

**NAME**

`mbrlen` – determine number of bytes in next multibyte character

**SYNOPSIS**

```
#include <wchar.h>
```

```
size_t mbrlen(const char *s, size_t n, mbstate_t *ps);
```

**DESCRIPTION**

The `mbrlen()` function inspects at most *n* bytes of the multibyte string starting at *s* and extracts the next complete multibyte character. It updates the shift state *ps*. If the multibyte character is not the null wide character, it returns the number of bytes that were consumed from *s*. If the multibyte character is the null wide character, it resets the shift state *ps* to the initial state and returns 0.

If the *n* bytes starting at *s* do not contain a complete multibyte character, `mbrlen()` returns  $(size\_t) - 2$ . This can happen even if  $n \geq MB\_CUR\_MAX$ , if the multibyte string contains redundant shift sequences.

If the multibyte string starting at *s* contains an invalid multibyte sequence before the next complete character, `mbrlen()` returns  $(size\_t) - 1$  and sets *errno* to **EILSEQ**. In this case, the effects on *ps* are undefined.

If *ps* is **NULL**, a static anonymous state known only to the `mbrlen()` function is used instead.

**RETURN VALUE**

The `mbrlen()` function returns the number of bytes parsed from the multibyte sequence starting at *s*, if a non-null wide character was recognized. It returns 0, if a null wide character was recognized. It returns  $(size\_t) - 1$  and sets *errno* to **EILSEQ**, if an invalid multibyte sequence was encountered. It returns  $(size\_t) - 2$  if it couldn't parse a complete multibyte character, meaning that *n* should be increased.

**ATTRIBUTES**

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

Interface	Attribute	Value
<code>mbrlen()</code>	Thread safety	MT-Unsafe race:mbrlen/!ps

**CONFORMING TO**

POSIX.1-2001, POSIX.1-2008, C99.

**NOTES**

The behavior of `mbrlen()` depends on the **LC\_CTYPE** category of the current locale.

**SEE ALSO**

[mbrtowc\(3\)](#)

**COLOPHON**

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