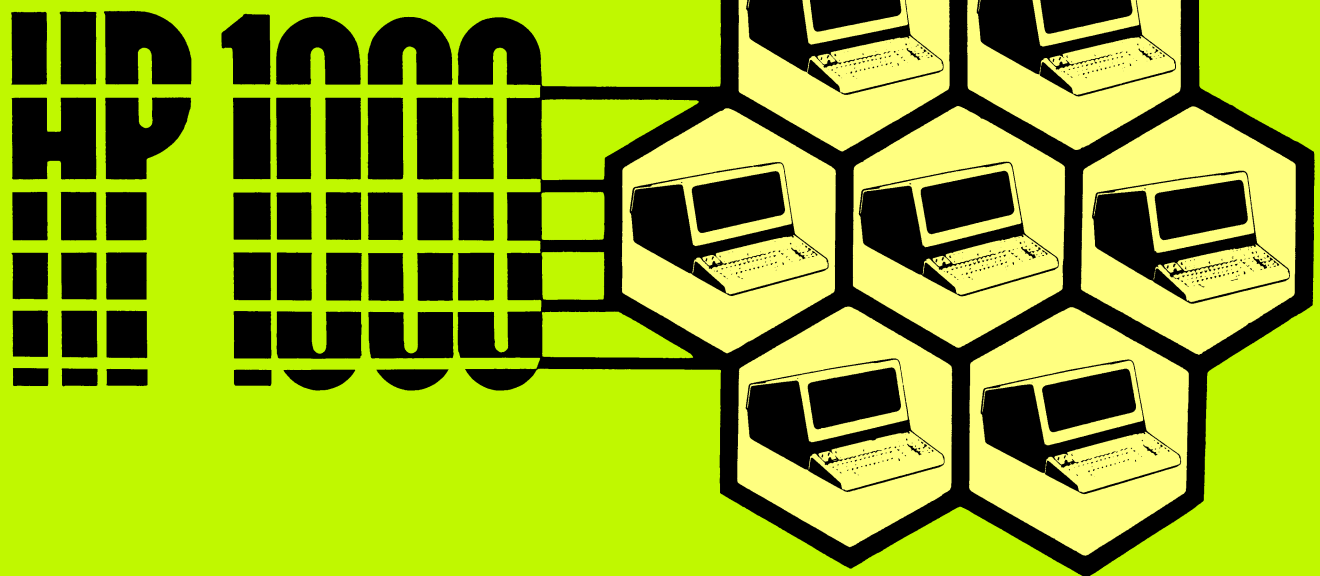# EDIT/1000
User's Guide

HEWLETT
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EDIT/1000

User's Guide

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Printing History

The Printing History below identifies the Edition of this Manual and any Updates that are included. Periodically, Update packages are distributed which contain replacement pages to be merged into the manual, including an updated copy of this Printing History page. Also, the update may contain write-in instructions.

Each reprinting of this manual will incorporate all past Updates, however, no new information will be added. Thus, the reprinted copy will be identical in content to prior printings of the same edition with its user-inserted update information. New editions of this manual will contain new information, as well as all Updates.

To determine what software manual edition and update is compatible with your current software revision code, refer to the appropriate Software Numbering Catalog, Software Product Catalog, or Diagnostic Configurator Manual.

First Edition .... Aug 1980
    Update 1 .... Oct 1981   Scratch file and other software enhancements
Reprint .... Oct 1981   Incorporate Update 1
    Update 2 .... Jul 1982   RTE-A.1
Reprint .... Jul 1982   Incorporate Update 2
    Update 3 .... Jun 1983   RTE-A
Reprint .... Jun 1983   Update 3 has been incorporated.
    Update 3 .... June 1983   RTE-A
Reprint .... Jun 1983   Incorporate Update 3
    Update 4 .... Dec 1983   CI File system added to RTE-6/VM

Preface

This manual is a guide for the new users of EDIT/1000 which is an editor program in the RTE Operating System. It is assumed that EDIT/1000 is ready to be run. It is not the intention of this manual to cover areas in the operating system such as operations and error recovery.

The purpose of this manual is to show you how to create, modify, and manipulate ASCII files. You should first familiarize yourself with the basic concepts, features and capabilities of EDIT/1000 as well as terms and conventions used throughout this manual. These are given in Chapter 1.

The operations of EDIT/1000 are given in Chapter 2. This is a "how to" chapter with as many common and special tasks illustrated. Naturally, the full power of EDIT/1000 cannot be captured and fully demonstrated. You are encouraged to try these examples and experiment with various commands to develop your own means of performing certain tasks.

Chapter 3 describes all the EDIT program commands and the special characters associated with certain commands. The commands are given in alphabetical order so that you can flip through the pages to find the command you are looking for. Examples are provided as necessary to demonstrate command usages. This chapter can be used as a reference.

Appendix A   provides information for loading EDIT/1000 into an RTE Operating System. Loading should be done by the system manager or someone knowledgeable about RTE designated by the system manager.

Appendix B   describes the multipoint environment for EDIT/1000.

NOTE

All references to RTE include RTE-IVB, 6/VM, XL, and RTE-A unless specifically noted.

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Appendix B   EDIT/1000 In Multipoint Environment

Glossary

Following is a glossary of terms that you will encounter throughout this manual. You may want to refer back to this list later when necessary. Some terms are further explained in Chapter 1 and in the command descriptions in Chapter 3.

anchor
: A character used to start a search or a match at the beginning of the search window.

case folding
: An option initially turned on to allow recognition of either upper or lower case letters.

character class
: A group of characters any one of which can be used as the character to be searched/matched.

closure
: The metacharacter "*" used to make a text pattern which matches zero or more successive occurrences of the single character pattern. For example, x* matches zero or more x's; xx* matches one or more x's; [a-z]* matches any string of zero or more lower case letters. If a number of combinations are present, the longest one is used. Note that for @ in pattern specification, the shortest is used.

command stack
: A list of EDIT commands entered during any one session. The list is accessible with the command stack command (/).

control character
: A non-printing character entered by pressing both the CNTL key and the appropriate character. Control characters are used as sub-commands in line and screen mode editing.

current prompt
: The EDIT prompt character in effect. Default is a slash. may be changed by SE PC command described in Chapter 3.

default
: The initial or reset condition for an optional parameter in the EDIT command string.

delimiter
: A character used to separate command and parameters. Required for some commands and optional for others.

escape character
: A character used to revert a character with special meaning to its original meaning.

line specification	Parameters that specify one line or a range of lines. Usually they precede certain commands. Special characters may be used to indicate offsets. These characters may be checked on-line with "? LS" .
list file	A file created or opened by the L and K commands. Specified number of lines may be written to or appended to the list file.
logical unit number	A number (referred to as LU) used by the operating system to identify an I/O device.
mark	An alphabetic label maintained by EDIT; it is attached to a scratch file. Marks are valid for each session.
match	A pattern to be located matching either a specified pattern or all except the specified pattern.
metacharacter	A set of special characters with unique meanings to EDIT. These characters are used in regular expression searches and exchanges. These characters can be checked on-line with "? RE" .
namr	Standard RTE disc file designation. In EDIT, usually means a file name with optional security code and cartridge reference number separated by ":". File type and size are sometimes used in creating a file from EDIT.
options	Either an optional parameter in a command string or an initial EDIT condition that can be changed with the set option command. Refer to the SE command description for details.
pattern	A character string to be searched/exchanged.
range	A number of lines with a defined begin and end line number. Can be either absolute numbers or line specification characters with or without offsets.
regular expression	Special patterns using the metacharacters for unique searches and exchanges. Use of regular expressions provides a means of specifying alternates and the ability to parenthesize patterns. For example, "X[+-]Y" which matches X+Y or X-Y. It is an EDIT option that must be turned on to take effect.

reverse match	A search in which a match occurs only if the specified pattern is not found anywhere or on a line-by-line basis.
command string	The various fields entered in an EDIT command. These are typically the additional EDIT commands, the optional (or required) line specifications, pattern and exchange fields, and command options.
recovery mode	EDIT enters the recovery mode whenever a scratch file is detected. No changes can be made; screen mode is disabled. All other commands are allowed. Must abort or exit restoring or creating with a file name before running any editing session.
run string	Usually a run program command with all the permissible command parameters. For example, RU,EDIT,file,120|S.
scratch file	Temporary work area on disc where EDIT operates from during the editing session. This area contains the text read into memory.
screen mode	An editing mode in which a number of lines of text is displayed to allow local editing using the editing keys available on the terminal keyboard.
source file	An ASCII file opened and read by EDIT.
string	A group of ASCII characters.
substitute	A replacement pattern when a match occurs during an exchange command execution.
vertical window	The number of lines above and below the pending line to be displayed with the vertical window (W) command.
window	Usually means the search window which confines the search to within two columns defined by the horizontal window settings.

Chapter 1
General Information

Introduction

EDIT/1000 is a utility program in the HP 1000 System with RTE-IVB, 6/VM, A, or XL.   It is an editor for textual information in the HP ASCII character set: programs, data, documents, manuals, etc.   EDIT operates in either interactive or in batch mode.   When used interactively, EDIT accepts commands from a 262X or 264X terminal keyboard.   Commands may be entered in either upper or lower case letters.

The EDIT program has the following major features:

        On-Line Quick Reference
        Screen Mode
        Line Range Options
        Sophisticated Pattern Matches
        Program Scheduling
        Command Stack
        Batch Operation
        File Back Up
        Command String Repetition
        Automatic Work File Recovery

On-line reference is readily available with the help commands and information display commands.   The help commands (H and ?) provide brief explanations for every command. The explanation includes the command syntax, the default line range and options available. Other useful information is also available.   This includes a command summary, explanations of line specification, abbreviations used, special control characters used in line editing, special characters used in sophisticated pattern matches and line specification.   There are commands that display pattern defaults and other pertinent information such as default source file name and current options status. Typical commands of this type are the SH (show option) and LI (line length) commands. A summary of help and information display commands as well as other commands grouped by functions is given in Chapter 2.

Screen mode allows the use of the local terminal editing keys to modify
the file being edited. A block of lines can be displayed and modified
using the editing facilities of the terminal. The edited lines (a
screen) can be used to replace the old lines or ignored if desired.
One can move forward or backward from screen to screen. Screen mode
operation is further described in Chapter 2 and in the S command in
Chapter 3.

Line range is an option for certain commands such as the search or
exchange commands. You can use either the default range or specify the
range of lines where the command is to be performed. The default range
parameters are shown inside the optional brackets [] in the on-line
quick reference and in the command descriptions in Chapter 3. Refer to
the section How To Specify Line Range in Chapter 2 for details.

Sophisticated pattern matches are permitted by enabling the use of
regular expressions. This allows the use of characters that have
special meanings such as either-or, one or more occurrences, recall a
field specified in the search pattern, one of several, indefinite
character, etc. Refer to the Use of Regular Expressions and
Applications sections in Chapter 2 for more details.

Another program can be scheduled and run from EDIT in the same manner
as from the RTE File Manager. Upon completion of that program, the
editing session is returned to the point where the program was
scheduled. Refer to the Run a Program section in Chapter 2 and the RU
command description in Chapter 3 for details.

The EDIT program saves up to 20 command lines. These commands can be
recalled and modified with the terminal editing keys if necessary. Any
one (or none) of these commands can then be executed if desired. Refer
to the "/" command description in Chapter 3 for details.

Batch operation can be done in several ways. EDIT commands can be
entered on the same line separated by a command separator. These
commands are then executed in order from left to right. Another means
is to create a file consisting of EDIT commands. This command file is
then transferred to from an editing session or included in the EDIT
program run string. This eliminates any operator interactions. A
third method is to include editing commands in the EDIT program run
string. All editing can be done without any operator intervention.
Refer to the Batch Mode Operation section in Chapter 2 for details.

Periodic backup of files being edited can be done without leaving the
editing session. The original source file may be replaced with the
partially edited version or a new file created. Another means is
opening or creation of a list file when lines are being listed or
deleted (with the L and K commands respectively). These files can be
manipulated from the editing session; they may be closed or opened as
required to accomplish the required task. For example, the source file
can be closed so that the program may be run from the file manager.

Refer to Manipulating Files section in Chapter 2 for more information.

A command string entered can be repeated as many times as needed. This is accomplished with the repeat command. A line of text can also be repeated in the same manner. The repeat command is explained in Chapter 2 of this manual.

Upon abnormal termination, the EDIT work file is left on the scratch file disc (or the user cartridge). EDIT goes into the recovery mode the next time it is run to allow the user to examine the work file but not to change it. The work file must be purged (by aborting the current edit session) or saved (by EC, ER, WC, or WR) before another edit session can begin.

EDIT operates in the RTE-IVB, RTE-6/VM, RTE-A, or the RTE-XL operating system. It can be run from a 262X or 264X display terminal driven by DVR05 (or driver DD.05 on RTE-XL/A). Under RTE-IVB or 6/VM, it can be executed with driver DVR00 without the screen mode or command stack features. It can also be used with DVR07 as described in Appendix B of this manual.

With some earlier versions of the 2621 terminals, the cursor sensing feature may not be available and thus the Q, S, and command stack (/) commands are not allowed. In this case, only line mode editing is available.

Basic Concepts

EDIT Work Areas

EDIT reads the source file and transfers it to a work area on disc called the scratch file. (See appendix A for a description of the scratch file.) EDIT uses a special internal format in the scratch file which allows fast access to a given line and efficient modification of text. When lines are inserted or deleted, the scratch file is updated and the line numbers are changed accordingly for each file modification operation.

When editing is completed and EDIT is terminated with one of the exit commands, the content of the scratch file is written to the new file specified or restored to the original source file. The operation of EDIT is shown in Figure 1-1.

```
┌─────────────────────────────────────────────────────────────────────────┐
│  ┌─────────┐                               ┌─────────┐                    │
│  │ DISC    │◄─────────────────────┐        │ OUTPUT  │                    │
│  │ SOURCE  │    ER or WR          │        │ FILE    │                    │
│  │ FILE    │                      │        │ (DISC)  │                    │
│  └─────────┘◄──────┐              │        └─────────┘                    │
│                    │          ┌───────┐        ▲                          │
│                    └─────────►│ EDIT  │────────┘   EC or                  │
│                               │       │            W C                    │
│                               │ (CPU) │                                   │
│                               └───────┘                                   │
│                     EDIT       ▲   │                                      │
│                   COMMANDS     │   ▼                                      │
│                              ┌─────────┐                                  │
│                              │ SCRATCH │  Scratch file is purged after    │
│                              │ FILE    │  A, EC, or ER.                   │
│                              │ (DISC)  │                                  │
│                              └─────────┘                                  │
└─────────────────────────────────────────────────────────────────────────┘
```
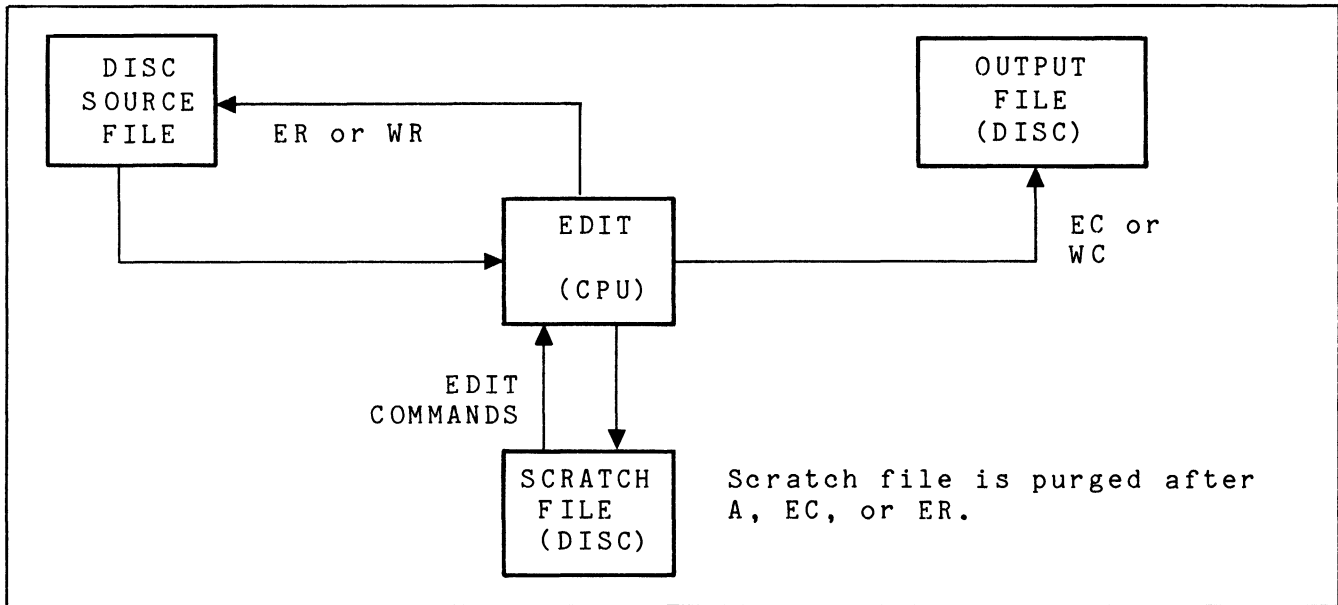
Figure 1-1. File/Work Area Relationship

Upon normal termination, EDIT purges the scratch file. The scratch
file if left unpurged for any reason, e.g., system crashes or other
abnormal EDIT termination, will cause EDIT to enter the recovery mode
the next time it is run. No further editing session can take place
until the recovery mode is terminated by aborting EDIT or terminating
it with EC or ER. It the scratch file is corrupted, it must be purged
before EDIT can be run.

Pending Line

When EDIT is run, the first line of the source file is displayed. The
displayed line is the current line available for editing and is called
the "pending line" (often referred to hereinafter as "PL"). This line
remains as the pending line until you request a new pending line with
an EDIT command. In this way you can continue to re-edit the same line
until satisfied.

When you request a particular line of text, EDIT moves through the
scratch file until the requested line is encountered. That line then
becomes the new "pending line" and is displayed on the terminal. EDIT
maintains a "pending line" pointer into the scratch file.

During multiple searches, or when the search for a particular pattern
is unsuccessful, EDIT returns to the pending line. In some cases, an
option (RT) can be turned off to stop EDIT at the end of file (EOF).

Display Formats

The pending line displayed and listings output by EDIT are always preceded by two blanks. This convention allows room for the EDIT prompt and a single character command, which aligns the new text with that displayed by EDIT. Error messages, in contrast, always begin in column 1. This is so that the difference between an EDIT message and a line of text can be easily determined. For example:

```
     EOF        EDIT text written in the file
     EOF        EDIT message
```

Line Length

EDIT has a default line length of 150 characters. If your output device supports a shorter maximum line length, you need to shorten the EDIT line length to prevent possible line truncations. Table 1-1 shows output devices commonly used with EDIT and the number of characters per line each device supports. Refer to the Option Setting Section in Chapter 2 or to the SE command description in Chapter 3 for information on how to set line length.

Table 1-1. Typical Maximum Line Lengths for Common Devices

DEVICE	LINE LENGTHS	COMMENTS
Punched Cards	80 Characters	
CRT	72 - 150 Characters	Line length varies with model of terminal used.
Magnetic Tape	150 Characters	Default maximum length supported by EDIT.
TTY Device	72 Characters	Longer lines will encounter printing problems.
Paper Tape	150 Characters	Default maximum length supported by EDIT.
Disc	150 Characters	Default maximum length supported by EDIT.
Line Printer	80 - 150 Characters	Number of characters varies with printer model. Consult appropriate manual for your printer.

EDIT Prompt Character

When EDIT is used in the interactive mode, it prompts for input with a slash (/). The prompt character may be altered by the prompt setting option (PC). Refer to the set option (SE) command for details. Thereafter, the specified character is output as the EDIT prompt.

Error Messages

EDIT operating errors are noted with a question mark followed by an up-arrow (^) pointing to the illegal field. Brief explanations are given when necessary to clarify the issue. For example:

```
/125%B
?      ^      (Illegal line range)
/
```

Other descriptive error messages may also be encountered. A few common messages are shown below.

```
/sh zebra Not an option.  Type SH to show all options and their current
setting.   /
```

```
/ec,lemon
File already exists LEMON:::4:1
```

```
/m,xyzww
No such file XYZWW
```

On-Line Quick Reference

EDIT provides an on-line quick reference. A summary of the commands and special characters can be displayed with a "?" or "H" command. Individual command syntax and explanation can be displayed with either of the two help commands followed by the command in question. Additionally, a brief explanation of the following can be obtained:

   Abbreviations used by EDIT (entering H EX)

   Pattern and associated special characters (H PA)

   Pending line editing and associated edit commands (H PL)

   Regular expression and metacharacters (H RE)

   Line specifications and associated special characters (H LS)

Refer to the HELP commands (H and ?) given in Chapter 3 for details.

Pattern Specification

A pattern is a string of characters to be searched, matched, or substituted. There are two major types of patterns, a normal pattern and a special pattern using metacharacters with the regular expression turned on. The normal pattern is described here and assumed throughout this manual. Patterns containing metacharacters are described in the Using Regular Expressions Section in Chapter 2.

When a line is found containing the specified pattern, a match occurs. EDIT either makes that line the pending line or, as in a multiple search, indicates the lines where a match occurs.

In an exchange command, the search pattern is considered as the match pattern. This is the pattern to be replaced by the substitute pattern specified.

A pattern is specified within a pair of delimiters which can be any punctuation marks except commas or spaces. Throughout this manual, the current prompt character (/) is adopted as the pattern delimiters.

A match occurs if a specified pattern is found anywhere within the horizontal search window. The search window always applies in normal pattern specification. However, a match outside the window can occur if the N option is specified in the search or exchange command.

There are several characters that have special meanings when used in pattern specification. The anchor character (^) specifies that the pattern is to start at the beginning of the window. It has special meaning only when used at the beginning of the pattern, immediately after the first delimiter. Found anywhere else in the pattern, it is considered as the up-arrow character ^.

The @ character specifies that zero or more character may be skipped during a match on a line. If various combinations occur as a result of the @ character, the shortest match is chosen. For example, if a@a is specified, the string ababbabbba contains three matches. In this case, the shortest one is chosen (aba). An example of this is shown below.

        ababbabbba
    /X/a@a/Foo/S
        FOObbabbba

If any of the above characters need to be included in the pattern, the escape character (\) can be used to revert any one to its original meaning. For example, to find "X/Y", the pattern specified is "X\/Y".

