

Chapter Five

USING THE EVE AND AMS EDITORS

Introduction

One of the more common tasks for a user of computers is the creation and maintenance of text files. These text files may take the form of program code, program data, memos, reports, or other documents serving many different purposes.

The OpenVMS operating system provides a number of ways to create, maintain, and modify text files. To create a file, you can use:

- A text editor
- The CREATE command
- The /OUTPUT qualifier to many DCL commands

This lesson discusses the use of the OpenVMS-provided editor (Extensible Versatile Editor - EVE), and the PFPC extensions to this editor, called AMS. OpenVMS also supports an older editor, EDT, that is still commonly used by veteran OpenVMS users. Although there are still some SuRPAS developers using EDT, this lesson concentrates on the features and capabilities of EVE and AMS.

Objectives

To create source code files, memos, reports, and data files, a user should be able to use EVE and AMS to perform the following tasks:

- Perform basic EVE operations, such as invoking the EVE editor, entering EVE commands, and moving the cursor
- Use the EVE / AMS defined keypad functions
- Create and modify text files with EVE
- Request help while in an EVE editing session
- Use some of the advanced features of EVE such as including a file in a document, executing DCL commands from the EVE command line, and defining keys
- Save an edited file
- Use AMS macros to make editing more efficient in the SuRPAS environment

Introduction to EDT - the DEC Standard Editor

Overview

EDT is an interactive, general purpose text editor. It offers two modes of operation:

- Line mode editing, in which operations are performed on single lines of text
- Character mode editing (also called change mode editing), in which operations are performed on characters and words as well as on lines

Line editing, with its English-like commands, is easy for the inexperienced user to learn. Character editing is also very straightforward, though it requires some practice.

To learn more about the EDT editor, contact your SA or a technical trainer.

Performing Basic EVE Operations

Overview

EVE is a general-purpose text processor. It is more than a text editor and less than a word processing system. The word “Extensible” means that EVE can be customized by creating specially-written functions or “macros.” The version of EVE used by the SuRPAS Manufacturing group has been extended through the addition of many macros that support the SuRPAS development environment and simplify what might otherwise be, complex tasks. Annette M. Swank created most of these extensions, so the version of EVE used by the SuRPAS Manufacturing group is commonly known as the “AMS editor.”

This section discusses:

- Invoking EVE
- Entering EVE commands
- Moving the cursor

The EVE Screen Layout

The following illustration shows the layout of the EVE screen editor on your terminal. Your text file is displayed on the top portion of the screen. EVE reports status, accepts input commands from the user, and delivers messages on the bottom portion of the screen.

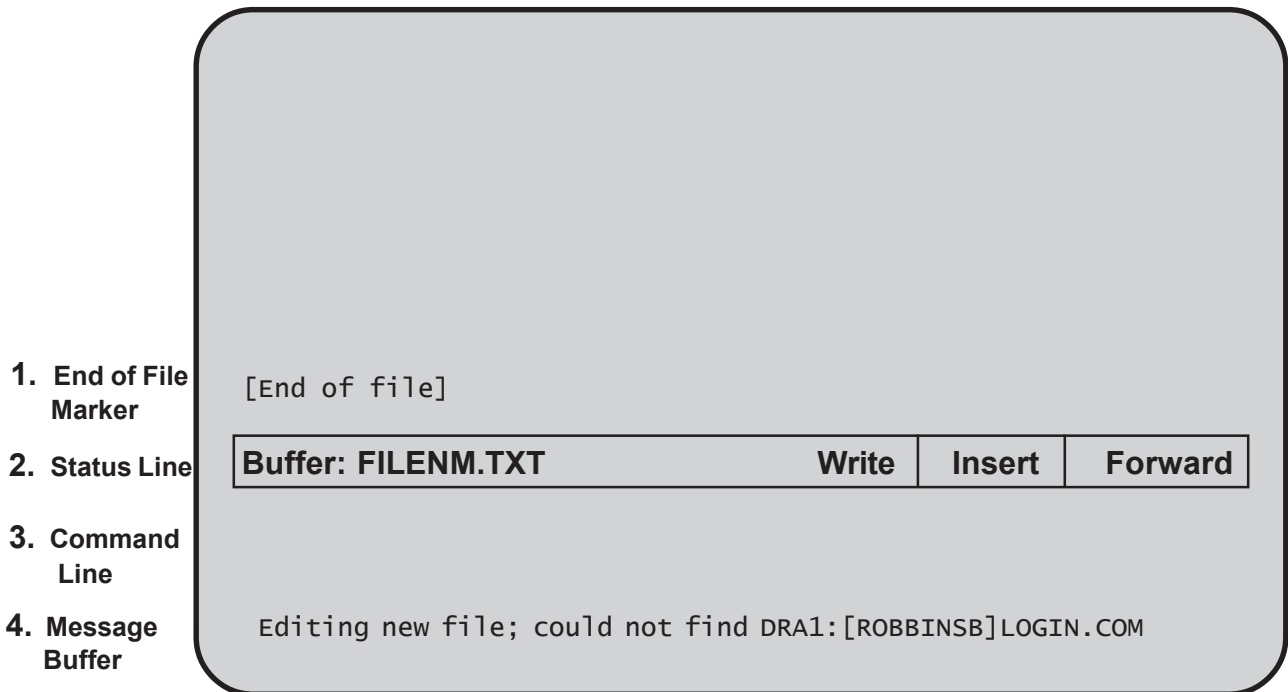


Figure 5-1 - EVE Screen Layout

Notes: EVE Screen Layout

1. The [End of file] marker indicates the end of the text file.
2. The status line shows:



- The name of the buffer you are currently editing
- The input type
- The mode for entering text
- The direction of the cursor

In this example, the name of the buffer that is currently being edited is **FILENM.TXT**, the input type is **Write**, the mode for entering text is **Insert**, and the direction of the cursor is **Forward**.

3. The command line is used to enter line-mode commands. To enter line-mode commands, press the **[Do]** key, and the **Command:** prompt will be displayed.
4. The message buffer stores messages received during the editing session.

