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/* 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 <chrono>
#include <ctime>
#include <iostream>
#include <exception>
#include <cstdlib>
using namespace std;

int main ()
{
    try {
        // query local time:
        auto now = chrono::system_clock::now();
        std::time_t t = chrono::system_clock::to_time_t(now);
        tm* nowTM = std::localtime(&t);

        // print local time with the global classic locale:
        locale locC;
        const time_put<char>& tpC = use_facet<time_put<char>>(locC);

        // use single conversion specifier
        tpC.put (cout, cout, ' ', nowTM, 'x');
        cout << endl;

        // use format string:
        string format = "%A %x %I%p\n"; // format: weekday date hour
        tpC.put (cout, cout, ' ', nowTM,
                format.c_str(), format.c_str()+format.size() );

        // print local time with German locale:
#ifdef _MSC_VER
        locale locG("deu_deu.1252");
#else
        locale locG("de_DE");
#endif
        const time_put<char>& tpG = use_facet<time_put<char>>(locG);
        tpG.put (cout, cout, ' ', nowTM, 'x');
        cout << endl;
        tpG.put (cout, cout, ' ', nowTM,
                format.c_str(), format.c_str()+format.size() );
    }
    catch (const std::exception& e) {
        cerr << "Exception: " << e.what() << endl;
        return EXIT_FAILURE;
    }
}

```