

NAME

memchr, memrchr, rawmemchr – scan memory for a character

LIBRARY

Standard C library (*libc*, *-lc*)

SYNOPSIS

```
#include <string.h>
```

```
void *memchr(const void s[.n], int c, size_t n);
```

```
void *memrchr(const void s[.n], int c, size_t n);
```

```
[[deprecated]] void *rawmemchr(const void s[.n], 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()**, but 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*. If an instance of *c* is not found, the behavior is undefined. Use either **strlen(3)** or **memchr(3)** instead.

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.

VERSIONS

rawmemchr() first appeared in glibc 2.1.

memrchr() first appeared in glibc 2.2.

ATTRIBUTES

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

Interface	Attribute	Value
memchr() , memrchr() , rawmemchr()	Thread safety	MT-Safe

STANDARDS

memchr(): POSIX.1-2001, POSIX.1-2008, C99, SVr4, 4.3BSD.

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

bstring(3), **ffs(3)**, **memmem(3)**, **strchr(3)**, **strpbrk(3)**, **strrchr(3)**, **strsep(3)**, **strspn(3)**, **strstr(3)**, **wmemchr(3)**