File Specification

| RTE-IVB and RTE-XL

In EDIT, files are specified using the standard RTE File Manager naming convention (namr). The subparameters may be omitted from the end of the list. If an embedded subparameter is omitted, its position must be indicated by the colon (:). The namr format is:

      filename[:security code[:cartridge[:type[:size]]]]

    where:

    file name – A unique name consisting of up to six printing characters. Observe the following restrictions:

                  Characters not allowed:

                        + – , : { } | ~

                  First characters may not be a number. Leading blanks will be ignored by the editor.

    security   – Optional. A positive integer, a negative integer, or two legal file name characters. A positive integer (not zero) or an ASCII code provides write protection. A negative integer provides read and write protection.

    cartridge – Optional. Can be the positive cartridge reference number, the negative logical unit number, or two legal file name ASCII characters.

    type   – Optional. Standard RTE file types except types 1,2,5,6, or 7.

    size   – Optional. Specified in number of blocks. If size given is negative, EDIT will create a file which is the exact size needed for the current work area. If defaulted, for a file 6 blocks or smaller, EDIT will create a file exactly the same size. For a file larger than 6 blocks, EDIT will create a file whose size is in multiples of 6 blocks. This is done to prevent slower file access which occurs when the number of blocks in a file is relatively prime to the file DCB size. (Refer to the RTE programmer's Reference Manual for more information.) If size is specified as a positive number, the output file is created with the size specified.

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RTE-6/VM

When Edit is used with RTE-6/VM under the CI file system, the pathname file naming convention (file descriptor) or the namr convention may be used. The namr format is used only to refer to files on FMGR cartridges. The file descriptor format is:

```
        filename.type-extension::dir:type:size[user]>node
                         -OR-
/dir/subdir/.../filename.type-extension:::type:size[user]>node
                         -OR-
        filename[:security code[:cartridge[:type[:size]]]]
```

where:

      filename   – A unique name consisting of up to 16 characters. Characters must meet namr character restrictions.

      type-extension – Optional. Four character field separated from file name by a period; it is used to describe the type of information in the file.

                             Typical file type extensions are:

.cmd	Command file
.ftn	FORTRAN source file
.lod	LINK command file
.lst	Program listing
.mac	Macro source file
.pas	Pascal source file
.txt	ASCII text file

      dir   – Optional. Specifies the global directory for the file. The dir can be up to 16 characters long, not counting delimiters ("/").

      subdir   – Optional. Specifies one or more sub-directories (separated by ("/") for the file. Any number of sub-directories can be specified with the limitation that the entire file descriptor cannot be more than 64 characters long.

      type   – Optional. Standard RTE file types; see type entry in the previous section for type restrictions.

size — Optional. Specified in number of blocks. If
size is specified as a positive number, the
output file is created with the size specified.
If the size is specified as a negative number,
the file is created with that many 128-character
blocks.

user — Optional. Enclosed in square brackets;
specifies the user account under which this file
exists.

node — Optional. Preceeded by a ">". This indicates
the DS node where the file resides.

RTE-A

In EDIT, files are specified using the standard RTE File Manager naming convention (file descriptor). The subparameters may be omitted from the end of the list. If an embedded subparameter is omitted, its position must be indicated by the colon (:). The file descriptor format is:

filename.type-extension::dir:type:size[user]>node

-OR-

/dir/subdir/.../filename.type-extension:::type:size[user]>node

-OR-

filename[:security code[:cartridge[:type[:size]]]]

where:

    filename   - A unique name consisting of up to 16 characters.

    type-extension   - Optional. A field separated by a period with up to four characters; used to describe the type of information in the file. Typical file type extensions are:

                       .cmd   command file
                       .ftn   FORTRAN source file
                       .lst   listing
                       .mac   Macro source file
                       .pas   Pascal source file

    dir   - Optional. Specifies the global directory for the file. The dir can be up to 16 characters long, not counting delimiters ("/").

    subdir   - Optional. Specifies one or more sub-directories (separated by ("/") for the file. Any number of sub-directories can be specified with the limitation that the entire file descriptor cannot be more than 64 characters long.

    type   - Optional. Standard RTE file types except types 1, 2, and 6.

size   – Optional. Specified in number of blocks. If
                          size given is negative, EDIT will create a file
                          which is the exact size needed for the current
                          work area. If defaulted, for a file 6 blocks or
                          smaller, EDIT will create a file exactly the
                          same size. For a file larger than 6 blocks,
                          EDIT will create a file whose size is in
                          multiples of 6 blocks. This is done to prevent
                          slower file access which occurs when the number
                          of blocks in a file is relatively prime to the
                          file DCB size. (Refer to the RTE Programmer's
                          Reference Manual for more information.) If size
                          is specified as a positive number, the output
                          file is created with the size specified.

user   – Optional. Enclosed in square brackets. This
                          specifies the user account under which this file
                          exists.

node   – Optional. Preceeded by a ">". This indicates
                          the DS node where the file resides.

NOTE: The third form is used only to access files from FMGR
       cartridges. Refer to the Programmer's Reference Manual for
       more information.

File Naming Defaults

EDIT retains the source file name (specified initially in the run
string or in an FI command) as the default file name. This name can be
used in any command that accesses a file (EC, ER, FI, K, L, M, TR, WC,
WR) as a default for the file name specified. The name entered for
each of these commands is actually treated as a mask to be overlayed on
the default name before being used. Normally, the new name will be
used. However, if a "-" (dash) is specified in the file name, the
character in the same position in the default name is placed into the
new name. For example:

	Default File Descriptor	File Descriptor Specified in Command	File Descriptor Used
1)	TEST::SP	JUMP::SP	JUMP::SP
2)	TEST::SP	B---::SP	BEST::SP
3)	TEST::SP	-A-K::SC	TASK::SC
4)	TEST::SP	----A	TESTA::0
5)	TEST::SP	-	T::0
6)	TEST::SP	::RS	TEST::RS
7)	TEST::SP	:5	TEST:5:SP

Note that if the file name is left out altogether, the entire default
name is used (as in examples 6 and 7). Note also that only the file
name is defaulted; the other file descriptor parameters are taken just
as they are specified in the new file descriptor (examples 3-6). Thus,
if the crn is not specified, it defaults to zero.   The only exception
to this rule is when the security code is specified, but the crn is
not. In this case the crn in the default will be used (example 7).
This is useful for the case where you have opened a file and specified
the wrong security code. You can execute the FI (or ER, WR, etc.)
command specifying only the correct security code; the name and crn
will be the same as entered previously.

The FI command modifies the default file name. Other file-oriented
commands may use the default name, but they leave the default
unchanged. For example:

Default File Descriptor	Command	File Descriptor Used	New Default File Descriptor
TEST::SP	FI B---::SP	BEST::SP	BEST::SP
TEST::SP	TR B---::SP	BEST::SP	TEST::SP

         The ?? command shows the default file descriptor.

Note that only the file name is defaulted as explained above, not the
directories or type extension. For example:

	Default File Descriptor	File Descriptor Specified in Command	File Descriptor Used
1)	/DIR/TEST.TXT	/DIR/B---	/DIR/BEST
2)	/DIR/TEST.TXT	/DIR/.SRC	/DIR/TEST.SRC
3)	/DIR/TEST.TXT	-A-K.MAC	TASK.MAC

Command Syntax and Conventions

To use EDIT efficiently, you must know the command syntax and keyboard
conventions it expects. The command syntax and conventions used in
this manual are summarized in Table 1-2. The special characters used
in regular expressions are described in the Using Regular Expression
section in Chapter 2.

Chapter 2
EDIT Operations

Introduction

EDIT/1000 is a friendly editor designed to increase your productivity in program development and text preparation or modification. It is a powerful tool and thus requires some sacrifice in simplicity of operations. As with any software tools, you need to learn the command and parameter syntax and the capabilities of each command. With EDIT/1000, on-line help is readily available to refresh your memory on the command mnemonics and syntax, purpose of each command, and the default parameters. You can learn about EDIT only by using it. Don't be afraid to make mistakes. EDIT has a panic button in the form of the undo command (UN) for error recovery as long as no other modifications have been made. Try something new, make use of its full potential rather than only part of it.

This chapter describes the normal EDIT operations, beginning with simple steps, progressing gradually in complexity. Some applications are also given, especially for regular expressions. If you are familiar with the general principles of editors and the RTE system, you may want to move directly to the section of interest to you. There will be certain redundancy in this chapter. It is designed to refresh and to reinforce your knowledge of EDIT/1000.

Before you start, make sure that EDIT/1000 has been loaded into your system and is ready to be run. If not, get your system manager to do it for you. It is assumed that you are ready to run EDIT (i.e., you are logged on a session and ready to run a program).

The procedures and examples shown in this chapter are common means of accomplishing the various tasks illustrated. You may come up with a preferred way of doing a particular task. The examples may show certain inconsistency in command format, i.e., upper and lower case letters, y and yes as prompt response, etc. This is done to show the flexibility of EDIT in accepting many forms of input.

Command Summary

Commands That Display Information

```
?(or H)   Displays a summary of commands in alphabetical order
? <cmd>   Displays information about command specified
?,EX      Displays explanation of abbreviations
?,PA      Displays pattern explanation
?,PL      Displays pending line (PL) editing information
?,LS      Displays line specification information
?,RE      Displays regular expression explanation
H,<cmd>   Same as ?,<cmd>
H,EX      Same as ?,EX
H,RE      Same as ?,RE
H,LS      Same as ?,LS
HL        Displays header lines to mark column numbers
SH ALL    Displays all option setting and default parameters
SH<opt>   Displays setting for option specified
SH UN     Displays text of lines before modification and the
          commands used to undo the change
L         Displays 20 lines plus next pending line
LE        Displays line length in characters
LI        Displays file size in number of lines
LN        Same as L except that line numbers are displayed
LU        Displays lines without line numbers; turns off LN command
N         Displays pending line number
SZ        Displays approximate file size in 16-bit words
TI        Adds time and date information to a line and displays line
W         Displays 20 lines with numbers and pointer to pending line
WN or WU  Same as W with line numbers or without numbers (WU)
/         Displays command stack to allow selection of any command
          for execution
??        EDIT copy name and current source file
```

Option Setting Commands

```
SE AC     Sets anchor character, initially ^
SE EC     Sets escape character, initially \
SE IC     Sets indefinite character, initially @
SE PC     Sets prompt character, initially /
SE CS     Sets command separator character, initially |
SE TC     Sets tab character, initially TAB key or cntl I
T         Sets tab columns, initially 7 and 21
TA        Specifies tab columns for ASMB (7 and 21)
TF        Specifies tab columns for FTN (7 and every 4 columns)
TM        Specifies tab columns for Macro programs (10,26,40,44,48)
TP        Specifies tab columns for Pascal (every 3 columns)
TL        Sets tab stops local to terminal as defined by T
TS        Offsets tab stops 2 columns for screen mode edits
SE WC     Sets window columns, initially 1 and 150
```

```
SE SD    Sets default screen size, initially 10 lines above and 10
         lines below pending line with a 2-line screen-to-screen
         overlap
SE SL    Sets maximum screen mode size; default depends on the
         type of terminal used
SE VW    Sets vertical window size, initially 10 lines above and 10
         lines below pending line (20 lines total)
SE LE    Sets line length, initially at the maximum of 150
SE AS    Sets prompt for dangerous commands on or off, initially on
SE CF    Sets case folding on or off, initially on
SE RE    Sets regular expressions on or off, initially off
SE DF    Sets screen mode display functions on or off, initially on
SE RT    Sets no-match return to pending line (on) or to lower
         range limit (off), initially on
SE TS    Sets automatic time-stamp updating on or off, initially on
SE BE    Set BELL with prompt on/off, initially off
```

Dangerous Commands

Commands that may corrupt your file if executed inadvertently will prompt you for verification. If the "OK?" prompt is displayed, only a y(es) answer can execute the command. Except for the A and TR commands, even if you enter "y" by mistake, you can still recover by entering the UN command as long as you have not made any more modifications. The "OK?" display can be suppressed with the slash (or current prompt) after the command string and the command executed immediately. Use this feature with caution. These commands are listed below.

Command	Comment
A(ABORT)	Prompt will not be issued if file has not been altered.
D(DELETE TILL MATCH)	Default range is delete only the pending line regardless of pattern specified.
K(KILL LINES)	Default range is PL to last line. Prompt will not be issued if only one line is to be deleted.
TR(TRANSFER INPUT)	Delimiter is required between namr and Q parameter, e.g., "TR namr, Q" or "TR,namr Q".
U(UNCONDITIONAL REPLACE)	Prompt will not be issued if only one line is to be changed. Default is search and replace only the pending line.
X(EXCHANGE)	Prompt will not be issued if only one line is to be changed. Default is search only the pending line.

Commands with Common Default

There are certain commands that share the same default pattern or file. The default conditions can be checked by the SH command. These commands are listed below.

Command	Common default
F	Search pattern
B	"
D	"
` `	"
′ ′	"
G	match/substitute strings
U	"
X	"
Y	"
ER	source file
WR	"
L	list file
K	"

Search Commands

If you want to find a line with a particular pattern and make it the pending line, use:

Command	Comment
B	Default range is from beginning to end of file. Range must be specified for successive searches.
F	Default range is from line after PL to last line. Useful in successive searches.
′PA′	Searches forward for pattern (PA) specified. If PA is omitted, the last pattern specified in B, F, ′′, or `` command is used.
`PA`	Searches backward for pattern (PA) specified. Same as ′′ command.

Delete Commands

The K command is used to delete lines. The D command can be used to delete lines up to a line with a specified pattern.

Exchange Commands

The exchange commands are: G, U, X, and Y. These commands share the same default match/substitute patterns.

Command   Comment

  G   Exchanges characters on PL.

  Y   Exchanges PL; searches for the next occurrence
                  of match pattern. If found, makes that line PL.

  X   Exchanges all occurrences of match pattern with
                  substitute pattern. Default is exchange only PL.
                  Specify range as "1$" for the entire file.

  U   Exchanges a specified length of field starting at
                  at the left window column with a substitute pattern.
                  Default range is PL only. Specify range as "1$" for
                  the entire file.

Line EDIT Commands

Command	Description
I	Insert line before PL.
\<space\>	Insert line after PL.
K	Delete line(s).
C	Edit PL and advance to next line.
CO	Copy line(s) to after PL; must have at least one range specification.
G	Exchange pattern on PL.
N	Show pending line number.
O	Copy and EDIT PL.
P	Edit PL.
Q	Edit PL locally using terminal edit keys.
R	Replace PL with new text.
U	Unconditional exchange.
X	Exchange patterns.
Y	Exchange patterns on PL and advance to next occurrence of match pattern.

control characters used for pending line editing:

cntl B	Break line at cursor position.
cntl C	Delete characters.
cntl R	Replace characters.
cntl S	Insert characters.
cntl T	Truncate line at cursor position.
cntl X	Extend line.

Screen EDIT Commands

```
Command                       Description
S              Start screen edit beginning at 10 lines above PL
  SE SD        Set default screen size; initially 10 lines above and
               10 lines below PL with 2-line screen-to-screen overlap.
  SE SL        Set maximum screen size; default depends on the
               type of terminal used.


Screen Mode Commands (read screen):

     cntl Q    Quit screen mode.
     cntl P    Go to previous screen.
     cntl F    Go forward to next screen.
     cntl S    Start next screen at cursor position.
     cntl X    Start extra large screen at cursor position.
     cntl C    Execute one EDIT line mode command and
               return to current screen (prompt with /).
     cntl O    Copy line indicated by cursor below that line.
     cntl K    Position cursor to set a line marker.
     cntl A    Move cursor to first character on line. Reset margins.
     cntl Z    Move cursor to last character on line. Reset margins.

     Screen Mode Commands (without reading screen): They are the same
     as above except that the  control characters are repeated (e.g.,
     cntl Q cntl Q).   For cntl C cntl C, a back  slash (\) prompt is
     displayed.
```

Kill Trailing Blanks and Truncate Lines

```
     BK      Kill trailing blanks for all lines.  When the scratch file
             is written  out, one blank may  be left to  eliminate zero
             length lines.  All lines longer than the length set by the
             line-length option  setting command  will be  truncated to
             the maximum line length set.
```

Run Program

```
     RU      Run a program and return to EDIT.
```

Copy Screen

```
     SC      Copy terminal display memory to EDIT work area.
```

Transfer to Command File

```
     TR      Transfer to an EDIT command file.
```

Add a Line Marker

```
Kx      Mark a line with label x (letter A thru Z). ":x" is
        used in line specification to point to the line marked.
```

Add Line Sequence Numbers

```
#       Add a 3-character ID and sequence numbers on
        columns 73 through 80.
```

Add Time and Date Information

```
TI    Add a 30-character field with time and date information.
```

Add Time Stamp

A time stamp may be created on any line in the form: <YYMMDD.HHMM>. The right angle bracket must be either the last or the next to the last non-blank character on that line. The information is in two-digit form, showing the year, month, and day followed by hour and minute. This field will be automatically updated when EDIT replaces the file.

Terminate EDIT Session

```
EC              Exit and create new file.
ER              Exit and replace source file.
A               Abort EDIT session without replacing source file.
AS              Same as A but save scratch file.
```

File Input/Output

```
WR              Replace source file and remain in EDIT session.
WC              Create new file and remain in EDIT session.
FI              Input file to replace current source file.
M               Merge file specified to after PL.
L               Create or open list file specified.
K               Create or open list file specified.
FCS             Close source file.
FCL             Close list file.
```

Modification Recovery

```
UN              Undo a modification.
UY              Recover line(s) from the undo list.
SH UN           Show undo list.
```

Getting Started for New Users

Create a File

Begin an edit session with :RU,EDIT. A few messages will be displayed suggesting what you can do and then the EDIT prompt "/" is displayed with the cursor positioned next to it. You can now create a file by starting each line with a blank and ending it with a carriage return (<cr>). You can end the session with the end exit command, EC. For example:

```
:RU,EDIT
EDI18 : Use ? for help                    (EDIT messages)
FI,namr specifies file to edit.
EOF
/ PROGRAM squareroot (input,output);
/    VAR
/        x : real;
/    BEGIN
/        read(x);
/        write(sqrt(x))
/    END.
```

If you have problems with your inputs, the section on character edit will help you. If you make a mistake by deleting or exchanging the wrong characters, use the UN command immediately to get the old line back. At any point during the edit session, you can always abort the session by entering A. A slash after the command will suppress the EDIT verification prompt (OK?).

Modify a File

To modify an existing file, you may include the file name in the EDIT program run string or you may input the file after getting the EDIT prompt. Once the file has been moved to the EDIT source work area, the first line is displayed. Now you are ready to modify your file. Refer to the appropriate sections in this chapter if necessary for the tasks you want to do. When editing is complete you can replace the file or create another file with the ER or EC commands respectively. You may also replace or create a file without leaving the editor, using WR or WC. For example:

```
:RU,EDIT,<file name>
     or
:RU,EDIT

EDI18 : Use ? for help
FI,namr specifies file to edit.
EOF
```

```
/FI,TEXT::41
opened file TEXT::41
File is write protected
   .MARGIN LEFT 7;MARGIN RIGHT 78
/
(Modify file)
     .
     .
/ER,TEXT:<security code>:41
closed file TEXT::41:4
end of edit
:


or


/WR,TEXT:<security code>:41
opened file TEXT::41:4
closed file TEXT::41:4
   (EDIT returns to PL)
/


or


/EC PROG::41
created file PROG::41:12
closed file PROG::41:12
end of edit
:


or


/WC DATA::41
created file DATA::41:4
closed file DATA::41:4
   (EDIT returns to PL)
/
```

If the file is write-protected, a message appears when you input the
filename without the security code. The ER or WR command causes the
message "incorrect security code <filename>" to appear. It is
suggested that you immediately reenter the command specifying the
proper security code to execute the command.

Getting Help

At any point in your editing session, you can get a brief description of the commands, the special characters, and other on-line explanations available. Use either H, HE, or ? to display:

Summary	/H
A single command	/H<command>
Abbreviation description	/H EX
Regular expression description	/H RE
Line specification description	/H,LS
(You need a delimiter after H, but not after ?)	
Pattern description	/hpa
Pending line edit description	/HPL
Recovery mode explanation	/H RM
Display date code of EDIT	/H DA
EDIT abort messages	/H AB

If you interface with the operating system and a "FMGR" error is encountered, you can get additional system explanation of the error by running the HELP program before encountering the next system error. For example:

```
/RU,MSITL
  fmgr cloning error  67
    Resume ED55A on
/RU,HELP
FMGR 067
PROGRAM NOT FOUND
THE PROGRAM TO BE EXECUTED WAS NOT FOUND AMONG THE SYSTEM ID SEGMENTS,
NOR WAS IT FOUND AS A TYPE 6 FILE ON A SYSTEM DISC.  CHECK THE PROGRAM
NAME SPECIFIED FOR CORRECTNESS OR RELOAD THE PROGRAM.  ON A HE (HELP)
COMMAND, THE FMGR 067 ERROR INDICATES THE PROGRAM HELP COULD NOT BE
FOUND.  ON A WH (WHZAT) COMMAND, THE ERROR INDICATES THE PROGRAM WHZAT
COULD NOT BE FOUND.
    Resume ED55A on
/
```

Displaying Information

EDIT commands that display information are: L, LN, LU, W, WN, WU, SH, LE, LI, SZ, HL, N, n and TI. Use of these commands is illustrated below.

