



Linux Ubuntu 26.04 Manual Pages on command 'wctomb.3'

\$ man wctomb.3

wctomb(3) Library Functions Manual wctomb(3)

NAME

wctomb - convert a wide character to a multibyte sequence

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <wchar.h>

size_t wctomb(char *restrict s, wchar_t wc, mbstate_t *restrict 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 `wctomb()` 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 `wctomb()` 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

```
wctomb(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 `wcr?`
`tomb()` function is used instead.

At most `MB_CUR_MAX` bytes will be written at `s`. The programmer must ensure that there is
enough room to store the multibyte sequence at `s`.

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	?
??			
? <code>wcrtomb()</code>	? Thread safety	? MT-Unsafe race: <code>wcrtomb(!ps)</code>	?
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STANDARDS

C11, POSIX.1-2008.

HISTORY

POSIX.1-2001, 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)`