



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

\$ man wcsrtombs.3

wcsrtombs(3) Library Functions Manual wcsrtombs(3)

NAME

wcsrtombs - convert a wide-character string to a multibyte string

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <wchar.h>

size_t wcsrtombs(size_t dsize;
                 char dest[restrict dsize],
                 const wchar_t **restrict src,
                 size_t dsize, mbstate_t *restrict ps);
```

DESCRIPTION

If `dest` is not NULL, the `wcsrtombs()` function converts the wide-character string `*src` to a multibyte string starting at `dest`. At most `dsize` bytes are written to `dest`. The shift state `*ps` is updated. The conversion is effectively performed by repeatedly calling `wcr? tomb(dest, *src, ps)`, as long as this call succeeds, and then incrementing `dest` by the number of bytes written and `*src` by one. 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, `*src` is left pointing to the invalid wide character, `(size_t) -1` is returned, and `errno` is set to `EILSEQ`.

? The size limit forces a stop. In this case, `*src` is left pointing to the next wide character to be converted, and the number of bytes written to `dest` is returned.

? The wide-character string has been completely converted, including the terminating null

wide character (L'0'), which has the side effect of bringing back *ps to the initial state. In this case, *src is set to NULL, and the number of bytes written to dest, excluding the terminating null byte ('\0'), is returned.

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

In both of the above cases, if `ps` is `NULL`, a static anonymous state known only to the `wcsr?` `tombs()` function is used instead.

The programmer must ensure that there is room for at least `dsz` bytes at `dest`.

RETURN VALUE

The `wcsrtombs()` function returns the number of bytes that make up the converted part of multibyte sequence, not including the terminating null byte. If a wide character was encountered which could not be converted, `(size_t) -1` is returned, and `errno` set to `EILSEQ`.

ATTRIBUTES

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

[illegible]

?	Interface	?	Attribute	?	Value	?

[illegible]

? wcsrtombs() ? Thread safety ? MT-Unsafe race:wcsrtombs/!ps ?

[illegible]

STANDARDS

C11, POSIX.1-2008.

HISTORY

POSIX.1-2001, C99.

NOTES

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

Passing NULL as ps is not multithread safe.

SEE ALSO

iconv(3), mbsinit(3), wcrntomb(3), wcsnrtombs(3), wcstombs(3)