Entering EVE commands

If you do not come from an OpenVMS/Digital environment, it may take a while to get used to the EVE editor. There are two ways to enter EVE commands:

- Press predefined editing keys
- Type the commands themselves

Predefined Keys

EVE's functions and keyboard mappings conform to the old Digital (now Compaq) Terminal layout, rather than to the standard IBM/PC layout. The KEA! terminal emulator maps certain of the keys to the PC keyboard, while the AMS extensions further change the key assignments. EVE defines some editing keys by default.

- The predefined editing keys include the numeric keypad keys, certain function keys and control key sequences, and the arrow keys.
- On PC workstations with the KEA!Term emulator installed, the predefined keys map to the emulated keys defined by the KEA!Term software.
- Each predefined editing key performs one editing command.

When mapping these keys to the PC keyboard using KEA!, be aware of the following:

- F1 through F4 are at the top of the numeric keypad, not next to the ESC key.
- Home, End, and Delete Character are also on the numeric keypad, not above the cursor keys.
- Insert and Delete on the minipad above the cursor keys act on the current EVE selection.
- Home and End on the minipad are really Find and Select.
- Page Up and Page Down really are what they say.
- Many ctrl-key sequences are also mapped to EDT functions. Among the more annoying, CTRL/C is mapped to "terminate current operation," not Copy Text!

Special Keys

The GOLD key (F1, Num Lock on the PC numeric keypad) acts as a “state” key, somewhat like the function key on a pocket calculator. That is, pressing and releasing the Gold key alters the action of the key that is pressed next. For example, the Down Arrow key normally moves the cursor down one line. If you first press and release the Gold key and then press the Down Arrow key, EVE moves to the end of the file. Note that you must release the Gold key before pressing the key with the function to be modified. This differs from the Shift, Ctrl, or Alt keys, which must be held down while you press the next key.

The DO key (Ctrl-F6, but usually mapped to Scroll Lock) is a special-purpose key. It has two functions. The first is to provide a way to enter commands manually. These can be EVE commands, which are not available through key combinations, or DCL commands. The other use is to select an entry from the \$CHOICE buffer, which provides access to numerous editing windows. The DO key is further discussed later in this chapter.

Keyboard Layout

Figure 5-2 shows the mapping of the function keys on the top row of the PC keyboard. Unmodified key actions are shown in **standard font**. GOLD-key actions are shown in *italic font*.



Figure 5-2 - EVE Function Definitions

The diagram below shows the mapping of the center keys or mini-keypad on the PC keyboard. These are located between the main typing keys and the numeric keypad.

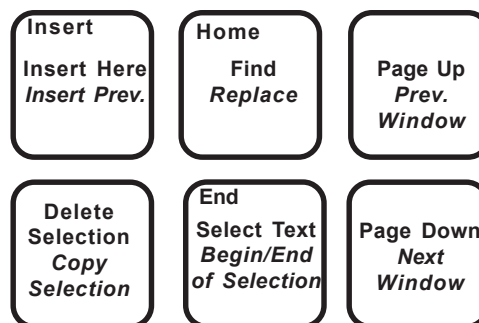


Figure 5-3 - EVE Mini-keypad Definitions

This diagram shows the mapping of the center arrow keys on the PC keyboard. These are located between the main typing keys and the keypad.

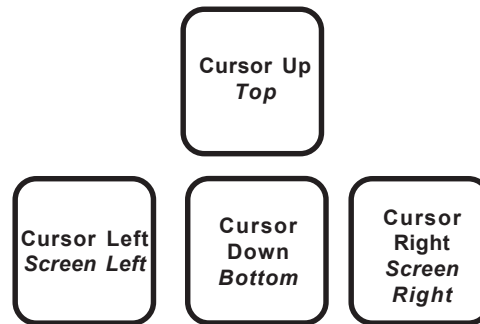


Figure 5-4 - EVE Center Arrow Key Definitions

This diagram shows the mapping of the keypad keys on the PC keyboard.

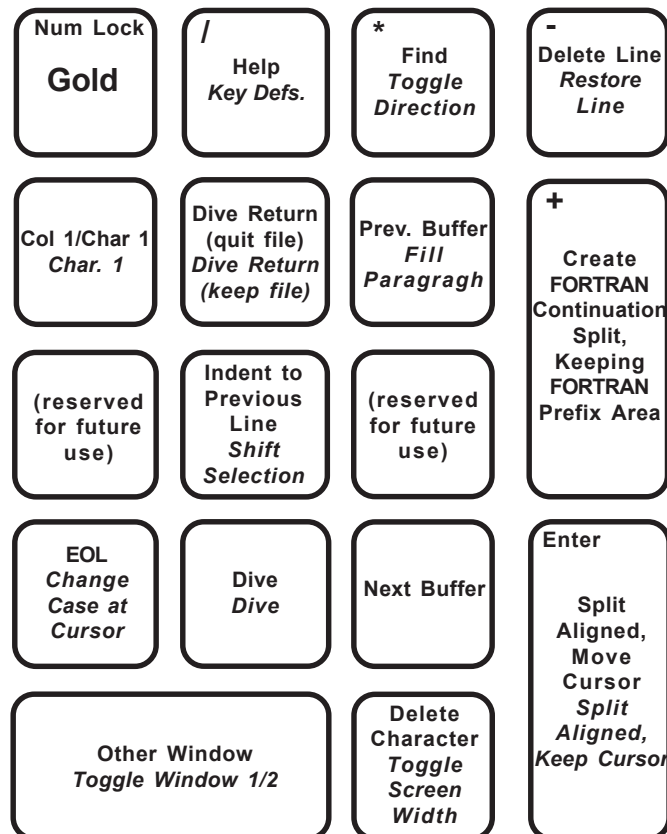


Figure 5-5 - EVE Numeric Keypad Definitions

Invoking EVE

EDIT/TPU Command

Use the EDIT/TPU command to invoke EVE. Note that this syntax is the standard OpenVMS syntax for accessing this editor.

```
$ EDIT/TPU filename filetype
```

At PFPC your login command file (LOGIN.COM) includes the following definition:

```
$ EVE := EDIT/TPU
```

This shortcut simplifies access, and allows you to invoke EVE using the following syntax:

```
$ EVE filename filetype
```

Note that if the filename supplied does not exist, EVE will create a new empty file for you automatically.

