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*           A VUCOM-4 Visual Editor
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*           by
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Abstract

This document describes the preliminary version of the VUCOM-4 visual editor. The editor is designed to be particularly useful at a rate of 300 baud -- i.e., it is designed so that minimal typing is required, and minimal responses are given. Editor commands are modeled after the MTS Editor, QED, the Wylbur text system, and others.

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A VUCOM-4 VISUAL EDITOR

This document describes the preliminary version of the VUCOM-4 "visual editor". All commands, assumptions, conventions, etc., are subject to change without notice. Texture source for this document is available as BARY:ED.HELP.S. You should \$SOURCE to this file to obtain a TN-ready copy. Comments, suggestions, criticisms, and requests are welcomed!

Recent modifications to the editor are indicated by the presence of vertical bars in the right margin of this writeup (such as those appearing to the right of this paragraph).

Overview

The editor is designed to be particularly useful at a rate of 300 baud -- i.e., it is designed so that minimal typing is required, and minimal responses are given.

Editor commands are modeled after the MTS Editor, QED, the Wylbur text system, and others. Note that the commands are not directly compatible with those of the MTS Editor!

Assumptions and Conventions

The user must be using a VUCOM-4 terminal, with the PAGE key depressed. No other terminal will respond correctly.

The Attention key will not usually respond as it does within the normal MTS environment. Hitting attention forces the editor to return to command mode immediately. The current input line is ignored. If a second attention is issued with no intervening typing, the editor will return to MTS.

The screen is partitioned into two areas: the top of the screen serves as the "visual data" portion, displaying the contents of the portion of the file currently being edited. The bottom of the screen serves as a command and information area.

The data portion of the screen is composed of a series of lines each having the following format: <l><data> where <l> is the line name (a lower (or upper) case letter from 'a' to 'w') and <data> is the data residing in this line of the file.

If the "force line numbers" command is issued, an additional field, <n>, the MTS line number, will appear between <l> and <data>.

The second to bottom line of the screen is used to issue warning and/or error messages. These messages will occur for only about half a second, and then they will disappear.

The bottom line of the screen is termed the "home" line; and "home" is the bottom left corner of the screen. "Home" also may be addressed as line 'z'. The MTS line numbers of the first and last lines currently being displayed are shown on the right of the home line.

Some editors contain two distinct modes of operation -- intraline and interline -- and have different commands and conventions for each mode. This editor does not make any such distinction -- commands may be issued and will execute correctly so long as they make sense. Thus, most commands may be issued anywhere on the screen. A few make no sense if issued at "home". Typically such commands will be ignored with no comment. Two commands may only be issued at "home": \$ and !. (See descriptions below.)

Due to conventions within the Front End Support, nothing that you type will be heard by the editor until you type "carriage return". Therefore, the editor will accept a carriage return at almost any time. Usually it has no effect other than to transmit the just typed commands. Of course the editor then executes these commands. Note that since all input the editor is in "binary mode", you do not have MTS's usual line editing facilities at your disposal. In particular, backspace and forward space do not perform as they might in MTS.

Running the Editor

To run the editor, issue the following MTS command:

```
$RUN BARY:ED
```

Then put your terminal into "page mode" by depressing the Page key.

The editor will request a file name immediately -- this is the file to be edited initially. During the course of the editing process a new file may be selected.

If you wish to avoid the editor's request for a file name, you may provide it in the RUN command by saying:

```
$RUN BARY:ED PAR= ; file
```

where 'file' is the appropriate name. Note the space before the semicolon.

If you wish the initial display to begin at a specific line (other than the default, line 1) you may specify the line after the file name:

```
$RUN BARY:ED PAR= ; file linenumber
```

where linenumber is the MTS line number of the file you wish to have appear at the top of the screen.

The editor will automatically issue a "\$COPY file -file" to MTS to create a (temporary) backup copy of the file you are going to edit. If you wish to specify the file on which the editor is to place the backup copy, you may do so as follows:

```
$RUN BARY:ED PAR= ; file>backup
```

A linenumber may follow the file specification if desired. A complete backup will be performed in either case; the linenumber affects only the choice of which line to place at the top of the screen.

If you wish to omit performing the backup entirely, you may do so by using the filename "file> ". Note the space after the ">". Of course, a linenumber still may be specified if desired.

Note that the editor will do a \$EMPTY of the file on which it is to place the backup -- the user must be sure that the backup file is indeed the correct one and that no irreplaceable information will be lost.

