Details on how to use 'ULTRAMON'

ULTRAMON is a program similar to DEBUG but is a lot easier to use and supports a full symbolic disassembler and can be relocated anywhere in memory.

Commands of ULTRAMON are as follows:

The individual Z80 registers can be loaded with any value by typing
 MR = Memory register then the actual register
```
E.G.  MRHL,80BA
      MRPC,FF0A
```
The prime registers can also be altered by doing the same as before but instead of using a comma use a " ' " instead.

To display memory type a P which then puts it into a full screen display and type D followed by the memory location.
```
 E.G.  D4000
```
Pressing A will give the ASCII representation and H will give HEX displays. To return to the page with the registers on it press X.

You can also execute a program instruction by instruction. Say the program you want to debug is at location FF00 type MRPC,FF00 once entered you will notice that to the right of the SP contents will be the instruction in symbolic form and to the left of it will be the HEX code for the instruction. Now that we have the start location of the program typing an I will execute that single instruction and the results of it may be seen in the condition code register at the top of the screen or in the registers.
The program may also be executed instruction by instruction without you having to type I, by press T and then enter. To stop it press shift + break. When executing a program a CALL can be done by the I function or you can type a C and it will be done automatically and return to your program.

Entering a G followed by a memory address will make ultramon jump to that address and execute anything there.
Up to three break points can be set by specifying the break point after the Goto address. Control is returned to Ultramon when the break point is reached.
```
E.G.  G402D,4400
```

The symbolic disassembler is easy to use simply type:
 SD followed by the start address the end address and seperated by a comma. E.G. SD4000,40B1
The space bar will halt the disassembly and pressing the space bar again will display the next instruction. Enter will start the disassembly again (high speed).

To relocate ULTRAMON at another location in memory type Q followed by the address. For example my version resides at 6E00 to 7FFF and if you want to make a high memory version
simply type QEF00 and then go back to dos and use the DUMP command to put it on disk.

ULTRAMON can be made to zero memory between to locations by typing   Z   start address , end address
E.G. to zero memory between 4000H and 5000H type
```
  Z4000,5000
```

To modify memory enter
  MM followed by the address and a comma

The byte currently being modified will be surounded by two

graphics blocks and down in the bottom right hand corner of the screen will be the location in hex and the byte.
Enter or the X key will get you out of the MM mode and the comma key or the space bar will advance you to the next byte.

ULTRAMON has a relocating feature so that you can move a program from its original execution address to a new address and make it work there! It recalculates the LD's and JP's in the program automaticly for you. I have used it quite a few times and is quite succesfull except for some programs that have data. Ultramon may try and interpret the hex data as an instruction instead of data? To use type

```
  O Start address , End address , New address
E.G.  O4000,5000,A000
```

To copy a block of memory from point to another type

```
  K Start address , End address , New address
```

```
  L Start address , End address
```

sends a block of memory to the printer

Boundarys can be set in memory and also in ROM!!!
When the program is being executed, if the program counter tries to pass the boundary limit the program is stopped and control is passed back to Ultramon. To clear boundarys press B then enter.

```
Parameters  B Start boundary , End boundary
E.G.  B402D,4400
```

To execute a program with the boundary limits set use

```
   E   Start address , End address
E.G.  E0300,03A0
```

And last but not least when entering a command should you type something wrong press the X key and try again.