CHARACTER CODES 1 33 161 P 80 209 # 35 163 R 82 2110 # 35 163 R 82 2112 \$ 36 164 S 83 2112 \$ 37 165 T 84 213 \$ 38 166 U 85 214 & 39 167 V 86 215 & 40 168 W 87 215 & 41 169 X 88 216 * 42 170 Y 89 225 * 44 172 a 97 2228 * 44 172 a 97 2228 * 45 173 b 98 2227 - 45 173 b 98 2230 \$ 46 174 C 99 2229 - 45 173 b 91 104 2330 - 46 174 C 99 2230 - 46 174 C 99 2230 - 58 186 e 101 2230 - 61 188 g 103 2332 - 59 187 f 102 2331 - 58 186 e 101 2332 - 61 189 h 104 2332 - 62 190 i 105 2334 - 62 190 i 105 2334 - 63 191 j 106 2337 - 60 188 g 103 2332 - 100 c 101 c 105 c 106 c 106	CONTRABCDEFG-I-KL-NOPQRSTUVWXYZ-+=;8	UP ARROW - moves up one line without homing cursor. If at the top of screen, will move to previous screen. SHIFT UP - move up to previous screen. CTL UP - move to first screen DN ARROW - move down one row without homing cursor. If at the bottom line will move to top of next screen. CTL DN - move to next screen. CTL DN - move to first line of last screen in file. RTN - terminates input on current line. Hoves cursor to beginning of next line. If at the last line on the screen, moves to first line in next screen. CLR - clears data from current edit line. FET - fetch a string. Abs means to search from the beginning of the file, Rel means relative to current line. The wild card character is the "-". SHIFT EDIT - computes the current line and returns the result. Remarks are ignored if preceeded by a "!". Results are also placed in a buffer for later recall (see Command mode SHIFT TIME). SHIFT APPT - exchange data with VisiCalc. The first part of the prompt allows four options: R = recall cell contents as formatted number or label. S = store current line to cell. Will be stored as a formula or number if possible, as a label if it is not. L = store to cell as a label without attempting to enter it as a formula from the cell. Cell refrences will return default headers. Both column and row coordinates are required and may be entered with user or default headers. SHIFT TIME - copy current line in a temporary buffer. Command mode SHIFT TIME recalls the buffer. Since this is used for Text or numbers, remarks are not reserved. SHIFT RUN - Call a sub-program. Place cursor on the first character of program name and press SHIFT RUN. The program name must be followed by a space or be at the right end of te line. Same as calling a program from Command Level except that you do not have to enter the program name. TIME, APPT, EDIT - enter command mode Host editing keys operate as during normal input. Remember, this is a single line editor, word wrap is not provided.
Glendale, Arizona		

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COMMAND LEVEL

line* (last line) Ins Del Go CQ? [free memory]
To view other functions, press a non-command key, such as
the SPACE BAR View the function labels again by pressing
SHIFT FET. It is not necessary for a label to be in the
display to use the the function. You may press ATTM to
temporarily suspend the program but Q should be used
because it restores the machine status.

COMMAND LEVEL FUNCTIONS:

SHIFT EDIT - Returns the formula used in the last computation. Remarks in the line are retained.

SHIFT APPT- same as in Edit mode.

SHIFT TIME- recalls the contents of the buffer. Returns either the data last stored (in Edit mode) or the result of the last computation, which ever was most recent. Remarks are not retained.

SHIFT ?- Does a CAT ALL. UP and DN You are still in command mode, the command keys are active. SPACE BAR or other non-command key will return you to the command prompt.

- CTL ? (backslash) as with SHIFT ? but does a CAT ALL of the mass storage device.
- D delete lines beginning with the current line.
- I insert blank lines following the current line.
- T truncate all lines in the file to the current display width. Longer lines will be split into two or more lines.
- ${\bf Q}$ quit the program. Restores system status to conditions previous to starting program.
- C continue. Restore the current display.
- S save to another Text file. Enter number of lines and file name. Text will be saved starting with the current line.
- M merge an external Text file. Text is added after the current line. Original text beyond the current line is moved beyond the merged lines. If you wish the merged file to be deleted after the merge, change the "N" in "purge:N" to a "T".

R - search for a string and replace with another string. Wild characters are allowed, use a "-" for the wild card. Changes the first occurance of the string on each line. If any lines are longer than the display allows, every line in the file will be automatically shortened to the display width.

