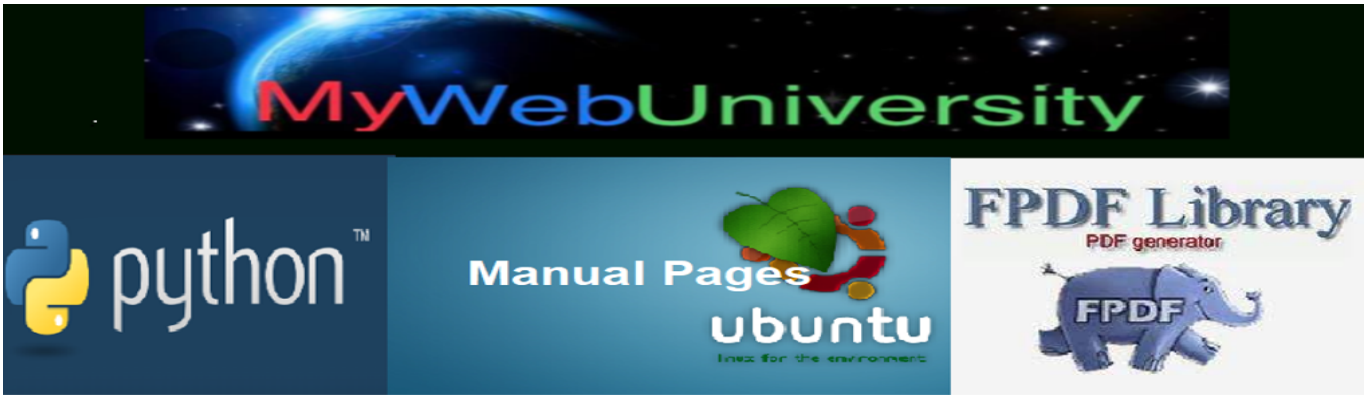

Rocky Enterprise Linux 9.2 Manual Pages on command 'mbsinit.3'

$ 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 represen? tation 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 charac? ters, it may need to save a state for processing the remaining characters. Such a conver? sion 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 representa? tion for an initial state.

For 8-bit encodings, all states are equivalent to the initial state. For multibyte encod? ings 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 charac? ter.

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 re?
turns 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 5.10 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/.