

NAME

wcstombs – convert a wide-character string to a multibyte string

LIBRARY

Standard C library (*libc*, *-lc*)

SYNOPSIS

```
#include <stdlib.h>
```

```
size_t wcstombs(char dest[restrict], const wchar_t *restrict src,
                size_t n);
```

DESCRIPTION

If *dest* is not NULL, the **wcstombs()** function converts the wide-character string *src* to a multibyte string starting at *dest*. At most *n* bytes are written to *dest*. The sequence of characters placed in *dest* begins in the initial shift state. The conversion can stop for three reasons:

- A wide character has been encountered that can not be represented as a multibyte sequence (according to the current locale). In this case, $(size_t) - 1$ is returned.
- The length limit forces a stop. In this case, the number of bytes written to *dest* is returned, but the shift state at this point is lost.
- The wide-character string has been completely converted, including the terminating null wide character (L'\0'). In this case, the conversion ends in the initial shift state. The number of bytes written to *dest*, excluding the terminating null byte ('\0'), is returned.

The programmer must ensure that there is room for at least *n* bytes at *dest*.

If *dest* is NULL, *n* is ignored, and the conversion proceeds as above, except that the converted bytes are not written out to memory, and no length limit exists.

In order to avoid the case 2 above, the programmer should make sure *n* is greater than or equal to $wcstombs(NULL, src, 0) + 1$.

RETURN VALUE

The **wcstombs()** function returns the number of bytes that make up the converted part of a multibyte sequence, not including the terminating null byte. If a wide character was encountered which could not be converted, $(size_t) - 1$ is returned.

ATTRIBUTES

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

Interface	Attribute	Value
wcstombs()	Thread safety	MT-Safe

STANDARDS

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

NOTES

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

The function **wcsrtombs(3)** provides a better interface to the same functionality.

SEE ALSO

mblen(3), **mbstowcs(3)**, **mbtowc(3)**, **wcsrtombs(3)**, **wctomb(3)**