

VEDIT PLUS

INSTALLATION

INSTALLING VEDIT PLUS

WHAT IS INSTALLATION?

Installation is the process of configuring VEDIT PLUS to run on your particular computer and of "customizing" VEDIT PLUS to your particular applications and preferences. A primary feature is the ability to completely determine your own keyboard layout - what control or function key you will press to perform each edit function. You can start with a keyboard layout we supply, perhaps modifying it a little. Or you can create your own keyboard layout, perhaps using one you are already familiar with from another editing/word processing program.

The installation is menu driven. You can easily perform some aspects of the installation and leave all other aspects at their current settings. You can also examine all current settings without changing any. Therefore, you do not need to understand the entire installation procedure to install VEDIT PLUS.

NOTE TO IBM PC USERS:

You do not need to perform the installation to get started. The files "VPLUS.COM" and "EXPERT.COM" are ready to use - their corresponding keyboard layouts are included at the end of this section. The "appendices" referred to in this section are NOT SUPPLIED with the IBM PC version - they are only applicable to installing non-IBM PC versions.

WHEN IS INSTALLATION NECESSARY?

For many popular computers, such as the IBM Personal Computer, we supply a pre-installed "ready to run" VEDIT PLUS in the file "VPLUS.COM". The keyboard layout for the pre-installed IBM PC is included at the end of this section. (The keyboard layout for other pre-installed versions is listed among the appendices which come with those versions.) With a pre-installed version you do not initially have to perform any part of the installation. Indeed, we recommend that you use our pre-installed version to gain some experience with VEDIT PLUS before customizing your own.

For some versions of VEDIT PLUS, such as those intended for use with a CRT terminal, a pre-installed version is not supplied. However, you can very easily and quickly create a ready to run VEDIT PLUS - you generally only need to select the CRT terminal from the menu in order to complete the installation. This is described below under "Quick CRT Installation".

Once you have some experience with VEDIT PLUS, you will want to customize it to your personal preferences. It may be that you want to modify the keyboard layout. Or you may want to change the default values for some of VEDIT PLUS's parameters. Most parameters can be changed from within VEDIT PLUS, but if you find yourself always changing one, such as tab positions, you can use the installation to set new default values.

Keep in mind that you may want to settle on a satisfactory keyboard layout fairly soon so that you do not memorize one layout and later have to memorize a different one.

You can also create several configurations of VEDIT PLUS, each for a special application. To help remind you of which configuration you are using, each can have a different signon message which will be displayed when VEDIT PLUS is invoked.

FILES ON YOUR DISK

NOTE FOR CP/M USERS:

In the following discussion, CP/M-86 users should substitute ".CMD" for the filename extensions ".COM" and ".EXE". CP/M users should substitute ".COM" for the extension ".EXE".

The files supplied for the IBM PC version are listed at the end of this section. The files for other versions are listed in the supplied appendices. A pre-installed VEDIT PLUS has a ".COM" filename, i.e., "VPLUS.COM" for the IBM PC and "TANDY.COM" for the Tandy 2000. A not yet installed VEDIT PLUS has a ".SET" filename, i.e., "VPLUS86C.SET" for the 8086 CRT terminal version.

"INSTALL.EXE" is the installation program. When running INSTALL with CRT versions you must also have the files "INSTALL.INI" and "INTMOD.EXE" on the same disk (and MS-DOS subdirectory) as "INSTALL.EXE". The INTMOD program is only used if you need to add a new CRT terminal to the installation menu of supported terminals. Since this program is rarely used, its operation is only described in the file "NEWCRT.DOC".

The installation creates a ready to run VEDIT PLUS from the ".SET" file. This process does not alter the .SET file, but rather creates a new file with the file extension of ".COM", which is the runnable VEDIT PLUS. Alternatively, you can modify an existing running "VPLUS.COM" file.

With a hard disk it is easiest to keep all files in the "\VEDIT" subdirectory. If you only have floppy disks, you can remove the files INSTALL.EXE, INSTALL.INI and INTMOD.EXE from your work disks. They are not needed to run VEDIT PLUS, but only to install it.

CRT TERMINAL AND MEMORY MAPPED

There are two primary versions of VEDIT PLUS - CRT Terminal versions and Memory Mapped versions. The CRT versions support practically every terminal on the market. The particular terminal being used is selected from a large menu of terminals during installation. The CRT versions are very "generic" and also support many personal computers, but do not update the screen as fast as memory mapped versions.

The memory mapped versions are highly machine dependent, with a different version needed for each machine. For example, one version only supports the IBM PC, another only the DEC Rainbow, another only the Tandy 2000. The advantage of the memory mapped versions is that they can update the screen about ten times faster than the CRT versions. Your original disk should specify whether you have a memory mapped or CRT version. When performing the installation, you will notice that some settings are only applicable to either memory mapped or CRT versions.

"Generic" memory mapped versions are also available to support most S-100 and Multibus display boards. Their installation is a little more complex with questions pertaining to the screen's address, initialization bytes and others. The generic memory mapped version contains a file on disk which describes the patches necessary to implement bank select on 8080/Z80 systems.

HOW TO PERFORM INSTALLATIONSTEP 1 - INVOKE "INSTALL" FROM OPERATING SYSTEM

To install VEDIT PLUS you need the program "INSTALL.EXE" and the appropriate pre-configured VEDIT PLUS ".COM" file or non-configured ".SET" file on your work disk. For CRT versions you also need the file "INSTALL.INI".

Installing a Non-Configured VEDIT PLUS ".SET" file

A non-installed VEDIT PLUS has a filename extension of ".SET". If your disk has more than one ".SET" file, refer to the appropriate "Description of Files" for your version of VEDIT PLUS. To begin installation, first type **INSTALL** followed by two filenames: (Remember to press **RETURN** at the end of the line.)

INSTALL *infile.SET outfile.COM*

"*infile.SET*" is the actual ".SET" file you want to install, i.e. "VEDIT86C.SET", "VEDITZC.SET", etc. The installation creates a new file with the filename "*outfile.COM*" which will contain the installed, ready to run VEDIT PLUS.

The ".SET" file is not modified or erased. Rather, a NEW file containing the installed VEDIT PLUS is created.

EXAMPLES: **INSTALL VPLUS86C.SET VEDIT.COM**

INSTALL VPLUSZC.SET VPLUS.COM

Installing a Pre-Configured VEDIT PLUS ".COM" file

You can "customize" the pre-installed VEDIT PLUS we supplied or the VEDIT PLUS you are currently using. This makes it easy to change one small aspect of the installation without having to re-install everything again. To begin installation, first type **INSTALL** followed by one or two filenames:

1. **INSTALL *infile.COM***
2. **INSTALL *infile.COM outfile.COM***

In the first form, "*infile.COM*" is the actual running VEDIT PLUS you want to customize, i.e. "VPLUS.COM", "JEFFS.COM", etc. The installation will modify the VEDIT PLUS without

creating a new one.

The second form shows how you can specify separate input and output files for the installation, i.e. create a new VEDIT PLUS from a previously installed one.

EXAMPLES: INSTALL VPLUS.COM
 INSTALL VPLUS.COM JEFFS.COM

STEP 2 - LOOK OVER MAIN MENU TASKS

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MAIN MENU TASKS

Keyboard Layout
1. Display or Print Keyboard Layout
2. Modify Keyboard Layout
3. Add Keystroke Macros to Layout

Operational Settings
4. Change Print Parameters (PP commands)
5. Change Edit Parameters (EP commands)
6. Change Edit Switch Settings (ES commands)
7. Change Visual Mode Interface
8. Change Command Mode Interface
9. Change File Handling Parameters

Machine Related Settings
10. Change Screen Display Parameters
11. Additional Memory Mapped Installation Features
12. Select CRT Terminal Type

Enter the Option number or "E" to exit:

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The installation is performed by selecting the desired task or tasks. All tasks are largely self-prompting and on-line help is available in many tasks. Use TASK 1 to display or print the current keyboard layout. Feel free to explore TASKS 4 - 11. These tasks display the current values of the parameters. When you select a parameter to be changed, the allowable range of values is displayed.

