

NAME

`towlower`, `towlower_l` - convert a wide character to lowercase

SYNOPSIS

```
#include <wctype.h>
```

```
wint_t tolower(wint_t wc);
```

```
wint_t tolower_l(wint_t wc, locale_t locale);
```

Feature Test Macro Requirements for glibc (see [feature_test_macros\(7\)](#)):

towlower_l():

Since glibc 2.10:

```
_XOPEN_SOURCE >= 700
```

Before glibc 2.10:

```
_GNU_SOURCE
```

DESCRIPTION

The `towlower()` function is the wide-character equivalent of the [tolower\(3\)](#) function. If `wc` is an uppercase wide character, and there exists a lowercase equivalent in the current locale, it returns the lowercase equivalent of `wc`. In all other cases, `wc` is returned unchanged.

The `towlower_l()` function performs the same task, but performs the conversion based on the character type information in the locale specified by `locale`. The behavior of `towlower_l()` is undefined if `locale` is the special locale object `LC_GLOBAL_LOCALE` (see [duplocale\(3\)](#)) or is not a valid locale object handle.

The argument `wc` must be representable as a `wchar_t` and be a valid character in the locale or be the value `WEOF`.

RETURN VALUE

If `wc` was convertible to lowercase, `towlower()` returns its lowercase equivalent; otherwise it returns `wc`.

VERSIONS

The `towlower_l()` function first appeared in glibc 2.3.

ATTRIBUTES

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

Interface	Attribute	Value
<code>towlower()</code>	Thread safety	MT-Safe locale
<code>towlower_l()</code>	Thread safety	MT-Safe

CONFORMING TO

`towlower()`: C99, POSIX.1-2001 (XSI); present as an XSI extension in POSIX.1-2008, but marked obsolete.

`towlower_l()`: POSIX.1-2008.

NOTES

The behavior of these functions depends on the `LC_CTYPE` category of the locale.

These functions are not very appropriate for dealing with Unicode characters, because Unicode knows about three cases: upper, lower and title case.

SEE ALSO

[iswlower\(3\)](#), [towctrans\(3\)](#), [towupper\(3\)](#), [locale\(7\)](#)

COLOPHON

This page is part of release 4.10 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/>.