Editing a New File

There are two ways to create a new file using EVE.

1. Enter the file name when invoking EVE. The editor will create a new file when the file specification is not found in your default or specified directory. The following is an example of invoking EVE to edit a file named WISHLIST.TXT:

```
$ EVE WISHLIST.TXT
```

2. Leave the file name blank when invoking the EVE editor. When you attempt to exit the EVE editing session, EVE will prompt you to enter a file name, as seen in the following example:

```
$ EVE
```

```
•  
•  
•
```

```
Type filename for buffer MAIN...
```

Editing an Existing File

There are two ways to edit an existing file:

1. Supply the name of the file on the command line. Note that this syntax is the same as that of creating a new file. In this case EVE will find the existing file in your directory and edit it instead of creating a new file. As you can see, the example below is the same as the example for editing a new file.

```
$ EVE WISHLIST.TXT
```

2. Leave the file name blank on the command line and use the EVE INCLUDE command to include the file.

- **Do**
- **Command: INCLUDE WISHLIST.TXT**

When you exit the editor, you will be prompted for a file name.

Type filename for buffer MAIN (press return to not write it):

Modifying LOGIN.COM

Your LOGIN.COM command file will require a number of modifications in order for the EVE editor to function correctly with the AMS extensions. In most cases you will receive a LOGIN.COM file with these settings already included. If not, make the appropriate changes defined in the following paragraph and test the LOGIN.COM file to be assured that it correctly supports EVE and AMS.

The following command lines must appear, exactly as shown, in your LOGIN.COM file:

```
$ DEFINE TPU$SECTION FAL$COMMON:AM$EDIT.INI
$ DEFINE TPU$COMMAND DEV$DISK:[DFS]AM$CFGFAL/TPU
```

Also, you may want to set a search directory list to help EVE find files whose directories aren't explicitly specified. You can customize this list to suit your own development needs:

```
$DEFINE TPU$AM_SEARCH_DIR [], FAL$SUB:,-
_$ FAL$MAIN:,FAL$SCR: (,..., etc.)
```

Typing EVE Commands

In addition to using defined keys to enter EVE commands, you can type out the commands. This involves three steps:

1. Press the **[Do]** key (Scroll Lock). The cursor will move to the command line window.
2. At the **Command:** prompt, type the command you want to execute.
3. Press either the **[Do]** key or the **[Return]** key. EVE will execute the command and prompt you for more information.

An EVE command can be abbreviated as long as the abbreviation is unique.

Practice Editing a Text File

It is time to try EVE for yourself.

1. At your terminal, issue the appropriate DCL command to open an existing file in your default user directory . If you are not currently in your default directory, issue the SET DEFAULT command to get you to the right location.
2. When issuing the EVE command, tell EVE to open a file named LOGIN.COM.
3. Look at the EVE screen and familiarize yourself with its components.
4. The instructor will provide you with modifications to make to your file.
5. When you have completed the modifications, press the **[DO]** key to display the command prompt and issue a the SAVE FILE command.
6. Exit the EVE editor by pressing the **[F10]** key.

Moving The Cursor

EVE offers two ways to move the cursor around a text file:

- Cursor movement keys
- Cursor movement commands

Cursor Movement Keys

Use the following key or key combinations to move the cursor.

To move the cursor...	Use this key:
Up one line	Up Arrow
Down one line	Down Arrow
One character to the left	Left Arrow
One character to the right	Right Arrow
End of the current line	Ctrl/E
Beginning of the current line	Ctrl/H
Previous screen of the current buffer	Prev Screen
Next screen of the current buffer	Next Screen

Cursor Movement Commands

To enter any of the following commands, press the **[Do]** key, type the command, and press the **[Return]** key.

To move the cursor...	Enter this command:
To the bottom of the file	BOTTOM
To the top of the file	TOP
One word in the current direction	MOVE BY WORD
One page in the current direction	MOVE BY PAGE
To the beginning of the line # specified	LINE n (where n is a line number)

To request the number of the current line, enter the WHAT LINE or WHERE command.

Creating and Modifying an EVE Text File

Overview

To create and modify text files, you must be able to insert, change, and delete text in a new or existing file. EVE tends to be less line-oriented than editors such as ISPF or XEDIT. Text is treated as a stream which extends from one line to the next, as it does in Notepad or any standard PC word processor. There are no line numbers or column numbers in the display, although the WHERE command will show the current cursor position and file size. Except in certain fixed-size files, lines terminate on the last character that was typed rather than at a specific column number. Also, SuRPAS practices make heavy use of tab characters so that a stretch of apparently blank text may actually contain hidden tabs.

Entering Text

Inserting Text

You can insert sections of text, entire files, and control characters into the buffer you are currently editing.

You can add entire files to the file you are editing by pressing the **[Do]** key and entering the EVE command:

```
INCLUDE FILE filename.filetype
```

If you erase text by mistake, you can often restore the most recently erased text.

General Text Entry Pattern

Follow this pattern to enter text into your file:

- Position the cursor in the work area where you wish text to appear.
- Type your text characters on the keyboard.
- The cursor marks the current insertion point of your text characters.

Use the Delete key to erase mistakes.

Two Modes of Text Entry

There are two modes of text entry in EVE: **Insert** and **Overstrike**.

Insert

- This is the default setting.
- Each character you type is inserted to the left of the insertion point.
- Existing text is pushed to the right.

Overstrike

- Each character you type replaces existing text.

Press the **[F14]** function key or the **[Ctrl/A]** key to switch from one mode to the other.

Selecting Text

Highlighting a section of text that will be manipulated is managed by the use of the Select key and the Insert key.