G - goto a line number. Default is the current edit line The line will be placed at the top of the screen. Will not move beyond the last line in the file.

- B remove blank lines from within the file.
- ${\bf N}$ to change to a new Text file. Assigned worksheet will stay the same.
- P call a subprogram. If the called program is not in RAH, it will be searched for on the previously specified mass storage device. Do not include the name of the mass storage device in the name. If the called program ends with an END statement, this program will continue exactly where it was left unless the file has been changed by the called program. To continue this program after using a program that stopped with an error or STOP, enter CONT9999.
- V calls VisiCalc. You do not have to use the same Worksheet that is being used in this program. When you exit VisiCalc, this program will continue from where you left it with the same Worksheet active that was being used before going to VisiCalc.
- W to assign or change the active Worksheet. It is not necessary to have a Worksheet assigned if you are not using the calculator functions. If you have entered this function accidentally and do not wish to change the worksheet assignment, enter nothing at the prompt, you will be back in Command Mode and can press C to continue.

```
AS.#
         ASSIGN #
         AUTO
Α.
BA.
         BASIC
в.
         BYE
С..
         CAT ALL
         CLEAR VARS
D.
         DELAY
DELE.
         DELETE
DI..
         DISPLAY IS
Ē.
F.
         EDIT
         FETCH
         LIST
         LIST 10
0.10
         OFF IO
OP.A.D.
        OPTION ANGLE DEGREES
OP.A.R.
         OPTION ANGLE RADIANS
PL.
         PLIST
PRI.
         PRINT
PRI..
         PRINTER IS
PR.
         PROTECT
PU.
         PURGE
REN.
         RENAME
RENU.
         RENUMBER
RES..
         RESTORE IO
R.
         RUN
         TEXT
         TRACE FLOW
TR.O.
         TRACE
               OFF
TR.V.
         TRACE VARS
TR.
         TRANSFORM
ASSIGN LOOP
AUTOLOOP ON/OFF
BTD (binary to decimal)
DO ERROR
DTB$ (decimal to binary)
DTH$ (decimal to hex)
HTD (hex to decimal)
LISTIO$
SHELL ON/OFF
ACTIVE$ (worksheet?)
WORKSHEET (set worksheet)
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Formatter Command Summary

^AD (advance page)
Stops printing on the current line. Advances the paper to
begin printing on the next page.

^CC (control code) 100 ^ccABC text...

Send to the printer as control characters. All data up to
the next space is interpreted as control codes.

CE (Center text) 100 ^ce This is centered Stops printing on the current line Prints all that follows centered on a line. Remains in effect until another mode command is used ('fi, 'co ^pa). Commands are not allowed on the same line after the 'ce command.

^CO (copy) 100 ^co This will be copied on one line Stops printing on current line. Copies all that follows on the line as written. Commands are not allowed on the same line following ^CO.

^DA (insert todays date)
Places the current date in the report. Formatted as
Month,DD, 19YY

^DL (distribution list) 10 ^dL distfile text...
Assign distribution list. Only one distribution list is
allowed. The distribution list file is a Text file with
each line containing related data. Each field is separated
by the accent grave (') character. This character may be
entered by pressing [CTL] [7]. Other data or command may
follow ^DL if a space separates the following commands from
the distribution list file name.

^EC (escape code) 100 ^ecHC text...

Scape code) the printer preceded by the Escape character [CRR\$(27)].

"FI (fill mode) 10 "fi text...
Causes a printing break. Prints subsequent lines with as many whole words on each line as will fit within the margins. Extra spaces between or following words are deleted. Each a word followed by a period, comma or question mark (.,?), an extra space is inserted between it and the next word.

^JU (justify mode)
As with fill mode except spaces are added between words to make right border of the text a straight line.

^MA (set margins) 10 ^mal0 70 text... Default settings are 10 and 70. 10 and 70. If you enter $^{\rm MA}$ without parameters it is the same as ^SKO.

'ME (merge file) 10 'me flname this text Merge a text file. Any data on the same line as the 'ME command will be read before reading from the merged file. The program will suspend formatting the current text file and search for and merge data from a second file. Only one level of merge may be used. That is, you may not merge a file from a merged file. Be sure you have enough available memory for the merged text file.

'NF (New File) 10 'nf finame text...
Designates a new main text file. Data on the same line is printed but data on following lines (if any) is ignored.

^PA (paragraph) 18 ^pa5 text... Causes a paragraph break. If center either ^ce or ^co mode was last in effect ^PA will change to fill mode. The default number of spaces to indent is 5. If you wish, you way change the number of spaces to indent to any practical number. Using ^PA without any number following assumes you wish to use the number of spaces last used.

