Subject: A strange bug in std::chrono

Posted by chivstyle on Fri, 13 Aug 2021 01:16:25 GMT

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os: Windows 10 64 bits, ver: 10.0.19042.985

I used std::chrono::high_resolution_clock to calculate time interval, like below:

```
double ts = 0;
auto t1 = std::chrono::high_resolution_clock::now();
do_something();
auto t2 = std::chrono::high_resolution_clock::now();
ts += std::chrono::duration<double>(t2 - t1).count();
```

The value of ts will be minus. I attached an example to demonstrate this bug, please check it out. (complie it: clang++ -o chrono_test chrono_test.cpp)

If it catched this bug, the app will exit at once.

```
q_count = 1101145088, q_rate = 799.75
q_count = 1101146112, q_rate = 799.75
q_count = 1101147136, q_rate = 799.75
q_count = 1101148160, q_rate = 799.75
q_count = 1101149184, q_rate = 799.75
q_count = 1101150208, q_rate = 799.75
q_count = 1101151232, q_rate = 799.75
q_count = 1101153280, q_rate = 799.75
q_count = 1101153280, q_rate = -2150.39
catched that bug, hahaha
```

Of course, I compiled this program with gcc, and clang from latest msys2. It worked well. So I think it's a bug.

File Attachments

```
1) chrono_test.cpp, downloaded 174 times
```