When you have completed all tasks, type "E" to exit the

INSTALL program. You then have the choice of saving the changes to disk or ignoring any changes you may have made. Pressing <CTRL-C> from the main menu aborts the installation.

STEP 2.1 - (CRT ONLY) TASK 12 - SELECT CRT TERMINAL TYPE

IBM PC Users: Skip to Step 3.

TASK 12 displays a menu of terminals which is two screens long; press RETURN to see the second screen. Following the prompt enter the number corresponding to the terminal you are using.

In the rare case that your terminal does not appear on the menu, you have two choices. If you are technically inclined, you can add your terminal to the menu through the use of the supplied program "INTMOD". Its operation is described in the file "NEWCRT.DOC". Alternatively, contact us for support.

Technically inclined users may wish to read the file "READCRT.DOC" for related information. Hazeltine and Intertec terminal users should also read this file.

NOTE:

If you select your CRT terminal type at the beginning of installation, the following screen updates will occur faster.

Quick CRT Installation

If you have the generic CRT terminal version of VEDIT PLUS, the normal screen size of 24 by 80, and wish to bring VEDIT PLUS up quickly with the "Default Keyboard Layout", you need only to select your terminal from the CRT terminal menu and then exit INSTALL to complete the initial installation. If you have a CRT terminal with a size other than 24 by 80, you will need to also perform TASK (10) "Change Screen Display Parameters". If you like, you can go ahead and do that now, and read the rest of this section later.

The generic versions of VEDIT PLUS use the "Default Keyboard Layout" (Appendix A) until you change the keyboard layout using TASK 2. This layout does not use any function keys and should work with any keyboard. If you have function keys, or even just a numeric keypad, you will most likely want to create a new layout which utilizes them.

The other parameters in the generic versions have the initial values listed under "Default CRT Installation" in Appendix A. These values, including the non-critical memory size parameters, will work well in most systems.

NOTE: If you have a Televideo, a Z19, an IBM 3101 or other CRT terminal for which we supply an "Example" keyboard layout you must perform TASK 2 and enter the "Example" layout. Just selecting the terminal will NOT give you the special layout.

STEP 3 - TASKS 1 - 3: PERFORM KEYBOARD LAYOUT

TASK 1 displays or prints the current keyboard layout - each edit function name is followed by the key (or keys) to be pressed to perform the function. Following the edit functions, any built-in keystroke macros are listed. You will likely want to print the new layout after you have made any changes.

TASK 2 is used to modify the keyboard layout. It can be used to change a few key assignments, or you can choose "ALL NEW KEYBOARD LAYOUT" to enter an entire new keyboard layout. You can step forward and backward through the key assignments, leaving them at their current settings or changing them. Choosing "ALL NEW KEYBOARD LAYOUT" resets all current assignments to "NOT USED".

TASK 3 is used to build "keystroke macros" directly into VEDIT PLUS. The simplest type of keystroke macros are "alternate keys" for any of the edit functions. For example, your keyboard may have cursor keys which you have installed as the four basic cursor movements in VEDIT PLUS. However, out of habit you are still using <CTRL-S>, <CTRL-D>, <CTRL-E> and <CTRL-C> to move the cursor. You can use either set by assigning the cursor key for [CURSOR LEFT] to <CTRL-S> , etc.

The key assignments in TASK 2 are performed by pressing control characters or function keys, or by typing "escape sequences" in response to each edit function prompt. Each reply is then followed by a RETURN to go on to the next prompt.

Control/function keys used for VEDIT PLUS edit functions:

CONTROL CHARACTERS A control character is entered by holding down the CONTROL key (abbreviated as "CTRL" key) and typing a letter or @, [, \,], ^ or _.

NOTES: <CTRL-M> cannot be used for any edit function since it is the same as the RETURN key.

<CTRL-@> cannot be generated on an IBM PC.

ESCAPE SEQUENCES An escape sequence is a multi-character sequence beginning with a "lead-in" control character, most commonly <ESC>, followed by one or more characters. The escape sequence is entered by typing the "lead-in" character (usually the <ESC> key) followed by the remaining characters. The default IBM PC keyboard layout does not use escape sequences.

FUNCTION KEYS Many keyboards include function keys. The function keys on most CRT terminals actually send either a control character or an escape sequence. You will know what control character or escape key is sent by the function key, because it will appear on the screen when you type the function key.

TECHNICAL NOTE: Function keys which send "High Bit" characters or "ANSI Standard" escape sequences are supported.

TASK (2) - MODIFY KEYBOARD LAYOUT

TASK (2) begins with the following two prompts:

LOAD NEW KEYBOARD LAYOUT FROM THE FILE VEDIT.KEY?
NORMAL → N

PERFORM ALL NEW KEYBOARD LAYOUT (Y/N)?

Answer "Y" if you are performing an all new keyboard layout. This clears out the previous layout and resets all assignments to "NOT USED".

UPPER/LOWER CASE ESCAPE SEQUENCES EQUIVALENT (Y/N)?

If you answer "N", VEDIT PLUS will make a distinction between, for example, <ESC>-H and <ESC>-h. This is inconvenient if you hand type escape sequences and, in this case, you should answer with a "Y". However, the function keys on terminals

such as a Televideo send escape sequences which distinguish between upper and lower case. Here you would have to answer "N". IBM PC users can answer with "Y" or "N".

ENTER CONTROL/FUNCTION KEYS FOR THE FOLLOWING FUNCTIONS...

You are prompted with each edit function name followed by the current assignment. If there is no assignment, it is displayed as "NOT USED". If the current assignment is correct, just press RETURN to go to the next edit function. To make a new assignment simply press the desired control or function key, or type the escape sequence. You must then press RETURN to go to the next edit function. The new assignments are displayed immediately as you type them in.

To help you "edit" these assignments, you can skip forward and backward over the edit functions with four special keys. Additionally, "E" skips the remaining functions and returns to the main menu and "H" displays help information. For example, to change a single assignment, press RETURN until you reach the desired function, make the new assignment, and type "E" to return to the main menu.

<RETURN>	Moves to the next function
-	Moves to the previous function
<SPACE BAR>	Disables the function - i.e. removes the assignment
B	Moves back to the first function
D	Displays or prints current layout
E	Returns to the Main Menu
H	Displays help information

If you make a mistake, press "-" to move to any previous function. You can then press the correct control/function or press <SPACE BAR> to disable the function.

The normal displayable characters are disallowed. Typing one of these gives an error and a re-prompt for the function. If you inadvertently attempt to use the same function/control key for a second edit function, an error and a re-prompt will be given:

*** Control sequence already used ***

If you do not want to use a particular function, just set it to "NOT USED" - press the <SPACE BAR>.

Do not confuse [TAB CURSOR], which is a cursor movement

function, with [TAB CHARACTER] which actually inserts a tab character into the text.

NOTES: The <Left Arrow> on some terminals, especially Televidoes, sends the same code as the <BACKSPACE> key. In that case, the [BACKSPACE] function needs to be assigned to another key.

It is often convenient on keyboards without function keys to use escape sequences consisting of <ESC> and a digit for some edit functions. A strip of cardboard can then be placed above the digits on the keyboard to indicate their functions.

TASK (3) - BUILT-IN KEYSTROKE MACROS

If desired, you can build any keystroke macros that you often use directly into VEDIT PLUS. For example, you may want to set up "hot keys" to access operations within the menu-functions with a single keystroke. The "Expert Keyboard Layout For The IBM PC" uses several function and <ALT> keys as "hot keys".