Task	EDIT command
(L,LN,LU)	
List 20 lines (default #)	/L
List 10 lines with numbers from pending line	/LN10 (All subsequent lists will show numbers until the command LU is entered)

```
List 2 lines from line 50 unnumbered    /50 LU 2
List 56 lines from pending line         /L 56
List 5 lines from 2 lines before PL     /-2,L,5

  Note: EDIT is quite forgiving about  what you enter between
        parameters unless it is confusing.  Usually, you  may enter
        one space, no space,  or a comma. EDIT will let  you know if
        it doesn't like  your input. This is  done with a ?   and an
        up-arrow ^ pointing to the illegal field.

List 10 lines beginning with a line     /'PROCEDURE' L 10
containing "PROCEDURE" after PL

(W, WN, WU)
Check where you are in the file         /W    (Numbers are normally
                                              displayed unless turned
                                              off with WU.)

List 21 lines centered on line 57,      /57-10,57+10 WU   (All lists
   no numbers.                               from now on are not
                                             numbered unless turned on
                                             with WN.)
(LE)
Check PL length (characters)            /LE
Check line length of line 100           /100 LE
Check 10 lines above pending line       /-10 LE
Search backward for ALIAS anchored      /`^ALIAS`LE
   to window, then check line length.

(LI)
Check number of lines in file           /LI

(SZ)
Check number of 16-bit words up to PL /SZ

(SH)
Show all defaults and options           /sh all    or /SH
Show list file                          /sh L
Show default source file                /sh <ER or WR>
Show default pattern, including that     /SH <F, B, or D)
   defined in the line specification
   pattern
Show default matching pattern and       /SH <G, U, X, or Y>
   substitute string
Show tab character and tab stops        /SH T
```

```
(N)
Show pending line number                        /N

(n)
Show a particular line and make it PL  /100
Go to a line 10 lines above PL          /.-10, /-10, or /^10
```

How to Specify Line Range

Line specification is an option for many EDIT commands: B, CO, D, F, K. L, LN, LU, MO, S, U, W, WN, WU, X and all line editing commands. It is a range of lines specified by one or two parameters in front of the command. These parameters can be absolute line numbers separated by a space or a comma, line specification (LS) characters, or both. The default parameters are given in the description of the above commands (shown inside the brackets) in Chapter 3. They may also have offsets, + (below) or - (above) the line specified. The LS characters and their meanings are shown below:

```
  .        Current line               - or ^  Backward from current line
  $ or >   Last line                  +       Forward from current line
  'PA'     Search forward for         `PA`    Search backward for PA
           pattern PA
  *        Line number of the first line parameter
  :x       Line mark x (a-z, case folded)
```

Examples:

```
    Search the whole file:                      /1$ F/PA/
    Find from PL to last line:                  /.$ F
    Delete lines 10 to 59:                      /10,59 K
    List PL to 10 lines above last line:        /.$-10 L
    Exchange within line 1 to 10 line below PL: /1.+10 X/Aug/Sept/
    Go back 10 lines (and make it PL):          /-10    or  /^10
    Go forward 10 lines (and make it PL):       /+10
    Go back 40 lines and show vertical window:  /-40 W
        (EDIT returns to PL)
    Search forward for CAKE:                    /'CAKE'
    Search backward for CAKE (following above): /``
    Move 5 lines (start from 20 lines below PL):/+20,*+5 MO
    Go to last line (and make it PL):           /$
    Go to first line (and make it PL):          /1
    Edit line 40:                               /40 P/////1980
    Edit 5 lines above PL:                      /-5 P/////Aug
    Insert line before line 10:                 /10 I<text>
    Move line x thru y to after PL              /:x :y MO
    Mark line 10 with "A"                       /10KA
```

Setting Tabs

Tab stops are set with the T command. Up to 10 stops can be specified. Once set, these can be displayed and tab stops adjusted local to the serminal set with either the TL or TS command. You can use the preset tab stops for program development. These are:

```
        TA   for ASMB
        TF   for FTN
        TM   for Macro
        TP   for Pascal
        TL   for showing tab settings for line mode edits
        TS   for showing tab settings for screen mode edits
```

Examples:

```
/HL
    '''/''''1''''/''''2''''/''''3''''/''''4''''/''''5''''/''''6''''/''''7'''
/t10,20,30,40
        T         T         T         TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
/tl
          T          T          T       TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
/ts
          T          T          T       TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
/tp
   T  T  T  T  T  T  T  T  T  TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
/tf
      T   T   T   T   T   T   T   T   T   TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
/tl
         T   T   T   T   T   T   T   T   T   TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT

/
```

Note that TL and TS shift the tab stops by two columns. This is done so that the tab stops line up with the line mode edits or the screen mode edits. TL or TS sets the method of listing tabs by the tab-set command. A TL command will cause tabs to be listed and set at the terminal in the line mode positions, TS to the screen mode positions.

Setting Options

You can check the defaults and options by /SH. To change any of the options, you need to specify the new parameter(s) with the set option command SE. The following examples illustrate how to change these options. Note that the initial defaults are shown in parenthesis.

To turn regular expression capability on (off)   /SE RE on

To change line length to 80 (150)   /SE LE 80
    (Lines longer than 80 characters are truncated
    as they are edited or as the BK command is used.
    All input lines will be truncated to 80 characters.

To turn off case folding (on)   /SE CF off

To change search window to columns 7 through   /SE WC 7 21
 21 (1,150)

To change screen size default to 40 lines (20)   /SE SD 20 20 1
(Be aware of maximum size so that you don't
 lose the screen overflow protection)

To change maximum screen mode size to 30 lines   /SE SL 30
(number is terminal dependent; check with SH SL)

To change vertical window to 30 lines (20)   /SE VW 20 10

To change anchor character to + (^)   /SE AC +

To change escape character ^ (\)   /SE EC ^

To change indefinite character to " (@)   /SE IC "

To change prompt character to) (/)   /SE PC)

NOTE: Be careful when you change these characters. For example, if
      you change the prompt character, don't forget to use the new
      prompt character everywhere the current prompt is required,
      e.g., in the P command.

To change the tab character to] (TAB key)   /SE TC]

To change command separator to ; (|)   /SE CS ;

To suppress verification prompt (on)   /SE AS off

To turn off screen display functions (on)   /SE DF off

To stop unsuccessful matches at lower limit (PL)   /SE RT off

Character Edits

Editing on a line can be done with several commands:

    P - Edit on PL
    C - Edit on PL and advance to next line
    O - Copy and edit on PL
    G - Exchange patterns on PL
    Y - Exchange patterns on PL and advance to next line
        containing match pattern
    Q - Local edit of PL
    R - Replace PL with text entered

The pending line edit sub-commands can be shown with /H PL. The R
command replaces the pending line with whatever text you enter. The
escape and tab characters can be used. To replace lines beginning
with the letter U, these lines must begin with the escape character
(\).   This is so that EDIT won't interpret your input as a RU
command.   The P command needs the prompt character to indicate
no-change in a column. If you have changed the prompt character, be
sure to use the current prompt.

Delete Characters

You can delete characters using identical means in the P or C
command.   The difference between these commands is that P remains
with the pending line and C advances to the next line.

Use cntl C (cancel) at the starting column and indicate the number
of characters to be deleted by typing any characters. You can
always do a vertical window check and go back to any line with the n
command for corrections. If you make an error, entering the UN
command immediately afterward will get the old line back.

Use cntl T to delete all remaining characters from the column where
the command is entered.

Use cntl B to break up a line.   At the point where the control
character is entered, the remaining characters will be made into a
new line, left-justified below the current line.

With the Q command, you can position the cursor to the first
character to be deleted and use the terminal DELETE CHAR key. Check
to make sure that the line is correct before pressing the return
key. The line displayed on the screen will be read, replacing the
existing one.

Use of these command is illustrated below. Note that the cntl
character position is indicated by < at the appropriate column.

```
        abcedfghi12345
/p////////xxxxx
              <cntl C>
     abcdefghi

     1234567890abcdefg
     TTTTTTT    TTTTTTT
/-1
     1234567890abcdefg
/C//////////xxxxxxx
               <cntl C>
     TTTTTTT    TTTTTTT        (Next line displayed as PL)

     AAAAAAAAAAABBBBBBBBBBB
/p/////////////
     <cntl C>
     BBBBBBBBBBB
/

/ AAAAAAAAAABBBBBBBBBBBBBCCCCCCCCCC
/p//////////---------///<cntl T>
              <cntl C>
     AAAAAAAAAABBB
/

/ ZZZZZZZZZZZZZZZZZZZZZZZZZ
/p/////////afd;lkjfdlkjkljfj    (Any character can be used as
              <cntl C>          place holder.)
     ZZZZZZZZZ
/
```

Insert Characters

Inserting characters on a line is similar to deleting characters.
You can use the same EDIT commands, P, C, or Q. Enter cntl S at the
desired column and then the characters to be inserted.

With the Q command, use the INSERT CHAR key and move the cursor to
the desired position before entering characters. See the examples
shown below.

```
        aaaaaaaaaa
/p/////TTTTT
        <cntl S>
     aaaaaTTTTTaaaaa
```

The pending line commands can be used together on the same line.

Replace Characters

Characters can be replaced with the P, O, C, or Q commands. With the O, P or C command, you can simply use the current prompt to move to where you want and type in the replacement characters. With the Q command, use the cursor to get to the right place.

```
       ****** NOTICE *******
   /P/////////E *******xx
                            <cntl T>
       ****** NOTE *******
```

Exchange Characters

Exchanging characters on a line can be done with the G, X, or Y command. The Y command makes an exchange on the pending line if there is a match and then finds the next line containing the pattern specified. The process can be repeated by another Y command.

```
    the examples show character exchanges
  /y/the/these/
    00051 these examples show character exchanges
    the examples
  /Y
    00070 these examples
    the next pending line with a match
  /
```

Note that you may specify the starting line for the Y command. You may go to line 1 and start the process from there.

If the line is listed with a line number, then an exchange was made on the pending line. If not, no exchange was made on the pending line. In both cases, the search for the next occurrence of the pattern will occur.

The Y command copies the exchange pattern to the default find pattern.

Line Edits

The line edit commands allow manipulation of one entire line of text at a time. Some pending line edit commands can also be used to modify part of a line, e.g., truncate, break, or extend a line. Line edits are described and/or illustrated below.

Add a Line

To add a line in front of the pending line: /I<line of text>

To add a line after the pending line: / <line of text>

To add a line after a known line: /1F/BEGIN/
                                                 BEGIN
                                          / <line of text>

To add a line 14 lines above current PL: /-15
                                          / <line of text>

Truncate a Line

Use pending line edit command P (or C) and cntl T at the desired point to truncate the remainder of the line. For example:

        Truncation example truncation example
    /p/////////////////////<cntl T>
        Truncation example

Note that the "<" character is positioned at the column where the cursor was when the control character is entered. You may also use the local edit command Q and the terminal editing keys to truncate a line.

Extend a Line

Use pending line edit command P (or C) and cntl X to extend a line. The cntl X command allows you to go to the end of a line quickly without moving the cursor there. Example:

        Line extension
    /p<cntl X> is illustrated here
        Line extension is illustrated here
    /

Trailing blanks on a line are stripped.

Delete Lines

A number of line can be deleted with the D or K commands. The K
command is the normal (less dangerous) command to use. Immediately
after execution of either command, you can undo the command by using
the UN command. Lines deleted will then be restored.

Examples: (Asking prompt = on)

Delete one (pending) line: /k

Delete all lines in file: /1$k   or /1$k/
                                           OK? yes

Delete 14 lines from PL: /k 14   or /k 14/
                                           OK? y

Delete all lines from PL to   /D/Program Count/
 line containing Program Count: OK?

Delete all lines not containing
 ":ST" and suppress asking: /D/:ST/A/

Delete all lines containing
 "%" and suppress display of
 all lines deleted: /1$ D/%/AQV/

Join Lines

Two adjacent lines can be combined with the J command. You may need
to do some pending line editing to separate words merged at the
joint. This is due to the fact that EDIT works with even number of
characters (two characters in one word) on each line. A blank is
padded for lines containing odd number of characters.

Example:

```
    /13
        1 2 3 4 5
        6 7 8 9 0
        2 3 4 5 6 7
    /-3
        1 2 3 4 5
    /J
        1 2 3 4 5 6 7 8 9 0
    /J
        1 2 3 4 5 6 7 8 9 02 3 4 5 6 7
    /
```

Remove Trailing Blanks

Remove trailing blanks from all lines in the file with the KB command. This command can be entered anywhere in the edit session. Odd length lines will be padded with one blank. An all-blank line will be truncated to two blanks.

Break Up a Line

A line can be broken up at some point and the remaining part moved to column 1. The pending line edit command P and cntl B are used.

Example:

```
     xxxxxMake this part into a new line and left justify
/p       <cntl B>
     Make this part into a new line and left justify
```

Copy Lines in Source File

One or more consecutive lines can be copied to after the pending line without destroying the lines copied. The quiet (Q) option can be used to suppress display of lines copied.

Example:

Copy one line: /105 CO

Copy group of lines: /1 100 CO Q
  (without listing)

Move Lines

Moving one or more lines to after the pending line can be done with the MO command. It works much the same way as the CO command except that it deletes the lines moved from their previous locations.

Examples:

Move one line: /100 MO

Move a group of lines: /1 50 MO

Copy Lines on Terminal Screen

The lines shown on the terminal screen can be copied into the source
file you are editing. The SC command copies everything in the
terminal screen memory to after the pending line. It stops when 24
zero length lines are encountered. Information copied includes the
SC command itself. You may want to remove locally all unwanted
lines and modify lines if necessary before entering the SC command.
Even before you press return, you can use the terminal edit keys to
remove the SC command; then press return to get just what you need.

Display Control Characters

Whenever control characters in a file need to be modified or
created, the screen mode can be used to display them on the terminal
screen. In the screen mode, the local terminal display function is
normally on to show the control characters. This is useful in
setting special options on line printers such as the HP 2608 or
2601, in sending control to terminals (2521, 2645, etc.), or in
program development.

Screen Edits

The screen mode commands can be displayed by H S.   The screen mode commands are:

```
cntl Q - Quit screen mode.
cntl P - Go to previous screen.
cntl F - Go to following screen.
cntl S - Start next screen at current cursor position.
cntl X - Like cntl S but make next screen extra large.
cntl C - Execute one line mode command and return to screen mode.
cntl O - Copy.  A copy of current line is inserted on the screen.
cntl K - Allow a line marker to be set.
cntl A - Move cursor to first character on line. Reset margins.
cntl Z - Move cursor to last character on line. Reset margins.
```

The set mark (cntl K) command places a colon in column 79 and moves the cursor to column 80 to allow entry of a letter.   Entering the control character once causes the screen to be read.   Entering it twice skips reading the screen and leaves the workspace unchanged. Thus cntl Q will read the screen and quit screen mode and cntl Q cntl Q (or cntl QQ) will abort screen mode.

Start Screen Mode Edit

The screen   mode may be   started from the   pending line or   any line specified.   For example:

```
/S                  (Start screen from pending line)
/100S               (Start screen from line 100)
/.-45S              (Start screen 45 lines before PL)
:RU,EDIT,<file>,S   (Run EDIT and start screen from line 1)
/.$ S               (Start a large screen from current PL)
```

Determine Screen Size

Normally, the size of the screen is 20 lines with a two-line overlap from the prior screen. If you want a larger screen, you may use the cntl X command in moving forward.   This will give you the maximum number of lines allowed on your terminal. The screen size can be checked with the "SH SD" command and the maximum lines allowed checked with "SH SL".   The maximum number is used for screen overflow protection.   If you change the screen size to a greater number, you will lose this protection.   Change the screen size with the "SE SD" command. Specify three numbers to indicate the number of lines above and below the pending line and the number of overlap lines. For example:

```
/SE SD 30 30 1    (Screen of 60 lines with 1-line overlap)
/SE SD ,,20 5     (Screen of 30 lines with 5-line overlap
                   ",," uses the default value)
```

Move from Screen to Screen

While you are in the screen mode, you can move forward or backward to another screen of the same size (cntl F,cntl P). You also have the choice of either to replace the file with lines shown on the screen or to ignore the screen and leave your file unchanged. Entering a screen mode command once allows EDIT to read the screen and replace the lines in your file with lines read from the screen. Entering a screen mode command twice will ignore the screen.

You can move forward to another screen of maximum size allowed for your terminal with cntl X. It starts the next large screen at the cursor position.

If you want to start another screen at a particular line, you may position the cursor at that line and enter "cntl S" (or "cntl S cntl S" if needed). This will give you a screen starting at the line specified.

Normally, when you move to the next screen (either forward or backward), the cursor will be positioned at the center of the screen. For the S, SS, X, and XX commands, the cursor will be positioned at the top of the screen.

The screen mode commands are explained below.

cntl F - Moves forward to the next screen. The lines on the present screen will be read and used to replace the corresponding lines in your file. The next screen will be the same size as the present screen with a two-line (or the specified) overlap.

cntl F cntl F - Same as cntl F except that the present screen will be ignored and your file unchanged.

cntl S - Moves forward to the next screen starting at the line where the cursor is positioned. The screen overlap parameter is ignored.

cntl S cntl S - Same as cntl S except that the present screen will not be read and the file unchanged.

cntl X - Moves forward to the next screen which will be a large screen. The lines on the present screen will be read and used to replace those in your file. The screen size is dependent upon your terminal display memory size, ranging from 32 lines for a 2621 Terminal to 100 lines for a 264X terminal with 12K of memory. This command must be used each time you need a large screen. It is similar to the cntl S command in that the next screen will start at the line indicated by the cursor position.

cntl X cntl X - Same as cntl X except that the present screen will not be read and the file unchanged.

cntl P - Moves backward to the previous screen. The lines in the screen will be read and used to replace those in your file. The top two lines (or the specified overlap number) will be included in the next screen).

cntl P cntl P - Same as cntl P except that the screen will not be read and the file unchanged.

NOTE: If you want to read the screen, avoid holding down the letter key to long. Otherwise, the terminal key repetition feature may send an extra letter. EDIT takes no action if three or more letters are entered.

Extend Lines Beyond Screen Limit

In screen mode editing, the screen has a limit of 78 characters. To enter lines longer that 78 characters, use the cursor and place two periods at columns 79 and 80, then continue to enter text for the same line on the next line in your screen.

Copy Line

You can copy another line while in the screen mode with the cntl O command. The line indicated by the cursor will be copied below that line.

Execute an EDIT Command

EDIT allows you to get out of screen mode temporarily and execute one EDIT command line. The cntl C command in screen mode will get you the EDIT prompt "/". After entering an EDIT command, the current screen will be read before execution of the command. After execution of the command, EDIT returns to screen mode. If you don't want the screen to be read, enter cntl C cntl C instead of cntl C. In this case, you will get the "\" prompt. The two prompts are not affected by the SE PC (SET Prompt Character) command. Regardless of what the current prompt may be, the cntl C or cntl C cntl C command will display the "/" or "\" prompt respectively.

Terminate Screen Mode

Terminate screen mode with either the cntl Q or cntl Q cntl Q command. The cntl Q command will return EDIT to the line after the last line in the screen. The cntl Q cntl Q command will return EDIT to the first line of the screen.

Search for Patterns

There are four methods you can use to search for a pattern. The F and B commands can be used to search for one line or all lines containing a specified pattern. The pair of single quotes used in line specification can be used to search for a particular line and then execute a line mode command if desired. The search pattern need to be defined only once. It can be omitted in subsequent searches.

    F - Finds a pattern starting from the line after the pending line or from the line specified. The line containing the pattern will become the pending line. If no match is found, EDIT returns to the current pending line (if RT is on).

        This command is recommended for successive searches moving down through the file.

        This command can also be used to find all lines containing the pattern specified (F/pattern/A). In this case, the lines found will be displayed with their line numbers. EDIT will return to the current pending line or, if the RT option is set to OFF, to the end of the file.

    B - Finds a pattern starting from the first line or from the line specified. Same as the F command execpt for the default find range. The B/pattern/A command is recommended for listing all lines containing the specified pattern.

    'PA'<EDIT cmd> - Finds a pattern (PA) starting from the pending line to EOF and executes the EDIT command specified.

    `PA`<EDIT cmd> - Same as above command except the search is backward from the pending line.

Exchange Patterns

Pattern exchanges throughout the whole file or a block of lines can
be done with the X and U commands.   The Y command (as well as the X
command) can be used for pending line exchanges. The pattern to be
matched and the substitute pattern need only be defined once. These
patterns may be omitted in all subsequent similar exchanges.

Don't forget that EDIT initially has case folding (CF) on. You must
set case folding off to exchange unique upper/lower case patterns.
Also be aware that some patterns may be embedded in other
characters. For example, if you specified TE as the match pattern
and CF is on, the substitute pattern will be inserted into words
such as test, text, substitute, etc.

Examples:

  Exchange pattern to regular
    expression in the entire file   /1$X/pattern/regular expression/

  Exchange RE to PA from PL to EOF   /SE CF off
    and suppress verification prompt /,$X/RE/PA//

File I/O from Cassette

With 264X terminals with cassette units, you can list files to or input files from cassettes. You can either set up a file name for a particular cassette unit (e.g., LCTU for the left cassette tape unit; refer to the RTE Terminal User's Reference Manual for type 0 files) or use the legal LU number for the cassette unit. If you have zero length records (null lines with only the carriage return and line feed characters), EDIT will interpret this as an end of file and stop. You need to eliminate all null lines or write a short program that removes them or adds blanks to the beginning of the null lines and creates a file at the same time.

When you read from or write to the cassette unit, you must position the tape at the desired location. Otherwise, you may get the wrong file or write over another file.

To input files from cassette, use the FI (file input) command with the proper LU number. The M (merge) command can be used to add lines to an existing file from cassettes.

The list and kill commands can be used to write a number of lines or the entire file to a cassette. The ER or WR commands may also be used to write the file to a cassette using the cassette LU for the file namr.

List and kill commands will put two blanks before each line; the WR command will not. The current status of number listing applies to listing to LU's (LU). If line number listing is on (turned on by LN), all listings to cassettes will include list numbers.

Examples:

```
    EOF
    /WR,4
    opened file 4::-4
    closed file 4::-4
    EOF
    /

    EOF
    /ER,4
    opened file 4::-4
    closed file 4::-4
    closed file EDIT31::41:4
    end of edit
    :

    /1$ L 100 4                    (List up to 100 lines)
    EOF
    /
```

```
/WR,CTU
opened file CTU::-4
closed file CTU::-4
EOF
/

EOF
/MCTU
opened file CTU::-4
closed file CTU::-4
EOF

/1$  L 200 4
IONR L*   4 E47 S 1 ***

S=91  COMMAND ?UP,47
EOF
/
```

Listing Lines to a Printer

If you need hard copy of a number of lines or the entire file, use
the L command with the list device LU as the namr. If you want a
record of the lines deleted with the K command, use the K command in
the same manner as with the L command.