A "remember the previous editor state" facility is now available. Specifying "*" when the editor requests a file name causes the editor to access its previous state information -- it will restore the edit state to precisely the state it was in when you terminated your last edit session. If you wish to select a different file from the one the editor remembers (and possibly a different starting line number) the file (and line) may be specified immediately following the "*". You must leave at least one space between the "*" and the new file name. It is not possible to specify a different starting line number without also specifying a new file. The editor remembers its prior state in a file under your CCID named ED.STATE. Note that this is a permanent file -- thus the editor is able to remember states between terminal sessions! If you do not provide a file named ED.STATE, the editor will use a temporary file named -ED.STATE to retain the state information. In this case the state information will be lost at signoff time. The current state of the editor is written to its state file at the conclusion of every edit session.

The editor always will attempt to use the files specified by the user. If the edit file is non-existent the editor will create a file by the same name and will begin editing it. The editor will indicate in this case that a file has been created and its exact name. If the editor is unable to access the edit file (it exists but is not read accessible, the editor will complain and will request another file name pair (edit file and copy file). If the copy file is non-existent, it will be created. If the editor is unable to create a copy file, or one exists but is not write and empty accessible, it will complain and then request a new file pair.

Incidentally, the editor is programmed in PASCAL; and you are within the PASCAL environment when running. If a dump occurs during execution, please allow at least one screen-full of data to be printed, then hit Attention twice. Then \$COPY *SOURCE*@SP *PRINT* and give the output to Bary.

Notation

A "slash" (/) prefixing a character indicates that the character is to be typed with the Control key depressed. Note that such keys may be typed in upper or lower case with identical results.

Almost all editor commands are typed as control characters. Operands and data are in either upper or lower case.

- * - indicates the current line
- # - indicates either an integer or an MTS line number
- <c> - indicates a single upper- or lower case character
- <s> - indicates a string of characters
- <file> - indicates an MTS file name
- <aw> - indicates selection of a single line: a, b, ..., w

Description of the Commands

CLR - clear & redisplay screen

This command issues a physical "clear screen" order, then it regenerates the current display.

ESC - reprint line

This command causes the current line to be redisplayed including all modifications made to date.

ETX - return to MTS

This command generates an end-of-file. The current file is written out and the editor returns to MTS.

RESET - home

This command returns the cursor to "home".

RUBOUT - delete character

The character currently under the cursor will be deleted.

/d - delete line

This command occurs in several formats. The current command formats are all tentative.

/d # - delete line #

This command deletes the MTS line numbered #, if it exists.

/d <aw> - delete line <aw>

This command deletes the single line <aw>.

/e<file> - edit new file

This command causes the current file to be updated and closed. The editor then begins to edit the named file. All the forms of 'filename' are accepted, and a backup will be done as (if) requested.

/e<file> # - edit new file, start at line #

This command causes the current file to be updated and closed. The editor then begins to edit the named file, displaying line # at the top of the screen.

/h - help!

This command causes the command summary portion of this document to be displayed.

/i<s> - insert characters <s>

The characters <s> will be inserted beginning at the current cursor position. You may wish to follow this command with a Redisplay line command (ESC). The string to be inserted is terminated by the next command or by a carriage return.

/k - kill to

The kill commands cause multiple character deletions within the current line. The command occurs in several formats.

/k<c> - character <c>

Deletes all characters from the current cursor position up to but not including the character <c>.

/k/l - extreme left

Deletes all characters from the one to the left of the cursor back to the left side of the line.

/k/r - extreme right

Deletes all characters from the one to the right of the cursor to the right side of the line.

/l - move to next line

Moves the cursor to the left margin of the next line.

/m - move cursor to:

The move commands cause the cursor to move to various areas of the screen. As a side effect, the current portion of the file being displayed may change. This command occurs in several formats.

/m # - line #

Causes the visual area to begin with line # of the file.

/m <aw> - line <aw>

Moves the cursor to the left margin of the selected line.

/m z - home

Moves the cursor "home".

/m/l - extreme left

Moves the cursor to the left margin of the current line.

/m/r - extreme right

Moves the cursor to the right margin of the current line.

/n - new line

This command causes the editor to begin input of a new line between the current one and the one immediately following. This command will accept an argument: the line after which new lines are to be inserted.

/n # - begin inserting lines at/after line #

This command is similar to the MTS insert line command. A sequence of lines are inserted at or after the specified line until either an empty line is input or another editor command is issued. Typically, one might end the input of new lines with a Reset command -- this would have the additional side-effect of sending the cursor "home".

/n <aw> - begin inserting lines at/after line <aw>

This command is similar to the one above with the exception that the insertion is begun at/after line <aw>.

/q - query system variables

This command causes a display of the editor's internal variables to appear in the middle of the screen. It is primarily of use to people who forget what file they are editing, or how they've set the various flags and parameters.