The Select Key

The Select Key (mapped to the End key on the center minipad) is used to create a text snippet which can be cut or copied, and if desired, pasted anywhere on the current file or in any other file in your current EVE session. The selection is a stream selection; that is, it extends from the starting cursor position to the ending position, rather than the beginning of the starting line to the end of the last line selected.

The Insert Key

The Insert key inserts the cut or copied text at the current edit point. Using the mouse copies the mouse-selected text to the Windows clipboard. You can paste the text anywhere, including other EVE sessions. Be careful! The mouse is a KEA! function, not an EVE function. Depending on the version of KEA! that you have, you may not be able to use the mouse to delete or move text from your EVE file, but only to copy text.

Replacing Text

The FIND and REPLACE commands allow you to find specified strings of text in your EVE session and replace them with alternative strings.

The FIND Command

The Find key (Home key on the mini-keypad) is used to highlight a specified target text string. The current text string is the default if not specified. The up and down arrow keys allow you to cycle through a list of previously-entered target strings. FIND normally moves forward (toward the end-of-file marker) through the current buffer. Pressing the **[F3]** key (the asterisk key on the numeric keypad) re-invokes FIND for the current target. Pressing the **[GOLD] + [F3]** keys reverses the FIND direction so you can search backwards (toward the beginning of the file).

The REPLACE Command

Use the REPLACE command to replace one text string with another. When you press the **[Replace]** key (Gold + HOME) you are prompted for the target string and its replacement string. If you have a selection active, REPLACE operates only within that selection. Otherwise you are prompted for individual or global replacement. When the operation is complete, EVE will display a message indicating the number of replacements that have been made.

Replacement Options

EVE gives you four options for the replacement operation.

Give this response...	To cause EVE to take this action:
YES	Replace the string, and attempt to locate another occurrence of the string in the current direction.
NO	Do not replace the string, and attempt to locate another occurrence of the string in the current direction.
ALL	Replace the string and all other occurrences of the string in the current direction. The cursor is moved to the position where the last replacement occurred.
QUIT	Do not replace this occurrence of the string, and stop the REPLACE procedure. The cursor does not move.

Requesting Help with EVE

Overview

EVE has an extensive online Help facility and the OpenVMS documentation provides a manual on the editor for desktop reference.

EVE provides online help for:

- Menu items
- Commands
- Keypad functions

This section discusses EVE online help.

How to Request Help

To request help, press the **[Do]** key, type HELP, and press the **[Return]** key. A list of topics will be displayed.

To request help on a specific topic, press the **[Do]** key, type HELP followed by the *topic-name*, and press the **[Return]** key.

To see a listing of all help topics, type a question mark (?).

To exit from Help, press the **[Return]** key.

Kinds of Help Topics

You can get help about the EVE keypad by pressing the **[Help]** key.

EVE has four types of help topics.

This type of topic	Explains
Command	EVE Commands
Keypad	EDT or WPS keys that are defined as special procedures other than EVE commands
Informational	Areas of operation, features of the editor, or other concepts
TPU	DECTPU built-in procedures and other topics

Using Some Advanced Features of EVE

Overview

EVE provides many advanced features for users who wish to customize their editing environment or who wish to facilitate editing by defining multiple keystroke activities into a single key.

This section discusses:

- Consolidating several files into a single file
- Executing DCL commands from EVE

Consolidating Several Files Into A Single File

You can add the contents of an existing file to the file on which you are currently working.

You can include only one file at a time.

You can use wildcards in the file specification. If more than one file matches your request, EVE shows a list of the matching files and recalls the INCLUDE FILE command so you can choose the one you want. You may choose to accept multiple files. In this case, each file included will be placed in a different \$CHOICE buffer.

The INCLUDE FILE Command

Use the INCLUDE FILE command to insert another file into the file you are editing.

1. Position the cursor where you want to insert the file.
2. Press the **[Do]** key.
3. Type **INCLUDE FILE *file-spec.***
4. Press the **[Return]** key.

The following command includes a file called BOBS_WISHLIST.TXT in the current buffer:

Command: INCLUDE FILE BOBS_WISHLIST.TXT

Multiple File Editing

Each file (or in some cases, each piece of a file) in your EVE session is called a buffer. You can edit multiple buffers in a single session, allowing you to modify more than one file at once, including transferring text from one buffer to another.

OPEN a File

To manually bring a new file into your EVE session:

1. Use the **DO** key to open a command window.
2. Then type **OPEN <file-specification>** (including the path, if necessary).

EVE will create a new buffer in addition to any that are already open. Use the keypad 3 (Next Buffer) and 9 (Previous Buffer) keys to move forward and backward through the “ring” of buffers in your EVE session.

Using the DIR Command

Another method of inserting files into your EVE session is through the use of the DIRECTORY command.

1. Use the **DO** key to open the command window.
2. Then type **DIR** followed by an optional **<file-specification>**.

EVE will create a buffer listing of all files matching the specification. Put the cursor anywhere on the name of a file and press the keypad 2 key (Dive) to edit the file. Use one of the keypad 8 key (Dive Return) choices (quit or keep file) to complete the Dive.

Wildcard GET Command

You can specify a group of files whose names match a particular pattern.

1. Press the **DO** key to open the command window.
2. Then type **GET WILDCARD FILE** (can be abbreviated to **GET W F**).
3. EVE will prompt you with the message: “File to get: “.

If you then type a pattern containing the wildcard characters “*” and/or “%,” EVE will create buffers for any and all files with names matching the specified pattern. Of course you will need to be careful not to use too general a pattern; for example, it would be unwise to type “**FAL\$SUB:*.FOR**”!

The DIVE Function

The use of DIR is a special case of the DIVE extension to EVE. DIVE permits you to use the cursor and the keypad 2 key (Dive) to select certain files for editing, rather than having to type their names explicitly. EVE, in effect, “dives” from the current file into the new file. The keypad 2 key DIVEs into a file when you position the cursor:

- On a file name in the **DIR** display (as in the above section)
- In a file name in an **INCLUDE** statement in a FORTRAN program
- On a subroutine or function name in a **CALL** statement in a program

DIVE keeps track of where you were when you “dove.” Press the keypad 8 key (Dive Return, quit file) to exit the new file, or Gold + the keypad 8 key (Dive Return, keep file open) to simply return to the previous file while keeping the new file open in your EVE session.



