NAME

    mbsrtowcs, **mbsnrtowcs** - convert a character string to a wide-character string (restartable)

LIBRARY

    Standard C Library (libc, -lc)

SYNOPSIS

    #include <wchar.h>

    size_t
    mbsrtowcs(*wchar_t * restrict dst*, *const char ** restrict src*, *size_t len*, *mbstate_t * restrict ps*);

    size_t
    mbsnrtowcs(*wchar_t * restrict dst*, *const char ** restrict src*, *size_t nms*, *size_t len*,
      *mbstate_t * restrict ps*);

DESCRIPTION

    The **mbsrtowcs**() function converts a sequence of multibyte characters pointed to indirectly by *src* into a sequence of corresponding wide characters and stores at most *len* of them in the *wchar_t* array pointed to by *dst*, until it encounters a terminating null character ('\0').

    If *dst* is NULL, no characters are stored.

    If *dst* is not NULL, the pointer pointed to by *src* is updated to point to the character after the one that conversion stopped at. If conversion stops because a null character is encountered, **src* is set to NULL.

    The *mbstate_t* argument, *ps*, is used to keep track of the shift state. If it is NULL, **mbsrtowcs**() uses an internal, static *mbstate_t* object, which is initialized to the initial conversion state at program startup.

    The **mbsnrtowcs**() function behaves identically to **mbsrtowcs**(), except that conversion stops after reading at most *nms* bytes from the buffer pointed to by *src*.

RETURN VALUES

    If successful, and *dst* is not NULL, the **mbsrtowcs**() and **mbsnrtowcs**() functions return the number of wide characters stored in the array pointed to by *dst*.

    If *dst* was NULL then the functions **mbsrtowcs**() and **mbsnrtowcs**() return the number of wide characters that would have been stored where *dst* points to an infinitely large array.

    If either one of the functions is not successful then (*size_t*)-1 is returned.

ERRORS

The **mbsrtowcs**() and **mbsnrtowcs**() functions will fail if:

[EILSEQ]　　　　　　An invalid multibyte character sequence was encountered.

[EINVAL]　　　　　　The conversion state is invalid.

SEE ALSO

mbrtowc(3), mbstowcs(3), multibyte(3), wcsrtombs(3)

STANDARDS

The **mbsrtowcs**() function conforms to ISO/IEC 9899:1999 ("ISO C99").

The **mbsnrtowcs**() function is an extension to the standard.