

Supplied
on
EPROM

SLEUTH

The Ultimate Debugging Tool for the Basic Programmer

WITH DUAL SCREENS AND SINGLE STEPPING



Accelerator speed

Dual screen
memory workspace

Instruction being
executed with
current statement
highlighted

Current procedure
name

Values of variables
in current statement

Values of other
selected variables

Command entry

```
SLEUTH PS QS SP PrFn AC status
2 0 0 0 4 70 01
1230 IF NDC AND NEND=0 THEN PROC1=1
PROC1=1: ENDPROC ELSE IF NDC=0 THEN PROC
Gong =1: YOU WIN! : ENDPROC

PROCEDURE
variables
VARIABLES
NDC = 2
NEND = 0
winc = UNDEFINED

SELECTED VARIABLES
NDC = 2300
SPC = 2330
winc = 0

? TRACE ON
? RUN 1200
?
```

Printer,
Breakpoint,
Trace,
Single step,
Status

Your Own Screen

Dual screen
status

SLEUTH
Control Screen

TAB

Technical
Spec

SPACE

FOR THE BBC MICRO

DEBUG
SOFT

SLEUTH

SLEUTH is the revolutionary new debugging tool for programmers using Basic on the BBC Micro. It is supplied on an 8k rom which means that once plugged in, SLEUTH is instantly ready and just waiting to be called into action.

The unique aspect of SLEUTH is that it gives you, the programmer, a new dimension of control over your own Basic program ACTUALLY AS IT RUNS. You may single-step your program, watch it as it runs, pause it at any time, observe and alter the values of variables and even slow down its speed or halt it with a breakpoint. SLEUTH ends the uncertainty of debugging and its dual screen facility allows you to watch and control your program while it runs. SLEUTH gives YOU control over Basic.

CALLING SLEUTH

* SLEUTH will activate the rom and immediately display the SLEUTH Control Screen.

CONTROL SCREEN

This screen shows the current status of your program and its associated variables. All SLEUTH commands are issued from here, and you may also use all normal * commands. Also displayed will be the current line of your program with the actual instruction being executed shown in highlight. Other information displayed includes the nesting depth of Gosubs, For loops, Repeat loops and Procedures, the name of the current Procedure, and the values of any variables in the current program line. The display may also be modified to show a full listing of your program, the values of specific variables and details of all breakpoints.

DUAL SCREENS

SLEUTH supports dual screens. This means that you may choose to watch either SLEUTH's control screen or the screen generated by your own Basic program at any time. You may switch between screens simply by pressing the Tab key and can even choose which screen is displayed while your program runs. The dual screen facility requires just over 1K of workspace and may be activated or de-activated as required.

RUN

Having activated SLEUTH and loaded in your Basic program you may then specify how the program should be run. SLEUTH's Run command will run your program in the normal way (displaying whichever screen you have selected) until the program ends, a breakpoint is encountered or you press the @ key. Pressing @ pauses your program at whatever stage it is at, and allows you access to it.

SINGLE STEP

Single Stepping is an alternative method of running your program to SLEUTH's Run command. Once this mode has been selected, pressing the Space Bar will execute just the next instruction of your program. If you choose to display the control screen, the program line with that particular instruction highlighted will be shown.

This allows you to follow the course of your program step by step, watching your own screen as it is built up, or monitoring the program's progress on the control screen until the problem area has been encountered.

MULTISTEP

Multisteping may be used to step through your program at a greater pace than single stepping. It enables a whole Procedure, Repeat loop, For loop etc to be executed at the press of a key, returning control to you afterwards.

GOTO

This command may be used to specify which line of your program should be executed next. It is particularly useful for debugging a specific routine or problem area within your program.

BREAKPOINTS

SLEUTH allows breakpoints to be set within your program. This means that your program will run at full SLEUTH speed until a certain condition or line number is encountered, whereupon your program will pause and control will be returned to you. Breakpoints may be of the 'Conditional' or 'Line' type. Up to 3 Conditional Breakpoints (eg STOP if $A\% + MIN\% > 20$) and 5 Line Breakpoints (eg STOP at Line 100) may be set at any one time.

VARIABLES

SLEUTH's control screen displays the names and values of all variables associated with the current instruction of your program being executed, enabling you to check that the program is doing exactly what you think it should be. The values of all variables including integers, reals, strings, arrays and indirection operators (!, ?, \$) will be displayed.

At any point during a program run you may also alter the value of any of these variables and cause any other variable, not associated with the current instruction to be displayed and updated.

ACCELERATOR

SLEUTH gives you the chance to slow down and control the speed at which your program will run. Simply set the Accelerator to the required speed (from 1 to 100%) and watch your program. Then when you see the problem area, just press @ to pause your program and inspect the variables and program logic in greater detail.

TRACE

The SLEUTH Trace command allows you to watch your own display and yet see at the same time, which line is executing. It achieves this by printing the current line number in the top left hand corner of your program screen.

TECHNICAL INFORMATION

Workspace Used By SLEUTH
&004F-&008F
&0A00-&0AFF
&0B80-&0BFF

Dual Screen Workspace

If activated this feature will require 1.25K of workspace. This may be anywhere between &0E00-&7700.

Second Processor

A 6502 second processor version of SLEUTH will be available shortly. Please contact us for further details.

FURTHER INFORMATION

SLEUTH is priced at £27.00

MAIL ORDER

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TECHNICAL ENQUIRIES

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