

PL/9 EDITOR/COMPILER/TRACER

COMMAND REFERENCE

## PL/9 EDITOR COMMAND SUMMARY

### S Y M B O L S

|           |   |
|-----------|---|
| <CR>      | represents a carriage return.   |
| <>        | symbols are used to enclose a variable.   |
| []        | symbols indicate that the enclosed data is optional.  |
| <NUMBER>  | a decimal number such as 36 or 192. (defaults to one)   |
| <TARGET>  | represents the decimal <u>number of lines</u> specified by the command, and defaults to one if none is given. |
| <#TARGET> | represents the decimal <u>line number</u> specified by the command.   |

### M O D E C O N T R O L

|            |   |
|------------|---|
| I          | INSERT lines mode. Prompt will change from (#) to (+) and the following commands are available:<br><br>TAB.....generates three spaces<br>BACKSPACE...moves the cursor to the left one place.<br>CANCEL.....erases the entire line.<br>ESCAPE.....(in left col) terminates the insert session.<br><br>RETURN.....generates a new line. |
| X          | EXIT to FLEX.   |
| M          | MONITOR. Enter the ROM System Monitor.  |
| /<COMMAND> | Execute a FLEX command.   |

### L I N E P O S I T I O N I N G C O M M A N D S

|                   |   |
|-------------------|---|
| <NUMBER>[COMMAND] | Make <NUMBER> the current line, then execute [command]. |
| 1 or ^            | Go to the first line in the file.                       |
| B or !            | Go to the bottom (/EOF) of the file.                    |
| +<NUMBER>         | Move down <NUMBER> lines from the current position.     |
| -<NUMBER>         | Move up <NUMBER> lines from the current position.       |
| <CR>              | Display the current line.                               |
| <ESCAPE>          | Display the next line.                                  |

## PL/9 EDITOR COMMAND SUMMARY

### F I L E   O R I E N T E D   C O M M A N D S

|            |   |
|------------|---|
| N          | NEW file. Erase the current file.               |
| P<TARGET>  | PRINT <TARGET> number of lines on the terminal. |
| D<TARGET>  | DELETE <TARGET> number of line(s).              |
| D<#TARGET> | DELETE from current line to <#TARGET> line.     |

### L I N E   E D I T I N G

|         |   |
|---------|---|
| O<CHAR> | OVERLAY the current line.                               |
| E       | EDIT the current line. (leaves cursor at end of line).  |
| =<TEXT> | REPLACE the current line with <TEXT>.                   |
| \       | SPLIT the line into individual lines at each semicolon. |
| Z       | CONCATENATE two lines.                                  |

### G L O B A L   E D I T I N G

|                       |   |
|-----------------------|---|
| F<NUMBER>/<STRING>    | FIND the next <NUMBER> occurrences of <STRING>.         |
| C<NUMBER>/<ST1>/<ST2> | CHANGE the next <NUMBER> occurrences of <ST1> to <ST2>. |

### D I S K   F I L E   H A N D L I N G

|                         |  |
|-------------------------|--|
| Q or ?                  | Query the default filenames.                             |
| L[=<FILENAME>]          | LOAD a disc file.  |
| S[=<FILENAME>]          | SAVE the file on disc.                                   |
| W<TARGET>[=<FILENAME>]  | WRITE <TARGET> number of lines to disk.                  |
| W<#TARGET>[=<FILENAME>] | WRITE from current line to <TARGET> line number to disk. |
| R[=<FILENAME>]          | READ in a file above the current line.                   |

## PL/9 COMPILER COMMAND SUMMARY

|                     |   |
|---------------------|---|
| A                   | Compile only showing errors.                            |
| A:N                 | Compile with symbol table only.                         |
| A:R<br>FFFF.        | Compile code using ROM interrupt vectors @ \$FFF2 -     |
| A:T                 | Compile with a listing on the terminal.                 |
| A:P                 | Compile with a printer listing.                         |
| A:C[,T,P,L]         | Display the code generated for each source statement.   |
| A:M                 | Write object code directly into memory.                 |
| A:O[=FILENAME]      | Write object code to disc.                              |
| A:L[=FILENAME]      | Write the compile listing to disc into the named file.  |
| A:\$XXXX            | Offset the object code. (used with the M or O options). |
| A:[P T C],<N1>-<N2> | Generate output for specified range of line numbers.    |

## MULTIPLE COMMAND EXAMPLES

|                  |  |
|------------------|--|
| A:T,C            | Compile to the terminal, generating a listing with object code.  |
| A:P,C,281-305    | Compile to the printer, displaying the generated object code for lines 281 through 305.                |
| A:T,C,O=[object] | Compile to the terminal, displaying the generated object code and write a binary record to [file].     |
| A:O,R            | Compile to default object file substituting ROM interrupt vectors for users vectors defined by SETPL9. |

## CALLING THE COMPILER FROM FLEX

|  |   |
|--|---|
| +++PL9,[source]                        | Compile and check for errors.   |
| +++PL9,[source],T                      | Compile to terminal.  |
| +++PL9,[source],P,C                    | Compile to printer with object code.  |
| +++PL9,[src],O=[obj],C,P               | Compile to terminal with object code shown. Write binary file [name] to disk.                   |
| +++PL9,[src],L=[lis],C,R<br>vectors.   | Compile to listing file with object code shown. Use ROM interrupt                               |
| +++PL9,[src],O=[obj],\$XXXX,L=[list],C | Compile to listing file with object shown. Write binary file [name] to disk with offset \$XXXX. |

## PL/9 TRACER COMMAND SUMMARY

### M O D E C O N T R O L C O M M A N D S

#T Invoke the tracer from within the editor. The prompt will change from (#) to (&) to signify you are now in the tracer.

<ESCAPE> at the start of the line will return to the editor.

E This command also causes a return to the editor.

X EXIT to the disk operating system.

M MONITOR. Exit to the ROM system monitor.

### S O U R C E F I L E R E L A T E D C O M M A N D S

<CR> Display the line about to be executed.

<NUMBER> P <TARGET> Print part of the source file.

### T R A C E R C O N T R O L C O M M A N D S

G G0. Run the program, continuing until: (1) a breakpoint is encountered. (2) a control C is typed. (3) the program ends.

S SINGLE-STEP the program.

R<NUMBER> RUN <NUMBER> lines of the program.

T<NUMBER> TRACE <NUMBER> lines of the program displaying source line before it is executed.

W<NUMBER> WAIT. Slow down TRACE by a time dependant on the value of <NUMBER>.

N<N1>-<N2>[,<N3>-<N4>..] NO TRACE. The tracer will not stop at any line in any of the ranges specified.

Q QUIT. Restart the program without re-compiling it.

## PL/9 TRACER COMMAND SUMMARY

### B R E A K P O I N T S

B<CR> Clear all breakpoints.

B<N1>[,<N2>,....] Set breakpoints at the specified line(s). Existing breakpoints are kept active.

### V A R I A B L E S

?<VARIABLE LIST> Print the values of specified program variables. Simple variables and vector elements (with numeric indices, not other variables) can be specified, and may be separated by either a semicolon (print on the same line) or a comma (start a new line).

D<VARIABLE LIST> Print variable values whenever a source line is displayed. The values are specified as for (?) above and are printed before the source line. To prevent variable printing, use the command D<CR>. The variable list is "remembered" from one compilation to the next.