Be careful!! EVE’s buffers are identified only by the file name and extension, not by the directory or version number. You can’t simultaneously edit two different copies of the same file. EVE will request that you supply a different name for the second file before you are allowed to bring it into your session.

Practice Inserting Text

Now it is time to begin building two WISHLIST.TXT files. Open the EVE editor.

- In the initial editing buffer insert a list of the top ten decadent items you *hope* to accumulate over the next year. Don’t hold back; remember to include that car, new appliance you’ve always wanted, or maybe it’s a high tech item, or an addition to your entertainment system. We wouldn’t want to forget the sports and vacation related items. Only the top ten, though - no ties allowed!
- Now change your buffer to the next buffer in the ring and insert a second list to include items you will *need* to accumulate over the next three months. These aren’t luxuries; they are necessities in order to keep your job here at PFPC - another suit to impress the boss (sorry, make that khakis and blue jeans), a car that gets you here on time every day, or that laptop you’ll need when you take work home. . .
- No fair putting the same items on both lists! If you have included any items on both lists, use the overstrike capability and replace the duplicates with others.

Executing DCL Commands From EVE

While editing a file, you may want to execute a DCL command. For example, you may need to see a directory of your files or display your current default. You can do this without exiting from EVE.

Entering a DCL Command from the EVE Command Line

Press the **[Do]** key and type **DCL** followed by the DCL command you wish to execute. You will see the following on the screen:

Command: DCL DIRECTORY *.COM

- The following message will then be displayed on your screen:
Creating a DCL subprocess
- Any output from the DCL command will be shown in the lower portion of your screen.
- To remove this display from your screen, press the **[Do]** key and type **ONE WINDOW**.
- When you exit from the editor, you will see another message, indicating that the subprocess created to carry out the DCL command has been terminated.

Terminating DCL subprocess

Caution About the DCL Command

Do not use the EVE command DCL to execute a command that invokes another application (such as MAIL) or performs screen management, which would interfere with EVE.

Instead use the SPAWN command

Command: SPAWN MAIL

To return to your editing session from the spawned session, exit from the application you spawned:

MAIL > EXIT

Compiling FORTRAN Code

The **Gold** + **F11** keys let you compile and correct FORTRAN (.FOR) files interactively while remaining in the EVE editor. You do not have to save your file, exit EVE and issue the compile command from the DCL prompt.

If your compilation is successful, the following message will display at the bottom of the screen:

“No errors in <file-specification>.FOR”

Otherwise, the first error message will be displayed and the cursor will be positioned as close to the error as possible. Pressing the **Ctrl/E** key combination will step you through any other errors, one at a time, and you can correct each as you go along.

Learn Mode

EVE can record and play back a series of keystrokes. This can help automate a sequence of commands which you need to execute repetitively on a temporary basis. Pressing the **Gold** + **F12** keys starts “learn mode.” All keys pressed after this are recorded in a temporary keystroke macro until you press the **Gold** + **F12** key combination a second time. Pressing **F12** (without preceding it with the **Gold** key) then plays back the recorded keystrokes as if you were typing them. For example, if you need to locate and delete all of the lines containing the name “Fred,” you would do the following:

1. Press the **Gold** + **F12** keys to start Learn Mode
2. Press the **FIND** key (Home key, above the cursor arrow keys)
3. Type the target “Fred” at the prompt and press **Enter**
4. Press the **F4** key (numeric keypad minus key) to delete the line
5. Press the **Gold** + **F12** keys to end Learn Mode

If you now press **F12**, steps 2, 3, and 4 will be invoked automatically. Repeatedly pressing **F12** will delete all lines containing the target “Fred,” one at a time.

The Repeat Argument


Pressing the **Gold** key followed by a number, stores a special argument which is used by many AMS Editor commands. For many commands, this argument serves as a repeat count; that is, the next command is invoked as many times as was specified by the **Gold** <number> sequence. For example, if you press the **Gold** key followed by the number 5, then **Gold**= (duplicate current line), the current line will be duplicated 5 times. A special case involves single-character keystrokes; the character will be typed as many times as specified by the **Gold** argument. Thus, to enter a line of 80 X's, press **Gold**, then 80, then “X.”

Some Handy Keys

The following is a list of other handy keys and key combinations that will help you to use EVE more efficiently and productively.

- Ctrl-a Toggle insert/overstrike mode
 - **Ctrl-g** **Terminate pending command without executing it**
 - Gold-q Exit the current buffer (file) without disturbing any other open buffers
 - **Ctrl-u** **Erase text from the cursor to the start of the current line**
 - Ctrl-k Erase text from the cursor to the end of the current line
 - **Gold-F7** **Display a list of open buffers**
 - Gold-= Duplicate the line at the cursor
 - **Gold-l** **Lowercase the word at the cursor**
 - Gold-u Uppercase the word at the cursor
 - **Gold-c** **Capitalize the word at the cursor**
-
- Gold-<right-arrow> Shift the screen right by 60 characters
 - **Gold-<left-arrow>** **Shift the screen left by 60 characters**
 - Gold-<up-arrow> Move to the top of the buffer
 - **Gold-<down-arrow>** **Move to the bottom of the buffer**

Command Line Commands

There are a number of AMS extensions and a large set of native EVE commands that can only be invoked from the command window when opened by pressing the  key. Most of these are special-purpose commands used for program development or advanced text editing. Some of the AMS commands are listed in the last section of this chapter (Advanced DO Key Functionality). Others are documented in this chapter or in the EVE online documentation. Many of the EVE commands are already available as AMS extensions invoked by a key combination, so there is usually little need to become familiar with the EVE syntax.

