NAME

mbsinit − test for initial shift state

SYNOPSIS

#include <wchar.h>

int mbsinit(const mbstate_t * *ps*);

DESCRIPTION

Character conversion between the multibyte representation and the wide character representation uses conversion state, of type *mbstate_t*. Conversion of a string uses a finite-state machine; when it is interrupted after the complete conversion of a number of characters, it may need to save a state for processing the remaining characters. Such a conversion state is needed for the sake of encodings such as ISO-2022 and UTF-7.

The initial state is the state at the beginning of conversion of a string. There are two kinds of state: the one used by multibyte to wide character conversion functions, such as **mbsrtowcs**(3), and the one used by wide character to multibyte conversion functions, such as **wcsrtombs**(3), but they both fit in a *mbstate_t*, and they both have the same representation for an initial state.

For 8-bit encodings, all states are equivalent to the initial state. For multibyte encodings like UTF-8, EUC-*, BIG5 or SJIS, the wide character to multibyte conversion functions never produce non-initial states, but the multibyte to wide-character conversion functions like **mbrtowc**(3) do produce non-initial states when interrupted in the middle of a character.

One possible way to create an *mbstate_t* in initial state is to set it to zero:

```
mbstate_t state;
memset(&state,0,sizeof(mbstate_t));
```

On Linux, the following works as well, but might generate compiler warnings:

```
mbstate_t state = { 0 };
```

The function **mbsinit**() tests whether **ps* corresponds to an initial state.

RETURN VALUE

mbsinit() returns nonzero if **ps* is an initial state, or if *ps* is NULL. Otherwise, it returns 0.

ATTRIBUTES

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

Interface	Attribute	Value
mbsinit()	Thread safety	MT-Safe

CONFORMING TO

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

NOTES

The behavior of **mbsinit**() depends on the **LC_CTYPE** category of the current locale.

SEE ALSO

mbrlen(3), **mbrtowc**(3), **mbsrtowcs**(3), **wcrtomb**(3), **wcsrtombs**(3)

COLOPHON

This page is part of release 5.05 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/.