

The New C Standard (Excerpted material)

An Economic and Cultural Commentary

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3.7.3

wide character

wide character

bit representation that fits in an object of type `wchar_t`, capable of representing any character in the current locale

multibyte
character**Commentary**

A wide character can be thought of as the execution-time representation of a multibyte character. It is a pattern of bits held in an object, of type `wchar_t`, much like a character is a pattern of bits. The `wchar_t` type often contains more than one byte, so it is capable of representing many more values. The bit representation of a particular character, held in an object of `wchar_t` type, can vary between locales.

Wide characters are best suited to be used when the numeric values of the characters are of importance, or when a fixed-size object is needed to manipulate character data.

C++

The C++ Standard uses the term *wide-character literal* and *wide-character sequences*, 17.3.2.1.3.3, but does not define the term *wide character*.

2.13.2p2 *A character literal that begins with the letter L, such as `L'x'`, is a wide-character literal.*

Common Implementations

ISO 10646

On many implementations the `wchar_t` type usually occupies 16 bits. So, up until recently, it was capable of being used to hold the values assigned to characters by the Unicode Consortium.

References