYS.SYSTEM (DØØ,FE=D5 CD 4E 44 D1 6C)

2. The DIR command now defaults the A parameter ON. If you wish, you may change this with the following patch command:

   PATCH SYS6/SYS.SYSTEM (DØ5,D9=ØØ ØØ)

3. The new hard disk driver, TRSHD5/DCT, can handle more than one drive type and includes support for both the WD 1ØØØ and WD 1Ø1Ø hard drive controller chips. The command:

   SYSTEM (DRIVE=n, DRIVER="TRSHD5")

   prompts you to input the number of heads and the number of tracks per surface.

4. In addition to the automatic process of locking out flawed tracks, the new hard drive formatting utility, TRSFORM5/CMD allows you to manually lock out flawed tracks.

5. The operation of LDOS 5.1.4 on a Model 4/4P (in Model III mode) has been enhanced to take advantage of the increased processor speed of the Z8ØA. To run application programs at Model III clock speed, use the command:

   SYSTEM (SLOW)

To restore the system to Model 4 clock speed, use the command:

   SYSTEM (FAST)

LDOS 5.1.4 assumes SYSTEM (FAST) on a Model 4/4P.

Complete documentation of the two new programs, QFB and FED, is included as iinsert pages.

Thank You!
Radio Shack
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QFB

(DUPLICATES FLOPPY DISKETTES ONLY)
The QFB (Quick Format and Backup) utility allows you to create a mirror image backup of a source disk without first using the usual format-backup utilities. The backup must be mirror image.
The syntax is:

```
QFB  :s :d (parm,parm,parm)

   :s   is the Source drive and cannot be the same
        drive as the destination.  The colon is
        optional.
   :d   is the Destination drive and cannot be the
        same drive as the source. The colon is
        optional.

        If you omit both source and destination,
        QFB prompts you for the numbers.

The following optional parameters may be used:

   ALL= parameter used to specify whether all
        cylinders of the source disk are read
        and copied to the destination disk, or only
        allocated cylinders used. You may use the
        ON or OFF switch. If you omit ALL, QFB
        assumes OFF.

   V1=  parameter used to specify whether a verify
        of the destination disk is to be performed
        on the first pass.  You may use the ON or
        OFF switch. If you omit V1, QFB defaults
        to ON.

   V2=  parameter used to specify whether a verify
        of the destination disk is to be performed
        on the second pass.  You may use the ON or
        OFF switch. If you omit V2, QFB defaults
        to OFF.

   QUERY= Query for parameters not specified.  You
        may use On or OFF switch. If you omit QUERY,
        QFB defaults to OFF.

   abbr: ON=Y,  OFF=N,  QUERY=Q,  ALL=A
```

The limitations of the QFB utility are as follows:

1. You must have at least two floppy drives.

2. The source diskette must be in LDOS 5.1.x format.

3. You must run QFB on LDOS 5.1.3 or later.

Example:

```
QBF 1 2 <ENTER>
```

QFB prompts you to insert the diskettes in the appropriate drive. Insert the source diskette in Drive 1 and the destination in Drive 2.

The following display appears after QFB is complete:

```
Duplication complete     1 disk created

Replace destination disks and press <ENTER> to repeat
 ..<R> to restart with new parameters
   ...or....<BREAK> to exit program.
```

Press <ENTER> to make another mirror image backup. If you want to use QFB again with different parameters, press <R>. Prompts then appear for all parameters.

Press <BREAK> to exit the QFB utility. If you press <BREAK>, the following display appears:

```
Load SYSTEM diskette and press <ENTER>
```

Place a system diskette in Drive Ø and press <ENTER> to return to LDOS Ready. If QFB has been loaded from a hard drive, just press <ENTER>.

If an error occurs, an appropriate error message is displayed, and a prompt appears requesting your course of action. During any QFB operation the <BREAK> key is active and you can use it to abort the process.

IMPORTANT

QFB assumes that you want a mirror image backup and performs no check for data on the destination diskette. Any existing information on a destination diskette is <u>always</u> destroyed. Also, QFB does <u>not</u> clear the Mod Flags of files on the source diskette.

