

**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
<b>towlower()</b>	Thread safety	MT-Safe locale
<b>towlower_l()</b>	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 4.16 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/>.