



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

\$ man wcsnrtombs.3

wcsnrtombs(3) Library Functions Manual wcsnrtombs(3)

NAME

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

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <wchar.h>

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

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

wcsnrtombs():

Since glibc 2.10:

 _POSIX_C_SOURCE >= 200809L

Before glibc 2.10:

 _GNU_SOURCE

DESCRIPTION

The `wcsnrtombs()` function is like the `wcsrtombs(3)` function, except that the number of wide characters to be converted, starting at `*src`, is limited to `nwc`.

If `dest` is not `NULL`, the `wcsnrtombs()` function converts at most `nwc` wide characters from 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 `wcrtomb(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.

? nwc wide characters have been converted without encountering a null wide character (L'0'), or 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 (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 destination size limit exists.

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

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

RETURN VALUE

The `wcsnrtombs()` function returns the number of bytes that make up the converted part of the 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]

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

[illegible]

STANDARDS

POSIX.1-2008.

NOTES

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

Passing NULL as ps is not multithread safe.

SEE ALSO

iconv(3), mbsinit(3), wcsrtombs(3)

Linux man-pages 6.17

2026-02-08

wcsnrtombs(3)