Examples:

```
    Get copy of the entire file      /1$ L,,6
    List to printer lines 1 to 150   /1 150 L,,6
    Get copy of lines deleted        /1$ K,,6
```

If the list device is busy, you will get a prompt asking if you want
to wait:

```
    /1$ L 200 6
    Device is locked. Is waiting OK? <NO>
    Command not executed.
    /

    /1$ L 200 6
    Device is locked. Is waiting OK? <Y>
    EDI91 waiting for list device.
    /
```

Running a Program from EDIT

To run a program from EDIT, enter RU followed by the run string. If
you run another EDIT for any reason, be careful with the EDIT
command separator (|) in the run string.

Examples:

To run the help program for additional error explanation:

```
 /ec123
 Illegal file name 123:::4:4
 /ru,help
 FMGR-015
 ILLEGAL NAME
 THE FILE NAME DOES NOT CONFORM TO THE SYNTAX RULES. CORRECT THE NAME
 AND RE-ENTER THE COMMAND.

  Resume EDI91  on CHAP1::41:4
  /
```

To run another copy of EDIT:

```
  /ru,edit,test,60S              (Run EDIT on file TEST, start
     :                            screen mode at line 60)
  /ER
  closed file TEST::41:4         (Exit second copy of EDIT)
  end of edit
  Resume EDI91  on CHAP1::41:4   (Return to original EDIT)
  /
```

Manipulating Files

Files can be opened or closed while you are in EDIT. Files can also
be created, merged, read into the EDIT work area (scratch file) or
written from the EDIT scratch file.

Create Files

Creating files without leaving the edit session can be done with the
WC, L, or K commands. The WC command works in the same manner as
the EC command except that it returns to the current pending line
after creating the file specified. The L and K commands can create
a new list.   Use these two commands with caution because they will
open a file and write to it if the namr specified already exists.
With the L and K commands, you can append to an existing file by
entering a + sign before the file name. EDIT, however, will issue a
prompt in either case and will execute the command only if you
answer yes.   Prompt suppression for the L and K commands is not
recommended.

Examples·

          /WCEDFIL::41:18:4
          created file EDFIL::41:18:4
          closed file EDFIL::41:18:4
          /

          /1$ L 100 +namr
          opened file NAMR::41:4
          Appending to file.
          OK? Y
          posted file NAMR::41:4   (File left open)
          EOF

          /1$ L 50 namr
          File already exists NAMR:::4:24
          opened file NAMR::41:4
          OK? no
          Command not executed.
          closed file NAMR::41:4:1
          /

          /1$ L 50 namr
          File already exists NAMR:::4:24
          opened file NAMR::41:4
          OK? yes
          posted file NAMR::41:4   (File overwritten)
          EOF
          /

```
/1$ L 50 NEWFIL
closed file NAMR::41:4:5                    (List file was still open)
created file NEWFIL::41:4:24
posted file NEWFIL::41:4:24
EOF
/


/1$ L 50 NAMR
closed file NEWFIL::41:4:5
opened file NAMR::41:4
OK? n
Command not executed.
closed file NAMR::41:4:1
/
```

Open/Close Files

EDIT allows you to open or close a file observing the limitations of
the operating system. This includes the source file you are editing
or the list file you created or opened. The FCS and FCL commands
are used for this purpose, FCS for source file and FCL for list
file.

A file may also be opened with the L or K command with the purpose
of appending or replacing the file with the file being edited.

The scratch file is always open while EDIT is running. The only way
to close and save this file is with the AS command.

Replace EDIT Source File

If you are finished with one editing session and ready to start
another editing session with a new file, use the FI command to
overlay your source file in the work area. This command does not
write to the current work space and therefore cannot be undone. If
your old file has not been modified, you will not be prompted to
verify execution of the FI command. Or you may suppress the prompt
with a slash at the end of the EDIT command string.

The file name specified in the FI command will become the default
source file namr for the ER and WR commands.

Dating Files

As you create or modify your files, you may want to date them. This
can be done either manually with the TI command or automatically by
creating a time stamp field on any line in your file. The TI
command adds a 30-character field to the current pending line

starting at the column specified. Default starting column is column
1.   Text outside the 30-character field is not affected.   For
example:

```
        "Runit File .ADD EDTXT
    /TI 30
        "Runit File .ADD EDTXT        8:00 AM  TUE.,  26  AUG.,  1980
```

EDIT will not update the time and   date information. It can only be
done with another TI 30 command   on the same line.   A time-stamp
field can be created on any line.   This field is:

```
            <YYMMDD.HHMM>
```

where the year, month, day, hour,   and minute are indicated with two
digits. For example, two o'clock in the afternoon, July 4, 1980 is
represented as <800704.1400>. This field must be enclosed with a
pair of angle brackets with the right bracket the last or next to
the last non-blank character on the line.   This field will be
updated with the system time each time EDIT replaces the file (i.e.,
ER or WR). If you do a WR, the time stamp in the source file in the
work area is not updated. You will see the new date the next time
you run EDIT with the original source file.

```
    /             <222222.2222>        (Create dummy field.)
    /WR
    posted file TEST::41:4
                  <222222.2222>        (Time stamp updated in TEST
    /FI,TEST                            but not in work file.)
    closed file TEST::41:4
    opened file TEST ::41:4
    File will be time stamped          (Updated when last replaced.
                  <800905.0850>         Will be updated again when
    /                                   it is replaced.)
```

The time-stamp updating option is initially on. Updating can be
suppressed by including an option-setting command to turn time-stamp
update off. For example:

```
    :RU,EDIT,SPECS,SE TS OFF
```

In this case, the time-stamp update message is displayed but the
update will not be done.

EDIT will not create the time stamp.   If not included in your file,
the time-stamp feature is ignored. Upon file input, EDIT will
display a time-stamp update message if the time-stamp field is found
in your file.

The time stamp feature should not be confused with the TI command which adds a field of 30 characters with the time and date information. This 30-character field will not be altered except with another TI command on the same line.

Scratch File Recovery

If the scratch file already exists, EDIT enters the recovery mode. An attempt is made to reconstruct the EDIT internal tables from information contained in the scratch file. This allows the data to be checked with the list or find commands or written to a file with EC or ER. If unable to reconstruct any of the internal tables, EDIT will abort and leave the scratch file unchanged. The name of the scratch file is displayed. You must purge the scratch file before another edit session can be run. (See appendix A for a description of the scratch file.)

If EDIT finds some inconsistencies in the scratch file, it will attempt to correct it. Depending on the nature of the inconsistencies, it may or may not be successful. In any case, you should not write over the original file with the recovered version without making a comparison between the two files.

The recovery mode can be terminated only by exiting EDIT. While in the recovery mode, the scratch file cannot be changed.

You can also evoke EDIT to recover a scratch file resulting from an EDIT session on another terminal. The run string is:

    : RU,EDIT,-R, <scratch file namr>

If you abort the edit session in the recovery mode, the scratch file is purged. If you need to save the scratch file, you can abort with the AS command. However, you cannot avoid the recovery mode unless that scratch file is purged or recovered (with EC or ER).

A brief explanation of the recovery mode can be obtained by entering "H RM". You can also circumvent the recovery mode by using the run-string option that places the scratch file on another disc. This option is specified with -S::<disc>. For example, to place the scratch file on cartridge EK, enter:

    : RU,EDIT,-S::EK, <file>

In this example, upon any abnormal EDIT termination, the scratch file will remain on cartridge EK. The next time EDIT is run, it will go to the default scratch-file disc to open a scratch file and thus will not enter the recovery mode.

Batch Mode Operations

Batch mode processing of EDIT commands can be accomplished in several levels with little or no operator interaction. You may create a batch file consisting of EDIT commands. This file can then be called with the TR command. Another means is to include a command string in the EDIT run string. You may also enter a string of commands in the interactive mode using the command separator. The number of commands you can enter is limited by the line length. If the command stack feature will be used, you can only use a command field of 79 characters because only 79 characters per line will be retained in the command stack.

Create a Command File

A command file is composed of lines containing EDIT commands. Each line may include one or more commands. Be careful with commands that will issue a prompt. You need to suppress the prompt with a slash. For example, a command file may be as follows:

```
SE CF OFF
1$ X/JSM/JSB/N/
1$ F/JSB/
-1
MSUBRTN
F
-1
MSUBRTN
F
-1
MSUBRTN
1$ L 100 6
E CEDTMP
```

The whole sequence may be:

```
:RU,EDIT,LEMON,TR,CMDFL1/
```

```
    where:    LEMON is the file to be edited
              CMDFL1 is the command file
              "/" suppresses the EDIT "OK?" prompt
```

Failure to execute any command will cause EDIT to return to the interactive mode. In the above example, EDIT will not make any decisions. If the F command did not encounter any match, the next two commands will still be executed. In the command file, commands that issue the "OK?" prompt need to be suppressed.

EDIT Run String

As you run EDIT from the operating system, you may include EDIT commands in the run string. The EDIT commands are separated by a "¦". If you are using the TR command in the string, it must be the last command. The number of commands allowed is limited to the line length. If you use the command stack feature, do not exceed 79 characters in your run string. If you have commands that issue the "OK?" prompt, you need to suppress the prompt with a slash.

For example:

```
:RU,EDIT,LEMON,1$ X/JSM/JSB//¦BK¦SE CF OFF¦1$ F/JSB/¦-1¦MSUBRTN¦ER

:RU,EDIT,LEMON,1$ U//    /Q/¦ER
```

NOTE: In RTE-A, CI replaces spaces in the runstring with commas. Under FMGR, some characters (such as the colon) may be treated as delimiters and cause spaces to be dropped.

EDIT Command String

Multiple commands can be entered on one line during the interactive mode of editing. You can enter commands in the same manner as described above and execute a series of EDIT operations. The whole command string (up to 79 characters) is saved in the command stack.

In a command string with multiple EDIT commands, a failed command (such as no-match in a find command) will cause EDIT to ignore the next command and to return to the interactive mode.

Each command string may be repeated as many times as needed. This is accomplished by the repeat command (_) placed at the end of the string. For example, to repeat a command string five times:

```
/1F/^&EDIT/¦G/&EDIT/%EDIT/¦_4
```

Using Regular Expressions

Regular expressions are specialized patterns made possible by setting the RE option on. The special patterns use the set of metacharacters to define unique match/substitute pairs or search patterns. The metacharacter set is described below.

.   A period denotes any character on a line. It is a place holder for one character in the pattern. For example, the specified pattern X.Y will match X+Y, X*Y, XZY, XaY, X Y, etc.

^   An up-arrow at the start of a pattern specifies that the pattern is to start at the beginning of the window or the beginning of a line. If the ^ character appears any place other than the beginning of the pattern, it does not have any special meaning. It is taken as an up-arrow (^).

Examples:

1. Change ADDRESS at the beginning of line (window) to NAME.

```
/15
  ADDRESS   ADDRESS   NAME   ADDRESS
/SE RE ON
/G/^ADDRESS/NAME/
  NAME   ADDRESS   NAME   ADDRESS
```

2. Find "The ^ character"

```
/sere on
/F/the ^ character/
  the beginning of a line. If the ^ character appears
```

Note that ^ has the same meaning in the normal pattern specification. Note also that ^ is used in character class specification where it means to negate the pattern specified.

$ Specifies the end of the line or window, whichever is shorter. Trailing blanks are counted as characters. For example:

%$ means to search for % at the last column of a line or window, whichever is shorter.

^PROGRAM<sp>*$ means any line containing only PROGRAM.

^$ means a zero length record (null line).

JSB$ means to search for JSB at the last three columns of the window or line length limit.

The line length or window right limit can be checked with the
LE or the SH WC commands respectively.

[ ] Specifies a class of characters. Any of the characters
included inside the brackets can be a valid match. For example:

    [xy]   means either x or y
    [xyz]   means x, y, or z
    [0-9]   means any number
    [a-z]   means any lower case letter (CF off)
    [A-Z]   means any upper case letter (CF off)

    Note that in regular expression, the dash is accepted as a
    range specifier: "0-9" indicates all numbers from 0 through 9
    and "a-z" indicates all alpha characters. It works only for
    alphanumeric characters.

[^] The up-arrow as the first character inside the bracket
    represents a negated character class. This means all except
    the characters included inside the brackets with the up-arrow
    can be a valid match. Used anywhere else inside the brackets
    means simply the ^ character. For example:

    [^0-9] means any character except a number will be
           accepted as a valid match.

    [^a]   matches any character except the character a.

    [a^b]   matches a, ^, or b.

 *   A closure which defines a search for zero or more occurrences
    of the character specified. It extends to the longest match
    (e.g., ab* matches abbb in abbbx).

    a*   means to search for zero or more occurrences of a.
            Note that this will match anything.

    ABC*   means zero or more occurrences of any of the
            character C can be accepted as a match, e.g.,
            AB, ABC, ABCCC, etc. If several matches occur in
            a string, the longest one is chosen.

    [a-z]* matches any string of lower case letters (including
            a null string) if CF is off.

    [A-Z]* matches any string of upper case letters (including
            a null string) if CF is off.

    [0-9]* matches any string of numbers.

[0-9]* matches any string of numbers.

.*   matches an entire line (including null lines).

[a-z][a-z0-9]* matches any FORTRAN identifier.

(.*)   matches any characters in parentheses.

When confusion arises due to various combinations of patterns
in a line matching the specified pattern, the longest match
is chosen by EDIT.

+   Transitive closure. Identical to * except that only one or
     more occurrences of the character defined will be accepted as
     a match (same as aa*). For example:

To change five lines   A   To   A
                          AM   B
                          AMM   B
                          AMMM   B
                          AMMMM   B

     enter the following: /1 $ X /aM+/B//

If * were used instead of + in the match field, the resulting
lines will have all B's. Don't forget to turn RE on before
using regular expressions.

<n> Defines an exact pattern repeating one character n times.
    For example, x<4> matches xxxx exactly. Can be used as a
    place holder, e.g., .<5> specifies a 5-character field.

@   Indefinite character match (identical   to .*).   Matches
     everything.

:   Transition between alphanumerics and other characters such as
     spaces, etc. Useful in specifying short words that may be
     embedded in longer words. For example:

     To change OUT (but not OUTPUT) to INPUT

          /SE RE on
          /1$X/:OUT:/INPUT//

{} Tagged field to be recalled in the substitute string. The
   pattern specified within the brackets will be remembered and
   recalled by &n, >n, or <n. For example:

          /SE RE on
          /1$ X/{X+Y}, {X-Y}/&1+Z, &2+T//

If a line contains "X+Y, X-Y", the effect of the above command string is to change this line to "X+Y+Z, X-Y+T".

&n Recalls n'th tagged field defined in the match pattern. The character n can be 1 through 9. &1 recalls the first tagged field and &2 recalls the second tagged field, etc.

\>n Same as &n except that all lower case letters in the tagged field will be shifted to upper case.

\<n Same as &n except that all upper case letters in the tagged field will be shifted to lower case.

Applications

This section provides examples of EDIT application. Most of the tasks shown ues the metacharacters with regular expression turned on. Explanation of the regular expression patterns is given whenever necessary for clarification purposes.

The cases shown are not necessarily the only way to accomplish the task. There may be more than one means to do the same thing. For new users, they provide a starting point. Additionally, these examples provide further help on the use of regular expressions.

Move Left Margin of a Text File

The following example shows how to move the left margin 7 columns to the right. Regular expression may be on or off.

```
/1$ U //          /Q
```

The effect of this command is shown below.

```
    MOVE LEFT MARGIN OF A TEXT FILE

    The following example shows how to move ........
    right. Regular expression may be on or off.
```

Note that the block of text starts on column 8.

Convert a File to Upper Case

The EDIT commands are:

```
/SE RE ON
/1$ X/@/>/
```

The @ character matches any character. The > character converts it to upper case.

Exchange Array Elements

Four arrays with their elements are shown as follows.

```
array 1[one,two,three];array 2[first,second,third]
array 3[one,two];array 4[first,second]
```

Change arrays 1 and 2 so that "two" and "second" appear in element 1.

```
/SEREON
/1$X/\[{[^,]+},{[^,]+},{[^\]]+}\]/[&2,&1,&3]
```

where: \ is the escape character that says to find [in the match pattern.

[^,]+ matches one or more occurrences of anything except ",".

{[^,]+} is the first tagged field to be recalled by &1.

, between the two tagged fields is part of the match pattern.

{[^,]+} is the second tagged field to be recalled by &2.

{[^\]]+} is the third tagged field that matches anything except a]. It is to be recalled by &3.

The match pattern is:

[anything but ",", anything but ",", and anything but "]"]

The substitute pattern is [2nd tagged field,1st tagged field,3rd field]. When executed on the two lines of arrays, the first match is "one,two, three" and the next match is "first,second,third". The substitute pattern switches the second tagged field with the first. The effect of this command is shown below.

```
array 1[one,two,three];array 2[first,second,third]
array 3[one,two];array 4[first,second]
/sereon
95 $ X/\[{[^,]+},{[^,]+},{[^\]]+}\]/[&2,&1,&3]
OK? y
 00095 array 1[two,one,three];array 2[second,first,third]

Limit      2 matches  CF  RE
   array 3[one,two];array 4[first,second]
/
```

Create Procedure Files from Disc Directory Listing

The EDIT and match/substitute patterns used to create a transfer file from a disc directory listing is:

```
/sereon
/D/\+[0-9]* *$/AV                (Delete extents)
/1$ X/ *{[^ ]*}@/:ST,&1::XX,&1::YY/
```

Note that the terminal CAPS LOCK key must be up to upshift certain characters, e.g., "{" and "}" etc.

\+[0-9]*   matches all the extents (+xxx).

*   <sp>* matches one or more spaces after the extents.

AV   options in the D command used to delete all lines found with extents.

<space>*   matches the two blanks normally found preceding the directory listings.

{[^]*}   is a tagged field that matches zero or more occurrences of anything other than a blank, which would be the file name in the directory listing.

@   matches zero or more occurrences of any character, which matches everything following the file name.

The effect of this sequence is as follows.

```
SAVER  00004 00009 BLKS
ALLEXP 00004 00009 BLKS
ALLEX2 00004 00008 BLKS
ALLSUM 00004 00004 BLKS
RDRERS 00004 00011 BLKS
TMP1   00004 00008 BLKS
SYSMGR 00004 00005 BLKS
DEERE  00004 00001 BLKS
GUIDEC 00004 00001 BLKS
WMS.JL 00004 00004 BLKS
ACCTS  00006 00082 BLKS
ACCT1  00006 00049 BLKS
ACCT2  00006 00051 BLKS
ACCT3  00006 00049 BLKS
ACCT4  00006 00048 BLKS
```

```
/SEREON
/1$X/ *{[^ ]*}@/:ST,&1::XX,&1::YY/
OK? yes
  00001  :ST,SAVER::XX,SAVER::YY
  00002  :ST,ALLEXP::XX,ALLEXP::YY
  00003  :ST,ALLEX2::XX,ALLEX2::YY
  00004  :ST,ALLSUM::XX,ALLSUM::YY
  00005  :ST,RDRERS::XX,RDRERS::YY
  00006  :ST,TMP1::XX,TMP1::YY
  00007  :ST,SYSMGR::XX,SYSMGR::YY
  00008  :ST,DEERE::XX,DEERE::YY
  00010  :ST,GUIDEC::XX,GUIDEC::YY
  00011  :ST,WMS.JL::XX,WMS.JL::YY
  00012  :ST,ACCTS::XX,ACCTS::YY
  00013  :ST,ACCT1::XX,ACCT1::YY
  00014  :ST,ACCT2::XX,ACCT2::YY
  00015  :ST,ACCT3::XX,ACCT3::YY
  00016  :ST,ACCT4::XX,ACCT4::YY

Limit      16 matches   CF   RE
  :ST,ACCT4::XX,ACCT4::YY
/
```

Find all Begin-End Pairs in Pascal Programs

The EDIT command to find all begin and end pairs in Pascal programs
are:

```
/SE RE ON
/B/:[BE][EN][GD]I*N*:/A
```

    : means transition between alphanumeric characters and
      other characters,i.e., space, etc.

    [BE] matches B or E.

    [EN] matches E or N.

    [GD] matches G or D.

    I* matches zero or more occurrences of I (BEGIN or END).

    N* matches zero or more occurrences of N.

    A is the option that displays all lines found with BEGIN
      or END.

Note that the above search pattern also matches BEGIIINNNNN, ENDIN,
EEDI, BNG, ENG, etc. However, these are normally not found in
Pascal programs.

Find Unlabeled Format Statements

To find unlabeled format statements:

```
/SE RE ON
/1$ F/^[^C0-9] *[^0-9]+FORMAT/A
```

Find Assignments to Buf

To find assignments to BUF:

```
/SEREON
/1$ F/^[^C]@:BUF: *=/A
```

Find Blank Lines

To find blank lines:

```
/SEREON
/B/^ *$/A
```

Find Unmatched Brackets

To find unmatched left or right brackets:

```
/SEREON
/1F/\{[^\}]*$/A          (Finds left brackets not followed
                          by a right bracket)
or

/1F/^[^\{]*\}/A          (Finds right brackets not preceded
                          by a left bracket)
```

Add Line Numbers to a BASIC Program

The ID and sequence command (#) can be used to add line numbers to BASIC programs. The sequence numbers appear on columns 73 through 75. In the example shown below, they are shifted left to be included within the right margin of the page.

```
/#    10
OK? YES
EOF
/1$L
  FOR I=1 TO 10                                               00010
  PRINT "I="I,"I^2="I*I                                       00020
  NEXT I                                                      00030
  END                                                         00040
/SEREON
/1$X/{@} {[^ ]*}/&2 &1//
 00001 00010 FOR I=1 TO 10

 00002 00020 PRINT "I="I,"I^2="I*I

 00003 00030 NEXT I

 00004 00040 END

Limit       4 matches   CF   RE
  00040 END

/KB
EOF
/1$L
  00010 FOR I=1 TO 10
  00020 PRINT "I="I,"I^2="I*I
  00030 NEXT I
  00040 END
EOF
/
```

Chapter 3
EDIT Commands

Introduction

The EDIT commands are given in alphabetic order with the special characters at the end of the chapter. A brief description is given for each command. The format of the command is shown in a box. The line specifications, parameters, options, and defaults are described below the box. Interaction with other commands and EDIT options are also included for the commands when applicable. Examples are provided to demonstrate the usages of each command. The examples show you what you can do at the terminal. The effects or results are usually not shown. You will have to do them to see what happens. The examples are given in many forms to show the flexibility of EDIT in accepting either upper or lower letters in the command strings with or without delimiters.

