

Definitions of units | Part B

So what is a byte and why is it made of bits? Since the 1960's when the first computer standards were decided most computers would work with 8 bits at once, this is known as a byte and it is a unit of information that computers can send at any one time. Experience shows that humans don't like reading zeros and ones in the portion of 8 they get confused, doing it as two portions of 4 bits is much easier.

So this half-byte is called nibbles in a half-joking, half-serious way because nibble is a small bite isn't it?

Imagine this 2 byte message – 0 0 1 0 1 1 1 0 1 1 0 0 1 0 0 1 – quite a lot isn't it? So if we split this message into nibbles you could then convert them into 4 nibbles and then each of those nibbles would go into a hexadecimal letter which is easier to read. So, 0 0 1 0 becomes a 2, 1 1 1 0 is an E, 1 1 0 0 is a C and 1 0 0 1 is a 9. You normally see hexadecimal numbers following a # sign for example #2F.

Here's a snippet from the source of a webpage. Nibbles are used in computer graphics for the amounts of red, green and blue, in every dot known as a pixel that makes up the image. So, we can express this red, green and blue as 6 nibbles, and we can see that FF would be the maximum colour, 255, while all the other nibbles are at zeros meaning that this webpage object is solid red.