As described earlier, TASK 3 can also be used to allow alternate control/function keys for edit functions. (Alternate keys are really keystroke macros where the key sequence is just a single key.)

ENTER DELIMITER TO USE:

Similar to the [DEFINE] function, the keystroke macros are entered in two parts - the "Function/Control Key" and the "Key Sequence". The difference during installation is that the "Function/Control Key" is followed by a RETURN (similar to TASK 2), while the "Key Sequence" is followed by a "Delimiter" which you must now choose. The "Delimiter" can be any single character (control or displayable) which will not appear in any of the following "Key Sequences". RETURN, <SPACE BAR> and <CTRL-C> are all reasonable choices.

ENTER FUNCTION/CONTROL KEY (<RETURN> WHEN DONE):

Press the function or control key (or enter the escape sequence) which is to perform the keystroke macro. Follow with a RETURN.

When you have no more keystroke macros to enter, reply with just RETURN to end TASK 3.

ENTER KEY SEQUENCE FOLLOWED BY DELIMITER:

Press the keys corresponding to the edit function(s) to be performed and any other keys which are part of the macro. Follow with the delimiter. The length of EACH keystroke macro is limited to 200 characters.

STEP 4 - TASKS (4) - (10): CHANGE OPERATIONAL SETTINGS

Selecting any of these tasks displays the current values for the parameters in each task. To change a parameter, enter the parameter's number and you will be prompted for the new value. For some parameters, a sub-menu of choices will appear in order to better explain the allowable values. Pressing RETURN will leave the current value unchanged. The only exception are those parameters (switches) which have only two possible values; selecting the parameter's number will toggle its value. After any change the screen will re-display the current values.

TASK 4: CHANGE PRINT PARAMETERS

This task sets the default values for the "PP" print parameters. They can be changed while running VEDIT PLUS. Refer to the detailed "PP" command description for more information about each parameter. The range of valid values are shown in brackets, typical values in parentheses.

4.1) PHYSICAL LINES PER PAGE [5 - 100] (66)

This is the length of a page in lines. Typical paper is 11 inches long and most printers print 6 lines per inch, giving a value of 66. Unless you are using other sized paper (ex. European), select a value of 66.

4.2) PRINTED LINES PER PAGE [1 - 100] (60)

This is the number of lines that will be printed on a page before automatically starting a new page. The lines will be centered top to bottom. Picking a smaller number gives you larger top and bottom margins.

4.3) LEFT MARGIN FOR PRINTING [0 - 100] (12)

This parameter determines by how many columns printed text is offset from the very left edge of the paper - i.e the size of the left margin. The normal value of 12 gives a margin of roughly one inch. If you are primarily printing computer programs you may want to set this parameter to "0" - no left margin.

4.4) USE FORM-FEED FOR NEW PAGE (YES)

This parameter determines whether new pages are started by sending the correct number of Line-feeds (blank lines) or a single Form-feed character. Most printers respond properly to a Form-feed character and this option should then be used. (If your printer automatically wraps long lines to the next line, new pages will not start at the right place unless you have enabled Form-feeds.)

TASK 5: CHANGE EDIT PARAMETERS

This task sets the default values for the "EP" command parameters. They can be changed while running VEDIT PLUS. Refer to the detailed "EP" command description for more information about each parameter. The range of valid values are shown in brackets, typical values in parentheses.

5.1) (Memory Mapped Only)
CURSOR TYPE [0, 1, 2, 3, 4] (1)

This parameter determines the cursor type in memory mapped versions. The cursor types are 0=Blinking Underline, 1=Blinking Reverse Video Block, 2=Solid Reverse Video Block. The IBM PC additionally has cursor types of 3=Attribute and 4=System. Most users seem to prefer type "1", but you must use "0" if your display does not produce reverse video. The use of Borland's Turbo Lightning requires cursor type 4.

5.2) (Memory Mapped Only)
CURSOR BLINK RATE [5 - 255] (35)

This determines the memory mapped cursor's blink rate for cursor types 0 and 1. A smaller number causes the cursor to blink faster. Start with a value of 35 on an IBM PC/XT and a value of 100 on an IBM PC/AT.

5.3) INDENT INCREMENT [1 - 20] (4)

This determines the "Indent Increment". A value of 4 is common for editing structured programming languages.

5.4) LOWER/UPPER CASE CONVERSION
[0=NO, 1=YES, 2=CONDITIONAL, 3=REVERSE] (0)

This parameter controls a feature useful for editing assembly language programs. With value "0", no conversion occurs. With value "1", all lower case keyboard characters are converted to upper case. With value "2", all characters entered to the left of the "Conditional Convert Character" are converted to upper case. A value of "3" is similar to "2", except that the case of letters is REVERSED to the left of the "Conditional Convert Character". See "Lower to Upper Case Conversion" in the Index.

5.5) CONDITIONAL CONVERSION FLAG CHARACTER (;)

This is the "Conditional Convert Character" used when the previous parameter is set to "2" or "3". Note that the desired character is typed to change this parameter.

5.6) DELAY FOR COMMAND MODE SCROLLING [0 - 255] (50)

This parameter sets how much delay in milliseconds is added to each line displayed in Command Mode to make the text easier to read. Otherwise, on Memory Mapped systems, such as the IBM PC, the Command Mode can scroll too quickly to read the screen. (It does not affect Visual Mode which always displays at full speed.) Users with CRT versions of VEDIT PLUS will probably want to set this parameter to "0" - no extra delay.

5.7) RIGHT MARGIN FOR WORD WRAP [0 - 250] (0=OFF)

The Word Wrap column determines the maximum right margin for the text. A value of "0" turns Word Wrap off. Words typed beyond the right margin will be wrapped to the next line. The right margin is also used for the [FORMAT PARAGRAPH] function. The right margin can be greater than the screen line length. For word processing, you may wish to enter a value around "70".

5.8) HIGH BIT (BIT 8) PROCESSING ON INPUT/OUTPUT [0 - 7] (3)

This is a technical topic - see the heading "High Bit Character Support" in the User section for a complete description. A value of "1" allows high bit (Bit 8) characters on keyboard input, but displays them in reverse video (when possible) after stripping their high bit. This is suggested for most CRT terminals. A value of "3" allows high bit characters on input and causes VEDIT PLUS to display them unmodified. This allows accessing special and graphics characters on the IBM PC, NEC APC and other machines. The value of "7" additionally allows function/control keys, which are not used in the keyboard layout, to be inserted into the text.

5.9) CURSOR POSITIONING OPTION [0 - 2] (1)

This determines how the cursor will position itself past the end of lines. A value of "0" causes the cursor to only position itself at "real" characters, i.e. never past the end of a line. A value of "1" allows the cursor past the end of a line during vertical cursor movements. A value of "2" causes VEDIT PLUS to pad with spaces when you edit with the cursor past the end of a line.

5.10) HORIZONTAL SCROLL MARGIN [40 - 254] (210)

This determines the maximum right margin with horizontal scrolling. Lines longer than this value are wrapped on the screen as "continuation lines". Setting this value at or less than the screen line length disables horizontal scrolling.

5.11) HORIZONTAL SCROLL INCREMENT [1 - 100] (20)

This determines how much the screen scrolls sideways when [SCROLL RIGHT] and [SCROLL LEFT] are pressed or when VEDIT PLUS scrolls the screen automatically.

TASK 6: CHANGE EDIT SWITCHES

This task sets the default values for the "ES" command switches. They can be changed while running VEDIT PLUS. Refer to the detailed "ES" command description for more information about each switch.

6.1) EXPAND TAB WITH SPACES (NO)

This switch determines whether [TAB CHARACTER] will insert a tab character or expand with spaces to the next tab position. This is useful if another program interacting with your file does not interpret tab characters at the same tab positions. Since many spaces use up additional disk space, do not enable this switch unless you need to.

