NAME

wcrtomb - convert a wide character to a multibyte sequence

SYNOPSIS

#include <wchar.h>

size_t wcrtomb(char *s, wchar_t *wc*, mbstate_t *ps);

DESCRIPTION

The main case for this function is when *s* is not NULL and *wc* is not a null wide character (L'\0'). In this case, the **wcrtomb**() function converts the wide character *wc* to its multibyte representation and stores it at the beginning of the character array pointed to by *s*. It updates the shift state **ps*, and returns the length of said multibyte representation, that is, the number of bytes written at *s*.

A different case is when *s* is not NULL, but *wc* is a null wide character (L'\0'). In this case, the **wcrtomb**() function stores at the character array pointed to by *s* the shift sequence needed to bring **ps* back to the initial state, followed by a '\0' byte. It updates the shift state **ps* (i.e., brings it into the initial state), and returns the length of the shift sequence plus one, that is, the number of bytes written at *s*.

A third case is when *s* is NULL. In this case, *wc* is ignored, and the function effectively returns

wcrtomb(buf, L'\0', ps)

where *buf* is an internal anonymous buffer.

In all of the above cases, if *ps* is NULL, a static anonymous state known only to the **wcrtomb**() function is used instead.

RETURN VALUE

The **wcrtomb**() function returns the number of bytes that have been or would have been written to the byte array at *s*. If *wc* can not be represented as a multibyte sequence (according to the current locale), *(size_t) -1* is returned, and *errno* set to **EILSEQ**.

ATTRIBUTES

For an explanation of the terms used in this section, see attributes(7).

Interface	Attribute	Value
wcrtomb()	Thread safety	MT-Unsafe race:wcrtomb/!ps

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C99.

NOTES

The behavior of **wcrtomb**() depends on the **LC_CTYPE** category of the current locale.

Passing NULL as *ps* is not multithread safe.

SEE ALSO

mbsinit(3), wcsrtombs(3)

COLOPHON

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