A (Abort EDIT Session)

Aborts the edit session leaving the original source file unchanged. No
parameters are required for this command. EDIT may issue the "OK?"
prompt and a YES answer (Y or YE is also acceptable) is required to
execute this command. The prompt may be suppressed with a / but use
this feature with caution. The prompt is a precaution for errant
fingers.

```
+-----------------------------------------------------------------+
|                               A                                 |
+-----------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None.

COMMENT: If the source file has not been altered since the original
            read or the last WR or WC command, the prompt OK? will not
            be issued. The abort command will be executed immediately.

EXAMPLES:


```
        /A
        OK? N
        Command not executed.
        /



        /A
        OK? Y
        EDI18 aborted by user
        closed file TEST::41:3
        end of edit
        :


        /A/
        EDI18 aborted by user
        closed file TEST::41:3
        end of edit
        :
```

B (Find a Pattern)

Searches the source work area for a line containing the pattern specified. When a match occurs, the line found becomes the pending line. If no match is found (or in a multiple search), EDIT returns to the current pending line if RT is on. If RT is off, the new pending line is the line after the second range specification.

```
+---------------------------------------------------------------------+
|                      [1][$]B/pattern/[A][V][Q][N]                   |
+---------------------------------------------------------------------+
```

[1][$]   - Optional range. Can be absolute line numbers or the line
            specification characters with offset (e.g., $-20 means 20
            lines before the last line). Default is from beginning to
            end of file. Line numbers must be separated by a space or
            comma. The default first line is indicated by ",", i.e.,
            ", 10" specifies a range from line 1 to line 10.

/ /   - Delimiter for pattern specification. Can be any
            punctuation marks except commas or spaces. Second
            delimiter may be omitted if no options are used.

pattern - Search pattern. Follows all rules for pattern
            specification. If omitted, the last pattern specified in
            B, F, or D command will be used. The default can be
            checked with "SH <B, F, or D>"

[A]   - Optional multiple search. Displays all lines found with
            at least one match. A message is displayed to show the
            total number of matches found. CF and RE are also
            displayed if turned on.

[V]   - Optional reverse match. Search lines NOT matching pattern
            specified.

[Q]   - Optional display suppression. Useful in conjunction with
            [A] to show only the number of matches found.

[N]   - Optional No-window parameter. Allows match anywhere on a
            line. Default is search only within the horizontal window
            columns.

INTERACTION WITH OTHER COMMANDS:

Following options affect the B command:

RE on/off - On to allow use of metacharacter set to search for regular
            expressions.

RT on/off - On to return multiple search or no match to pending line,
            off to return to the line after range limit.

CF on/off - Initially on to ignore upper/lower case distinction. Needs
            to be turned off to differentiate upper and lower case
            letters.

COMMENTS: In order to use this command for successive single
             searches, specify the pending line as the first line
             (default is from line 1).

EXAMPLES:

        /B/Chapter 1/   Go to a particular line,
          Chapter 1 General Information   delete it, and go to the
        /K   the next line containing
        /.$B   the same pattern.

        /B/JSB/A   Find all JSB statements.

        /B/WARNING/AV   Find all lines NOT having
                                               the word WARNING.

        /B/WARNING/AQ   Check the total number of
                                               warning statements.

        /SE RE ON   Search for zero length
        /B/^$/   record.

        /SE RE ON   Find all blank lines
        /B/^ *$/   (space between ^ and *)   including null lines.

        /B/^Test/   Find "Test" at begining
                                               of search window.

        /b/Xhe/N   Find "Xhe" anywhere on a
                                               line.

        /1 100 B/Xhe/A   Find all lines with Xhe
                                               between lines 1 and 100.

        /SE CF OFF   Find all occurrences of XXxx.
        /B/XXxx/A   If CF is left on other
                                               patterns might be found,
                                               xxXX, XxXx, etc.

C (Edit Pending Line and Advance Line)

Allows editing of the pending line and advances the pending line following the edit.

```
+-----------------------------------------------------------------+
|                             C<text>                             |
+-----------------------------------------------------------------+
```

      text   - Replacement text. A slash or current prompt can be used to preserve an existing character between changing text. Addition and deletion of text can be done by using the line editing control characters. If omitted, the pending line will be advanced one line and displayed. If the current prompt is changed from the slash to another character that character must be used instead of the slash.

INTERACTION WITH OTHER COMMANDS:

The UN command can be used immediately to negate the C command.

Control characters used for pending line editing:

        cntl B - Break the line at this position. Move remaining text to column 1 of the next line.

        cntl C - Delete characters.

        cntl R - Replace characters. Used after cntl C to replace characters on the same lint.

        cntl S - Insert character.

        cntl T - Truncate line.

        cntl X - Extend line, adding characters to the end of the line.

        /   - The slash (or current prompt) leaves the character in that position unchanged.

EXAMPLES:

```
        Illustrating breaking of a line into two
/C////////////<cntl B>
  New pending line
/-2 L3
  Illustrating
  breaking of a line into two
  New pending1 line


  Deletion example zzzzzzzzzzzzzz
/C//////////////////xxxxxxxxxxxxxxx
                    <cntl C>
  New pending line
/-2 L2                              (Go back 2 lines
  Deletion example                  and list 2 lines)
  New pending line


  Next is the replacement example
/C/////xxxxxxxxxxxxxxxxxxx<cntl R>EXAMPLE
        <cntl C>
  New pending line
/-1 L2
  Next EXAMPLE
  New pending line


  Insert character ample
/c////////////////<cntl S>ex
  new pending line
/-1 L2
  Insert character example
  New pending line


  tera googol googoo
/c///////////<cntl T>
  new pending line
/-1 L2
  tera googol
  new pending line


  extend line example
/c<cntl X> is given here
  new pending line
/-1 L2
  extend line example is given here
  new pending line
```

CO (Copy Lines)

Copies lines in the range specified, inserting them after the pending
line. At least one range parameter must be specified to differentiate
this command from the C command. Lines copied are not altered.

```
+-----------------------------------------------------------------+
|                         L1 [*] CO [Q]                           |
+-----------------------------------------------------------------+
```

    L1   - Required range parameter. Specifies the first line to be
           copied.

    [*] - Optional second range parameter. Specifies the last line
           to be copied. If omitted, only one line will be copied.

    [Q] - Optional display suppression. Lines copied will not be
           listed.

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be used immediately to negate the CO command.

EXAMPLES:

```
        /1                              Go to beginning of file.
           11111ABCDE
        /L                              List 20 lines or to EOF
           11111ABCDE                   whichever comes first.
           22222FGHIJ
           33333KLMNO
           44444PQRST
        EOF                             File has only 4 lines.
        /1 4CO                          Copy lines 1-4.
           11111ABCDE
           22222FGHIJ
           33333KLMNO
           44444PQRST
        /1 4 CO                         Copy lines 1-4 again.
           11111ABCDE
           22222FGHIJ
           33333KLMNO
           44444PQRST
        /10CO                           Copy line 10.
           22222FGHIJ
        /1 10COQ                        Copy lines 1-10.
        EOF                             No display
        /
```

D (Delete Lines)

Deletes a block of text from the line specified in the range parameters to the line containing pattern specified. The line containing the match is saved. This command can, if the V option is selected, delete only lines containing specified pattern.

```
+---------------------------------------------------------------------+
|                    [.+1][$] D/pattern/[A][V][Q][N]                  |
+---------------------------------------------------------------------+
```

    [.+1][$]   - Optional range parameters. May be absolute line numbers separated by a space or line specification characters with or without offset. If the first parameter is omitted, the current line is deleted regardless of match and searching starts at the next line. If the second parameter is omitted, default is to the last line. If only the last line is to be specified, a "," must be used to show the default.

    /pattern/ - Pattern to be searched. Follows the rules for pattern specification. The slashes are delimiters required but they may be any punctuation marks except commas and spaces. The second delimiter may be omitted if no options are used. Defaults to the last pattern specified for F, D, or B. Check default by:

                                /SH <B, D, or F>

    [A]   - Optional multiple search. Displays all lines with at least one match with line numbers and all lines deleted marked by a tilde (~). The total number of matches (lines saved) is also displayed followed by CF and RE if they are on. The new pending line is the line past the lower range limit.

    [V]   - Optional reverse match. Deletes only lines containing pattern specified.

    [Q]   - Optional display suppression. No listing of matches or deleted lines.

    [N]   - Optional No-window parameter. Allows match anywhere on a line. Default is search only within the horizontal window columns.

INTERACTION WITH OTHER COMMANDS:

The UN command can be used immediately to negate the D command.

Pattern specified is the default for B, D, and F commands.

Following options affect the D command:

CF	- Case folding is initially on to ignore upper and lower case distinction. CF must be turned off to differentiate upper and lower case letters. Turn CF off with "SE CF off".
RE	- Regular Expression must be turned on to allow use of the metacharacter set.

COMMENT: If range is not specified, the current pending line is always deleted even if a match is found there.

This command issues a prompt and only a y(es) reply can execute it. The prompt may be suppressed with a slash after the second pattern delimiter (e.g., /PA//).

EXAMPLES:

```
/1$ D/&/              (Delete all lines from line 1 to line
                       containing &)

/1$ D/&/A             (Delete all lines not containing &)

/1$ D/&/AV            (Delete all lines containing &)

   pending line
/D /line/
OK? yes
~ pending line       (No line range, delete PL only)
   line after PL     (Line matched)
/
```

EC (Exit and Create File)

Ends the edit session and creates a file.

+---+
¦   EC<file descriptor>   ¦
+---+

     (Refer to "File Specification" in Chapter 1 for details.)

INTERACTION WITH OTHER COMMANDS: None.

                        < text deleted >

EXAMPLES:

          /ECEDIT2::YL

          /EC,LEMON

          /EC EDEXMP:-1:-41

          /EC TEST:YL:SP

          /ECGAMES::41

          /ECGAMES::41
          File already exists GAMES::41   (Duplicate file name)
          /

          /EC1GAME
          Illegal file name 1GAME
          /ec   JOY   (EDIT accepts either U/L case,
          created file JOY::41:4   leading blanks are ignored.)
          closed file JOY::41:4
          end of edit

          /ECbug:-1:-45:4:400   (Create a read/write protected
                                           file 400 blocks in size)

          /ECX:XX:YL   (Create a write protected file)

          /EC /DOC/REPORTS.TXT   (RTE-A Only)

ER (Exit and Replace File)

Ends the edit session and replaces a file with the newly edited file.

```
+------------------------------------------------------------------+
|                        ER[file descriptor]                       |
+------------------------------------------------------------------+
```

      (Refer to "File Specification" in Chapter 1 for details.)

INTERACTION WITH OTHER COMMANDS:

The FCS command removes the default source file name so that namr must
be specified in ER.

                              < text deleted >

EXAMPLES:

```
        /ER                              (Replace source file.)
        closed file EDLST::41:4
        end of edit
        :

        /ER EDTMP                        (Replace another file.
        opened file EDTMP::41:4           Source file unchanged.)
        closed file EDTMP::41:4
        closed file EDLST::41:4
        end of edit
        :

        /EREDTMP                         (Attempt to replace file with
        opened file EDTMP::41:4           security code.)
        Illegal access EDTMP::41:4
        closed file EDTMP::41:4
        /
        /ER EDTMP:YL:41                   (Replace file with security
        opened file EDTMP:YL:41:4         code.)
        closed file EDTMP:YL:41:4
        end of edit
        :

        /er XXXXXX                       (Attempt to replace non-existent
        No such file XXXXXX               file.)
        /

        /ER BIG_FILE.TXT::DR             (RTE-A only)
        opened file /DIR/BIG_FILE.TXT
        closed file /DIR/BIG_FILE.TXT
        end of edit
        :
```

F (Find a Pattern)

Finds one or more lines containing a pattern matching the specified
pattern within the search window. A match may be either the same or
not the same as the specified pattern. For a single search, the
matching line becomes the pending line.   For multiple searches (A
option selected), returns to either the current pending line (initial
condition) or the line below the lower range limit (RT off).

```
+------------------------------------------------------------------+
|                  [.+1][$]  F/pattern/[A][V][Q][N]                 |
+------------------------------------------------------------------+
```

[.+1][$]   - Range   parameters.   May   be   absolute   line   numbers
              separated by a space or comma with or without offset.
              Default is the line after the pending line to the last
              line in the file.   The first line default can be
              indicated by ",".

/pattern/   - Pattern to be searched. Follows the rules for pattern
              specification. The slashes are required delimiters but
              they may be any punctuation marks except commas and
              spaces.   The second delimiter may be omitted if no
              options are used. Default is the last pattern specified
              for B, D, F, '', or `` command.   Check default pattern
              by:

                  /SH <B, D, or F>

[A]   - Optional multiple search. Displays all matches found.
              A message shows the total number of line with matches
              and the options affecting the search (CF and RE).

[V]   - Reverse   match.   Find   lines   not containing pattern
              specified.

[Q]   - Optional display suppression. No listing of matches.
              If A is specified, shows only the total matches message.

[N]   - Optional No-window parameter. Allows match anywhere on
              a line.   Default is search only within the horizontal
              window columns.

INTERACTION WITH OTHER COMMANDS:

Pattern specified will be the default also for the B, D, and the line
specification commands (′′ and ``).

Following options affect the F command:

    CF   - Case folding is initially on to ignore upper and lower
                case   distinction.   CF   must   be   turned   off   to
                differentiate upper and lower case letters. Turn CF off
                with "SE CF OFF".

    RT   - Returns multiple search or no match to current pending
                line if RT is (initial condition), and to line after
                last line specified or EOF if RT is off.

    RE   - Regular Expression must be turned on to allow use of the
                metacharacter set.

COMMENTS: Multiple commands may be entered on the same command string
           separated by |. If a search command fails to find a match,
           the rest of the commands in the command string will not be
           executed.

EXAMPLES:

    /1$ F/<@>/A   (Find all angle bracket pairs)

    /1F/BEGIN/A

    /1F/%EDIT1/|K   (Find %EDIT1 and delete line)

    /SE CF off
    /1F/Chapter/N   (Find Chapter anywhere on a line)

FCL (Close List File)

Closes list file opened or created with the L or K command. This command allows access to the list file by others without leaving the editing session.

```
+----------------------------------------------------------------+
|                              FCL                               |
+----------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS:

The L or the K command opens (or creates) the list file by specifying a file. The list file, if opened, can be checked with:

        /SH L

COMMENTS: None.

EXAMPLES:

```
        /L 200 wow::41                      (Create list file called WOW.)
        created file WOW::41:4
        posted file WOW
          (PL is moved down 200 lines)

        /FCL                               (Close list file.)
        closed file WOW::41:4

        /L200 wow::41                      (Re-open and overwrite WOW)
        opened file WOW::41:4
        OK? yes
        posted file WOW::41:4:4

        /L 200 + WOW                       (Append to WOW.)
        closed file WOW::41:4
        opened file WOW::41:4
        Appending to file.
        OK? y
        posted file WOW::41:4
```

FCS (Close Source File)

Closes the source file without any changes. This command allows tasks such as disc packing to be done.

```
+-------------------------------------------------------------------+
|                               FCS                                 |
+-------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS:

This command affects the default file name for the ER and WR commands. File name must be specified for these commands. The default source file can be checked by:

            /??   or
            /SH ER   or
            /SH WR

The default source file name is always displayed at the bottom flag line in screen mode, even if it is closed.

COMMENTS: This command can be used to prevent accidentally entering ER or WR. It does not modify the source file.

EXAMPLES:

            /sh er
            ER or WR...................... =FCL::41:3

            /fcs
            closed file FCL::41:3
            EOF

            /sher
            ER or WR...................... =

            /er
            ? ^

            /wr
            ? ^
            EOF
            /

FI (File Input)

Replaces the source file with another file. This command allows editing of a new file without aborting the editor. It deletes all lines from the work space and reads in the file specified.

```
+------------------------------------------------------------------+
¦                        FI<file descriptor>                       ¦
+------------------------------------------------------------------+
```

(Refer to "File Specification" in Chapter 1 for details.)

INTERACTION WITH OTHER COMMANDS:

The default source file for ER and WR is changed to the new file. It may be removed by the FCS command.

COMMENTS: The input file may be a type 0 file (or spool file). A prompt "OK?" is issued as a precaution before this command is executed. A yes executes this command. However, the prompt may be suppressed with a /. Also, if the source has not been modified since the original read, WC, or WR command, the FI command will be executed without the prompt. This command cannot be undone with the UN command.

EXAMPLES:

```
/FI,NWFL                         (Edit new file NWFL)
OK? yes
closed file ODFL::41:4
opened file NWFL::41:4
  INTRODUCTION                   (1st line of file)

/SH ER                           (Check default source file.)
ER or WR...................... =NWFL::41:4

/FI X                            (Edit new file X.)
closed file NWFL::41:4
opened file X::41:4
  11111ABCDE

/SH ER
/ER or WR...................... =X::41:4

/??
EDI18  on X::41:4
/

/FI OLD_FILE.TXT                 (RTE-A only)
```

G (Character Exchange on Pending Line)

Exchanges a pattern with a new pattern over a specified range. The default range is the current line. There is no listing of exchanges.

```
+-----------------------------------------------------------------+
|                 [.] [*] G/pattern/substitute/[N][R][S]          |
+-----------------------------------------------------------------+
```

[.] [*]   - Optional range. May be absolute line numbers separated
                 by a space or line specification characters with or
                 without offset. If both are omitted, default range is
                 one line only, pending line. If only the last line is
                 to be specified, a "," may be used to show the default
                 (pending line).

/ / /   - Delimiters for pattern/substitute. May be the current
                 prompt or any other punctuation mark (except commas and
                 spaces). The last delimiter may be omitted if no
                 options are used. All three are required if any option
                 or OK? prompt suppression is used. The default pattern
                 and substitute can be used by omitting the delimiters
                 and patterns. If omitted, the last pattern specified
                 for G, U, X, or Y will be used. The default pattern can
                 be checked with SH <G, U, X, or Y>; the substitute
                 string will also be shown. To default the pattern but
                 specifying an option, enter G,,option. If a null
                 pattern is entered, the F command pattern is used.

pattern   - Pattern to be searched. Follows the rules for pattern
                 specification. If RE is turned on, the metacharacters
                 can be used for unique pattern matches. If omitted, the
                 pattern previously defined with G, U, X, or Y is used.
                 Default can be checked with:

                      /SH <G, U, X, or Y>

substitute-   Substitute pattern. Replaces the match pattern
                 described above. This pattern may be longer or shorter
                 than the match pattern. EDIT will insert or delete
                 characters as required to fill the line.

[N]   - Optional No-window parameter. Allows match anywhere on
                 a line. Default is search only within the horizontal
                 window columns.

[R]   - Optional. Removes zero length records (null lines).

[S]   - Optional Single exchange parameter. Permits only one
                 exchange per line.

INTERACTION WITH OTHER COMMANDS:

The UN command can be used immediately to negate the G command.

The default pattern and substitute strings are common to the G, U, X, and Y commands. The latest one defined will be the default for all these commands.

COMMENTS: This command is the same as X without listing.

EXAMPLES:

```
     GRA2ITY
/G?2?TU?
   GRATUITY

/ I8ITALL
/G,8, ATE ,
?    ^                      (Comma is an illegal delimiter.)
/G/8/ ATE /
   I ATE ITALL
/G/IT/IT /
   I ATE IT ALL

/ WOMBAT
/g/w/C/
   COMBAT
/

   WOMBAT       WOMBAT       TOMCAT
/SE WC 1 8
/G/W/C/S
   COMBAT       WOMBAT       TOMCAT
/

   (A+B)X(C+D)=2000          (Change X to /)
/G ?X?/
   (A+B)/(C+D)=2000
/
```

H (Help)

Provides a brief explanation of EDIT commands and selected items. The
question mark (?) can be used in place of H. Default is a summary of
the commands and special characters for line and normal pattern
specifications.

```
+----------------------------------------------------------------------+
¦                          H[E] [command]                              ¦
+----------------------------------------------------------------------+
```

   command – Any of the EDIT command entered immediately after H (or
             ?) will display the command syntax of the command. A
             space or a "," may also be used as a separator.

             NOTE: Use a delimiter (a comma or space) with H to
                    avoid confusing EDIT. The ? does not need a
                    delimiter.

   Additional explanations available:

      EX   – Describes abbreviations used.

      PA   – Describes rules for pattern specification.

      PL   – Describes special control characters used for pending
              line edits.

      RE   – Describes special characters used for regular
              expressions (special patterns).

      LS   – Describes line specification characters.

   HE,ALL   – lists all help messages.

INTERACTION WITH OTHER COMMANDS:

H does not affect the UN command. It can be used between an exchange
command and the UN command without affecting the error correction.

COMMENTS: None.

EXAMPLES:

/h h
  H [command] or ? [command]
   Give help about commands.

/he r
 [.] Rtext
   Replace current line. Escape character applies;
   if 'U' is the first character in the line it must be escaped.

```
/h,e
  No help for E .  Use ? for general help.

/H  D
[.+1][$] D /pattern/ [A][V][Q][N]
  Delete until pattern is found.
  If the first line spec is not given then always delete the current
  line regardless of pattern match on current line.

/H  EX
  Abbreviations:
  OK? - Some commands ask before excution by prompting with this.
        Asking may be suppressed by terminating a command with the
        current prompt character.
  [xx] implies an optional parameter, the default value is give inside
  the brackets.
    Q        - Quiet.  An option on some commands to suppress listing.
    A        - All.  An option on B, F, and D to match all occurrences.
    V        - Reverse.  Reverse the match sense for find commands.
    N        - No window. Allows match anywhere on a line for B, F, D, X.
    S        - Single.  Permits at most one exchange for X and Y.
    cntl     - The CNTL version of the following letter.
  * pattern  - Pattern to be searched for.
    n        - Positive integer less than 32768.
    n amr    - File name[:security[:cartridge[:type[:size]]]].
  * re       - Regular expressions.
  * pl edit  - Pending line edit using special control characters.
  Additional help is available on the starred items.  Spaces or a comma may
  be  used as  a  delimiter  when  parameter separation  in ambiguous.   Two
  commas together  specifies the  default value for  a parameter  should be
  used.