FED

FED is an all-purpose, screen-oriented File EDitor (FED). The syntax is:

```
=======================================================
|                                                     |
|   FED filespec                                      |
|    filespec   Any valid filespec. If you omit       |
|                  the filespec, FED asks for it.     |
|                                                     |
=======================================================
```

FED has a wide range of capabilities. It is excellent for the advanced user, yet simple enough for the novice. FED supports Model III, upper and lower case, and all drive types and sizes supported by LDOS.

FED can only edit files. It cannot copy files, or act as a word processor. FED cannot create or extend files; it only modifies existing ones.

After you start FED, it loads the file you specify. FED displays the first 256 bytes of the file in a 256-byte display mode. This record is stored in memory in the "edit buffer".

Because FED is file oriented, it treats your file as a series of "records", where each record is a 256-byte disk sector. FED numbers the sectors of the file in hex, the first record (sector) of the file being record Ø (X'ØØØØ'). If the last sector is only partly used by your file, FED displays "random disk garbage" following the EOF.

The display shows two flashing cursors: one in the ASCII portion and one in the HEX portion. When you first access a file, these cursors are positioned over relative byte X'ØØ' of Record Ø. The term "relative byte" refers to the byte number (Ø-255) relative to the sector in question.

FED displays the "command" prompt in lower right corner of the screen. When you type in a FED command, they are displayed here. (Note: if you are use the 128 character display mode, the command prompt appears in the lower left corner of the screen.)

See the sample displays following.

You may be required to input several characters for certain commands, depending upon the mode you are in:

In the 256 character mode, inputs are taken in an input box positioned vertically along the right edge of the display.

In the 128 character mode, inputs are taken directly to the right of the command buffer. No input box appears, but a flashing cursor indicates that an input is requested.

Note: When you use FED, the <BREAK> key must remain enabled because you must use it to exit some of the FED commands.

Display of the 256 byte mode

```
-------------------------------------------------------------------------------
ASCII
representation                Hexadecimal representation          Current Record
-------------------------------------------------------------------------------
!.h..=.UX.S @..!|ØØ> 21D8 6811 ØØ3D CD55 58ED 532Ø 4ØØ6 1721|Ø|F)
.`.@...Zx. .>..3|1Ø> ED6Ø CD4Ø ØØDA 945A 78B7 2ØØ5 3E13 X333|Ø|E}- Filespec
`. X..`..D .!.b.|2Ø> 6ØCD 2Ø58 11ED 6ØCD 1C44 2ØFØ 21ØD 62Ø6|Ø|D)
..$D.3`:.`.Ø*.Rx|3Ø> ØØCD 2444 C233 6Ø3A F36Ø C63Ø 2A15 5277|D|/
.D.`..C.R....C.R|4Ø> ED4B F96Ø ØBED 4313 52Ø1 ØØØØ ED43 ØF52|_|C)
!.a".R>..3..UU.:|5Ø> 21ØD 6122 ØA52 3E1C CD33 ØØCD 5555 C93A|  M}- Extension
.R...Z....Z..`.B|6Ø> Ø152 B7CC 1Ø5A FEØ4 D41Ø 5A11 ED6Ø CD42|  D)
D.3`..`.6D.3`!.b|7Ø> 44C2 3360 11ED 6ØCD 3644 C233 6Ø21 ØD62|  :
..a.....[..(U.|8Ø> 11ØD 6101 ØØØ1 EDBØ CDE3 5BC9 CD28 55CD|  5 - Drive #
.]..K.R...`..BD.|9Ø> DE5D C9ED 4BØF 52C5 11ED 6ØD5 CD42 44C2|
3`.6 D.3`!.b..a.|AØ> 336Ø CD36 44C2 336Ø 21ØD 6211 ØD61 Ø1ØØ|
.....*.R..B...BD|BØ> Ø1ED BØD1 C12A 1352 B7ED 42C8 Ø3CD 4244|
.3`.6...UD.3`.G:|CØ> C233 6ØCD 36Ø1 Ø28E 5544 C233 6ØC9 473A|
.R.(.!.?" @.!.=6|DØ> ØE52 B728 Ø721 CA3F 222Ø 4ØC9 21BD 3D36|     {- Relative
.#6..@..6...6.+6|EØ> 8C23 36AC 114Ø ØØ19 36AA 1ØFB 3683 2B36|>82  {- Byte
.!.=" @.:.R..!.=|FØ> 8321 FD3D 222Ø 4ØC9 3AØE 52B7 CØ21 BD3D|C:R
```

