Control Structures

UN...LOOP do: (index) start --
1: [-- index] --
2: [-- index] --
SAVE [--]
TRAP [--]
IF...[true] if: (f) --
ELSE if: (f) --
[false]
[false]
BEGIN... until: (f) --
ORIGIN...
BEGIN... while: (f) --
WHILE...

Terminal Input - Output

A [n--]
B [n--]
D.R. [dield/width --]
CR [--]
SE <S> [--]
SPACES [n--]
DUMP [address u--]
TYPE [u--]
COUNT [addr] [addr+1 u--]
TRAP [--]
KEY [c--]
QUIT [--]
WORD [c--]

Input - Output Formatting

NUMBER [addr -- d]
. d [d--]
. d [d--]
. x [d-- 0D]
SIGN [d--]
< [d-- address u--]
HOLD [c--]

Disk Handling

LIST [screen --]
LOAD [screen --]
BLOCK [block address --]
DIR [n--]
FILE [address u--]
HEADER [--]
FLUSH [--]
BUFFERS [--]

Defining Words

Begin colon definition of xxx.
End colon definition of xxx.
Create a variable named xxx with initial value n;
returns address when executed.
Create a constant named xxx with value n;
returns value when executed.
Define a variable of assembly-language opaque
operator name xxx.
Define a new defining word, with executiontime "code routine" for this data type in assembly.
Define a header xxx which when executed returns its.

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**Vocabulary**

- **CONTEXT**
  
  Returns address of pointer to context vocabulary (searched first).

- **CURRENT**
  
  Returns address of pointer to current vocabulary (where new definitions are put).

- **FORM**
  
  Main FORTH vocabulary: execution of FORTH sets CONTEXT vocabulary.

- **Vocabulary**
  
  (After vocabulary; sets CONTEXT; Assembler vocabulary; sets CURRENT; vocabulary to CONTEXT; create new vocabulary named xxx).

- **VENDOR**
  
  Print names of all words in CONTEXT vocabulary.

**Miscellaneous and System**

- **i**

- **FORGET**

- **SWIFT**

- **HERE**

- **PAD**

- **IN**

- **SPA**

- **ALLOT**

Begin comment, terminated by right paren on same line; space after \.:

- **FORGET**

- **SWIFT**

- **HERE**

- **PAD**

- **IN**

- **SPA**

- **ALLOT**

- **n**

- **n**

- **PAD**

- **WORD BUFFER**

- **DICTIONARY**

- **LIMIT**

- **DISK BUFFERS**

- **KERNEL**

- **BOOT CODE**

- **ATARI FLOATING POINT**

- **USER AREA**

- **RETURN STACK**

- **TERMINAL BUFFER**

- **STACK $00BC$-$0080**

- **Z PAGE**

- **UP**

- **N**

- **IP W**

- **SP**

- **UP**

- **N**

- **IP W**

- **SP**
### Graphics and Color

<table>
<thead>
<tr>
<th>COLOR</th>
<th>m1</th>
<th>m2</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>V7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20V</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Debugging Utilities

- **DECOMP**
- **CSPMP**
- **CSPH**

<table>
<thead>
<tr>
<th>IF(X)</th>
<th>FREE</th>
<th>H</th>
<th>L</th>
<th>S</th>
<th>UL5</th>
<th>CPV</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>(FREE)</td>
<td>(FREE)</td>
<td>(FREE)</td>
<td>(FREE)</td>
<td>(FREE)</td>
<td>(FREE)</td>
<td>(FREE)</td>
<td>(FREE)</td>
</tr>
</tbody>
</table>

### Floating Point

- **CONSTANT**
- **FCV**

<table>
<thead>
<tr>
<th>iFIX</th>
<th>fFIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>(fp)</td>
<td>(fp)</td>
</tr>
</tbody>
</table>

### Operating System

- **OPEN**
- **CLOSE**
- **PUT**

<table>
<thead>
<tr>
<th>s</th>
<th>PUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(s)</td>
<td>(s)</td>
</tr>
</tbody>
</table>

### Text Output and Disk Preparation

- **V**
- **D**

<table>
<thead>
<tr>
<th>D</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>(flag)</td>
<td>(flag)</td>
</tr>
</tbody>
</table>