/H  PA
  Patterns
  The string of  characters to be found during a  search.  Normal patterns
  are described here, see ?,RE for  help on regular expressions.  Patterns
  start and stop  with a delimiter which may be  any punctuation character
  except comma  or space.   If the  field  is started with  a  '^'  then the
  search is anchored to  the start of the window; otherwise  the match may
  occur anywhere within the window  columns.   The window always applies to
  line specification searchs.  It  may be turned off with the  N option on
  find and  exchange commands.   A '@' character  anywhere in  the pattern
  means zero  or more characters  may be  skipped during matching  on this
  line, and the  shortest possible match is used for non-RE matching.  A "\"
  is the escape character, it is not part of the match but instead removes
  any special meaning from  the next character.  Use '\@' or  '\\' to find
  '@' or '\' respectively.

/H  LS
  Line specifications.
  Many of the commands have optional  line specification in front of them.
  These may be the absolute line numbers or one of the special characters.
  They may  also have +  or - offsets.   For example  to list the  last 20
  lines in a file use (the slash is Edit's prompt):
    /$-19 l
```

Special characters are :
     .   current line
     $ last line
     >   same as $
     -   backward relative to current line
     ^   backward relative to current line
     +   forward relative to current line
     *   line number of the first line spec. Legal only in the second spec
     'pattern'   search forward for the pattern
     `pattern`   search backward for the pattern
     If a null search pattern is given ('' or ``) it defaults to the
     F command pattern. If a pattern is given it becomes the next default.

/H RE
  Regular Expression   - A class of string specifications.
  Examples :
  To change the word IN to INPUT but not LINE to LINPUTE use :
        X/:IN:/INPUT/
  To change 'getc(xxx)' to 'getch(xxx,file)' where xxx can vary use :
        X/getc({[^)]*})/getch(&1,file)/
  Note that this will not work if xxx contains a right parenthesis.

  Regular expressions are enabled with a SE RE ON command.

  Metacharacters are used to denote special field types.   Any character
  can be reverted (escaped) to itself by preceding it with a "\". The
  metacharacters are :

     .   any character except the end of a line
     ^   beginning of the window (line)
     $ end of the line or window, whichever is shorter
     [xyz]   character class (any one of these characters)
     [^wxy]   negated character class (all but these characters)
     *   closure (zero or more occurrences of the previous pattern)
     +   transitive closure (one or more occurrences)
     <n>   repeat previous pattern n times
     @   indefinite character match (shorthand for .*)
     :   transition between alphanumerics and other characters
     {xyz}   tagged field to be recalled by &n in the substitute string
     &n   n'th tagged field; used only in the substitute string
               (1 <= n <= 9; '&' by itself is the matched field)
     >n   same as &n but shift substitute string to upper case
     <n   same as &n but shift substitute string to lower case
  A dash between alphanumerics in a character class specifies a range
  such as [0-9],[A-Z], or [A-Z0-9]. Character classes may also include
  escaped characters such as [\^\\] which means the class [^ or \ ].
  Closures extend to the longest possible match.

HL (Header Lines)

Displays a header with tick marks to indicate column positions.

```
+-----------------------------------------------------------------+
|                               HL                                |
+-----------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENT: Note that the command is overlaid when the header is
           displayed.

EXAMPLE:

    ''''/''''1''''/''''2''''/''''3''''/''''4''''/''''5''''/''''6''''/'''

/

I (Insert Line)

Inserts a line of text before the current pending line. It can be used to insert a line before any line specified.

```
+-------------------------------------------------------------------+
|                          [.] I<text>                              |
+-------------------------------------------------------------------+
```

    [.]   - Optional line specification. Specifies where the line of text is to be inserted. Default is to insert before the pending line.

    <text> - Any text to be inserted. If no text is entered, the inserted line is a zero length line.

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be used immediately to negate the I command.

COMMENT: EDIT returns to the pending line before insertion of new line.

EXAMPLE:

```
    LINE ONE
/ILine to be inserted
/-1L2
    Line to be inserted
    LINE ONE
/
```

J (Join Lines)

Combines two lines. The current line and the following line are combined into one line and displayed as the current line.

```
+-----------------------------------------------------------------+
|                            [.] J                                |
+-----------------------------------------------------------------+
```

       [.] - Optional line specification. Specifies where the command
            is to be executed. Defaults to the pending line.

INTERACTION WITH OTHER COMMANDS: None.

COMMENT: EDIT works with even number of characters (two characters in
            one word) on each line. A blank is padded for lines
            containing odd number of characters. A space may be needed
            to separate words at the joint.

EXAMPLES:
```
/ NAME                 (Lines created with no trailing blanks)
/ ADDRESS
/ PHONE
/ FUNCTION
/-3
  NAME
/J
  NAMEADDRESS
/J
  NAMEADDRESS PHONE
/J
  NAMEADDRESS PHONE FUNCTION
/

/ NAME                 (Lines created with trailing blanks)
/ ADDRESS
/ PHONE
/ FUNCTION
/-3
  NAME
/J
  NAME           ADDRESS
/J
  NAME           ADDRESS           PHONE
/J
  NAME           ADDRESS           PHONE           FUNCTION
/
```

K (Kill Lines)

Deletes the current line. Optional range (or maximum number of lines) can be defined to delete a block of lines. A file may be created or opened to save the lines deleted.

```
+----------------------------------------------------------------------+
¦                  [.][$]K [max] [+] [list file descriptor]            ¦
+----------------------------------------------------------------------+
```

[.] [$]   – Optional range. May be absolute line numbers separated by
            a space or comma. If both are omitted, default range
            parameters are from current pending line to last line.
            The default maximum range is one line. If only the last
            line is to be specified, a "," may be used to default the
            first parameter.

max   – Optional. Defines the maximum number of lines to be
            deleted. Has precedence over the range given. If
            omitted, either the range of one line will be deleted. To
            default the maximum number to be the same as the range
            defined, enter two commas, i.e., "1 50 K,,LISTF".

[+]   – Optional append parameter. Specifies that the list file
            named is to be appened and not written over.

list file descriptor – List file specified. It can also be the name
            of an existing file. The "max" parameter must be
            specified, or default to the range indicated by (,,), for
            this parameter to take effect. It also suppresses the
            "OK?" prompt if the file is created.

INTERACTION WITH OTHER COMMANDS: UN FCL

The UN command can be used immediately to negate the K command. The
FCL command is used to close the list file.

COMMENTS: EDIT will prompt you with "OK?" and a y(es) answer is
            required for execution of this command if more than one
            line is deleted or if an existing file is to be opened.
            The prompt will not be issued when the list file is to be
            created.

EXAMPLES:

```
/K                              (Delete current line; no prompt)

/.$k 20 HILL::41
created file   HILL::41:4        (HILL created)
posted file HILL::41:4
EOF                             (File written to HILL; source file
/                                in work area deleted; no prompt)

/1$k                            (Delete whole file)
OK? yes
EOF
/

/.$k/                           (Delete remainder of file)
EOF
/.$k
?    ^                          (File at EOF)
Start > EOF
/

/1 45 K                         (Delete lines 1-45)
OK? sl;kj
Command not executed
/

/K10                            (Delete 10 lines; begin at PL)
```

BK (Kill Trailing Blanks)

Deletes trailing blanks on every line throughout the whole file. It also truncates all line longer than the maximum line length set by the line length option command.

```
+-----------------------------------------------------------------+
|                          [.][$] BK                              |
+=----------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: SE LE

COMMENTS: BK can be entered anywhere in the edit session. It will
             delete trailing blanks on every line. EDIT moves to EOF.

             All lines are adjusted to even number of characters,
             padding with one trailing blank if necessary. BK will not
             create zero length lines but instead will leave two blanks.

             If the line length was set, all lines longer than the
             length set will be truncated to the curent line length.

EXAMPLE:

```
     PROGRAM EXAMPLE            (Current pending line)
   /N
    56                          (Check line number)
   /LI
    159                         (Check file size)
   /BK
   EOF                          (EDIT moves to EOF)
   /
```

L (List)

Displays a number of lines. Default is 20 lines. Optional range may be defined. A file may be created or opened to store the lines listed. A maximum number of lines to list may be specified; this parameter has precedence over the range defined.

```
+----------------------------------------------------------------------+
¦                  [.][$] L [max] [+] [list file descriptor]           ¦
+----------------------------------------------------------------------+
```

[.] [$]   – Optional range. May be absolute line numbers separated by a space or line specification characters with or without offset. If both are omitted, default range is from current pending line to last line. (Note that the default maximum number of lines is 20.) If only the last line is to be specified, a "," may be used to default the first parameter.

max   – Optional. Defines the maximum number of lines to be listed. Has precedence over the range given. If both are omitted, only 20 lines will be listed. To default the maximum number to the same as the range defined, enter two commas, i.e., "1,50,L,,LISTF".

[+]   – Optional append parameter. Specifies that the list file named is to be appended and not written over.

list file descriptor – List file specified. It can also be the name of an existing file. The maximum number of lines must be specified , or default to the range indicated by (,,), for this parameter to take effect. Specifying an existing file will cause the OK? prompt to be issued. Answering y(es) will overwrite the file.

INTERACTION WITH OTHER COMMANDS: LN and LU, N, and FCL

To list lines with line numbers, use LN. Once LN is used, line numbers will be displayed for subsequent list commands. To turn off line numbers, use the LU command.

To display a specific line, use the n command.

To display the next line, use <cr>.

The FCL command can be used to close the list file created or opened.

```
COMMENTS:     Don't forget that if lines are deleted or added, going back
              to any previous line changes the line numbering.

EXAMPLES:

        EOF
        /120L 40                    (start number too big)
        /120L40
        ?^
        Start > EOF
        /

        /1+5L20                     (list 20 lines from line 6)

        /12,L,40                    (list 40 lines from line 12)

        /L                          (list 20 lines from PL)

        /.$L 20 LIST::41
        created file  LIST::41:4    (LIST created)
        posted file LIST::41:4      (File left opened)
          JSB                       (Pending line)
        /


        /1,$,L,,LIST
        created file LIST::41:4
        posted file LIST::41:4
        EOF
        /


        /45 $L,,+                   (list and append lines to list file)
        posted file LIST::41:4
        EOF
        /

        /1$L 20                     (list 20 lines from line 1)
```

LE (Length Check)

Displays the length of the pending line in number of characters.

```
+ -------------------------------------------------------------------+
¦                                 LE                                 ¦
+ -------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None.

COMMENTS: All trailing blanks are included.   The BK command can be
             used to delete them.   On all systems except RTE-A, EDIT
             works with an even number of characters on each line. (On
             RTE-A, odd lines are not padded with blanks.) Thus some
             lines may have an extra blank. See example shown below.

EXAMPLES:

```
        1234567                    (Pending line)
     /LE
        8
     /1
        1
     /F/123456/
        12345
     /LE
        6                          (Counting leading blank)
     /


        123                        (Line has two trailing blank)
     /LE
        6                          (6 characters counted)
     /BK                           (Kill trailing blanks)
     EOF
     /-1
        123
     /LE
        4                          (Above line now has 4 characters)
     /
```

LI (Lines in File)

Displays the number of lines in the file. This command can be entered
anywhere in the editing session.

```
+----------------------------------------------------------------------+
|                                 LI                                   |
+----------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENTS: None

EXAMPLES:

        /LI
          56

LN (List Lines with Numbers)

Displays a number of lines with line numbers. Turns on line numbering
for all subsequent list commands. Line numbering must be turned off by
the LU command. Operates in the same manner as the L command. All
lines listed are numbered except the new pending line.

```
+-------------------------------------------------------------------+
¦                 [.] [$] LN [max][+] [list file descriptor]        ¦
+-------------------------------------------------------------------+
```

    Command syntax is the same as the L command previously described.

INTERACTION WITH OTHER COMMANDS: L, LU and FCL

Once LN is used, line numbers will be displayed for subsequent list
commands. To turn off line numbers, use the LU command.

The FCL command can be used to close the list file created or opened.

COMMENTS: Don't forget that if lines are deleted or added, going
               back to any previous line changes the line numbering.

               Note also that the lines stored in the list file will have
               line numbers.
EXAMPLES:

```
     Line one
/LN3
 00052 Line one
 00053 Line two
     Line three
/L3
 00054 Line three
 00055 Line four
     Line five
/LU2
     Line five
     Line six
/L1
     Line six
/
```

LU (List Lines without Numbers)

Displays a number of lines without line numbers. Used to turn off the
LN command. Operates identically as the L command.

```
+ -------------------------------------------------------------------- +
¦                   [.] [$] LU [max] [+] [list file descriptor]        ¦
+ -------------------------------------------------------------------- +
```

Command syntax is the same as that for L previously described.

INTERACTION WITH OTHER COMMANDS: L, LN and FCL

LN is used to turn on line numbering.

FCL is used to close list file created or opened.

COMMENTS: Don't forget that if lines are deleted or added, going back
            to any previous line changes the line numbering.

EXAMPLES:

```
     Line one
/LN3
  00052 Line one
  00053 Line two
   Line three
/L3
  00054 Line three
  00055 Line four
   Line five
/LU2
   Line five
   Line six
/L1
   Line six
/
```

M (Merge Files)

Merges a specified file after the pending line. After the file has been merged, the last line of the merged file becomes the new pending line.

```
+----------------------------------------------------------------+
¦           [.] M <file descriptor> [start line][number of lines] ¦
+----------------------------------------------------------------+
```

        [.]   Specifies where the file is to be merged. Default is pending line.

  file descriptor   Refer to File Specification in Chapter 1 for details. Any portion of the default file descriptor can be used.

  start line If only part of the file is needed, the start line number specifies the first line of text to be moved into the existing file. It can be larger than 32767.

  number of Specifies the number of lines to be moved into the
  lines   existing file.

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be entered immediately after execution of M to delete the merged lines.

COMMENT: If the merge command fails for any reason, EDIT moves to the next line and returns to the interactive mode.

EXAMPLES:

```
/L2
  First line
  Second line
/-1
  First line              (Pending line)
/M TR
opened file TR::41:4
closed file TR::41:4
  Second line             (New pending line)
/M TTTT
No such file TTTT:::4
  (returns to line after PL)
/
```

MO (Move Lines)

Moves a number of lines to below the pending line. The lines moved are deleted from their previous locations. The lines are displayed and the last line becomes the pending line.

```
+----------------------------------------------------------------------+
|                          L1 [*] MO [Q]                               |
+----------------------------------------------------------------------+
```

     L1 - Required line number of first line to be moved.

     * - Optional line number of the last line to be moved. Defaults
          to the same number as the first line, moving only one line.

     Q - Optional. Suppresses display of lines moved.

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be used to negate the MO command.

COMMENTS: If this command is entered without defining any line
            number, EDIT will try to merge a file named 0.

            The MO command works with the source work area. You cannot
            move lines overlapping the pending line. For example,
            moving line 10-50 while the pending line is 25 is not
            legal.

            Lines moved are displayed unless suppressed. If Q is
            specified, only the new pending line will be displayed.

EXAMPLES:

```
/L3
   AAAAAAA 1111111      (File  has  four  lines)
   BBBBBBB 2222222
   CCCCCCC 3333333
/1 2 MO Q               (Move 1 and 2 to after 3)
   DDDDDDD 4444444      (next PL, line 4 displayed)
/1 4 L
   CCCCCCC 3333333
   AAAAAAA 1111111
   BBBBBBB 2222222
   DDDDDDD 4444444
/
```

N (Display Line Number)

Displays the line number of the pending line.

```
+-----------------------------------------------------------------------+
|                                  N                                    |
+-----------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENTS: None

EXAMPLES:

        /N
          56

n (Line Number)

Displays line n and makes it the pending line. The number may be any absolute number or line specification characters.

```
+----------------------------------------------------------------------+
|                                  n                                   |
+----------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: Line specification characters:

    +n   forward n lines from pending line
    -n   backward n lines from pending line
    ^n   backward n lines from pending line
    .   current line
    $ last line
    >   last line
    *   Used only in second line number. Indicates the second
           number is the same as the first number specified.
    ,   Default first line specification will be used.
    'PA'   Search forward for pattern (PA).
    `PA`   Search backward for PA.
    :x   go to line marked with x (a-z).

COMMENTS: The line number is always that of the file in the
             destination work area. If you have added or deleted lines,
             the subsequent line numbering will be different even though
             you are still in the same editing pass.

EXAMPLES:

    /L5   (List 5 lines from line 1)
      AAAAAAA 1111111
      BBBBBBB 2222222
      CCCCCCC 3333333
      DDDDDDD 4444444
      EEEEEEE 5555555
    /1   (Go to line 1)
      AAAAAAA 1111111
    /5   (Go to line 5)
      EEEEEEE 5555555
    /-3   (Go back 3 lines from PL)
      BBBBBBB 2222222
    /$ (Go to last line of file)
      EEEEEEE 5555555
    /^4   (Go back 4 lines from PL)
      AAAAAAA 1111111
    /2 4   (Go to line 2; then list up
      BBBBBBB 2222222   line 4)
      CCCCCCC 3333333
      DDDDDDD 4444444
```

# O (Duplicate Pending Line and Edit)

Duplicates the pending line and allows character edits on the
duplicated line. The new line becomes the pending line. Any line can
be duplicated and modified by specifying the line number.
```
+--+
| [.] O <text> |
+--+
```

        text - Replacement text. A slash can be used to preserve a
               character. All character editing control characters can
               be used. If text is omitted, the duplicated line is
               unchanged.

INTERACTION WITH OTHER COMMANDS:    UN

The UN command can be used immediately to negate the O command.

Following line edit control characters can be used:

        cntl B - Break line at this position
        cntl C - Delete characters
        cntl R - Replace characters
        cntl S - Insert character
        cntl T - Truncate line
        cntl X - Extend line
        The slash (or the current prompt) leaves character in that
        position unchanged.

COMMENT: You can go to any line and execute the O command on that
line.

EXAMPLES:
```
                /   1
                /O//////2
                        1 2
                /o////////3
                        1 2 3
                /-3 LN 3
                   00055   1
                   00056   1 2
                   00057   1 2 3
                /56 Oxxxxxxx
                   xxxxxx2
                /55 58 L 4
                   00055   1
                   00056   1 2
                   00057 xxxxxx2
                   00058   1 2 3
```

# P (Pending Line Edit)

Allows character edits on the pending line and displays the edited line
as the new pending line.

```
+------------------------------------------------------------------+
|                          [.] P <text>                            |
+------------------------------------------------------------------+
```

> [.] - Line specification. specifies the line to be edited.
>   Default is pending line.
>
> text - Replacement text. A slash can be used to preserve a
>   character. All character editing control characters can
>   be used. If text is omitted, the duplicated line is
>   unchanged.

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be used immediately to negate the P command.

Following line edit control characters can be used:

>   cntl B - Break line at this position
>   cntl C - Delete characters
>   cntl R - Replace characters
>   cntl S - Insert character
>   cntl T - Truncate line
>   cntl X - Extend line
>   The slash (or the current prompt) leaves character in that
>   position unchanged.

COMMENT: None

EXAMPLES:

```
         1
/P//2
         1 2

/LN 2
 00063 AA BBBBBB
 00064 BB CCCCCC
/63 P///CCCCC
    AA CCCCC
/63 LU 2
    AA CCCCC
    BB CCCCC
/
```

Q (Local EDIT)

Allows the use of terminal editing keys for pending line character edits. The edited line becomes the pending line.

```
+----------------------------------------------------------------------+
|                                  Q                                   |
+----------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENT: This command displays the pending line with the cursor
           positioned on the same line as the line of text. The cursor
           positioning keys can be used to go to the appropriate column
           and perform local editing. It may be considered as the
           "single-line screen mode" command.

           Refer to Appendix B for the use of the Q command in
           multipoint environment.

EXAMPLES:

```
    The quick brown fox jumped over the lazy dog's back 1234567890
    /Q
    The quick brown fox jumped over the lazy dog's back 1234567890
    ^
 (cursor positioned at column 1; local edit can begin)
```

R (Replace Pending Line with Text)

Replaces the pending with text entered behind the R command.

```
+----------------------------------------------------------------+
|                         [.] R <text>                           |
+----------------------------------------------------------------+
```

    [.] - Optional line specification. Default is current pending
           line. Any of the line specification characters can be used.

    text - New line of text to replace pending line.   If no text is
           entered, the pending line becomes a null (zero length) line.

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be used immediately to negate the R command.

COMMENTS: The escape and tab characters can also be used in line
            editing. Lines being added beginning with the letter U
            must be preceded with the escape character (\) to prevent
            confusion with the RU command.

EXAMPLES:

          /RLinear acceleration   (Replace PL with text)
          /

          /10 RChapter 3   (Replace line 10 with text)
          /

             Old line to be replaced
          /rNew line
          /.
             New line
          /R///
          /.
             ///

          /Rundefine externals   (Op Sys tries to clone program UNDEFI)
           fmgr cloning error 67
          Resume EDI91 on R::JL:4
          /R\underfine externals
          /
```

RU (Run Program)

Clones and runs a program. Then returns to current pending line.

```
+------------------------------------------------------------------+
|                     RU <program>[run string]                     |
+------------------------------------------------------------------+
```

    program run string - Program name followed by the proper run string
                if necessary.

INTERACTION WITH OTHER COMMANDS: None

COMMENT: The file being edited may be restored to the disc file with
           the WR command and closed with the FCS command. It then can
           be used with another program including another copy of EDIT.
           The file name must be specified for future WR or ER commands
           after FCS closed the file.

           The run string is case folded and blanks are replaced with
           commas. Under all operating systems <u>except</u> RTE-A, to
           suppress case folding and comma substitution, enclose the
           string with backquotes (``).

EXAMPLES:

    /RU,EDIT   (Start another EDIT session)

    ED91A : Use ? for help
    FI,namr specifies file to edit.
    EOF
    /A/
    ED91A aborted by user
    end of edit
    Resume EDI91 on ED2::41:4
    /RU,FMGR
    :CL
      LU   LAST TRACK   CR   LOCK   P/G/S

      33   00227   00041   P
      36   00227   00036   G
      37   00227   V1   G
      19   00115   00019   G
      20   00086   00020   G
      22   00254   SM   S
      02   00255   00002   S
      03   00254   00003   S

    :EX
     $END FMGR
    Resume EDI91 on ED2::41:4
    /RU,EDIT,HELLO,1$U//`        `//   (Start another EDIT session
                                  and make a substitution within
                                  the specified file.)

