
Subject: Re: time measurement :: RTIMING, TimeStop, GetTickCount

Posted by [cbpporter](#) on Wed, 09 May 2012 13:26:09 GMT

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The real problem with GetTickCount is the resolution. I find it way too low for most practical purposes, because two close measurements will almost always return 0, 15 or 16 ms.

I don't have a proper solution at hand right now, but this should work fairly well:

```
class HRTimer {
private:
    LARGE_INTEGER start;

    LARGE_INTEGER stop;

    double frequency;

public:
    HRTimer() {
        frequency = GetFrequency();
    }

    double GetFrequency();
    void StartTimer();
    double StopTimer();
};

double HRTimer::GetFrequency(void) {
    LARGE_INTEGER proc_freq;

    if (!::QueryPerformanceFrequency(&proc_freq)) {
        ASSERT(0);
    }

    return proc_freq.QuadPart;
}

void HRTimer::StartTimer(void) {
    DWORD_PTR oldmask = ::SetThreadAffinityMask(::GetCurrentThread(), 0);

    ::QueryPerformanceCounter(&start);

    ::SetThreadAffinityMask(::GetCurrentThread(), oldmask);
}

double HRTimer::StopTimer(void) {
    DWORD_PTR oldmask = ::SetThreadAffinityMask(::GetCurrentThread(), 0);

    ::QueryPerformanceCounter(&stop);
}
```

```
    ::SetThreadAffinityMask(::GetCurrentThread(), oldmask);  
  
    return ((stop.QuadPart - start.QuadPart) / frequency);  
}
```
