

RAM STORAGE

We can think of our RAM store as being a long row of boxes. Values can be ported into each box, known as writing to store - POKE in BASIC.

Values can also be collected from each box, known as reading from store - PEEK in BASIC.

To identify each box, we give it an address in the form of a number (from 0 to 16 or 48 K) or a name. These names and numbers are like postal addresses.

ADDRESS	NAME
0	
1	
2	
3	

Within the Z80, RAM or ROM locations are accessed by means of their numeric address.

ADDRESS	NAME
0	
1	
2	
3	

IN ASSEMBLER or BASIC programs, it is easier for us to give a name to our data areas.

ADDRESS	NAME
0	
1	VAT
2	
3	GROSS

It is left to a compiler or an assembler to connect our names with the numeric address.

K, L, N

The value in each storage box can be any number from 0 to 255.

A character is held in coded form. Your Spectrum manual shows the code number equivalent to each character.

(Note: The BASIC interpreter in ROM enables several small boxes to be thought of as a big box to hold large numbers, floating point numbers, strings etc.)

REGISTERS

Registers are a set of special storage boxes inside the CPU.

We can perform on registers more than the simple reads and writes that are possible on RAM. These extra operations are:

- ARITHMETIC [add, subtract]
- LOGICAL [compare values, etc]

There are a number of registers of which we will consider 7. They are called by the letters:

A B C D E H L

Each register can hold a value from 0 to 255.

Two registers as a pair can hold a value from

0 to 65535 - ie 64K

A (B C) (D E) (H L)