Saving an Edited File

Overview

EVE produces a new version of your edited file when you end a session with the EXIT command, and discards your edits when you end a session with the QUIT command. Any previously existing versions of the files remain unchanged regardless of how the editing session is ended.

EVE has many features that allow the user to be flexible in saving copies of an edited file while providing maximum security against loss of data due to editor error or OpenVMS system interruptions.

This section discusses:

- Ending a session
- Saving a file without ending your editing session
- File recovery

Ending A Session

There are two ways to end an EVE editing session:

- Quit to disregard your modifications
- Exit to write your modifications to the file

Quitting a Session

To quit without saving the modifications:

- Press the **Do** key
- Type QUIT at the **Command:** prompt.
- Your file will NOT be saved.

Exiting From A Session

To exit and save the modifications, do one of the following:

- Press the **Ctrl/Z** key.
- Press the **Do** key and type EXIT at the **Command:** prompt.
- Press the **F10** function key.
- Your file WILL be saved.

Note: The gold-Q key combination will quit the current file while leaving all others active.

Saving A File Without Ending Your Session

Occasionally, you may wish to save a file without exiting from the editing session. You may save a file at any point during the editing process. All changes that have been made up to that point will be saved. However, if you close a file without saving it first, all changes (since the last time you saved the file) will be lost.

There are two ways to save a file:

- Use the **[F9]** key to issue the SAVE FILE command
- Use the **[gold-F9]** key combination to issue the SAVE FILE AS command

The SAVE FILE Command

The SAVE FILE command writes the contents of the current edit buffer to the file associated with the buffer without ending the editing session. If you do not specify a file name with the SAVE FILE command, EVE prompts you for an output file specification.

The SAVE FILE AS Command

The SAVE FILE AS command writes the contents of the current buffer to the file you specify without ending the editing session. For example, if you are editing a file named WISHLIST.TXT, you can save the edited version as NEW_ WISHLIST.TXT. The SAVE FILE AS command does not change the name of the buffer. It does, however, associate the buffer with the file you name so that any subsequent SAVE FILE, WRITE FILE, or EXIT commands write the buffer to the file you named. This command requires you to supply a file specification.

Save Your WISHLIST Files

- When you've completed your decadent list, use the **[Gold]** + **[F9]** keys to save the buffer as WISHLIST_1.TXT and place it in the [.TEXT] directory.
- When you've completed your needs list, use the **[Gold]** + **[F9]** keys to save the buffer as WISHLIST_2.TXT and place it in the [.TEXT] directory.
- When you are satisfied with both lists, and have saved the final copies of both lists (use the **[F9]** key), close the files (use the **[F10]** key), and exit EVE.

File Recovery

Journal File

If a system interruption occurs or the **Ctrl/Y** key is pressed while you are editing a file, you can usually recover your session.

EVE records the keystrokes you enter in a journal file (of type TJL).

- Usually the editing session ends normally and the system deletes the journal file.
- If an interruption occurs, the journal file is saved.
- Your most recent keystrokes may not be saved.

Types Of Journals

EVE uses two types of journaling.

Buffer-change journaling (default)

- Creates a journal file for each text buffer and allows you to recover one buffer at a time
- Works on DECwindows and character-cell terminals
- Uses a default file type of TPU\$JOURNAL

Keystroke journaling

- Does not work on DECwindows terminals
- Uses a file type of TJL or TPU\$JOURNAL

To specify that you want keystroke journaling, invoke EVE with the following command:

```
$ EDIT/TPU/JOURNAL=journalfilename filename.filetype
```

How To Recover A Lost Editing Session

If you are editing a file when a system crashes or if you accidentally press **Ctrl/Y** while editing, you can recover your editing session. The following is the syntax of the edit recovery command:

```
$ EDIT/TPU/RECOVER original-file-specification
```

The **original-file-specification** is not the name of the journal file, but rather the original edit file. If you were editing WISHLIST.TXT and pressed **Ctrl/Y**, the system would create a WISHLIST.TJL journal file. You would use WISHLIST.TXT file in your **EDIT/TPU/RECOVER** command, not WISHLIST.TJL. After the recovery operation is completed, the journal file is deleted.

Advanced DO Key Functionality

The DO command (like the **DO** key) has two functions:

- The Command Prompt
- Buffer Selection

The Command Prompt

The most common use opens a small window at the bottom of the screen, with the prompt “Command:” displayed (see the screen diagram on page 5 of this chapter). This is similar to the window that requests input when you perform a FIND or REPLACE command. The window lets you type any command which is not linked to a key combination. These commands include a number of AMS extensions:

DIR	displays a directory
CALC	calculates arithmetic expressions
WHERE	tells you the line/column numbers of the current edit point
DFTK	deletes FTK mark comments
CBOX	creates a comment box (also called a “flower box”)
DCBOX	deletes a comment box

These commands also include a large number of EVE commands, most of which are pretty obscure and/or verbose; a few of the more useful ones include:

LINE n	moves the edit point to the line number “ n ”
WILD FIND	finds strings with wildcard place holders (asterisk, etc., like you might use in the DIR command)
SHOW KEY	displays the definition / name / command assigned to a particular terminal key
BOX SELECT	changes selection behavior to mark a box of text rather than lines


Buffer Selection




The other use of the DO command is to select an entry from a \$\$CHOICE buffer. For example, if you invoke the editor with a pattern (e.g. EDTABC.FOR) and more than one file matches, EVE will display a small window containing a list of all matching names. Use the key combination **GOLD** + **PageUp** to move the cursor into the window, put the cursor under the desired file name and press the **DO** key to edit that file.

How to Assign the DO Key

Many KEA! sessions already have the Scroll Lock key assigned to DO. To see if it's set in your machine, go into the editor and press Scroll Lock. If the command window opens at the bottom of the screen, you are home free!

