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

LIBRARY
Standard C library (*libc*, *−lc*)

SYNOPSIS
#include <wchar.h>

size_t wcsnrtombs(char *dest***[restrict .***len***], const wchar_t **restrict** *src***,**
        size_t *nwc***, size_t** *len***, 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 *len* 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 length 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, *len* is ignored, and the conversion proceeds as above, except that the converted bytes are not written out to memory, and that no destination length limit exists.

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

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

RETURN VALUE
The **wcsnrtombs**() 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).

Interface	Attribute	Value
wcsnrtombs()	Thread safety	MT-Unsafe race:wcsnrtombs/!ps

STANDARDS
>   POSIX.1-2008.

NOTES
>   The behavior of **wcsnrtombs**() 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)