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Rocky Enterprise Linux 9.2 Manual Pages on command 'mbsrtowcs.3'

\$ man mbsrtowcs.3

MBSRTOWCS(3) Linux Programmer's Manual MBSRTOWCS(3)

NAME

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

SYNOPSIS

```
#include <wchar.h>

size_t mbsrtowcs(wchar_t *dest, const char **src,
                 size_t len, mbstate_t *ps);
```

DESCRIPTION

If `dest` is not NULL, the `mbsrtowcs()` function converts the multibyte string `*src` to a wide-character string starting at `dest`. At most `len` wide characters are written to `dest`. The shift state `*ps` is updated. The conversion is effectively performed by repeatedly calling `mbrtowc(dest, *src, n, ps)` where `n` is some positive number, as long as this call succeeds, and then incrementing `dest` by one and `*src` by the number of bytes consumed. The conversion can stop for three reasons:

1. An invalid multibyte sequence has been encountered. In this case, `*src` is left pointing to the invalid multibyte sequence, `(size_t) -1` is returned, and `errno` is set to `EILSEQ`.

2. len non-L'\0' wide characters have been stored at dest. In this case, *src is left pointing to the next multibyte sequence to be converted, and the number of wide characters written to dest is returned.

3. The multibyte string has been completely converted, including the terminating null wide character ('\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 wide characters written to dest, excluding the terminating null wide character, is returned.

If dest is NULL, len is ignored, and the conversion proceeds as above, except that the converted wide characters 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 mbsrtowcs() function is used instead.

The programmer must ensure that there is room for at least len wide characters at dest.

RETURN VALUE

The mbsrtowcs() function returns the number of wide characters that make up the converted part of the wide-character string, not including the terminating null wide character. If an invalid multibyte sequence was encountered, (size_t) -1 is returned, and errno set to EILSEQ.

ATTRIBUTES

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

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?Interface ? Attribute ? Value ?

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

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CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C99.

NOTES

The behavior of mbsrtowcs() depends on the LC_CTYPE category of the

current locale.

Passing NULL as ps is not multithread safe.

SEE ALSO

[iconv\(3\)](#), [mbrtowc\(3\)](#), [mbsinit\(3\)](#), [mbsnrtowcs\(3\)](#), [mbstowcs\(3\)](#)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.

GNU

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