6.2) AUTO-BUFFERING IN VISUAL MODE
[0=OFF, 1=FORWARD, 2=FORWARD AND BACKWARD] (1)

See "Auto-buffering" in the Index. You may select no auto-buffering "0", auto-buffering only in the forward direction "1", or auto-buffering in both the forward and backward direction "2". We recommend a value of "1" with floppy disk systems and "2" with hard disk systems.

6.3) AUTO-INDENT MODE (NO)

This determines whether the special "auto-indent" mode is enabled. In this mode each newly entered text line is indented to the same amount as the previous text line - this is primarily useful with structured language programming.

6.4) POINT PAST TEXT REGISTER INSERT (YES)

This determines whether the cursor (or edit pointer in Command Mode) will be positioned at the beginning or the end of text inserted from a text register. After some practice with text registers you will know which way you prefer it.

6.5) EQUATE UPPER/LOWER CASE WHEN SEARCHING (YES)

This determines whether upper and lower case letters are equated during a search (replace) operation. We suggest you set this to "Yes". A search for "the" will then also find "The", "THE", etc.

6.6) MS-DOS END-OF-FILE PADDING (NO)

This only affects MS-DOS versions. Normally when a file of say 1000 bytes is written, the MS-DOS "DIR" command would show the file to indeed be 1000 bytes long. Optionally, the end of the file can first be marked with a <CTRL-Z> character and then padded to be a multiple of 128 bytes in length. In this case the "DIR" command would show the file to be 1024 bytes long. A few application programs require files which are padded. Most programs work with files in either format.

6.7) REVERSE ALL UPPER & LOWER CASE KEYS (NO)

This determines whether all letters typed on the keyboard will be reversed with regard to upper and lower case, i.e., upper case letters are converted to lower case and vice versa. Only in very unusual situations would you want to set this switch on.

6.8) SUPPRESS (SEARCH) ERROR HANDLING (NO)

This determines whether the "suppress error handling" command modifier ":" is set by default. This switch should normally be off. Otherwise, there will be no error message if a Find or Substitute command is unsuccessful. This switch can be set with the "ES" command inside of command macros to suppress error handling.

6.9) USE EXPLICIT TEXT DELIMITERS (NO)

This determines whether the "explicit text delimiter" command modifier "@" is set by default. We suggest setting this switch off initially, because our examples assume it is off. It may be set with the ES command before you begin issuing other commands.

6.10) GLOBAL FILE OPERATIONS (NO)

This determines whether the "global" command modifier "_" is set by default. We suggest setting this switch off. Otherwise, you may find VEDIT PLUS performing unnecessary disk buffering.

6.11) JUSTIFY PARAGRAPHS (NO)

This determines whether paragraphs formatted with the [FORMAT PARAGRAPH] function or "YF" command will also be justified to have a straight right margin. This is a matter of personal preference. Note that the switch option "2" to unjustify paragraphs cannot be installed; it can only be set with the "ES" command.

TASK 7 - VISUAL MODE INTERFACE

The following parameters apply primarily to the Visual Mode. Mode.

7.1) CHANGE TAB POSITIONS

The default tab positions are normally set at every 8th position: 9 17 25 33 41 49 57 65 73 81 89 etc. This is the most common tab setting; if you change the tabs, the change applies to VEDIT PLUS only. Tab positions may be changed inside VEDIT PLUS with the "ET" command.

Enter the desired tab positions, separating the numbers with spaces, commas or RETURN. Follow the last number with two RETURNS. Note that you need no tab at position 1 and that the positions are counted starting from 1, not 0. See the "ET" command for additional information.

7.2) KEYBOARD INPUT [0 = ROM CALLS, 1 = SYSTEM CALLS] (1)

This parameter selects how the keyboard is read. It applies only to the IBM PC (and CP/M) versions; it has no effect on other versions. On the IBM PC the difference applies primarily to "keyboard enhancers" such as "SmartKey" or "SuperKey". With "ROM calls" these enhancers are bypassed and have no effect on VEDIT PLUS's operation. With "System calls" these enhancers will modify operation. With "System calls" you can also run VEDIT PLUS from a batch file using "Input Re-direction files" (see the MS-DOS manual). (On CP/M versions value "0" performs "BIOS calls", a value of "1" performs "CP/M calls" and a value of "2" performs "MP/M" calls.)

7.3) BEGIN IN INSERT MODE (NO)

During full screen editing, you are either in "Overstrike" or "Insert" mode. This setting lets you select which mode the editor begins in. This is a matter of personal preference.

7.4) HEX CODE FOR STATUS LINE CHARACTER (20)

The "blank" parts of a reverse video status line are usually the space character (hex code 20). However, if you do not select a reverse video status line, you may want to use a "dash" (hex code 2D) on the status line - a better character for the IBM PC is hex code "C4".

7.5) HEX CODE FOR SCREEN CONTINUATION CHARACTER (AD)

This is the line continuation indicator used in Visual Mode in reserved column 0. Most common is a hyphen (code 2D hex) or reverse video hyphen (code AD hex).

7.6) HEX CODE FOR TAB FILL CHARACTER (20)

Tab characters are normally displayed with "spaces" (code 20 hex) to the next tab position. If you need a better indication of where tab characters are you may want to pick another character such as a "period" (code 2E hex).

7.7) HEX CODE FOR END-OF-LINE CHARACTER (20)

Normally no character is shown at the end of a line where the RETURN (<CR> <LF> pair) is. If desired, the RETURN can be displayed as a visible character (Visual Mode only). Candidates on an IBM PC include hex codes 11 and 14.

TASK 8 - CHANGE COMMAND MODE INTERFACE

The following parameters apply primarily to the Command Mode.

8.1) CHANGE SIGN-ON MESSAGE

This message appears briefly when you invoke VEDIT PLUS. You can use it to identify how the particular VEDIT PLUS was installed. The message may be up to 64 characters long. An example message might be:

Bill's Televideo 920C, Word Wrap = 70, Horiz Scroll = 210

8.2) PATTERN MATCH CHARACTER (|)

The lead-in character for all search pattern matching codes is shown in this manual as a "|". If your keyboard does not have a "|", you must change it to some other little used character, perhaps "~". Note that the "Pattern Match Character" is also applicable to the [FIND] and [REPLACE] functions in Visual Mode.

8.3) COMMAND ITERATION LEFT BRACKET ([-- See 8.4

8.4) COMMAND ITERATION RIGHT BRACKET (])

The Command Iteration Brackets delimit iteration loops - groups of Command Mode commands. They are normally "[" and "]". Alternatively, you can choose "{" and "}".

NOTE: The characters "<" and ">" may not be used. (They are reserved for the relational operators.)

8.5) COMMAND ESCAPE CHARACTER (ESC)

This is the Command Escape character which should be the <ESC> key if your keyboard has it. In the rare case that your keyboard does not have an <ESC> key, choose another control character, perhaps <CTRL-Z>.

8.6) COUNT FOR COMMAND MODE HELP MESSAGE (3)

This parameter determines how many times the "COMMAND:" prompt is preceded by the - "EX" to Exit, "EQ" to Quit... - help message. Experienced users may prefer a value of "0" to disable it. A value of "255" causes it to always appear.

8.7) START UP IN COMMAND MODE (NO)

Most users want VEDIT PLUS to start up in Visual Mode. However, you can optionally also start up in Command Mode. If you are using the macro "MENU.VDM" with auto-startup, you may want to change this setting to "YES"; otherwise, the menu does not appear until the first time you exit Visual Mode.

8.8) (CRT ONLY)
SPEED OF YOUR COMPUTER IN MHZ [1 - 20] (4)

Enter the number closest to the "processor clock speed" of your computer. Values of "2" and "4" are most common for 8080/Z80 processors, and "4" and "8" for 8086/8088. Double the value for 80286 processors. This value is not critical. It is used for CRT's which require time delays after control sequences (i.e. clear screen) are sent to them. It is also used in computing the delay for updating the status line.

