



Linux Ubuntu 26.04 Manual Pages on command 'wprintf.3'

\$ man wprintf.3

wprintf(3) Library Functions Manual wprintf(3)

NAME

wprintf, fwprintf, swprintf, vwprintf, vfwprintf, vswprintf - formatted wide-character out?
put conversion

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <stdio.h>

#include <wchar.h>

int wprintf(const wchar_t *restrict format, ...);

int fwprintf(FILE *restrict stream,
             const wchar_t *restrict format, ...);

int swprintf(size_t n;
             wchar_t wcs[restrict n], size_t n,
             const wchar_t *restrict format, ...);

int vwprintf(const wchar_t *restrict format, va_list args);

int vfwprintf(FILE *restrict stream,
              const wchar_t *restrict format, va_list args);

int vswprintf(size_t n;
              wchar_t wcs[restrict n], size_t n,
              const wchar_t *restrict format, va_list args);
```

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

All functions shown above:

`_XOPEN_SOURCE >= 500 || _ISOC99_SOURCE`

`|| _POSIX_C_SOURCE >= 200112L`

DESCRIPTION

The `wprintf()` family of functions is the wide-character equivalent of the `printf(3)` family of functions. It performs formatted output of wide characters.

The `wprintf()` and `vwprintf()` functions perform wide-character output to `stdout`. `stdout` must not be byte oriented; see `fwide(3)` for more information.

The `fwprintf()` and `vfwprintf()` functions perform wide-character output to `stream`. `stream` must not be byte oriented; see `fwide(3)` for more information.

The `swprintf()` and `vswprintf()` functions perform wide-character output to an array of wide characters. The programmer must ensure that there is room for at least `n` wide characters at `wcs`.

These functions are like the `printf(3)`, `vprintf(3)`, `fprintf(3)`, `vfprintf(3)`, `sprintf(3)`, `vsprintf(3)` functions except for the following differences:

- ? The format string is a wide-character string.
- ? The output consists of wide characters, not bytes.
- ? `swprintf()` and `vswprintf()` take a `n` argument, `sprintf(3)` and `vsprintf(3)` do not. (`snprintf(3)` and `vsnprintf(3)` take a `n` argument, but these functions do not return -1 upon buffer overflow on Linux.)

The treatment of the conversion characters `c` and `s` is different:

- c** If no `l` modifier is present, the `int` argument is converted to a wide character by a call to the `btowc(3)` function, and the resulting wide character is written. If an `l` modifier is present, the `wint_t` (wide character) argument is written.
- s** If no `l` modifier is present: the `const char *` argument is expected to be a pointer to an array of character type (pointer to a string) containing a multibyte character sequence beginning in the initial shift state. Characters from the array are converted to wide characters (each by a call to the `mbtowc(3)` function with a conversion state starting in the initial state before the first byte). The resulting wide characters are written up to (but not including) the terminating null wide character (`L'\0'`). If a precision is specified, no more wide characters than the number specified are written. Note that the precision determines the number of wide characters written, not the number of bytes or screen positions. The array must contain a terminating null byte (`'\0'`), unless a precision is given and it is so small that the number of

category of the current locale at compile time. This is because the `wchar_t` representation is platform- and locale-dependent. (The glibc represents wide characters using their Unicode (ISO/IEC 10646) code point, but other platforms don't do this. Also, the use of C99 universal character names of the form `\unnnn` does not solve this problem.) Therefore, in internationalized programs, the format string should consist of ASCII wide characters only, or should be constructed at run time in an internationalized way (e.g., using `gettext(3)` or `iconv(3)`, followed by `mbstowcs(3)`).

SEE ALSO

`fprintf(3)`, `fputwc(3)`, `fwide(3)`, `printf(3)`, `snprintf(3)`

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`wprintf(3)`