

**NAME**

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

**SYNOPSIS**

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

```
size_t wcstombs(char *dest, const wchar_t *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:

1. 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.
2. 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.
3. 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
<b>wcstombs()</b>	Thread safety	MT-Safe

**CONFORMING TO**

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)**

**COLOPHON**

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