S (Screen Edit)

Provides a 20-line screen bracketed by a begin- and an end-flag line. The terminal editing keys can be used to perform local edits. A command set consisting of control characters is used for exiting the screen mode. The starting line of the screen and the size of the screen can be entered in the command string. Default is starting at a line 10 lines before the pending line with a 20-line screen. When moving from one screen to another, a default overlap of two lines is used. The default screen size and overlap can be redefined by the SD option. A screen memory overflow protection is provided for terminals with the memory-lock feature. You cannot insert any more lines and the memory lock light will be flashing if the terminal memory is full.

```
+------------------------------------------------------------------------+
|                          [.-10] [*+20] S                               |
+------------------------------------------------------------------------+
```

    [.-10] - Optional first line of screen. Default is 10 above PL.

    [*+20] - Optional range. Defines the last line of screen. The
              default is 20 lines from the first line defined.

INTERACTION WITH OTHER COMMANDS:

Screen mode commands are entered as follows: <cntl><command> <cr>. Commands are Q, P, F, S, C, and O. Each screen command will replace the screen before the command function is executed. If a screen mode command is repeated, i.e., cntl<cmd><cmd>, the screen will not be replaced, leaving the screen unchanged.

    cntl Q - Quit screen mode. The line after the last line in the
            screen will become the pending line. If cntl Q cntl Q (or
            hold down the CNTL key and press Q twice, cntl QQ) is
            entered, the first line of the screen will be the pending
            line.

    cntl P - Previous screen. Go to the previous screen. Use either
            the default or defined overlap.

    cntl F - Forward one screen. Use either the default or defined
            overlap.

    cntl S - Start next screen at line indicated by cursor position.

    cntl X - Same as S except a large screen is provided. The size is
            determined by the amount of terminal memory available. It
            will be slightly smaller than the maximum terminal memory.
            This can checked by the SH SL command. You may change the
            maximum screen size but it may nullify the screen overflow
            protection if it is increased.

cntl C - Command execution. Execute one line of editor commands
         and return to screen mode. The cursor position in the
         screen determines the PL and the EDIT prompt (/) will be
         displayed below that line. Line insertion, addition,
         deletion can be done and read into the screen. The
         vertical bar can be used to separate commands for multiple
         commands on the same line.
cntl O - Copy a line indicated by the cursor on the screen.
cntl K - Positions the cursor for a line marker.
cntl A - Move cursor to first character on line. Reset margins.
cntl Z - Move curosr to last character on line. Reset margins.

Entering cntl K causes a colon to be placed at column 79 with the
cursor at column 80. A letter (case folded) can be entered to mark the
line. Each letter can be used only once, the latest entered will take
effect.

The default screen mode options can be checked by:

    /SH SD
    Screen defaults..........SD =   10   10   2

The defaults are a 21-line screen starting at 10 lines before the
current pending line with a 2-line overlap. To change the defaults:

    /SE SD <x> <y> <z>   where: <x> is number of lines above PL
                                 <y> is number of lines below PL
                                 <z> is number of overlap lines

The screen size is the total of the first two numbers specified plus
one.

COMMENT:

While in screen mode, EDIT locks the screen and disables interrupt
processing from the terminal.

You can specify a specific line to be the start of the screen with

    /n S

n being any line number or any of the line specification characters
with or without offset.

If you delete the flag lines, EDIT will prompt you for one of the
following actions:

    Enter O to ignore screen display, original text unchanged.
    Enter S to read screen and modify source file.
    Enter B to read screen and insert it in the source file without
            altering the original text.

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EDIT messages: (for missing stop line)

    Stop line not found
    What should be saved ??

    O saves original text written to screen
    S saves text just read from screen
    B saves both (inserts screen text before original text)
    What should be saved ?

EXAMPLE:

    /22 S   (Go to line 22 and start screen mode)

>>*** line   22 ****** cntl Q reads *** cntl Q cntl Q aborts ***<<
                              ****
                          ****
                  *******   ********
                *****   *****
              ****   ****
             ***   ***
           ***   ***
          ***   ***
         ***   ***
        ***   ***
       ****   ****
       *****   LEMON   *****
       ****   ****
        ***   ***
         ***   ***
          ***   ***
           ***   ***
            ***   ***
             ****   ****
              *****   *****
                *******   *******
                  ****
                        ****
>>--- line   EOF ---------------- LEMON::41:4 --------------------<<

NOTE: For RTE-A, if the file descriptor is too long to fit on the
       ending line of the screen, the first characters of the namr are
       displayed followed by three dots ("...") to indicate the entire
       descriptor is not being displayed.

SC (Screen Copy)

Copies everything in the screen memory to after the pending line. Stops when 24 null (zero length) lines are encountered. These null lines are not copied.

```
+---------------------------------------------------------------------+
|                                 SC                                  |
+---------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be used immediately to negate the SC command.

COMMENT:

Note that everything is copied, including the SC command.

EXAMPLE:

    //

    ---Commands---
    S
    wr
    sh
    sc
    ^20s
    l
    156
    ^30s
    $
    SC

    ^25s
    .$k/
    s

    EOF
    /SC

SE (Set Option)

Sets various EDIT options and defaults. The initial conditions are set up when EDIT is run. The defaults can be checked with the SH command. The default for any option is to revert to the initial condition, e.g., /SE AC will change the anchor character back to "^".

```
+--------------------------------------------------------------------+
|                              SE<option>                            |
+--------------------------------------------------------------------+
```

option (default)   description

AC (^)   - Anchor character used in pattern specification.
                  Anchors the pattern to the start of search window.
                  May be changed to any character.

EC (\)   - Escape character used to revert a character with
                  special meaning to its original meaning, e.g., \\
                  tells EDIT the second \ should be a backslash.

IC (@)   - Indefinite character.

PC (/)   - Prompt character. Cannot be any alpha character.

CS (|)   - Command separator. Used to separate commands in a
                  command or run string Number of commands is
                  limited by the number of characters in a line.
                  However, only 79 characters will be saved in the
                  command stack.

TC (TAB, cntl I) - Tab character. Used in line editing to position
                  text at various tab stops.

WC (1,150)   - Window columns for horizontal search window.

SD (10,10,2)   - Screen default. The three parameters must be
                  separated by blanks or commas. Size is specified
                  in lines above and below the pending line (first
                  two parameters). The last parameter is the number
                  of overlap lines between screens.

SL   - Maximum screen size. Default is determined by the
                  terminal display memory. Typically, it is about
                  32 lines for a 262X terminal and 100 lines for a
                  264X terminal with 12K of memory. It is
                  recommended that the default not be changed
                  because this number is used for display overflow
                  protection.

VW (10,10)   - Vertical window. Number of lines to display with
                    the window (W) command. First entry is number of
                    lines above the pending line, second entry the
                    number of lines below the pending line.

LE (150)   - Maximum characters allowed on a line.

AS (on)   - Asking for verification of dangerous commands (A,
                    FI, D, K, MO, U, X, and Y). A toggle command.

CF (on)   - Case folding initially on to ignore upper and
                    lower case distinction. Must be turned off to
                    allow matching of unique upper/lower case letters.
                    This option does not affect the EDIT command
                    syntax. EDIT still accepts commands in lower case
                    with CF off.

RE (off)   - Regular expression; initially off. Must be turned
                    on to allow the use of metacharacters for special
                    pattern searches and matches.

DF (on)   - Display function; initially on to enable screen
                    mode display functions such as inverse blinking
                    video and display of terminal control (escape)
                    characters.

RT (on)   - Return; initially on to return multiple
                    search/matches (or no match) to pending line. Set
                    to of to stop at EOF.

TS (on)   - Time stamp; initially on to update time stamp if
                    found. Time stamp must be in the form of
                    <YYMMDD.HHMM> with the > character next to the
                    last non-blank character in the line.

BE (off)   - Bell; turned on to enable bell with prompt.

INTERACTION WITH OTHER COMMANDS:

Options and defaults affecting other commands are described under the
respective commands. The SH (or SH ALL) command shows all the options
and defaults. SH <option> will display the option in effect.

COMMENT: If no parameter is entered and a numeric value is expected,
             the default will be used. If a toggle command (on/off) is
             entered without any parameter, the current value is used.
             Numeric values cannot be set to zero; if done, the default
             is used.

SH (Show Options)

Displays the various options and defaults or a single one selected. It also displays the default pattern, match, substitute, source file and list file.

```
+-------------------------------------------------------------------+
|                              SH<option>                           |
+-------------------------------------------------------------------+
```

    option   Current Setting

AC   – Shows anchor character, initial default is ^ .

EC   – Shows escape character, initial default is \ .

IC   – Shows the indefinite character, initial default is @ .

PC   – Shows prompt character, initial default is / .

CS   – Shows command separate character, initial default is |
              .

TC   – Shows tab character, initial default is TAB key or
             cntl I.

TS   – Shows time-stamp update on or off;initially on.

WC   – Shows search window columns. Default is 1, 150.

SD   – Shows screen size given in two parameters, number of
             lines above and below the pending line. The overlap
             parameter is given as the third parameter. Default is
             10, 10, and 2.

SL   – Maximum screen size. Default is determined by the
             terminal display memory. Typically, it is about 32
             lines for a 262X terminal and about 100 lines for a
             264X terminal with 12K of memory. It is recommended
             that the default not be changed because this number is
             used for display overflow protection.

VW   – Shows the number of lines to be displayed above and
             below the pending line. Defalt is 10, 10.

LE   – Shows maximum characters allowed on a line. Default
             is 150.

AS   - Shows on/off status of screen mode display function. Initially on to allow display or creation of terminal control characters, inverse video, etc.

CF   - Shows on/off status of case folding. Initially on.

RE   - Shows on/off status of regular expression enable option. Initially off.

DF   - Shows on/off status of screen mode display functions (terminal control characters, inverse video, printer control, etc.) Initially on.

RT   - Shows on/off status of return-to-pending-line optioon. Initially on to return to pending line.

UN   - Shows the EDIT commands and the lines modified with the old text. This is the list maintained by EDIT and used if the UN command is entered. This list is updated for each text modification.

F,B,D, or K - Shows the pattern last specified.

G,U,X, or Y - Shows the last match pattern and substitute pattern specified.

ER or WR - Shows the source file specified initially or with the FI command.

L   - Shows the list file specified.

File modified flag FM - Shows whether any changes have been made. Initially off; turned on by a scratch file modification, and turned off by WR, WC, or FI.

AB   - Shows the EDIT abort messages.

DA   - Shows the date code of EDIT.

RM   - Displays brief explanation of recovery mode.

INTERACTION WITH OTHER COMMANDS: None.

COMMENT: None.

SZ (File Size Check)

Shows the approximate number of words above pending line in the work area.

```
+----------------------------------------------------------------------+
|                                 SZ                                   |
+----------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENT: None

EXAMPLE:

        /SZ
          956

T (Tabs)

Sets tab columns. Up to 10 settings are allowed. Special tab setting commands are predefined for various program preparation.

```
+-----------------------------------------------------------------+
|                       T[n1,n2,....,n10]                         |
+-----------------------------------------------------------------+
```

            n1 through n10 - Tab columns.

INTERACTION WITH OTHER COMMANDS:

Other special tab setting commands:

        TA - Use preset ASMB tabs (columns 7 and 21)

        TF - Use preset FTN tabs (columns 7, then every 4 columns)

        TM - Use preset Macro tabs (columns 10, 26, 40, 44, and 48)

        TP - Use preset Pascal tabs (every 3 columns)

        TL - Set terminal tab stops so that they line up with line
             mode tabs.

        TS - Set terminal tab stops so that they line up with screen
             mode tabs.

The tab character is the TAB key on the terminal (or cntl I). It may
be changed to another character with the tab character option TC:

        /SE TC<char>

The current tab character can be checked with :

        /SH TC

COMMENT: A tab stop cannot be set in column one.

EXAMPLE:

```
/T 1 5 7
?  ^
/T 2,5,8,11,14
/SH T
Tab character............... TC =tab (cntl I)
Tab columns.......................=      2       5       8      11      14
/ts
  T   T   T    T    TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
/TL
      T   T   T    T    TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
/TM
/SH T
Tab character............... TC =tab (cntl I)
Tab columns.......................=     10      26      40      44      48
/
/TL
                T                    T                T    T    T    TTTTTTTTTTTTTTTT
/TS
          T                    T                T    T    T    TTTTTTTTTTTTTTTTTTT
/SH T
Tab character............... TC =tab (cntl I)
Tab columns.......................=     10      26      40      44      48      52
/TA
/SH T
Tab character............... TC =tab (cntl I)
Tab columns.......................=      7      21
/
```

TI (Time)

Adds the time and date to the current pending line. Location may be
specified anywhere on the line.

```
+----------------------------------------------------------------------+
|                            [.] TI n                                  |
+----------------------------------------------------------------------+
```

       [.] Optional line specification. Specifies the line where the
           information is to be added. Default is pending line.

       n - Starting column of the time and date information. Default
           is column 1.

INTERACTION WITH OTHER COMMANDS: UN

The UN command can be used immediately to negate the TI command.

COMMENTS: The information added is 30 characters long.

EXAMPLES:

    /p

    /ti 1
      5:04 PM TUE., 12 AUG., 1980

    /TI 34
                                 5:04 PM TUE., 12 AUG., 1980

TR (Transfer)

Transfers to a command file or an input device. Useful in running EDIT
in batch mode where a command file is set up. Refer to the section on
batch mode operations in Chapter 2 for more detail. When used in a
command string, TR must be the last command.

```
+------------------------------------------------------------------+
¦                     TR <file descriptor> [Q]                     ¦
+------------------------------------------------------------------+
```

     (Refer to "File Specification" in Chapter 1 for details.)

          [Q]   Optional listing suppression.

          Delimiters are required between TR
          and <file descriptor> and between <file descriptor>
          and Q option if used.

INTERACTION WITH OTHER COMMANDS: None.

COMMENT: It is a good idea to specify a cartridge reference number.
           This makes sure that the file is read from the correct disc
           cartridge. If omitted, the file is read from the cartridge
           containing another file with the same name on the top of the
           cartridge list which may not be desirable.

           The TR command may also be used with a logical unit (LU)
           number to receive command file or inputs from an input
           device.

           The OK? prompt will be issued requiring a response from the
           terminal unless suppressed with a slash (or current prompt).

EXAMPLE:

          /TR,CMDFIL   (From EDI91 on file EDIT2)
          opened file CMDFIL::JL:4
          OK? NO
          Command not executed.
          closed file CMDFIL::JL:4
          /TR,CMDFIL,Q/   (Suppress display and TR prompt)
          opened file CMDFIL::JL:4
          closed file EDIT2::JL:4   (ER in command file)
          end of edit
          :

A sample command file (CMDFIL):

```
1$  U//          //
1$  X/!/\///
1$  X/32767/32768//
TI 30
KB
ER
```

U (Unconditional Exchange)

Replaces a number of characters with a substitute string. A range of lines may be specified with this command. Default is the current pending line. Listing of matches is optional.

```
+-------------------------------------------------------------------------+
|                    [.][*] U /match field/substitute/[Q]                 |
+-------------------------------------------------------------------------+
```

[.][*]   - Optional range. May be line numbers or any of the line
                  specification characters. Default for first entry is the
                  pending line and for the second entry is the same as
                  specified for the first entry.

   / /   - Delimiters for match field/substitute. May be the slash
                  or any other punctuation mark (except commas and spaces).
                  The last delimiter may be omitted if the Q option is not
                  used.

match field   -Unconditional deletion field. Place holder are used to
                  indicate the number of characters to delete. The match
                  field may be a zero length field. Deletion starts at the
                  window. Characters may be extended past window.

substitute   - The new string to replace the field deleted. Number of
                  characters need not be the same as the match field. May
                  be a zero length field.

[Q]   - Optional display suppression.

INTERACTION WITH OTHER COMMANDS

The U command shares the match field and substitute string default with
the G, X, and Y commands. The default can be checked with SH followed
by any of the exchange commands, e.g., /SH U.

COMMENT:

The default match and substitute patterns are used if only U is
entered. To use the default with the Q option, enter "U,,Q".

The line below the last line in the range specified becomes the new
pending line.

EXAMPLES:

    /1$ U/xxxxxxxx//Q/   (Delete first 8 characters on all lines;
                                 suppress listing and prompt)

    /1$ U/AA/11111//   (Replace first two characters with 11111;
                                 suppress prompt)

UN (Undo)

Reverts the command executed immediately before this command to the prior state, replacing the substitute with the match field. Must be entered before the next file modification to be effective.

```
+-----------------------------------------------------------------+
|                              UN                                 |
+-----------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: UY

The UN command can be used after the C, CO, D, G, I, J, K, M, MO, O, P, Q, R, SC, TI, U, X, or Y command.

The old lines can be checked with the SH UN command. A list of the last change is maintained by EDIT. The UY command can be used to retrieve any old line.

If the UY command is used, the UN list is unchanged but the line numbering of the file may be changed to render this list unuseable.

COMMENT: This command cannot be used for the screen mode changes.

EXAMPLES:

```
        PL   The answer is
/X/The/An//
        PL   An answer is
/UN
        PL   The answer is

        xxxxx<810101.1349>
/X/xxxxx///
        <810101.1349>
/??
EDI91  on EDIT2::YL:4
/UN
        xxxxx<810101.1349>
```

W (List Window)

Lists a vertical window, i.e., a number of lines specified in the command string. Returns to the pending line. Default is 10 lines above and below the pending line. The default can be changed by resetting the VW option.

```
+--------------------------------------------------------------------+
|                         [.-10][*+20] W                             |
+--------------------------------------------------------------------+
```

   [.-10] [*+20] - Vertical window range. Can be absolute line numbers
                   separated by a space or any of the line specification
                   characters with or without offset.

INTERACTION WITH OTHER COMMANDS

The VW option determines the default range for W.   WU turns line numbering off; WN turns it back on.

COMMENT: EDIT always returns to the pending line after listing. If a
           listing does not include the pending line, the > mark will
           not be displayed.   W will not indicate EOF if encountered.
           This command is useful for finding out where you are in the
           file. It will normally display line numbers unless turned
           off by WU. Once turned off, no numbers will be displayed
           unless turned on with WN.

EXAMPLES:

           /W

           /100W   Display 20 lines below line 100
                        Return to PL

           /WU   List vertical window without numbering.

WC (Create File without Exit)

Creates a file without exiting EDIT.   Operates in the same   manner as
the EC command except that the editing session is not ended.

```
+------------------------------------------------------------------+
¦                       WC [file descriptor]                       ¦
+------------------------------------------------------------------+
```

    (Refer to "File Specification" in Chapter 1 for details.)

INTERACTION WITH OTHER COMMANDS: None.

COMMENT: WC returns to pending line.

EXAMPLES:

        /WC"EDIT::SM

        /WC LEMON:YL:41

        /wc edit1::sm

        /wc*copy:-1:41

        /WC TEST_PROGRAM.SRC   (RTE-A only)

WR (Replace File without Exit)

Replaces a file without leaving EDIT. It operates in the same manner
as the ER command. Returns to the current pending line. Note that
there will not be any prompt before the file specified is written over.
The default file namr is the EDIT input source file.

```
+----------------------------------------------------------------------+
|                        WR [file descriptor]                          |
+----------------------------------------------------------------------+
```

(Refer to "File Specification" in Chapter 1 for details.)

INTERACTION WITH OTHER COMMANDS:

The FCS command removes the default namr so that file name must be
specified in WR.

COMMENT: File specified must exist. If namr is omitted, the default
            source file is used. File type and size are ignored.

            WR returns to pending line.

            Note that WR does not issue a prompt and will write into the
            file specified. Be careful about restoring to an
            unprotected file other than the one you are editing.

EXAMPLES:

```
/FI,E1/
opened file E1::41:4
  FIRST LINE
/WR
posted file E1::41:4
  FIRST LINE
/WR E2
opened file E2::41:4
closed file E2::41:4
  FIRST LINE
/WC E4:YL:41
created file E4:YL:41:4:2
closed file E4:YL:41:4:2
  FIRST LINE
/WR E4
Illegal access E4::41:4          (File write protected)
  FIRST LINE                     (File E4 unchanged)
/

/WR /DIR/SUBDIR/FILE.TXT         (RTE-A only)
opened file /DIR/SUBDIR/FILE.TXT
closed file /DIR/SUBDIR/FILE.TXT
```

X (Exchange)

Exchanges all occurences of pattern specified with a substitute string
in the range specified. Range default is current pending line only.

```
+-------------------------------------------------------------------+
|                   [.][*] X /pattern/substitute/[N][Q][R][S]       |
+-------------------------------------------------------------------+
```

[.][*]   - Optional range. May be line numbers or any of the line
             specification characters. Default for first entry is the
             pending line and for the second entry is the same as
             specified for the first entry (PL only).   Space or comma
             must be used to separate numbers.

/ / /   - Delimiters for pattern/substitute. May be the current
             prompt or any other punctuation mark (except commas and
             spaces). The last delimiter may be omitted if no options
             are used.   All three are required if any option or OK?
             prompt suppression is used. The default pattern and
             substitute can be used by omitting the delimiters and
             patterns. If omitted, the last pattern specified for G,
             U, X, or Y will be used.   The default pattern can be
             checked with SH <G, U, X, or Y>; the substitute string
             will also be shown. To default the pattern but specifying
             an option, enter X,,option. If a null pattern is entered,
             the F command pattern is used.

pattern   - Pattern to be searched.   Follows the rules for pattern
             specification. If RE is turned on, the metacharacters can
             be used for unique pattern matches. If omitted, the
             pattern previously defined with G, U, X, or Y is used.
             Default can be checked with:

                    /SH <G, U, X, or Y>

substitute - The new string to replace the pattern. If omitted, the
             last one defined for G, U, X, or Y is used.

[N]   - Optional. No-window parameter. Allows match anywhere on
             a line. Default is search only within the horizontal
             window.

[Q]   - Optional display suppression.

[R]   - Optional. Removes all zero length lines.

[S]   - Optional. Single exchange parameter. Permits at most one
             exchange on a line.

INTERACTION WITH OTHER COMMANDS

The X command shares the match field and substitute string default with
the G, U, and Y commands. The default can be checked with SH followed
by any of the exchange commands, e.g., /SH X.

With regular expression on, the metacharacters may be used in the match
and substitute patterns.

The UN command can be used immediately to negate the X command.

COMMENT: EDIT will not prompt for single line (PL) exchanges. If a
             range is specified, when the lower limit is reached, the
             number of exchanges is reported along with CF or RE if they
             are on.

EXAMPLES:

      /1$ X/ADDITION/ADD//   (Replace ADDITION with ADD)

      /1$ L
         12345678901234567890123 4567890
         2222222222333333333344 44444444
         33333333334444444444 5555555555
         44444444445555555555 56666666666
      /SE WC 11 150
      /SEREON
      /1$X/^.<9>///   (Delete columns 11 thru 19)
      Window 11, 150
        00001 12345678900123 4567890
        00002 22222222223444 4444444
        00003 33333333334555 5555555
        00004 44444444445666 6666666

      Limit   4 matches CF   RE
         444444444 56666666666
      /

Y (Exchange and Search)

Exchanges pattern specified with a substitute string then finds the next occurence of pattern. The line found containing the pattern specified becomes the pending line.

