NAME

memchr, memrchr, rawmemchr - scan memory for a character

SYNOPSIS

#include <string.h>

void *memchr(const void *s**, int** c**, size_t** n**);**

void *memrchr(const void *s**, int** c**, size_t** n**);**

void *rawmemchr(const void *s**, int** c**);**

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

memrchr(), **rawmemchr**(): _GNU_SOURCE

DESCRIPTION

The **memchr**() function scans the initial n bytes of the memory area pointed to by s for the first instance of c. Both c and the bytes of the memory area pointed to by s are interpreted as *unsigned char.*

The **memrchr**() function is like the **memchr**() function, except that it searches backward from the end of the n bytes pointed to by s instead of forward from the beginning.

The **rawmemchr**() function is similar to **memchr**(): it assumes (i.e., the programmer knows for certain) that an instance of c lies somewhere in the memory area starting at the location pointed to by s, and so performs an optimized search for c (i.e., no use of a count argument to limit the range of the search). If an instance of c is not found, the results are unpredictable. The following call is a fast means of locating a string's terminating null byte:

char *p = rawmemchr(s, 0);

RETURN VALUE

The **memchr**() and **memrchr**() functions return a pointer to the matching byte or NULL if the character does not occur in the given memory area.

The **rawmemchr**() function returns a pointer to the matching byte, if one is found. If no matching byte is found, the result is unspecified.

VERSIONS

rawmemchr() first appeared in glibc in version 2.1.

memrchr() first appeared in glibc in version 2.2.

ATTRIBUTES

Multithreading (see pthreads(7))

The **memchr**(), **memrchr**(), and **rawmemchr**() functions are thread-safe.

CONFORMING TO

The **memchr**() function conforms to SVr4, 4.3BSD, C89, C99, POSIX.1-2001.

The **memrchr**() function is a GNU extension, available since glibc 2.1.91.

The **rawmemchr**() function is a GNU extension, available since glibc 2.1.

SEE ALSO

ffs(3), index(3), rindex(3), strchr(3), strpbrk(3), strrchr(3), strsep(3), strspn(3), strstr(3), wmemchr(3)

COLOPHON

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