

std::wcstombs

Defined in header <cstdlib>

```
std::size_t wcstombs( char* dst, const wchar_t* src, std::size_t len);
```

Converts a sequence of wide characters from the array whose first element is pointed to by `src` to its narrow multibyte representation that begins in the initial shift state. Converted characters are stored in the successive elements of the `char` array pointed to by `dst`. No more than `len` bytes are written to the destination array.

Each character is converted as if by a call to `std::wctomb`, except that the `wctomb`'s conversion state is unaffected. The conversion stops if:

- The null character was converted and stored.
- A `wchar_t` was found that does not correspond to a valid character in the current C locale.
- The next multibyte character to be stored would exceed `len`.

Notes

In most implementations, this function updates a global static object of type `std::mbstate_t` as it processes through the string, and cannot be called simultaneously by two threads, `std::wcsrtombs` should be used in such cases.

POSIX specifies a common extension: if `dst` is a null pointer, this function returns the number of bytes that would be written to `dst`, if converted. Similar behavior is standard for `std::wcsrtombs`.

Parameters

dst - pointer to narrow character array where the multibyte character will be stored
src - pointer to the first element of a null-terminated wide string to convert
len - number of byte available in the array pointed to by `dst`

Return value

On success, returns the number of bytes (including any shift sequences, but excluding the terminating `'\0'`) written to the character array whose first element is pointed to by `dst`.

On conversion error (if invalid wide character was encountered), returns `static_cast<std::size_t>(-1)`.

Example

Run this code

```
#include <iostream>
#include <locale>
#include <cstdlib>

int main()
{
    std::setlocale(LC_ALL, "en_US.utf8");
    // UTF-8 narrow multibyte encoding
    const wchar_t* wstr = L"z\u00df\u6c34\u0001d10b"; // or L"zß水"
    char mbstr[11];
    std::wcstombs(mbstr, wstr, 11);
    std::cout << "multibyte string: " << mbstr << '\n';
}
```

Output:

```
multibyte string: zß水
```

See also

wcsrtombs converts a wide string to narrow multibyte character string, given state

	(function)
mbstowcs	converts a narrow multibyte character string to wide string (function)
do_out [virtual]	converts a string from internT to externT, such as when writing to file (virtual protected member function of <code>std::codecvt<InternT,ExternT,State></code>)
C documentation for <code>wcstombs</code>	

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