Clarifying Bases for Numbers

Changing Notation Systems for Greater Clarity.

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The notation for decimal is Base 10, which is actually describes the overflow condition and could be interpreted as any base starting at Binary. i.e.

$10_2 = 2_{10}$
$10_{10} = 10_{10}$
$10_{12} = 12_{10}$
$10_{16} = 16_{10}$

For larger number systems, we use letters to represent numbers. In the case of hexadecimal (Base 16) the numbers are:
0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F.

Despite being a higher number system than decimal, we still use decimal to represent it i.e. Base 16, in other words we use and accept describing Base 16 using Decimal notation.

In the modern world of multiple bases (Decimal for basic maths, Binary for computers and Duodecimal for hours in a day), it would be more logical to use more explicit notation to represent bases. So decimal would be represented by the letter 'A', hexadecimal would be represented by the letter 'G', binary would still be represented by the number '2' etc…

This avoids confusion, as Base 10 could be logically interpreted as any Base starting with Binary, where 10 in Binary is the overflow for the Base 2 number, meaning 10 in Binary = 2

If we use this notation to represent the above example, we get:

$10_2 = 2_A$
$10_A = 10_A$
$10_C = 12_A$
$10_G = 16_A$

We are not used to it at first, so may appear confusing, but actually it removes ambiguity as Base 'A' is decimal, Base 'C' is duodecimal and Base 2 is still binary.