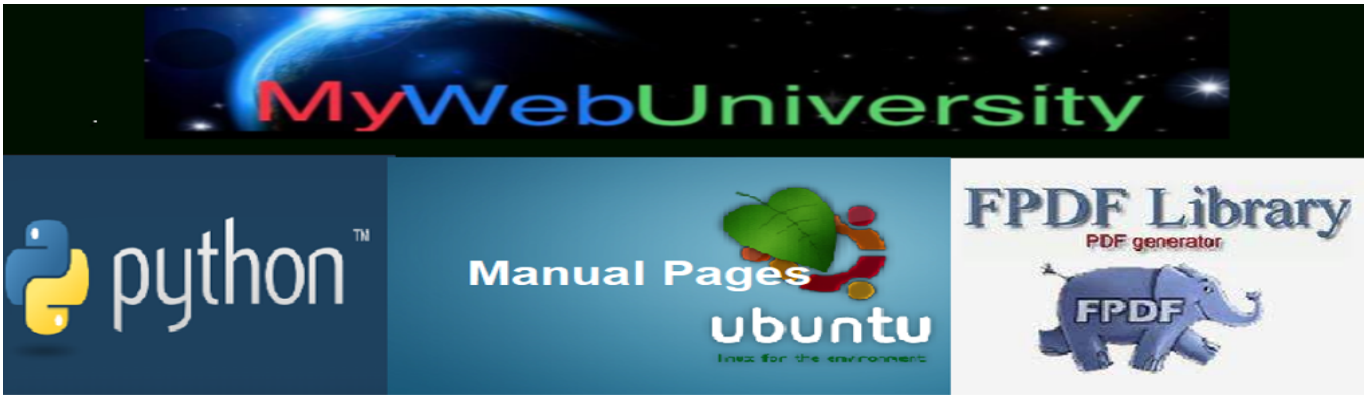

Rocky Enterprise Linux 9.2 Manual Pages on command 'memcmp.3'

$ man memcmp.3

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

NAME

memcmp - compare memory areas

SYNOPSIS

#include <string.h>

int memcmp(const void *s1, const void *s2, size_t n);

DESCRIPTION

The memcmp() function compares the first n bytes (each interpreted as unsigned char) of the memory areas s1 and s2.

RETURN VALUE

The memcmp() function returns an integer less than, equal to, or greater than zero if the first n bytes of s1 is found, respectively, to be less than, to match, or be greater than the first n bytes of s2.

For a nonzero return value, the sign is determined by the sign of the difference between the first pair of bytes (interpreted as unsigned char) that differ in s1 and s2.

If n is zero, the return value is zero.

ATTRIBUTES

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

??????????????????????????????????????

?Interface ? Attribute ? Value ?

??????????????????????????????????????

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

??????????????????????????????????????

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C89, C99, SVr4, 4.3BSD.

NOTES

Do not use memcmp() to compare security critical data, such as cryptographic secrets, be? cause the required CPU time depends on the number of equal bytes. Instead, a function that performs comparisons in constant time is required. Some operating systems provide such a function (e.g., NetBSD's consttime_memequal()), but no such function is specified in POSIX. On Linux, it may be necessary to implement such a function oneself.

SEE ALSO

bcmp(3), bstring(3), strcasecmp(3), strcmp(3), strcoll(3), strncasecmp(3), strncmp(3), wmemcmp(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/.