TASK 9 - CHANGE FILE HANDLING PARAMETERS

This task lets you control VEDIT PLUS's auto-startup feature, drive searching for the three help files and two parameters pertaining to auto-buffering.

9.1) ENABLE AUTO-STARTUP (EXECUTE VEDIT.INI) (YES)

If you always or occasionally use the auto-startup facility, answer with "YES". Otherwise, answer with "NO". When set to "NO", VEDIT PLUS will not even search for the VEDIT.INI file; this saves a few seconds each time it is invoked.

9.2) LOOK FOR HELP AND VEDIT.INI ON CURRENT DRIVE
[0=NO, 1=YES, 2=ALSO SEARCH ROOT] (2)

If you want VEDIT PLUS to search on the current drive for the ".HLP" help files and the optional VEDIT.INI file, answer with a "1" for YES. This will search the current directory (or CP/M user number). If you want VEDIT PLUS to additionally search the MS-DOS root directory (or CP/M user number 0) on the current drive, answer with a "2". Normally you do not want VEDIT PLUS to search the current drive since you should keep all of the VEDIT PLUS files on your system disk (hard disk). The next parameter lets you specify which drive contains your system disk.

9.3) ALTERNATE DRIVE FOR HELP AND VEDIT.INI FILES
[0=NONE, 1=A, 2=B, ...] (0)

In addition to the current drive, VEDIT PLUS can search the MS-DOS "\VEDIT" subdirectory or root directory (CP/M user number 0) on any other designated drive for the ".HLP" help and VEDIT.INI files. Drive A is "1", drive B is "2", etc. IBM PC XT/AT users should answer with "3" since the help files and optional VEDIT.INI are usually kept on the hard disk in the subdirectory "\VEDIT". Note: If this and the previous question are answered with "0", the on-line help cannot be accessed.

9.4) SIZE OF FREE MEMORY AFTER AUTO-READ (6)

This value determines the number of K-bytes free in the edit buffer AFTER a file larger than available memory space is read. Allowable values are 1 to 32 - the value is NOT critical.

For example, an edit buffer typically has 58K of memory available. With the normal value of "8" K-bytes, it could then read in up to 50K of a large file - leaving the 8K free. This free space is available for inserting new text, particularly the contents of text registers. The auto-buffering attempts to keep this amount of memory free. Use the "U" command to verify actual free memory and the "EN" command to make more free memory.

NOTE: This value is NOT the amount of memory VEDIT PLUS will use for the edit buffer, since VEDIT PLUS always sizes memory and uses all that is available. You can read a little more of a large file into memory by making this value SMALLER.

9.5) SIZE OF FILE BUFFERING "PAGE" (12)

This value determines how much text (in K-bytes) is written to disk each time "auto-buffering" is performed. The allowable range is 1 - 32.

TECHNICAL NOTE: When VEDIT PLUS auto-buffers, it attempts to append one "Page" of new text from the input file to the edit buffer. If there is insufficient free memory for appending this much text, one "Page" of text is first written from the beginning of the edit buffer to the output file. VEDIT PLUS then performs an auto-read, appending the rest of the input file, or until the memory is filled to within the number of free bytes specified by "Free Memory after Auto-Read".

STEP 5 - TASKS (10) - (12): CHANGE MACHINE RELATED SETTINGS

These tasks adapt VEDIT PLUS to a particular personal computer, CRT terminal or video display board. These settings generally will not change after the initial installation. Only one of TASK (11) or TASK (12) will apply to your machine. The other will give you an error message. Note that TASK 12 was described earlier (under STEP 2.5), since it is helpful to perform this task first.

TASK 10 - CHANGE SCREEN DEPENDENT PARAMETERS

Any screen size up to 70 lines by 250 columns is supported. With memory mapped systems you must set both TASKS 10.2 and 11.3 to the correct number of characters (columns) per line. For example, the IBM PC takes a value of 80 for both unless you have a non-standard 132 column display, in which case you must set both to 132.

10.1) NUMBER OF SCREEN LINES (24 or 25)

Enter the number of lines on your screen. The IBM Personal Computer has 25 lines. While most CRT terminals have 24 lines, some have a 25th "Status Line". On some of these, it is possible for VEDIT PLUS to place its status line on the 25th line. These terminals are marked with a "*" following the terminal's name in the menu. To use the 25th line, answer this question with a "25". Note that the Intertec Intertube II must be specified as having 25 lines. Answer with "24" for the Televideo 950C, since VEDIT PLUS cannot use its status line.

10.2) LENGTH OF DISPLAYED LINE (80)

This is the number of characters per line VEDIT PLUS will display. Normally you want this value equal to the screen line length, usually 80. The value for the IBM Personal Computer is 80 unless you are using a non-standard 132 column display.

10.3) LINE MOVEMENT FOR PAGING (20)

Enter the number of screen lines that [PAGE UP] and [PAGE DOWN] jump over. About 4/5 of the total number of screen lines is suggested, i.e., "20" for a 24 line display.

10.4) TOP LINE FOR CURSOR (3)

This sets the top screen line (not including the status line) that the cursor can normally be on, before the screen will begin to scroll down.

10.5) BOTTOM LINE FOR CURSOR (20 or 21)

This is similar to the previous question, except that it sets the bottom line range for the cursor. This number must be greater than or equal to the "Top Line for Cursor" setting, and must be at most one less than the "Number of Screen Lines". "4" less than the number of screen lines is a good starting point.

10.6) ATTRIBUTE FOR TEXT CHARACTERS FOR IBM PC -- (2)
 CRT TERMINAL -- (0)

This and the next five settings determine the screen attributes used for various characters on the screen. On a monochrome IBM PC, the only attributes are "normal" (any value "1" - "7") and "reverse video" (attribute value 70 hex). On a color IBM PC, various colors can be selected according to the table below. This table gives the value for "normal" colored characters on a black background and "reverse video" black characters on a colored background. The table in the "Windows" heading of the User Guide gives other possible attribute values.

For CRT terminals and most other computers, the only attributes are "normal" (attribute value "0") and "reverse video" (attribute value "1").

This setting determines the attribute (color) used for the text being edited. This setting may be changed for individual windows with the Command Mode "YEA" command.

Value	Character	Background	Value	Character	Background
1	Blue	on Black	10	Black	on Blue
2	Green	on Black	20	Black	on Green
3	Cyan	on Black	30	Black	on Cyan
4	Red	on Black	40	Black	on Red
5	Magenta	on Black	50	Black	on Magenta
6	Brown	on Black	60	Black	on Brown
7	White	on Black	70	Black	on White

- 10.7) ATTRIBUTE FOR SCREEN ERASE FOR IBM PC -- (2)
 CRT TERMINAL -- (0)

This is the attribute used for those portions of windows where there is no text. This is usually set to the same attribute used for text characters. Making them different gives an unusual effect. (Making them different makes it possible to clearly see spaces and tabs at the end of a line.) This setting may be changed for individual windows with the Command Mode "YEA" command.

- 10.8) ATTRIBUTE FOR STATUS LINE FOR IBM PC -- (70)
 CRT TERMINAL -- (1)

This is the attribute used for the "FILE", "LINE", "COL" and blank parts of the status line. The status line is usually displayed in reverse video.

- 10.9) ATTRIBUTE FOR STATUS LINE MESSAGES FOR IBM PC -- (70)
 CRT TERMINAL -- (1)

This is the attribute used for messages on the status line, including "TEXT", "INSERT" and all menu prompts. They are also usually displayed in reverse video. If you really want the messages to stand out, use a different attribute from the one used for 10.8. This attribute is also used for the "continuation characters" which can appear in the very first column of a window line.