If the command window does not open, you'll need to assign the key as follows:

1. On the KEA! toolbar, select the Options menu and the Keyboard option. This will display the "Keyboard Mapping" dialog box.
2. Click the Keyboard button in the dialog box. This will display an image of the keyboard. (You may need to move the image or the dialog box so they don't overlap).
3. Highlight the "PC Key" field in the dialog box; then press the Scroll Lock key on the PC keyboard.
4. Make sure the "Map To:" field displays "Sequence."
5. Highlight the "Value" field in the dialog box.
6. Use the mouse to click the  key on the keyboard image. (It's located at the top, above the cursor keys and the Find/Select/etc. keys.)
7. Click the Done button in the dialog box.

Press the  key to verify that the modification was successful. If it does not work immediately, press the  key to exit EVE and then re-open the EVE editor. The  key should now work.

If you use pre-defined template icons for both Alpha1 and Alpha 2, you'll need to go through these steps for each session.

The next time you end your Kea! session(s) be sure to answer "Yes" to the "Save KEA! Configuration Changes?" prompt.

EVE and AMS Finger Exercises

Section One

To begin, you'll need a file to work on. Do not use the WISHLIST.TXT file. We will use that file in future chapters. Make sure you are in your default home directory. Type the following command at the DCL prompt to make a local copy of a sample file:

```
$ COPY DEV$DISK:[JJJ.TNG]SAMPLEPROG.FOR *.*
```

See if you can figure out how to successfully complete each of the following steps. (You can cheat by peeking at Section Two - but only AFTER you have played around a bit.)

1. Edit the file.
2. Move down until you locate the section starting with the comment "COMMON AREA DEFINITIONS:"
3. Scroll the screen so that "COMMON AREA DEFINITIONS:" appears in the middle of the view area.
4. Move the cursor back to the line containing the text "CHARACTER*9 UFMTTAX" and replace the ditto mark with the string "Function declaration," just like the line above it.
5. Do the same thing with the line "LOGICAL*4 ROALKEXCL," but copy and paste the description you typed in the last step, rather than retyping it.
6. Select the line of dashes and the following line containing the text "COMMON AREA DEFINITIONS:" and delete them. Paste them back immediately following the line containing "FORMAT STATEMENTS."
7. Go to the top of the file.
8. Find the first occurrence of the string "244E".
9. Use Replace to change the second and fourth occurrences of "244E" to "123X."
10. Use REPLACE to change ALL occurrences of "FIRST_PASS" to "PASS_ONE."
11. Save your changes.

12. Go back to the top of the file and find the section labelled "COMMON FILE DEFINITIONS." Use DIVE to view the file FILDIC.CFD. Then return to SAMPLEPROG, using the DIVE RETURN to "quit" FILDIC.CFD.
13. Compile the program SAMPLEPROG from within the EVE editor. Don't worry if there are compiler errors.
14. Start to use REPLACE - but then change your mind. Cancel the command.
15. Add your LOGIN.COM file to your editing session. It is in your default home directory. Move through all of the files in the ring of buffers.
16. Split the screen into two horizontal pieces and cycle through in one window so you see both the LOGIN.COM and SAMPLEPROG.FOR files.
17. Copy a line from the LOGIN.COM file and insert it into SAMPLEPROG.FOR as a Fortran comment.
18. Switch back to one screen.
19. Quit all files, NOT saving the changes you've made since the last save.

Section Two: Answers

No fair looking here until you've tried to do an exercise first!!

1. Edit the file.

At the DCL prompt, type either of the following commands:

```
$ EVE SAMPLEPROG.FOR  
$ EDIT/TPU SAMPLEPROG.FOR
```

2. Move down until you locate the section starting with the comment "COMMON AREA DEFINITIONS:."

Press the PageDown key 4 times.

3. Scroll the screen so that "COMMON AREA DEFINITIONS:" appears in the middle of the view area.

Press the down arrow (cursor down) key until the cursor moves to the bottom margin. Then hold it down as the screen moves 7 or 8 times.

4. Move the cursor back to the line containing the text "CHARACTER*9
UFMTTAX" and replace the ditto mark with the string "Function declaration," just like the line above it.
 - Move the cursor to that line and clear the characters to the right of the "!" by one of the following two methods:
 - (a) press the numeric-keypad "End" followed by **Backspace**
 - (b) move to the right of the "!" and use the numeric-keypad **Delete** key
 - Then type the new text where you want it.
5. Do the same thing with the line "LOGICAL*4 ROALKEXCL," but copy and paste the description you typed in the last step, rather than retyping it.
 - Clear the ditto marks as in the previous step.
 - Put the cursor on the "F" in "Function Declaration" and press the **Select** key ("End" on the mini-keypad). The message "Move cursor to select text" will appear.
 - Move the cursor to the position just to the right of the "n" in "Declaration" and press the **Gold** key, followed by the **Delete** key on the mini-keypad.
 - Move the cursor to the place where you want to paste the text and press the **Insert** key on the mini-keypad.
6. Select the line of dashes and the following line containing the text "COMMON AREA DEFINITIONS:" and delete them. Paste them back immediately following the line containing "FORMAT STATEMENTS."
 - Place the cursor on the "C" at the start of the dashed line and press the **Select** key (which key is that??)
 - Press the "Down Arrow" (cursor key) twice to select both lines in their entirety.
 - Press the **Delete** key on the mini-keypad.
 - Move the cursor to the first character of the line below "FORMAT STATEMENTS" and press the **Insert** key on the minipad.
7. Go to the top of the file.

Press the **Gold** key, followed by the "Up Arrow" (cursor key).

8. Find the first occurrence of the string “244E.”

- Press the **Home** key on the mini-keypad. The message “Forward find” will appear.
- Type “244E” (no quotes or other delimiters) and then press **Enter** .

9. Use REPLACE to change the second and fourth occurrences of “244E” to “123X.”

- The cursor already went past the first occurrence of 244E in the previous step, so just press the **Replace** key (**Gold** followed by the **Home** key on the mini-keypad). Since the default is “244E,” press the **Enter** key to accept. You don’t have to retype.
- The prompt “New string:” will be displayed. Type “123X” and press the **Enter** key again.
- The next occurrence of “244E” will be displayed, along with the message “Replace? [Y, N, All, Quit]?”
- Type “Y” and press the **Enter** key to change this second occurrence.
- The third occurrence of “244E” will display, along with the same “Replace?” prompt. Type “N” to skip this occurrence.
- The fourth occurrence will display. Press “Y” to change.