Index — Command

Display of the 128 byte mode

```
.K.`..C.R....C.R!.a".R>..3..UU.:.R...Z....Z..`.BD.3`..`.6D.3`!.b  :  - ASCII
..a.....[..(U..]..K.R...`..BD.3`.6D.3`!.b..a.......*.R..B...BD  :  - Rep.

          ØØ Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7   Ø8 Ø9 ØA ØB ØC ØD ØE ØF

     4Ø>  ED 4B F9 6Ø ØB ED 43 13   52 Ø1 ØØ ØØ ED 43 ØF 52        - Hex
     5Ø>  21 ØD 61 22 ØA 52 3E 1C   CD 33 ØØ CD 55 55 C9 3A        - Rep.
     6Ø>  Ø1 52 B7 CC 1Ø 5A FE Ø4   D4 1Ø 5A 11 ED 6Ø CD 42
     7Ø>  44 C2 33 6Ø 11 ED 6Ø CD   36 44 C2 33 6Ø 21 ØD 62
     8Ø>  11 ØD 61 Ø1 ØØ Ø1 ED BØ   CD E3 5B C9 CD 28 55 CD
     9Ø>  DE 5D C9 ED 4B ØF 52 C5   11 ED 6Ø D5 CD 42 44 C2
     AØ>  33 6Ø CD 36 44 C2 33 6Ø   21 ØD 62 11 ØD 61 Ø1 ØØ
     BØ>  Ø1 ED BØ D1 C1 2A 13 52   B7 ED 42 C8 Ø3 CD 42 44

FED/CMD  Drive 5   Record 13  X'ØØØD'          Relative Byte >82
Command: R                                     Values X'61'=97
```

Special Keys

<BREAK>	Cancel current FED command.
<ENTER>	Display FED instruction set (Menu).
<;>	Get the next record into the edit buffer. You may also use <+>.
<->	Get the previous record into the edit buffer.
<SHIFT><=>	Display binary representation of byte (128 byte mode only).

Cursor Movement

<left arrow>	Move cursor left.
<right arrow>	Move cursor right.
<up arrow>	Move cursor up.
<down arrow>	Move cursor down.
<SHIFT> <up arrow>	Position cursor to relative byte X'ØØ' of the current record.

FED's Commands

<A>	Enter ASCII character modify mode.
<B>	Get the first (beginning) record in the file.
<C> string	Search for ASCII Character string.
<D>	Dump disk file to printer (from current cursor position).
<E>	Get the last record of the file (EOF).
<F> string	Find Hex string.
<G>	Go to the next occurrence of last search (Hex or ASCII).
<H>	Enter Hex modify mode.
<L> nnnn	Locate Hex load address nnnn.
<M>	Calculate the address in memory where current byte loads.
<N><ENTER>	Opens a new (different) file.
<O>	Output a top-of-form to printer (X'ØC').
<P>	Print the current record.
<R> nnnn	Get record nnnn in the file.
<S><ENTER>	Save the current record (sector) to disk.
<T>	Toggle between 256 and 128 display mode.
<X><ENTER>	Exit FED and return to LDOS Ready.
<Z>	Move to the next file control byte in a load module file.

The search commands described below may cause an overwrite of the information contained in the edit buffer. If you have made modifications in the edit buffer, you may want to save them before you issue a search command. To ensure that the entire file is searched, you may issue a <B> command before you begin a search.

Explanation of Special Keys

<BREAK> Cancel the current FED command.

FED cancels any partial command or terminates any command being executed. Also, <BREAK> is the only way to exit the ASCII and Hex modify modes.

<ENTER> Display FED instruction menu.