- 10.10) ATTRIBUTE FOR WINDOW BORDER FOR IBM PC -- (3)
 CRT TERMINAL -- (0)

This is the attribute used for the borders drawn around windows. The borders are usually drawn as normal characters. On a color IBM PC it is preferable to pick a color different from the text characters.

- 10.11) ATTRIBUTE FOR WINDOW BORDER MESSAGE FOR IBM PC -- (30)
 CRT TERMINAL -- (1)

This is the attribute used for the "WINDOW" message indicating which window is active. This attribute is usually the opposite of that for the window border.

TASK 11 - ADDITIONAL MEMORY MAPPED INSTALLATION FEATURES

11.1) HEX CODE FOR CURSOR CHARACTER (5FH)

This is the character used for cursor type "O" - the blinking "underline" cursor. While normally the underline character (code 5F hex), a hex code of "7F" commonly gives a solid block (but not on the IBM PC).

11.2) HEX CODE FOR SCREEN ERASE CHARACTER (20H)

VEDIT PLUS normally clears the screen with spaces (code 20 hex). However, for special applications, a different character could be used. (For example, the Polymorphic VTI requires that Bit 8 be set for normal characters - the screen clear character is therefore code "A0" hex.)

11.3) SCREEN LINE LENGTH (80)

This is the number of bytes (words) per screen line in a memory mapped display, typically 80. This number must be in the range 20 - 255. The IBM PC requires a value of 80 unless you have a non-standard 132 column display. This parameter is usually set to the same value as TASK 10.2.

11.4) (IBM PC ONLY)
USING HIGH SPEED CGA/EGA COLOR BOARD (NO)

The standard IBM CGA color board must be updated slowly to prevent annoying "snow" on the screen. However, some CGA boards from other manufacturers can be updated at high speed. If you are using one, set this parameter to "YES". All EGA color boards can be updated at high speed and, if you are using one, you should set this parameter to "YES".

11.5) (IBM PC ONLY)
ATTRIBUTE OVERRIDE FOR CURSOR (0 = AUTO)

This parameter lets you select an overriding color/attribute for cursor types 1 and 2 (Task 5.1). The normal setting of "0" causes the cursor's color/attribute to be automatically determined from the current text attributes. For example, setting this parameter to "CO" gives a red cursor regardless of the color of the text characters.

If you choose a highlighted color such as yellow (attribute 14 decimal) for your text, you may not like the automatic cursor color. You can then set this parameter to the desired cursor color.

11.6) (GENERIC ONLY)
ADDRESS OF SCREEN

For 8080/Z80 generic versions, this is the memory address of the beginning of the video memory. Many 16 x 64 boards have an address of 0000 hex. The TRS-80 Model II has an address of F800 hex. For 8086 generic versions, this is the segment address for the beginning of video memory.

11.7) (GENERIC ONLY)
NUMBER OF VIDEO BOARD INITIALIZATION BYTES

Enter "0" if your video board requires no initialization. Otherwise, enter a number between "1" and "5" for the number of "data byte" - "port address" pairs needed for initialization. Most memory mapped systems need no initialization (including TRS-80 Models I, II and 16).

ENTER DATA BYTE
ENTER PORT ADDRESS

The specified number of "data byte"- "port address" pairs is entered in hexadecimal with each number followed by RETURN.

STEP 6 - INSTALLATION COMPLETE; RETURN TO OPERATING SYSTEM

Type "E" at the main menu. Type "Y" at the confirmation prompt to save the newly installed VEDIT PLUS on disk. At this point the new VEDIT PLUS is ready for use.

KEYBOARD LAYOUT NOTES

The ability to determine one's own keyboard layout for the Visual Mode edit functions is a very popular feature of VEDIT PLUS. Since designing a useful layout can be difficult, you should start with one of our example (pre-configured) layouts. The best layout depends largely upon your keyboard, especially if you have one with cursor and other function keys. The more extra keys you have, the easier it becomes to design and remember the layout.

The edit functions in Visual Mode are performed by typing control characters, escape sequences and, if your keyboard has them, function keys. One organizational strategy when designing a layout for keyboards without function keys is to use mnemonic letters, such as <CTRL-D> for [DELETE] and <CTRL-U> for [UNDO]. Another strategy is to arrange the keys in some geometric manner, such as having the cursor movement keys on one side of the keyboard and the other function keys on the other side.

You can also simplify the layout by using escape sequences, especially for functions you do not use often, or do not want to press by mistake. You will want to avoid placing the keys you least want to hit by mistake, such as [ERASE LINE], right next to the cursor movement keys.

VEDIT PLUS supports a wide range of keyboard generated escape sequences. They may be user typed, or may result from pressing function keys. All escape sequences must begin with a control character such as <ESC> or <CTRL-A>. The escape sequence may then be of any (reasonable) length. "ANSI" escape sequences are supported. Some terminals, like the IBM 3101, have function keys which send a Carriage Return at the end of escape sequences. The keyboard installation detects this automatically and you need not be concerned with it - it can tell the difference between the Carriage Return that the function keys send and the one you type at the end of each entry.

The function keys on some personal computers generate special characters with the "high" or 8th bit set. Since INSTALL and VEDIT PLUS process all 8 bits of keyboard characters, such function keys are also fully supported. The function keys on the IBM PC, running under PCDOS, produce escape sequences with a "Null" as the escape lead-in character. However, under CP/M-86, VEDIT PLUS decodes the function keys as "high" bit characters. The difference is not noticeable to the user.

When performing the keyboard customization, INSTALL asks the question: "Upper/Lower Case Escape Sequences Equivalent?" If you answer NO to this question, VEDIT PLUS will make a distinction between, for example, "<ESC>-H" and "<ESC>-h". Therefore, if you

entered the escape sequence with a lower case "h" during installation, VEDIT PLUS would not respond to the escape sequence with an upper case "H". This is annoying if you hand type most of the escape sequences, since at times you may have the SHIFT or a CAPS-LOCK depressed. In this case you would want to answer the question with a YES. However, the function keys on some terminals, such as a Televideo, send escape sequences which distinguish between upper and lower case letters. In this case you will want to answer the question with NO.

Usually, function keys and control characters are assigned to the most used edit functions, and escape sequences to the less used functions. The menu-functions are good candidates for escape sequences. You can use the digits on the top row of any keyboard in escape sequences and attach a strip of cardboard describing their assigned edit functions.

While all of this is complicated enough already, there are a few pitfalls to avoid too. (You are well advised to use one of the example keyboard layouts at first.) The only key which is predefined is the RETURN key, which is also <CTRL-M>, and cannot be used for any edit function. The function keys on some keyboards send a code identical to a control character. You might, therefore, unintentionally attempt to use the same control code for two edit functions. In this case, INSTALL gives an error message and requests a new key for that function.

Internal Keyboard Decoding (Technical)

An understanding of how the keyboard decoding works internally may help you with special layouts. The keyboard is decoded using one table to handle both the normal layout and any keystroke macros. The entire table is saved to disk by the "YK" command and a new table loaded with the "YL" command.

The table consists of a variable number of variable length entries. Each entry consists of two parts. The first part is the character or characters that the user needs to type to perform an operation. The second part is a 16 bit representation of what is performed. Edit functions are represented with the same two letter codes used in the help files. Displayable characters are represented with the upper 8 bits set to zero.

For example, assume that <F1> performs [CANCEL]. The first part of the corresponding table entry consists of the bytes "00" and "3B" hex - this is what the <F1> key sends. The second part consists of the single 16 bit entry "CA" - representing the [CANCEL] function.

The first part of each table entry may be as long as needed - some function keys send sequences of five or more characters. The

second part can also be as long as needed - allowing keystroke macros. In effect this table is used to translate a sequence of keystrokes into a sequence of edit functions and/or displayable characters.

Since the first part of an entry may consist of a single displayable character, VEDIT PLUS can translate from a normal typewriter layout to a Dvorak layout. Or you could rearrange some of the punctuation characters.

