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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'mbsinit.3' command

\$ man mbsinit.3

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

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 wcrtombs(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(state));
```

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 `at?` `tributes(7)`.

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?Interface ? Attribute ? Value ?

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?mbsinit() ? Thread safety ? MT-Safe ?

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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 5.10 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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