

```

/* The following code example is taken from the book
 * "The C++ Standard Library – A Tutorial and Reference, 2nd Edition"
 * by Nicolai M. Josuttis, Addison-Wesley, 2012
 *
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 */
#include <locale>
#include <string>
#include <vector>

// convert string to wstring
std::wstring to_wstring (const std::string& str,
                        const std::locale& loc = std::locale())
{
    std::vector<wchar_t> buf(str.size());
    std::use_facet<std::ctype<wchar_t>>(loc).widen(str.data(),
                                                    str.data()+str.size(),
                                                    buf.data());

    return std::wstring(buf.data(), buf.size());
}

// convert wstring to string with '?' as default character
std::string to_string (const std::wstring& str,
                      const std::locale& loc = std::locale())
{
    std::vector<char> buf(str.size());
    std::use_facet<std::ctype<wchar_t>>(loc).narrow(str.data(),
                                                    str.data()+str.size(),
                                                    '?', buf.data());

    return std::string(buf.data(), buf.size());
}

```