This Page Reserved For Your Notes

DESCRIPTION OF FILES ON DISK

IBM PC WITH PCDOS

This disk contains a "ready to use" pre-installed VEDIT PLUS for the IBM PC /XT /AT and close compatibles. You DO NOT need to perform the installation first. Instead, make a copy of the original disk and then go directly to the "30 Minute Tutorial".

If you have a hard disk you should create the subdirectory "\VEDIT" on the hard disk and copy all files to it. Follow the directions under "Setting up VEDIT PLUS on an IBM PC-XT or AT" in the Introduction for "customizing" VEDIT PLUS for use on a hard disk.

To further "customize" VEDIT PLUS, follow the instructions in the Installation. It is usually a good idea to use the pre-installed version and get the "feel" of VEDIT PLUS, before customizing your own version. Note that this version of VEDIT PLUS is Memory Mapped which accesses the screen directly.

INSTALL.EXE	The program used to perform the Installation.
VPLUS.COM	Pre-installed version of VEDIT PLUS for IBM PC.
EXPERT.COM	Pre-installed version using the "Expert" keyboard layout which most users will find preferable.
VPHELP.HLP	Help file accessed by "H" command. The help file may be edited to better fit your needs.
VPEHELP.HLP	Help file accessed by "EH" command.
VVHELP.HLP	Help file accessed by [HELP] function.
PRINT.VDM	Simple print formatting command macro.
COMPARE.VDM	A sophisticated split screen file comparison/merge command macro.
SORT.VDM	A command macro to sort a mailing list.
MENU.VDM	A macro to make Command Mode "Menu" driven.
MENU.INI	A macro which should be renamed to "VEDIT.INI" to enable the MENU.VDM file.

FILES FOR IBM PC WITH CP/M-86 OR CONCURRENT CP/M-86

This disk contains both a Memory Mapped VEDIT PLUS and a "generic" CRT version of VEDIT PLUS. The Memory Mapped version is preferable and will run under either CP/M-86 or Concurrent CP/M-86. However, if you have Concurrent CP/M-86 (or Concurrent DOS) AND need to run with Concurrent's "windows" you must use the CRT version.

The "VPLUS.CMD" is pre-installed for CP/M-86 only. With Concurrent CP/M-86 you MUST perform the Installation on either the Memory Mapped file "VPLUS.CMD" or the CRT file "VPLUS86C.SET" and enter the "Example Keyboard for IBM PC with Concurrent CP/M-86". The keyboard layout is different because Concurrent supports only very limited use of the function and cursor keys.

If you have Concurrent CP/M-86 read the file "CONCUREN.DOC" for additional setup information.

INSTALL.CMD	The program used to perform the Installation.
INSTALL.INI	File needed to install CRT file VPLUS86C.SET.
VPLUS.CMD	Pre-installed IBM PC version for CP/M-86 only. For Concurrent you must perform TASK 2 of Installation.
VPLUS86C.SET	File for producing the CRT version of VEDIT PLUS for Concurrent CP/M-86.
VPHELP.HLP	Help file accessed by "H" command.
VPEHELP.HLP	Help file accessed by "EH" command.
VVHELP.HLP	Help file accessed by [HELP] function.
PRINT.VDM	Simple print formatting command macro.
COMPARE.VDM	A sophisticated split screen file comparison/merge command macro.
SORT.VDM	A command macro to sort a mailing list.
MENU.VDM	A macro to make Command Mode "Menu" driven.
MENU.INI	A macro which should be renamed to "VEDIT.INI" to enable the MENU.VDM file.
CONCUREN.DOC	Additional information for use with Concurrent CP/M.
IBMSETUP	File needed to setup function and cursor keys with Concurrent CP/M-86.

EXAMPLE KEYBOARD LAYOUT FOR THE IBM PERSONAL COMPUTER

[CURSOR UP]	<Up Arrow>	
[CURSOR DOWN]	<Down Arrow>	
[CURSOR RIGHT]	<Right Arrow>	
[CURSOR LEFT]	<Left Arrow>	
[BACK TAB]	<Home>	
[TAB CURSOR]	<---	(SHIFT - TAB)
[ZIP]	<End>	
[LINE TOGGLE]	<CTRL-L>	
[NEXT LINE]	<CTRL-Return>	Same as <CTRL-J>
[SCROLL UP]	<CTRL-Home>	
[SCROLL DOWN]	<CTRL-End>	
[SCROLL RIGHT]	<CTRL-Right Arrow>	
[SCROLL LEFT]	<CTRL-Left Arrow>	
[PREVIOUS WORD]	<F5>	
[NEXT WORD]	<F6>	
[PREVIOUS PARAGRAPH]	<CTRL-Pg Up>	
[NEXT PARAGRAPH]	<CTRL-Pg Dn>	
[PAGE UP]	<Pg Up>	
[PAGE DOWN]	<Pg Dn>	
[SCREEN TOGGLE]	<CTRL-T>	
[INSERT]	<Ins>	
[DELETE]		
[BACKSPACE]	<---	
[DEL PREVIOUS WORD]	<ALT-F5>	
[DEL NEXT WORD]	<ALT-F6>	
[ERASE TO END OF LINE]	<CTRL-Z>	
[ERASE LINE]	<CTRL-X>	
[UNDO]	<CTRL-U>	
[TAB CHARACTER]	--->	
[NEXT CHAR LITERAL]	<CTRL-Q>	
[REPEAT]	<CTRL-R>	
[FIND]	<F2>	
[REPLACE]	<ALT-F2>	
[CANCEL]	<F1>	
[INDENT]	<F8>	
[UNDENT]	<F7>	
[FORMAT PARAGRAPH]	<CTRL-F>	
[MACRO]	<ALT-F4>	
[VISUAL EXIT]	<CTRL-E>	
[VISUAL ESCAPE]	<ESC>	
[DEFINE]	<CTRL-D>	
[HELP]	<ALT-F1>	
[GOTO]	<F10>	
[FILE]	<F3>	
[BLOCK]	<F9>	
[PRINT]	<ALT-F3>	
[WINDOW]	<F4>	
[USER]	<ALT-F9>	
[MISC]	<ALT-F10>	

"EXPERT" KEYBOARD LAYOUT FOR THE IBM PERSONAL COMPUTER (Page 1)

Most users find this keyboard layout preferable since it assigns the menu-functions to mnemonic <ALT> keys and the most commonly used menu operations to "hot keys". The pre-configured "EXPERT.COM" file follows this layout.

[CURSOR UP]	<Up Arrow>	
[CURSOR DOWN]	<Down Arrow>	
[CURSOR RIGHT]	<Right Arrow>	
[CURSOR LEFT]	<Left Arrow>	
[BACK TAB]	<Home>	
[TAB CURSOR]	<---	(SHIFT - TAB)
[ZIP]	<End>	
[LINE TOGGLE]	<CTRL-L>	
[NEXT LINE]	<F3>	
[SCROLL UP]	<CTRL-Home>	
[SCROLL DOWN]	<CTRL-End>	
[SCROLL RIGHT]	<CTRL-Right Arrow>	
[SCROLL LEFT]	<CTRL-Left Arrow>	
[PREVIOUS WORD]	<F5>	
[NEXT WORD]	<F6>	
[PREVIOUS PARAGRAPH]	<CTRL-Pg Up>	
[NEXT PARAGRAPH]	<CTRL-Pg Dn>	
[PAGE UP]	<Pg Up>	
[PAGE DOWN]	<Pg Dn>	
[SCREEN TOGGLE]	<CTRL-T>	
[INSERT]	<Ins>	
[DELETE]		
[BACKSPACE]	<---	
[DEL PREVIOUS WORD]	<ALT-F5>	
[DEL NEXT WORD]	<ALT-F6>	
[ERASE TO END OF LINE]	<CTRL-Z>	
[ERASE LINE]	<CTRL-X>	
[UNDO]	<CTRL-U>	
[TAB CHARACTER]	---	
[NEXT CHAR LITERAL]	<CTRL-Q>	
[REPEAT]	<CTRL-R>	
[FIND]	<F2>	
[REPLACE]	<ALT-F2>	
[CANCEL]	<F1>	
[INDENT]	<F8>	
[UNDEMENT]	<F7>	
[FORMAT PARAGRAPH]	<CTRL-F>	
[MACRO]	<ALT-F4>	
[VISUAL EXIT]	<CTRL-E>	
[VISUAL ESCAPE]	<ESC>	
[DEFINE]	<CTRL-D>	
[HELP]	<ALT-F1>	