/r - renumber lines

This command functions exactly the same as the RENUMBER command in the MTS editor. The five formats accepted are:

```
/r first last start increment  
/r first last start  
/r start increment  
/r start  
/r
```

/s<c> - skip to <c>

This command causes the cursor to be positioned to the first character <c> to the right of its present position in the current line. If <c> is not present the cursor doesn't move.

/s - set:

The set commands allow the user to change the settings of various flags and parameters.

/s/c - flip clear display flag

If on, a physical clear will be issued prior to each redisplay of the screen. If off, no clear is performed. Each command inverts the state of the flag. On initial entry the flag is off.

/s/d - flip display line number flag

The state of the "force display of line numbers" flag is inverted. On initial entry the flag is off.

/s/h # - horizontal window size

The "width" or "length" of the display line is set by this command. The setting of this parameter is entirely independent of the MTS width and length DSR values.

/s/l - lower case

Puts the terminal into "lower case". This command is equivalent to an MTS DSR %LC command, but does not change the DSR setting - it only changes the editor's state.

/s/t #... - set tabs

Sets tab stops at the indicated columns. The tabs should be specified in ascending order. A maximum of 20 tabs may be specified. Default tab settings are provided (see below).

/s/u - upper case

Puts the terminal into "upper case". This command is equivalent to an MTS DSR %UC command, but does not change the DSR setting - it only changes the editor's state.

/s/v # - vertical window size

This command sets the number of lines of a file to be displayed in the data area. The number must be between 1 and 23.

/t - tab

This command causes the editor to insert spaces into the line until the next tab stop is reached. Note that the cursor will not move until a carriage return is issued even though the editor's internal state will indicate that motion to the right has occurred. If the cursor is already at or beyond the rightmost tab stop, a default of two spaces are inserted into the line. Note that this tab feature is destructive -- the data tabbed over will be replaced by blanks. A non-destructive tab will be implemented shortly.

/w - window

This command causes the next physical "window" of information to be displayed in the data area.

This command shortly will accept an argument, #, the number of windows to move forwards or backwards. Note that roughly the same effect may be achieved already via the Move command.

|<s> - send string to the old MTS editor

The string <s> is sent directly to the old editor for interpretation. Any single command may be issued. If the execution of the command causes changes to the current data area it will be redisplayed. This command is effective only when at "home".

\$<s> - send string to MTS

The string \$<s> is sent directly to MTS for interpretation. Note that if a RUN or LOAD occurs, the editor will exit without having completely updated the current file. In particular, the command \$ED may be issued. This will cause a transfer of control to the old MTS editor. You must exit the MTS editor by saying "MTS" rather than "STOP" for correct program execution. Any modifications to the file will be displayed. This command is effective only when at "home".

? - dump buffer

This command causes the editor to dump the current file buffer and other associated information onto the screen. It is primarily of use to the author.

Editor Defaults

The current default values of the editor's internal state variables are:

c off	no clear before redisplay of screen
d off	no display of MTS line numbers
h 78	horizontal screen size = 78
t	20 tabs set at columns 5, 10, 15, 20, ...
uc	upper case conversion on
v 10	vertical screen size = 10

It should be noted that the editor always operates in "trim" mode -- all trailing blanks are stripped from each line on both input and output.

VUCOM-4 EDITOR COMMAND SUMMARY

\$RUN BARY:ED [PAR= ; [file [linenumber]]]

file is [*] filename[>[backup]]

```

CLR          - clear & redisplay screen
ESC          - reprint line
ETX          - return to MTS
RESET        - home
RUBOUT       - delete character

/d           - delete line:
#            - delete line #
<aw>         - delete line <aw>
/e<file>     - edit new file
<line>       - edit new file, begin with line at top of screen
/h           - help!
/i<s>        - insert characters <s>
/k           - kill to:
<c>          - character <c>
/l           - extreme left
/r           - extreme right
/l           - move to next line
/m           - move cursor to:
#            - line #
<aw>         - line <aw>
z            - home
/l           - extreme left
/r           - extreme right
/n           - enter insert line mode
#            - begin insertion at/after line #
<aw>         - begin insertion after line <aw>
/q           - query system variables
/r           - renumber (a la MTS editor)
/s<c>        - skip to <c>
/s           - set: (/s/e also accepted)
/c           - flip clear before redisplay switch
/d           - flip display line number switch
/h #         - horizontal window size
/l           - lower case
/t #...      - set tabs at columns #...
/u           - upper case
/v #         - vertical window size
/t           - insert blanks to next tab stop
/w           - display next window
|<s>         - send <s> to the old MTS editor for interpretation
$<s>        - send $<s> to MTS for interpretation

```

(/c means "control-c")