FED displays the following list of instructions:

<;>	Forward ONE Record	<BREAK>	Cancels command
<->	Backward ONE Record	<N><ENTER>	New File
<B>	Beginning Record of File	<S><ENTER>	Save Record
<E>	Ending Record of File	<X><ENTER>	Exit FED
<R>	Position to Record	<H>	Hexadecimal Modify
<Z>	Go to next Load Block	<A>	ASCII Modify
<M>	Calculate Load Address	<T>	Toggle Display modes
<C>	Find ASCII String	<F>	Find Hex string
<L>	Locate Hex Load Address	<G>	Go next occurrence
<D>	Dump File to Printer	<O>	Output top-of-form
<P>	Send Buffer to Printer	<=>	Display Binary Value

Press <ENTER> to Return to Display Mode

Explanation of FED's Commands

<;> Get the next record in the file.

FED displays a "+" in the command buffer to indicate the forward movement through the file. If the record in the edit buffer is the last record of the file, FED ignores the <;> command.

<-> Backward One Record.

FED displays a "-" in the command buffer to indicate the backward movement through the file. If the record in the edit buffer is the first record of the file, FED ignores the <-> command. The <-> command does not change the position of the relative byte cursors.

<A> Enter ASCII character modify mode.

Lets you modify bytes in the record, by entering ASCII characters from the keyboard. Position the cursor over the bytes you want to change and press <A>. You can now type in the changes to the record. Any key may be entered (except <BREAK> and arrow keys. After the modification has been made, the relative byte cursors move to the next byte of the record. You may use arrow keys to position the cursor for additional modifications.

To exit the ASCII modify mode, press <BREAK>. Note that no changes are made to disk -- only to the edit buffer. To save the changes to disk, refer to <S> command.

<B> Get the first (beginning) record in the file.

FED gets Record X'ØØØØ' in the file and places it in the edit buffer. Cursors point to relative byte X'ØØ'.

<C>string Search for ASCII string string.

FED searches for the specified string starting at the current cursor position in the current record. FED scans all records in the file past the current record until it encounter the search string. The ASCII string may be from 1 to 3Ø characters long in the 128 display mode or 1 to 6 characters in the 256 display mode.

If the string is found, FED displays the record containing the match with the cursors positioned over the first character of the matching string. If the string is not found, FED displays an "*" in the command buffer and positions the cursor over relative byte X'FF' of the last record.

If there are multiple occurrences of the specified string, you can "go" to each occurrence by typing the <G>o command.

If you press <BREAK> to cancel the search, FED displays the record that was in the edit buffer prior to the search.

<D> List the file to the printer.

FED sends all records in the file, starting from the current record number to the printer. FED gets each record into the edit buffer before printing it; therefore, you may want to save the current record if you made any changes to it. Save the record before issueing the <D> command.

You may stop the printer by pressing <BREAK>. If you press <BREAK>, FED gets the record which was in the edit buffer before the <D> command and places it in the edit buffer. The cursor position remains unchanged.

If the printer becomes disabled during printing, FED continues the printing process after the printer is enabled.

All records are printed in 2Ø lines with a spacing of 2 lines between records, which allows you to print 3 records on 66 line/page paper.

Note that the LDOS spooler works in conjunction with the printing operations of FED.

<E> Get the last record in the file (EOF).

FED gets the last record in the file and places it in the edit buffer. FED displays an "*" directly below the record number to show that this is the last record in the file. FED positions the relative byte cursors on the last byte in the file (not necessarily relative byte X'FF'). Since LDOS uses sector I/Ø, the whole sector is displayed so that you may modify any byte in the sector. Note that modifications you make to bytes beyond the last byte do not cause the EOF marker of the file to reflect these changes.

<F>string Searches for the Hex string.

FED searches for the specified string starting at the current cursor position in the current record. FED scans all records in the file past the current record until it encounter the search string. The Hex string must be in the format:

nn nn nn . . .

You must specify entire bytes in the search string; that is, the search string must be an even number of characters. If you enter an odd number of hex digits, FED displays an "*" in the command buffer. In the 256 byte display mode the hex string may be 2 - 6 characters in length. In the 128 byte display mode the hex may be 2 - 3Ø characters in length.