```
+-------------------------------------------------------------------+
|                [.] Y /pattern/substitute/[Q][R][N][S]             |
+-------------------------------------------------------------------+
```

[.]   – Optional. May be absolute line number or any of the line
               specification characters. Default is the pending line.

/ / /   – Delimiters for pattern/substitute. May be the current
               prompt or any other punctuation mark (except commas and
               spaces). The last delimiter may be omitted if no options
               are used. All three are required if any option or OK?
               prompt suppression is used. The default pattern and
               substitute can be used by omitting the delimiters and
               patterns. If omitted, the last pattern specified for G,
               U, X, or Y will be used. The default pattern can be
               checked with SH <G, U, X, or Y>; the substitute string
               will also be shown. To default the pattern but specifying
               an option, enter Y,,option. If a null pattern is entered,
               the F command pattern is used.

pattern   – Pattern to be searched. Follows the rules for pattern
               specification. If RE is turned on, the metacharacters can
               be used for unique pattern matches. If omitted, the
               pattern previously defined with G, U, X, or Y is used.
               Default can be checked with:

               /SH <G, U, X, or Y>

substitute   – The new string to replace the pattern. If omitted, the
               last one defined for G, U, X, or Y is used.

[N]   – Optional. No-window parameter. Allows match anywhere on
               a line. Default is search only within the horizontal
               window.

[Q]   – Optional display suppression.

[R]   – Optional. Removes all zero length lines.

[S]   – Optional. Single exchange parameter. Permits at most one
               exchange on a line.

INTERACTION WITH OTHER COMMANDS:

The UN command can be used immediately to negate the Y command.

The Y command shares the match field and substitute string default with
the G, X, and U commands. The default can be checked with SH followed
by any of the exchange commands, e.g., /SH Y.

COMMENT: This command is identical to X except that it operates on
            only one line and then finds the next match.

(Sequence Numbers)

Places sequence numbers in columns 76 through 80 on all lines in the
file. A three column identifier must be specified in columns 73
through 75.

```
+-------------------------------------------------------------------+
|                          #[CCC[n1[,n2]]]                          |
+-------------------------------------------------------------------+
```

CCC   - Three-character identifier. Defaults to three blanks.
          Can be any three printing characters. Must follow #
          command immediately.

n1   - Optional starting number. Defaults to 00000.

n2   - Optional incremental value. Defaults to 10.

INTERACTION WITH OTHER COMMANDS: None

COMMENTS:

When listing a file on the terminal or the line printer, sequence
numbers may be lost due to line truncation. A window of blanks may be
deleted to show the sequence numbers. This command is useful in adding
line numbers to programs.

EXAMPLES:

```
/# JOY 1 1
/# JOY 1 1       (Space taken as ID field which has four letters)
?       ^
/#JOY1 1
OK? YES
EOF
/1$L
   XXXXX                                                      JOY00001
   XXXXX                                                      JOY00002
   XXXXX                                                      JOY00003
   XXXXX                                                      JOY00004
/
```

? (Help)

Provides a brief explanation of EDIT commands and selected items. This
command is identical to command H. Default (?) provides a summary of
the commands and special characters for line and normal pattern
specifications.

```
+-----------------------------------------------------------------+
|                          ? [command]                            |
+-----------------------------------------------------------------+
```

   This command is identical to the H command. Refer to description
   given previously for the H command.

/ (Command Stack)

Displays commands entered, allows any one to be selected and modified with the cursor, and executes it.

```
+----------------------------------------------------------------------+
|                              / [n]                                    |
+----------------------------------------------------------------------+
```

n   - Optional. Number of commands to display. Default is 20.

         The commands are listed in sequence with the cursor
         positioned at the last blank line. The cursor can be
         moved using the terminal cursor position keys to any
         command. Then the command parameters may be modified.
         Pressing <cr> will execute it. Entering <cr> immediately
         after display of the command stack will terminate this
         command and return to the EDIT prompt.

INTERACTION WITH OTHER COMMANDS:

If entered from screen mode (with cntl C), the slash only moves EDIT to
the next line. The control character commands entered while in screen
mode are not saved in the command stack.

COMMENTS: If commands are entered in one run string using command
             separators, only commands within a 79-character window
             will be saved in the command stack. The last 20 commands
             entered, including illegal ones, are saved.

             If a command matches one already in the stack, the old one
             is removed from the stack. The command stack only works
             with systems using driver DVR05. If not, then the /
             command moves EDIT to the next line.

EXAMPLE:

             //

             ---Commands---
             S
             sc
             ??
             1
             wcT::41
             wrT::41
             1s
             <cursor position here>

             EOF
             /

<space> (Append a Line)

Adds a line of text after the pending line and makes the new line the pending line.

```
+---------------------------------------------------------------------+
|                            <space>text                              |
+---------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENT: NONE

EXAMPLE:

```
/L 3
   Line one
   Line two
   line three
/ New line added
/-3L 4
   Line one
   Line two
   Line three
   New line added
/
```

___ (Repeat)

Repeats a command string or a line of text. The repeat command (_) must be at the end of the command string or line of text separated by a command separator (¦).

```
+------------------------------------------------------------------+
¦                              ¦ _<n>                              ¦
+------------------------------------------------------------------+
```

     ¦   - Command separator

     <n> - Number of repetitions required

INTERACTION WITH OTHER COMMANDS: None   (apart   from   repeating   all commands   specified   in   the   command string).

COMMENT: EDIT displays the command string or text each time and the number of repetitions remaining. Note that EDIT counts backward to zero, so the number of repetitions is one greater than the number specified.

EXAMPLES:

1. Find line with BEGIN and mark it with "a", find line with END and mark it with "b", append a block of lines into file PROC, and repeat throughout the file (by choosing a repeat count larger than the number of pairs that could possibly be found) until all BEGIN-END pairs are found and appended to PROC.

   /F/BEGIN/¦Ka¦F/END/¦Kb/¦:a :b L,,+ PROC/¦_999

   Note that if any command is not completed successfully, EDIT returns to the interactive mode.

2.   Repeat a line for use in a table.

```
/se cs !
Command separator.... CS =!
/ ¦          ¦          ¦          ¦          ¦          ¦ !_10
/_10
/ ¦          ¦          ¦          ¦          ¦          ¦
:
/_00001
/ ¦          ¦          ¦          ¦          ¦          ¦
/_00000
/
```

* (Comment)

Provides a comment line in a command file. Useful in the batch mode
operation.   All characters after this command will be ignore by EDIT.

```
+--------------------------------------------------------------------+
|                                 *                                  |
+--------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None.

COMMENT: None

AS (Abort Saving Scratch File)

Aborts the edit session without purging the scratch file.

```
+-------------------------------------------------------------------+
|                               AS                                  |
+-------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENT: The scratch file is updated so that the recovery mode may be
           used to access the data in the saved scratch file

EXAMPLES:

Kx (Mark Line)

Marks a line with a letter (a through z). EDIT uses case folding for this command, either upper or lower case can be entered. Each letter can be used only once. The last line marked will retain the line marker. Previous line marked will be cleared of the line marker.

```
+------------------------------------------------------------------+
|                            [.] Kx                                |
+------------------------------------------------------------------+
```

INTERACTION WITH OTHER COMMANDS: None

COMMENT: The line marker set by the Kx command can be used as line
            specification.

EXAMPLES:

    /15 Ka   (Go to line 15 and mark line with a.)
    /

    /F/BEGIN/|Kb   (Find line with BEGIN and mark with b.)
    /

    /:a :b K/   (Delete block of line specified by the markers.)

UY (Undo List Yank)

Recovers the lines contained in the undo list and places them after the
pending line. All or any number of lines in the undo list can be
recovered. EDIT moves to the next pending line after the UY command.
This command changes the line numbering of the file and thus may
invalidate the UN command.

```
+-------------------------------------------------------------------+
|                        [.] UY [n1] [n2]                           |
+-------------------------------------------------------------------+
```

[.]   - Specifies where the recovered lines are to be placed.
        Default is the pending line.

[n1] - The first line on the list to be recovered. Must be the
        order in the list: 1, 2 or 3 for the first, second, or third
        line from the top of the list. Default is the first line.

[n2] - The number of lines to recover. Default is to recover all
        lines from the start line specified.

INTERACTION WITH OTHER COMMANDS: UN

The UY command can be used after the C, CO, D, G, I, J, K, M, MO, O, P,
Q, R, SC, TI, U, X, or Y command.

The lines that can be recovered can be checked with the SH UN command.

COMMENT: None

EXAMPLES:

```
/SH UN               (Show undo list)
  2 Rskip 5          (2 is line  , R is cmd to undo last change.)
  4 Rskip 10
  6 Rskip 15
/$                   (Go to the last line.)
  space 5
/UY 3 1              (Replace the third line in the undo list to
EOF                   after pending line.)
/UY                  (Replace all line in the list to after the
/                     pending line.)
  skip 15
EOF
/
```

Appendix A
Loading Edit/1000

The EDIT program must be loaded on-line. EDIT should be loaded by the
system manager or a person appointed by the manager.   The following
components are required:

Module Name	Part Number	Description
%EDITA	92074-12001	EDIT program module
%EDITB	92074-12002	EDIT program module
#ED1K<X>		System load file
#ED1K4	92074-17001	RTE-IVB load file
#ED1KL	92074-17002	RTE-XL load file
#ED1K6	92074-17003	RTE-6/VM load file
#ED1KA	92074-17005	RTE-A load file
$ED1K<X>		System Library
$ED1K4	92074-12003	RTE-IVB library
$ED1KL	92074-12004	RTE-XL library
$ED1K6	92074-12005	RTE-6/VM library
$ED1KA	92074-12011	RTE-A library
"EDIT.	92074-17004	EDIT help file

Memory Requirements

EDIT requires a partition of 20 pages or larger.   A 22-page partition
usually gives adequate performance, but larger partitions improve the
performance. If the manager loads it into a partition smaller than 20
pages, EDIT issues a message that requests a larger partition and
terminates.

RTE-IVB and RTE-6/VM Loading Considerations

The system manager should load EDIT as a permanent program for
security, convenience, and better performance. The manager can load it
as a permanent program by specifying the IH option in the LOADR run
string, and the OP,PE command. EDIT must be loaded on-line; not at
generation time. A LOADR command file (called #EDIK6) and a run string
that uses the command file for loading EDIT as a permanent program are
shown below:

```
*LOADR command file #EDIK6
OP,PE
OP,LB
SZ,24
LIB,$ED1K4    (Loading EDIT into RTE-IVB)
RE,%$SCRN     (Using $SCRN to specify scratch file disc)
RE,%EDITA
RE,%EDITB

:RU,LOADR:IH,#ED1K6,,,PE   (Uses command file #EDIK6)
```

The system manager should load EDIT shortly after bootup. Doing so
prevents EDIT from being loaded in the middle of the RTE system tracks,
possibly minimizing the number of contiguous tracks available.

EDIT has five segments, EDIT0 through EDIT4. If EDIT is <u>not</u> loaded as
a permanent program, the system manager must also load the RTE utility
program T5IDM. T5IDM manages ID segments; refer to the RTE System
Manager's Reference Manual if you need to know more about T5IDM.

If you want to load EDIT as a temporary program, you must execute the
FMGR command SP for all five segments as well as the main. If T5IDM is
not loaded, you must RP all of the EDIT segments before running EDIT.

Under RTE-6/VM, EDIT can be loaded by LINK, which merges all of its
segments into one type 6 file. This eliminates the need to load the
T5IDM utility or to execute the RP command to restore the ID segments.
If EDIT is loaded by LINK, though, it cannot be loaded as a permanent
program.

RTE-XL and RTE-A Loading Considerations

Under RTE-XL and RTE-A, all programs are type 6 files and all segments
are already merged into the type 6 file. Therefore, there is no need
to load T5IDM or execute the RP command to restore the ID segments.

Help File

The file "EDIT. contains all of the text for the EDIT help commands. This file must be accessible to EDIT, or the help command does not work.

On RTE-A, the user can move the file "EDIT. to the global SYSTEM directory under the name EDIT.HLP::SYSTEM. When a help command is executed, EDIT searches the SYSTEM directory for EDIT.HLP. If EDIT does not find it, it searches the FMGR cartridges for the file "EDIT. and uses that file instead.

Work File

EDIT creates a type 1 file called the work file (sometimes called the scratch file) when you run it. If a source file is specified, it is copied into this file. It is the work file, not the source file, that you modify during an EDIT session. The type 1 work file is written to the source file or another file by the EC, ER, WC, or WR commands. The name of the work file depends on the operating system under which you are running EDIT.

Under any operating system, the scratch file cartridge can be specified in the EDIT run string by specifying the -S option. An existing work file can be specified for recover with the -R run string option.

RTE-IVB, RTE-XL

Under RTE-IVB or RTE-XL, the work file namr takes this form:

    EDIxx+:0:crn:1:size

   where:

      EDIxx - The FMGR clone name of the EDIT session. Under RTE-IVB,
              xx is usually the session LU. If the clone name contains
              fewer than 5 characters, as in "EDIT", one or more
              asterisks are added to pad the name. A plus (+) is added
              as the sixth character of the work file name to identify
              it as the work file.

crn - obtained by EDIT from the entry point $SCRN, which is
      initially zero to default to the first cartridge in the
      cartridge list. To change the default, write a small code
      module to set $SCRN and designate a scratch cartridge:

```
          ASMB,L
                  NAM $SCRN
                  ENT $SCRN
          $SCRN ASC 1,SC      DEFAULT TO CRN 'SC'
                  END
```

This module must be relocated before %EDITA when EDIT is
loaded. Neither LU 2 nor 3 (system cartridges) should be
designated as the scratch cartridge because EDIT does not
have write access to them.

size - usually 100 blocks, depending on the amount of space
       available on the scratch cartridge. The work file is
       automatically extended if more room is needed.

Examples:

```
          EDI32+:0:SC:1:100
          EDIT*+:0:QQ:1:100
```

RTE-6/VM

Under RTE-6/VM, the work file takes one of the following three forms;
the first is the CI file system format, the second is the single-CPU
FMGR file system format, and the third is the multiple-CPU FMGR file
system format:

```
      EDIxx+0000000000.EDIT::SCRATCH:1:size
            -OR-
      EDIxx+:0:crn:1:size
            -OR-
      EyIxx+:0:crn:1:size
```

where:

EDIxx - same as under RTE-IVB and RTE-XL.

EyIxx - same as EDIxx, except that the y is replaced by the
        number of the CPU in the multiple-CPU system on which
        the EDIT session is running.

SCRATCH - the SCRATCH directory, if it exists; otherwise, crn is
          used.

crn - If SCRATCH does not exist, EDIT puts the work file on
the FMGR scratch cartridge specified in $SCRN. The
default value of $SCRN is 0, (default to top cartridge
in crn list). $SCRN can be changed by the FMGR VL
command (refer to the RTE-6/VM Terminal User's Guide).
Do not designate LU 2 or LU 3 to be the scratch
cartridge; EDIT does not have write access to them.
Unlike RTE-IVB and RTE-XL, you cannot create a module to
change $SCRN; EDIT looks only in the system map.

size - usually 512 blocks, depending upon the amount of space
available in the SCRATCH directory or the top cartridge.
The work file is automatically extended if more room is
needed.

RTE-A

```
Ennnx+0000000000.EDIT::SCRATCH:1:size
       -OR-
Ennnx+:0:crn:1:size
```

where:

Ennnx - file name constructed as follows: The clone name under
RTE-A is usually "EDIT". The session ID number replaces
characters 2-4, filling from the right: a single-digit
ID number replaces only character 4, a two-digit number
replaces characters 3 and 4, and a three-digit ID number
replaces characters 2-4. If the clone name contains
fewer than five characters (as in "EDIT"), the fifth
character in Ennnx is replaced with an asterisk.

For example, EDIT in session 32 creates the following
work file:

```
ED32*+0000000000.EDIT::SCRATCH:1:512
```

EDIT in session 178 creates:

```
E178*+0000000000.EDIT::SCRATCH:1:512
```

SCRATCH - the scratch cartridge, if it exists or can be created.
If it does not exist and cannot be created, EDIT places
the work file on the top FMGR cartridge in the cartridge
list.

crn - If EDIT cannot find or create a global directory
SCRATCH, it creates the work file on the top FMGR
cartridge.

Update 4

size – usually 512 blocks, depending on the amount of space available in the SCRATCH directory or the top FMGR cartridge. The work file is automatically extended if more room is needed.

Appendix B
EDIT/1000 In Multipoint Environment

Introduction

In a multipoint environment, several considerations apply to EDIT operations. A terminal is defined to be in a multipoint environment if its I/O is being processed through driver DVR07. To determine if a terminal is operating under multipoint, observe the transmit break light on the terminal. If it is blinking intermittently, the terminal is probably a multipoint terminal.

When the EDIT is invoked from a multipoint terminal, several actions are performed for the user. The intrinsic tab function of the terminal is enabled (the editor's tab character (cntl I) remains on). The INSERT CHAR, DELETE CHAR, and CLEAR DISPLAY keys on the terminal are enabled for use as editing functions. (Note that the EDIT commands to insert and delete lines should be used, not the INSERT LINE and DELETE LINE keys on the terminal.) Finally, since the CONTROL and ESCAPE keys do not work in a multipoint environment, the Q and O commands rather than the edit commands explained in the preceding sections of this manual should be used to perform character edits.

It should be remembered that in a multipoint environment the ENTER key, and not the carriage return, is the key used to transmit text to the multipoint controller. Furthermore, the characters that the EDIT will process are usually delimited by the left margin on the left and the current cursor position on the right. Paying attention to these obsevations will help greatly.

In the multipoint environment, screen mode and the command stack features are not available. The slash (/) moves EDIT to the next line. All of the other EDIT commands may be used in a multipoint environment.

Q and O Commands

The Q and O commands are used for character edits in a multipoint environment. Both commands are used to edit the pending line. The only difference between them is that the O command immediately sends a copy of the pending line to the destination work area while the Q command does not. Although only the Q command is discussed throughout the rest of this section, the discussion applies to the O command as well.

When the Q command is entered, the pending line is displayed along with the delimiter (GS) to the left of the line. The delimiter is not part of the text string and must be preserved to assure proper operation. EDIT will position the cursor underneath the first character of the line. You may now edit the line using any of the following procedures.

To retain the pending line as it is, immediately hit the ENTER key. For example:

```
/Q
   ABCDEFGHIJKL-----Cursor displayed under first character in
   -                line.  Press the ENTER key and line is
                    retained as is.

/P
   ABCDEFGHIJKL------Line displayed remains the same.

/
```

To truncate characters from the end of a line, position the cursor immediately after the last character to be retained. Strike the ENTER key to enter all the characters between the left margin and the current cursor position. The intrinsic terminal key CLEAR DISPLAY can also be used to delete characters at the end of a line. After using the CLEAR DISPLAY key, the ENTER key is used to enter the edited line. For example:

```
/Q
   ABCDEFGHIJKL------Position cursor under I, press ENTER key.
            -
   ABCDEFGH----------Edited line is displayed.

/Q
   ABCDEFGH----------Position cursor under F, press CLEAR
         -                 DISPLAY, then ENTER.

   ABCDE------------Edited line is displayed.
/
```

To add characters in the middle of a line, the INSERT CHAR key may
be used. Press the INSERT CHAR key.   The red light above the key
should come on.   Move the cursor to the position where the
characters are to be added, and type in the new characters.
Finally, position the cursor at the end of the line and hit the
ENTER key., The insert light will go off and the edited line will
remain as the pending line. For example:

```
/Q
   ABCDEFGHIJKL------Position cursor underneath F, depress the
         -                 INSERT CHAR key, and type in the new
                           characters "123".  Position cursor at end
                           of line and press ENTER.

   ABCDEF123GHIJKL---Edited line is displayed.
/
```

To delete one or more characters, position the cursor under each
character to be deleted and press the DELETE CHAR key.   The
character will be deleted from the display and the rest of the line
will be shifted left to fill in the gap. After all of the desired
deletions have been made, move the cursor to the end of the line and
press the ENTER key. Do not delete the delimiter at the beginning
of the line. For example:

```
/Q
   ABCDEFGHIJKL------Position cursor under the G, press the
         -                 DELETE CHAR key three times, move the
                           cursor to the end of the line and press
                           ENTER.

   ABCDEFJKL--------Edited line is displayed.
/
```

Tab Control in Multipoint Environment

When the EDIT is invoked in a multipoint environment, the TAB key on
the terminal is enabled (the EDIT tab character remains on). The
tab stops are initially set to columns 7 and 21. These may be
changed using the SET TAB and CLEAR TAB keys on the terminal. The
TAB key may be used to position the cursor at any time. It is
equivalent to moving the cursor using the terminal keys with arrows
on them.

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EDIT/1000
User's Guide

92074-90001   **June 1983**

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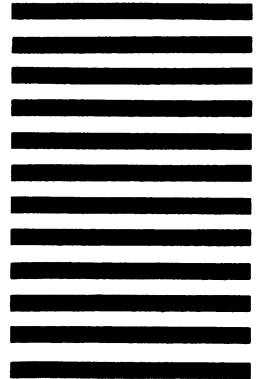
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