"EXPERT" KEYBOARD LAYOUT FOR THE IBM PERSONAL COMPUTER (Page 2)

[GOTO]	<ALT-G>
[FILE]	<ALT-F>
[BLOCK]	<ALT-B>
[PRINT]	<ALT-P>
[WINDOW]	<ALT-W>
[USER]	<ALT-U>
[MISC]	<ALT-M>

Keystroke Macros -

[GOTO]-Home	<ALT-H>
[GOTO]-Zend	<ALT-Z>
[GOTO]-Set	<CTRL-S>
[GOTO]-Jump	<CTRL-J>
[BLOCK]-Copy	<F9>
[BLOCK]-Move	<ALT-F9>
[BLOCK]-Insert	<F10>
[PRINT]-Block	<CTRL-P>
[WINDOW]-Switch	<F4>
[MISC]-Match	<ALT-F10>

find & replace with macro menu
control window -> alt <ALT-W>

toggle between files <ALT-T>

→
→ 90°

EXAMPLE KEYBOARD LAYOUT FOR THE IBM PC WITH CONCURRENT CP/M-86

[CURSOR UP]	<Up Arrow>
[CURSOR DOWN]	<Down Arrow>
[CURSOR RIGHT]	<Right Arrow>
[CURSOR LEFT]	<Left Arrow>
[BACK TAB]	<Home>
[TAB CURSOR]	<CTRL-T>
[ZIP]	<End>
[LINE TOGGLE]	<CTRL-L>
[NEXT LINE]	<CTRL-N>
[SCROLL UP]	<CTRL-W>
[SCROLL DOWN]	<CTRL-S>
[SCROLL RIGHT]	<CTRL-D>
[SCROLL LEFT]	<CTRL-A>
[PREVIOUS WORD]	<F5>
[NEXT WORD]	<F6>
[PREVIOUS PARAGRAPH]	<ESC>-W
[NEXT PARAGRAPH]	<ESC>-X
[PAGE UP]	<Pg Up>
[PAGE DOWN]	<Pg Dn>
[SCREEN TOGGLE]	<CTRL-K>
[INSERT]	<Ins>
[DELETE]	
[BACKSPACE]	<--->
[DEL PREVIOUS WORD]	<CTRL-V>
[DEL NEXT WORD]	<CTRL-B>
[ERASE TO END OF LINE]	<CTRL-Z>
[ERASE LINE]	<CTRL-X>
[UNDO]	<CTRL-U>
[TAB CHARACTER]	<--->
[NEXT CHAR LITERAL]	<CTRL-Q>
[REPEAT]	<CTRL-R>
[FIND]	<F1>
[REPLACE]	<F2>
[CANCEL]	<F3>
[INDENT]	<F8>
[UNDENT]	<F7>
[FORMAT PARAGRAPH]	<CTRL-F>
[MACRO]	<ALT-X>
[VISUAL EXIT]	<CTRL-E>
[VISUAL ESCAPE]	<ESC>-<ESC>
[DEFINE]	<ALT-K>
[HELP]	<ALT-H>
[GOTO]	<F10>
[FILE]	<ALT-F>
[BLOCK]	<F9>
[PRINT]	<ALT-P>
[WINDOW]	<F4>
[USER]	<ALT-U>
[MISC]	<ALT-M>

EXAMPLE CUSTOMIZATION FOR IBM PC

These are the pre-installed values for the VPLUS.COM file.

4.)	PHYSICAL LINES PER PAGE	66
	PRINTED LINES PER PAGE	60
	LEFT MARGIN FOR PRINTING	12
	USE FORM-FEED FOR NEW PAGE	Yes
5.)	CURSOR TYPE	1
	CURSOR BLINK RATE	35
	INDENT INCREMENT	4
	LOWER/UPPER CASE CONVERSION	No Conversion
	CONDITIONAL CONVERSION CHARACTER	;
	DELAY FOR COMMAND MODE SCROLLING	0
	RIGHT MARGIN FOR WORD WRAP (0 = OFF)	0
	HIGH BIT PROCESSING ON INPUT/OUTPUT	3
	CURSOR POSITIONING OPTION	1
	HORIZONTAL SCROLL MARGIN	210
	HORIZONTAL SCROLL INCREMENT	20
6.)	EXPAND TAB WITH SPACES	No
	AUTO-BUFFERING IN VISUAL MODE	Forward & Back
	AUTO-INDENT MODE	No
	POINT PAST TEXT REGISTER INSERT	Yes
	EQUATE UPPER/LOWER CASE WHEN SEARCHING	Yes
	MS-DOS END-OF-FILE PADDING	No
	REVERSE ALL UPPER AND LOWER CASE KEYS	No
	SUPPRESS ERROR HANDLING	No
	USE EXPLICIT TEXT DELIMITERS	No
	GLOBAL FILE OPERATIONS	No
	JUSTIFY PARAGRAPHS	No
7.)	TAB POSITIONS	Every 8
	KEYBOARD INPUT	System
	BEGIN IN INSERT MODE	No
	STATUS LINE CHARACTER	20 hex
	SCREEN CONTINUATION CHARACTER	AD hex
	TAB FILL CHARACTER	20 hex
	END-OF-LINE CHARACTER	20 hex
8.)	PATTERN MATCH CHARACTER	
	COMMAND ITERATION LEFT BRACKET	[
	COMMAND ITERATION RIGHT BRACKET]
	COMMAND ESCAPE CHARACTER	ESC
	COUNT FOR COMMAND MODE HELP MESSAGE	3
	START UP IN COMMAND MODE	No

EXAMPLE CUSTOMIZATION FOR IBM PC (PAGE 2)

9.)	ENABLE AUTO-STARTUP (EXECUTE VEDIT.INI)	Yes
	LOOK FOR HELP AND VEDIT.INI ON CURRENT DRIVE	Yes
	ALTERNATE DRIVE FOR HELP AND VEDIT.INI FILES	None
	SIZE OF FREE MEMORY AFTER AUTO-READ (K BYTES)	6
	SIZE OF FILE BUFFERING "PAGE" (K BYTES)	12
10.)	NUMBER OF SCREEN LINES	25
	(Use 24 for CP/M-86)	
	LENGTH OF DISPLAYED LINE	80
	LINE MOVEMENT FOR PAGING	20
	TOP LINE FOR CURSOR	3
	BOTTOM LINE FOR CURSOR	21
	ATTRIBUTE FOR TEXT CHARACTERS	2 hex
	ATTRIBUTE FOR SCREEN ERASE	2 hex
	ATTRIBUTE FOR STATUS LINE	70 hex
	ATTRIBUTE FOR STATUS LINE MESSAGES	70 hex
	ATTRIBUTE FOR WINDOW BORDER	3 hex
	ATTRIBUTE FOR WINDOW BORDER MESSAGE	30 hex
11.)	CURSOR CHARACTER	5F hex
	SCREEN ERASE CHARACTER	20 hex
	SCREEN LINE LENGTH	80
	USING HIGH SPEED CGA/EGA COLOR BOARD	No
	ATTRIBUTE OVERRIDE FOR CURSOR	0