If the string is found, FED displays the record containing the match with the cursors positioned over the first character of the matching string. If the string is not found, FED displays an "*" in the command buffer and positions the cursor over relative byte X'FF' of the last record.

If there are multiple occurrences of the specified string, you can "go" to each occurrence by typing <G>o command.

If you press <BREAK> to cancel the search, FED displays the record that was in the edit buffer prior to the search.

<G> Go to the next occurrence of the last search (Hex or ASCII).

The <G>o command performs a continuation of the last search. If the last search was for a string, <G> goes to the next occurrence of that string. If the last search was for an address, <G> goes to the next occurrence of that address. The record containing the found string becomes the new current record.

If you issue the <G>o command after the <L> command and the address is not located, FED gets the current record into the edit buffer. The position of the relative cursors remains unchanged.

If you issue the <G>o command after any other search command and the search criteria is not located, the last record is displayed with the cursors pointing to relative byte X'FF'.

<H> Enter Hex modify mode.

Lets you modify bytes in the record, by entering Hex characters from the keyboard. Position the cursor over the bytes you want to change and press <H>. You can modify the byte by typing in the new hex number. After the modification has been made, the relative byte cursors move to the next byte of the record. You may use arrow keys to position the cursor for additional modifications.

To exit the Hex modify mode, press <BREAK>. Note that no changes are made to disk -- only to the edit buffer. To save the changes to disk, refer to <S> command.

<L>nnnn Locate Hex load address X'nnnn'.

The <L>ocate command finds load address X'nnnn" in a load module file. Unlike the string searches, the <L>ocate command starts its search at record X'ØØØØ' rather than the current cursor position.

If the address is located, FED displays the record containing the byte at that load address with the cursors positioned over the byte.

If the address is not located, FED displays an error message and a prompt asking you to press <ENTER> to continue. If you press <ENTER>, FED displays the record which was in the edit buffer before you issued the <L>ocate command.

If you issue a <L>ocate command on a non-load module file, FED displays an error message.

<M> Calculate the address in memory where current byte loads.

This command works only with load module format files. If the byte is contained in a load block, FED displays the load address below the record number. If the byte is not in a load block (a comment line, file header, and so on), FED displays the error message "Byte not in load block".

<N><ENTER> Open a new (different) file.

FED prompts for a filespec, then loads the first record of the specified file. If you enter a filespec that does not exist, FED displays an error message.

<O> Output a top-of-form (X'ØC') to the printer.

FED sends a top-of-form character code to the printer.

<P> Print the current record.

The <P> command prints the contents of the edit buffer. To stop printing at any time, press <BREAK>.

