Spectrum
EXTENDED
BASIC

USER GUIDE

cp software

SPECTRUM EXTENDED BASIC
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Published by: C.P. SOFTWARE, 17 Orchard Lane, Prestwood,
Great Missenden, Bucks. HP16 0NN. England.

Spectrum Extended Basic : R. FALK © 1983

INTRODUCTION

SPECTRUM EXTENDED BASIC provides ten additional BASIC commands which are essential for serious programming so much so that many of these commands are standard on more expensive machines. The program takes up little space, is user friendly, requiring only a two key entry and incorporates syntax checking. All commands must be preceded by the * (multiplication) symbol followed by the first letter (in caps) of the command name, and as with the Spectrum's key tokens, the full name of the command will be displayed at the start of the entry line, e.g. to use CLOCK key in *C<ENTER> the display will read * CLOCK. Parameters are entered after the command as appropriate, e.g. to set the time for the clock enter the command followed by the parameters— *C 10, 26, 30 <ENTER> represents 10 hrs. 26 mins. 30 secs. which would be displayed in the top right hand corner of the screen.

LOADING

To load the program enter LOAD " " <ENTER>, LOADING TIME IS APPROXIMATELY ¾ mins.

When loaded Spectrum Extended Basic occupies less than 5K bytes of memory, RAMTOP is set at 60482 and the program loaded above this by a two line Basic Loader.

USING SPECTRUM EXTENDED BASIC

The program is immediately ready for use on completion of loading. For a command to be displayed a minimum of 20 bytes of free RAM are required, otherwise an 'Out of memory' report is given. The commands cannot be used in conjuection with other BASIC commands/expressions nor can they be incorporated in a program.

Moving RAMTOP above that address set by the loader program i.e. 60482, may cause a system crash.

Using NEW, or RANDOMISE USR 61135 will disable the Spectrum Extended Basic program, thus making it safe to reset RAMTOP at a higher address. RANDOMIZE USR 61128 restarts the program. Use DELETE 0, 9999 followed by CLEAR (instead of NEW) if it is required not to disable the program.

PARAMETERS where required are entered after a command and are separated from each other by a ,(comma). They can take any integer number   in the range $1 \leqslant n \leqslant 9999$ where n is the value of the parameter. In some cases n can take the value Ø.

When TRACE or CLOCK are in use there is a possibility of screen disturbance after using the CLS command although this is a remote possibility.

THE COMMANDS

The ten commands are:

ENTERED AS	DISPLAYED AS
*A	*AUTO
*C	*CLOCK
*D	*DELETE
*E	*EXAMINE
*F	*FIND
*M	*MEMORY
*R	*RENUMBER
*S	*SCROLL
*T	*TRACE
*V	*VARIABLES

COMMAND DEFINITIONS

Commands are accessed by entering the * (multiplication) symbol followed by the first letter (in caps) of the command name and, if appropriate, followed by a parameter(s). A command is executed immediately the ENTER key is pressed.

*AUTO, will automatically number a program as it is being written. Up to 2 parameters can be used, the first gives the start line number, the second gives the interval between the lines. Unspecified parameters take the value 10. To abort AUTO use BREAK (shifted space key).

*CLOCK, this is a 12 hour clock which is displayed at the top right hand corner of the screen. To set or adjust the clock enter *C followed by 3 parameters, first the hours, then the minutes and finally the seconds. Remember to separate each parameter by a ,. Once activated the clock runs continuously, whether it is displayed or not but during tape handling and Beep commands it will lose time.
*C 1 turns CLOCK display ON and TRACE OFF.
*C Ø turns CLOCK display OFF.

*DELETE, is used with up to 2 parameters to delete a line or lines of BASIC. To delete single line enter the command and one parameter, the line number, e.g. to delete line 1201 enter *D 1201 <ENTER> To delete more than one line enter the command followed by two parameters, these being the first and last line numbers to be deleted, all lines between and including the two parameters will be deleted, e.g. to delete all lines from, and including, 100 to 6700 enter *D 100, 6700 <ENTER>

*EXAMINE,   is a tape header reader and requires no parameters. If a program is to auto run from a specific line then that line number will also be displayed.

*FIND,   will search for and point to a specific text (entered as a parameter within square brackets [ ]) in a BASIC program e.g. to find the location of CHR$ 91 & 93 enter.*F[CHR$ 91 and CHR$ 93]<ENTER>. A second parameter can be used to indicate the line number from where the search is to start. e.g. *F [LET A =A+1],210·<ENTER> will search for the statement LET A=A+1 starting at line 210.

*MEMORY,   indicates the current memory status. Parameters are not required with this command.

*RENUMBER,   will renumber a program including GOTO's, GOSUB's etc. Up to 2 parameters can be used, the first specifies the line number at which renumber is to commence, the second specifies the interval between the lines.

*SCROLL,   gives continuous scrolling, without the usual SCROLL? report.
*S 1 sets continuous scrolling.
*S Ø sets normal (Spectrum) scrolling.

*TRACE,   when activated it displays in the top right hand corner of the screen the number of the line and the statement currently being executed. It also slows down program execution by a factor of about 20.
*T 1 turns TRACE ON and CLOCK display OFF.
*T Ø turns TRACE OFF

*VARIABLES,   is used to display all the Variables currenlty in memory. Dimensioned Variables, in up to five dimensions, are displayed after the normal Variables. Variables that are in more than five dimensions are not displayed.