Base64

[Source: wikipedia]

Base64 is a group of similar binary-to-text encoding schemes that represent binary data in an ASCII string format by translating it into a radix-64 representation. The term Base64 originates from a specific MIME content transfer encoding. Each Base64 digit represents exactly 6 bits of data. Three 8-bit bytes (i.e., a total of 24 bits) can therefore be represented by four 6-bit Base64 digits.

The particular set of 64 characters chosen to represent the 64 place-values for the base varies between implementations. The general strategy is to choose 64 characters that are both members of a subset common to most encodings, and also printable. This combination leaves the data unlikely to be modified in transit through information systems, such as email, that were traditionally not 8-bit clean. For example, MIME's Base64 implementation uses A-Z, a-z, and 0-9 for the first 62 values. Other variations share this property but differ in the symbols chosen for the last two values; an example is UTF-7.