The following is a sample printing:

```
                    SPACE/CMD   DRIVE 1   RECORD 22  X'ØØ16'

ØØ123456789ABCDEF  BYTE  ØØ Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7   Ø8 Ø9 ØA ØB ØC ØD ØE ØF
================================================================================
<.2<.:..<2....D.  <ØØ>  3C Ø9 32 3C 7F 3A Ø4 7F   3C 32 Ø4 7F C3 F6 44 A5
GAME OVER PLAYER  <1Ø>  47 41 4D 45 2Ø 4F 56 45   52 2Ø 5Ø 4C 41 59 45 52
 < >NEW HIGH SCO  <2Ø>  2Ø 3C 2Ø 3E 4E 45 57 2Ø   48 49 47 48 2Ø 53 43 4F
REEN....TER NAME  <3Ø>  52 45 45 4E Ø1 ØØ B4 97   54 45 52 2Ø 4E 41 4D 45
                !.  <4Ø>  2Ø 2Ø 2Ø 2Ø 2Ø 2Ø 2Ø 2Ø   2Ø 2Ø 2Ø 2Ø 2Ø 2Ø 21 C4
W; ...Ww:a...Ww:  <5Ø>  57 3A 6Ø 7F CD F1 57 77   3A 61 7F CD F7 57 77 EA
a...Ww:b...Ww:b.  <6Ø>  61 7F CD F1 57 77 3A 62   7F CD F7 57 77 3A 62 7F
..Ww....Ø#.././.  <7Ø>  CD F1 57 77 C9 E6 ØF C6   3Ø 23 C9 CB 2F CB 2F CB
/./...Ø#.  PLAYE  <8Ø>  1F CB 2F 18 FØ C6 3Ø 23   C9 2Ø 2Ø 5Ø 4C 41 59 45
R < >  .........  <9Ø>  52 2Ø 3C 2Ø 3E 2Ø 2Ø FF   FF FF FF FF FF FF FF FF
.................  <AØ>  FF FF FF FF FF FF FF FF   FF FF FF FF FF FF FF FF
.................  <BØ>  FF FF FF FF 8Ø 88 B7 B7   B7 B7 9D 8Ø AE BB BB BB
.......... INTRU  <CØ>  BB 84 8Ø 8Ø 8Ø 8Ø 8Ø 8Ø   8Ø 8Ø 2Ø 49 4E 54 52 55
DERS............  <DØ>  44 45 52 53 AE 9D AE 9D   88 9B A7 84 88 9E AD 84
....ØXH.X.Ø1HØ.H  <EØ>  AØ 99 A6 9Ø 3Ø 78 48 B4   78 84 38 4C 48 4Ø F8 48
POINTS2Ø POINTS1  <FØ>  5Ø 4F 49 4E 54 53 32 3Ø   2Ø 5Ø 4F 49 4E 54 53 31
```

<R>nnnn Get record nnnn in the file.

FED gets the specified record in the file and places it in the edit buffer. If the record does not exist, the command buffer shows an "*". After you press <R>, a prompt appears below the record number. Enter the record number you want to retrieve in hexadecimal.

You do not have to use the standard four digit format when entering the record number. For example, if you want to get Record X'ØØØ7', type <R><7><ENTER>.

The <R> command does not change the position of the relative byte cursors after the new record is received.

<S> Save the contents of the edit buffer (current record) to disk.

FED writes the contents of the edit buffer to the file. The original record is overwritten. Any changes you made after the initial read of the record are written to disk.

<T> Toggle between 256 and 128 display mode.

<T> switches from 256 byte display mode to 128 byte display mode and vice versa. Both modes recognize the same commands.

In 128 byte display mode, only 128 bytes of the 256 byte record are displayed. You can use the up and down arrows to move the cursors to produce a scrolling effect. The ASCII display is at the top of the screen and all inputs are taken horizontally instead of vertically. The current record number is displayed in decimal as well as hexadecimal. ASCII and hex search inputs allow 3Ø characters instead of 6.

<X><ENTER> Exit FED and return to LDOS Ready.

FED ends and returns control to LDOS. The record in the edit buffer is not written to disk. If you made changes to the record, save them before exiting FED.

<Z> Move to the next file control byte in a load module file.

Moves the cursors to the next file control byte in a load module file. The control bytes are X'Ø1', X'Ø2', X'Ø5', X'Ø7', X'1Ø', X'1F'.

To use this command, place the cursors on a control byte and press <Z>. The cursors move to the next control byte.

<Z> is disabled by an X'Ø2', any string searching, address locating, or address calculating. For more information on header bytes, refer to FILE FORMATS in the Technical Information section of the Hard Disk Operating System Reference Manual.

Using Drivers, Filters, or Programs with FED

FED works with other programs except in a few instances:

. You may **not** use any memory below X'7ØØØ'.

. If you return to FED from some other function, the display may appear to be garbaged. Press <BREAK> to re-establish the FED display.

. FED picks up any vectors changed by another driver. FED uses keyboard, video and printer DCB's.

. You must maintain standard ASCII values and restore any registers, DCB's, devices, and so on, to their original values.

. You may use FED in conjunction with a machine language program. You may use FED (though not recommended) from within LBASIC via the CMD "FED" command. If you use FED in this manner, you must make sure that at least 1Ø,ØØØ bytes are free in LBASIC. If the number is less than 1Ø,ØØØ, the system may crash.

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