10. Use REPLACE to change ALL occurrences of “FIRST_PASS” to “PASS_ONE.”

- Go to the top of the file (how do you do that??)
- Press the **Replace** key (again, how??). Since you’re no longer using 244E, type FIRST_PASS.
- At the “New string:” prompt, type PASS_ONE.
- At the “Replace?” prompt, type A (for All) and press Enter.

11. Save your changes.

Press the **F9** key.

12. Go back to the top of the file and find the section labelled “COMMON FILE DEFINITIONS.” Use DIVE to view the file FILDIC.CFD. Then return to SAMPLEPROG, using the DIVE RETURN to “quit” FILDIC.CFD.

- Go to the top and use the **Find** key to locate the string “DEFINITIONS” (or some part of it).
- Place the cursor anywhere in the string “FILDIC” and press the **Dive** key (the numeric keypad 2/down arrow key). FILDIC.CFD should display.
- Press the **Next Buffer** key (3/Page Down on the numeric keypad). SAMPLEPROG should display.
- Press the **Prev. Buffer** key (9/Page Up on the numeric keypad). FILDIC.CFD should redisplay.
- Press the **Dive Return** key (8/Up Arrow on the numeric keypad). SAMPLEPROG should redisplay.

13. Compile the program SAMPLEPROG from within the EVE editor. Ignore any compiler errors.

Press the **Gold** key followed by the **F11** key.

14. Start to use REPLACE - but then change your mind. Cancel the command.

- Press the **Replace** key (**Gold** followed by the **Home** key).
- Decide that it’s not what you wanted to do.
- Press the **Ctrl/G** key combination. The message “Command cancelled” should appear.

15. Add your LOGIN.COM file to your editing session. It is in your default home directory. Move through all of the files in the ring of buffers.

- Use the **DO** key to open the command window (press **Scroll Lock**). If the window does not open, try the **Ctrl/F8** key combination.
- Type “op login.com” (op is short for OPEN). Your local LOGIN.COM should appear.
- Press the **Next Buffer** or **Previous Buffer** key to move through the files.

16. Split the screen into two horizontal pieces and cycle through in one window so you see both the LOGIN.COM and SAMPLEPROG.FOR files.

- Press the **Gold** key followed by “Toggle 1/2 Windows” (numeric keypad 0/Insert key). If the cursor is in the wrong window, press numeric keypad 0/Insert key again to move the cursor to the other window.
- Press the **Next Buffer** or **Previous Buffer** key until you see both requested files in your display.

17. Copy a line from the LOGIN.COM file and insert it into SAMPLEPROG.FOR as a Fortran comment.

- If the cursor is not already in LOGIN.COM, press the **Gold** key followed by the **PageUp** or **PageDown** key to move it to that file.
- Put the cursor at the start of a line in LOGIN.COM. Select the line and copy (not cut) it.
- Press the **Gold** key followed by the **PageUp** or **PageDown** key to move the cursor back to SAMPLEPROG.FOR.
- Put the cursor in the desired place and press the **Insert** key. Put a “C” at the start of the line to indicate that it is a FORTRAN comment.

18. Switch back to one screen.

Press the **Gold** key followed by “Toggle 1/2 Windows” (numeric keypad 0/Insert key). If you are not back in SAMPLEPROG.FOR, use the **Next Buffer** key or **Prev. Buffer** key to go where you want to be.

19. Quit all files, NOT saving the changes you’ve made since the last save.

Press the **F10** key. Answer “Y” to the prompt “Continue quitting?”

Congratulations!! Like the old film, you now know “All About EVE!!”

Concepts

Performing Basic Eve Operations

- Use the EDIT/TPU command to invoke the EVE editor.
- Enter EVE commands by using the predefined keys or by typing them on the EVE command line.
- Move the cursor using the arrow keys or by entering EVE cursor movement commands on the command line.

Creating and Modifying a Text File

- EVE has two text entry modes: insert and overstrike.
- Use the REPLACE command to replace one character string with another.

Requesting Help with EVE

- Enter the EVE HELP command to request information on EVE topics.
- Press the **[Help]** key to display a diagram of the keypad.

Using some Advanced Features of EVE

- Use the INCLUDE FILE command to include the contents of another file in the file being edited.
- Use the EVE DCL command to issue a DCL command from inside EVE.
- Use the SET KEYPAD command to set the keypad to emulate another editor.

Saving An Edited File

- The EXIT command ends an EVE editing session and saves a new version of the edited file.
- The QUIT command ends an EVE editing session without making any changes to the file.
- If you are editing a file when a system crash occurs or if you accidentally press **[Ctrl/Y]** while editing, you can recover your edits.

Commands

Performing Basic EVE Operations

EDIT/TPU *filename.filetype*

DCL command to invoke EVE.

Creating and Modifying a Text File

REPLACE *old-string new-string*

EVE command to replace one character string with another.

Requesting Help With EVE

HELP *topic-item*

EVE command to request a listing from the EVE help library.

Using Some Advanced Features of EVE

INCLUDE FILE *filename.filetype*

EVE command to include another file into the current file.

DCL *command-specification*

EVE command to issue a DCL command from the EVE command line.

SPAWN *command-specification*

EVE command to spawn a subprocess to issue a DCL command from the EVE command line

SET KEYPAD *keypad-type*

EVE command to set the application keypad to a specific editor.

Saving an Edited File

SAVE FILE

EVE command to write a new version of the edited file, using the current file name.

SAVE FILE AS

EVE command to write the current file as a new file using the specified file name.

EXIT

EVE command to exit the editing session and write a new version of the edited file.

QUIT

EVE command to end the editing session without writing a new version of the file.

EDIT/TPU/RECOVER *original-file specification*

DCL command to recover an EVE editing session.