### Environment

- **OPEN**
- **CLOSE**

<table>
<thead>
<tr>
<th>OPEN</th>
<th>CLOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(open)</td>
<td>(close)</td>
</tr>
</tbody>
</table>
HANDBY REFERENCE CARD

valFORTH 6502 Assembler

ASSEMBLER | ___ |

LDS  | ___ |

EL  | ___ |

END-CODE | ___ |

SUBROUTINE  | ___ |

CODE | ___ |

Control Structures

IF.  | (flag -- addr 2) |

ELSE. | (addr 2 -- addr 3) |

ENDIF. | (addr 2/3 --) |

BEGIN. | (-- addr 3) |

Parameter Passing

NEXT. | (addr) |

PUSH | (addr) |

PUSHEA | (addr) |

PUT | (addr) |

PUTS | (addr) |

BINARY | (addr) |

POP and POPTWO | (addr) |

SETUP | (addr) |

Decodes | (various -- various) |

Aliases | |
HANDY REFERENCE CARD

valFORTH

SOFTWARE SYSTEM

EDITOR 1.1 COMMAND SUMMARY

Below is a quick reference list of all the commands which the vi editor recognizes:

Entering the Edit Mode [executed outside of the edit mode]

V        [ scr- --- ]
WHERE     [ --- ]
LOCATE    [ loc- --- ]
LOCATION  [ (on/off) --- ]
REPS      [ --- ]

- Enter the edit mode and view the specified screen.
- Re-view the current screen.
- Enter the edit mode and position the cursor over the word that caused a compilation error.
- Enter the edit mode and position the cursor over the word "ccc" where it is defined.
- When ON, allows all words compiled until the next OFF to be locatable using the LOCATE command above.
- Sets the length (in lines) of the storage buffer. The default is five.

Cursor Movement [issued within the edit mode]

crtl ↑
- Move cursor up one line, wrapping to the bottom line if moved off the top.
crtl ↓
- Move cursor down one line, wrapping to the top line if moved off the bottom.
crtl ←
- Move cursor left one character, wrapping to the right edge if moved off the left.
crtl →
- Move cursor right one character, wrapping to the left edge if moved off the right.
RETURN
- Position the cursor at the beginning of the next line.
TAB
- Advance to next tabular column.

Editing Commands [issued within the edit mode]

ctl INS
- Insert one blank at cursor location, losing the last character on the line.
ctl DEL
- Delete character under cursor, closing the line.
shift INS
- Insert blank line above current line, losing the last line on the screen.
shift DEL
- Delete current cursor line, closing the screen.
ctl I
- Toggle insert-mode/replace-mode.
(see full description of ctl-I).
BACKS
- Delete last character typed, if on the same line as the cursor.
ctl H
- Erase to end of line (Hack).

Buffer Management [issued within the edit mode]

ctl T
- Delete current cursor line saving it to the buffer for later use.
ctl F
- Take the current buffer line and insert it above the current cursor line.
ctl K
- Copy current cursor line saving it to the edit buffer for later use.
ctl U
- Take the current buffer line and copy it to the current cursor line.
ctl R
- Roll the buffer making the topmost buffer line current.
ctl B
- Roll the buffer backwards making the fourth buffer line on the screen current.
ctl C
- Clear the current buffer line and performs a ctrl-H.

*Note: The current buffer line is bottommost on the video display.

Changing Screens [issued within the edit mode]

ctl P
- Display the previous screen saving all changes made to the current screen.
ctl N
- Display the next screen saving all changes made to the current screen.
ctl S
- Save the changes made to the current screen and end the edit session.
ctl Q
- Quit the edit session forgetting all changes made to the current screen.

Special Keys [issued within the edit mode]

ESC
- Do not interpret the next key typed as any of the commands above. Send it directly to the screen instead.

ctl A
- Put the arrow "~" ("next screen") in the lower-right-hand corner of the screen unless it is already there, in which case remove it.
ctl J
- Split the current line into two lines at the point where the cursor is.
ctl D
- Corrects any major editing blunders.

Screen Management [executed outside of the edit mode]

FLUSH
- [ --- ]
DEEP
- [ --- ]
BUFFERS
- [ --- ]
COPY
- [ (from to ---) ]
CLEAR
- [ (scr ---) ]
CLEANS
- [ scr * screens --- ]
SOWNE
- [ (from to) * screens --- ]

- Save any updated FORTH screens to disk.
- Forget any changes made to any screens not yet flushed to disk.
- Copies screen from to screen to.
- Blank fills specified screen.
- Blank fills the specified number of screens starting with screen source.
- Duplicate the specified number of screens Starting with screen number "from".

* EDITOR 1.0 COMMAND

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