NAME

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

LIBRARY

Standard C library (*libc*, *−lc*)

SYNOPSIS

```
#include <wchar.h>

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

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

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

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

STANDARDS

POSIX.1-2001, POSIX.1-2008, 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), **wcrtomb**(3), **wcsnrtombs**(3), **wcstombs**(3)