



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

\$ man mbtowc.3

mbtowc(3) Library Functions Manual mbtowc(3)

NAME

mbtowc - convert a multibyte sequence to a wide character

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <stdlib.h>

int mbtowc(size_t size;
           wchar_t *restrict pwc, const char s[restrict size],
           size_t size);
```

DESCRIPTION

The main case for this function is when `s` is not `NULL` and `pwc` is not `NULL`. In this case, the `mbtowc()` function inspects at most `size` bytes of the multibyte string starting at `s`, extracts the next complete multibyte character, converts it to a wide character and stores it at `*pwc`. It updates an internal shift state known only to the `mbtowc()` function. If `s` does not point to a null byte (`'\0'`), it returns the number of bytes that were consumed from `s`, otherwise it returns 0.

If the `size` bytes starting at `s` do not contain a complete multibyte character, or if they contain an invalid multibyte sequence, `mbtowc()` returns -1. This can happen even if `size` $\geq$ `MB_CUR_MAX`, if the multibyte string contains redundant shift sequences.

A different case is when `s` is not `NULL` but `pwc` is `NULL`. In this case, the `mbtowc()` function behaves as above, except that it does not store the converted wide character in memory.

A third case is when `s` is `NULL`. In this case, `pwc` and `size` are ignored. The `mbtowc()` func?

RETURN VALUE

If `s` is `NULL`, the `mbtowc()` function returns nonzero if the encoding has nontrivial shift state, or zero if the encoding is stateless.

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

Interface	Attribute	Value
?	?	?

? mbtowc() ? Thread safety ? MT-Unsafe race ?

[illegible]

This function is not multithread safe. The function `mbrtowc(3)` provides a better interface to the same functionality.

C11, POSIX.1-2008.

POSIX.1-2001, C99.

The behavior of `mbtowc()` depends on the `LC_CTYPE` category of the current locale.

MB CUR MAX(3), mblen(3), mbrtowc(3), mbstowcs(3), wcstombs(3), wctomb(3)

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