PL (set page length) 1 ^pl 66 6 6 text...
The program will assume a page length of 66 and top and bottom margins of 6 each. "PL is used to change these settings. Causes a page break so it is a good idea to set the values at the beginning of the file. Subsequent uses of "PL will again cause the formatter to stop printing on the current page and start at the top of the next page. A negative page length will tell the computer to stop at the beginning of each page to insert paper.

^PN (page numbering)

Print page numbers. ^pn with any value, or none begins numbering, ^pn0 stops printing numbers.

^SK (skip lines) 10 ^sk1 text and commands... The default value is 1 or the value last. Printing will halt on the current line and resume after the specified number of blank lines.

^SP (spacing between lines) 10 ^spl text...
Does not cause a printing break. To change to double (or more) spacing use the command followed by, for instance, 2.

^TA (tab) 10 text ^ta40 text...
Does not cause a printing break unless the tab is to a
position on the line which is already occupied. The value
last used is retained by the program. To repeatedly tab to
the same location on subsequent lines enter the value on the
first tab, then just specify ^TA on following lines.

U (User function)
10 ^ua ^u100 text...
Allows you to merge a line from a Basic DATA file. Text on
the line will be interpreted as is, numbers will have their
equivalent ASCII code entered. The line number to use is
determined by the character following ^U in the command.
Enter either a single character representing the line number
or the actual line number. The examples could have been
written as "^u97 ^ud" if desired. The Basic DATA file is
named "userdata".

VC (merge VisiCalc Worksheet)
16 ^vc (file name) (last col) (last row) (headers?)
Other commands and data may follow on the same line ONLY IF
you supply ALL of the parameters required for this
function. The file name must be specified. Other
parameters are optional but must be entered in sequence if
specified.

"MS (specify active Worksheet) 10 "MS wrksheet Use this function to establish an active VisiCaic worksheet to be used with the "MS command. The Worksheet will be

to be used with the "W\$ command. The Worksheet will be recalculated when it is assigned. Data or commands may follow on the same line if separated by a space.

"M\$ (recall from Worksheet) 10 ^w\$ [col] [row] Recall contents from Worksheet (see ^WS). Specify the column then row coordinate of that cell using user or default headers. User headers must be enclosed in Ibrackets!. Labels are recalled as written. Numbers and results of formulas are recalled as formatted in the Worksheet.

^-- (repeating characters) 10 ^-- * text...
Causes a printing break. Repeats any parameter you specify
up to the width of one printed line. If no parameter
follows, will print a line of dashes "-". Specify a
repeating string by using the fixed space character "~" to
separate words. A space designates the end of your
repeating pattern.

! (Remark) 10 ! This line will be ignored. Beginning a line with an exclamation point designates that line as a note or remark and it will not be printed.

Formatter Notes

If you are going to create a very large file, write it in smaller modules. Any files specified in your report will be loaded from the second (or only) mass storage device, then purged when no longer needed. Be sure you have enough memory available for the files needed. Remember that the main Text file, USERDATA and Distribution list files will be in the computer for the duration of the run. If all files to be used are already in RAM, there is no need for mass storage while the program runs.

When the program begins you have several options of what to do. In case you need a reminder of the files available, enter spaces at the file name then press RTN, the computer will do a CATALL. To return to the prompt just begin typing in the file name. RUN will also cause the computer to CATALL even if you have specified a file name. The second prompt on the line is "Printer". Enter the name of a printer or display device using it's default AUTOLOOP device code name. You may test a file for number of words or pages or for possible syntax errors by typing spaces over the printer device code name. The program will run but will not print the file(s).

When the program ends there are two possible prompts. If it had detected an error, it will display "Error, line#nnn". The line number refers to the line in the main file at which the error occured. When the report has been completed without error the prompt will show aproximate number of words, total number of pages. If you had called the formatter from ED, you may recall the results to the display by pressing SHIFT FET in ED if you do so before any other keystrokes.

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