Subject: running program at different speeds
Posted by varu on Wed, 08 Aug 2012 06:53:45 GMT
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Dear Sir,
Is there any way to run my loop in my program at different time period in core console app..for example i want to run my program every 10ms only instead of the speed at which is running now..

thanks
varun

Subject: Re: running program at different speeds
Posted by dolik.rce on Wed, 08 Aug 2012 07:54:08 GMT
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varu wrote on Wed, 08 August 2012 08:53Dear Sir,
Is there any way to run my loop in my program at different time period in core console app..for example i want to run my program every 10ms only instead of the speed at which is running now..

thanks
varun

Hi Varun,

I'm not sure if I understand correctly, but to slow down any loop, you can just insert call to Sleep(int ms) in it. E.g.:while(work_not_done){
  //do something
  Sleep(10); // wait ~10 ms before continuing
}
Sleep is defined in Core package, so it can be used in any application. If you are using Threads, there is also similar function Thread::Sleep().

Best regards,
Honza

Subject: Re: running program at different speeds
Posted by jerson on Wed, 08 Aug 2012 09:29:26 GMT
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Another possible way would be to set up a "timer callback" to execute a code fragment every timer interval.

Subject: Re: running program at different speeds
Posted by varu on Wed, 08 Aug 2012 11:00:39 GMT
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Dear Honza,

its working for me thanks..but it is creating 10 ms delay for sleep(1).i did not understand why this happening this and using Getickcount() for finding time taken by my loop..can please explain

thank you
varun

Subject: Re: running program at different speeds
Posted by dolik.rce on Wed, 08 Aug 2012 11:55:47 GMT
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On POSIX platforms Sleep() is implemented using nanosleep function. If you look in manual for this function it says this:
man nanosleepThe suspension time may be longer than requested because the argument value is rounded up to an integer multiple of the sleep resolution or because of the scheduling of other activity by the system.
Very similar conditions hold AFAIK for the windows implementation.

In addition (at least on POSIX) it is possible that Sleep returns earlier then it is supposed, if it is interrupted by a signal from outside.

If you need to get more precise speed adjustments, you might want to try longer Sleep() less often (e.g. every n-th iteration of the loop).

Honza

Subject: Re: running program at different speeds
Posted by varu on Thu, 09 Aug 2012 04:11:52 GMT
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Hello Honza

Thanks for explanation...i am using ubuntu 64 bit...and one more observation which i made is that delay time is toggling between 9ms,10ms alternatively can u please tell me hw will u justify this..

thanks
varun

Subject: Re: running program at different speeds
Posted by dolik.rce on Thu, 09 Aug 2012 05:13:58 GMT
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There are two factors in this: One is that when you call sleep function, the kernel switches context and lets another process to run. That might make the sleep longer, as mentioned in my previous post. The second factor you have to take in account is the precision of the mechanism you use to measure the time elapsed. If you search the forum, you will find couple threads about precise time measurements and what to be aware of.

Is there any particular reason why you need every interval to be *exactly* the same?

Honza

Subject: Re: running program at different speeds
Posted by varu on Thu, 09 Aug 2012 06:27:54 GMT
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yes..the main reason for this is that suppose i have defined some set of activities to done in every 100ms and out of that one of the activity takes 10ms of out of 100ms..nw if this 10ms activity takes more than 10 ms then all activities defined in 100ms activity may not happen in the same cycle instead it will happen in next cycle which will case one cycle delay..and for 4 or 5 hrs activity the error is accumulated so..

thanks
varun

Subject: Re: running program at different speeds
Posted by varu on Thu, 09 Aug 2012 09:20:06 GMT
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Hello Jerson

is it possible to use timer call back in core console app projects also?

thanks

Best regards
varun

Subject: Re: running program at different speeds
Posted by dolik.rce on Thu, 09 Aug 2012 10:20:52 GMT
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varu wrote on Thu, 09 August 2012 11:20Hello Jerson

is it possible to use timer call back in core console app projects also?

thanks

Best regards
varun
Yes, there is a Timer package in bazaar, that allows using timer in console apps. However, I'm not sure if it is going to match your precision requirements...

Honza

Subject: Re: running program at different speeds
Posted by varu on Thu, 09 Aug 2012 10:48:36 GMT
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Hello Honza

how to use set time call back in core conole app.
i tried using it but got the following error

candidates are: Upp::Callback::Callback(Upp::_CNULL)
Upp::Callback::Callback() Upp::Callback::Callback(Upp::CallbackAction*)
Upp::Callback::Callback(const Upp::Callback&)

Subject: Re: running program at different speeds
Posted by dolik.rce on Fri, 10 Aug 2012 06:01:00 GMT
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The simplest possible example is something like this:Quote:#include <Core/Core.h>
using namespace Upp;
//must be compiled with MT flag
#include <Timer/Timer.h>

void SomeFn(){
Cout() << GetSysTime() << "\n";

```
}

CONSOLE_APP_MAIN{
 // set up the periodic callback
 Timer t;
 t.SetTimeCallback(-500,callback(SomeFn));

 // wait until the work is done
 Sleep(5000);
}
```

The error you got was about passing wrong callback or something similar. Have a look at callbacks in U++ manual, they is many ways to work with them.

Honza

Subject: Re: running program at different speeds
Posted by varu on Sat, 11 Aug 2012 06:31:30 GMT
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Hi Honza,

can u please tell me what do mean by "must be compiled by MT Flag"..and how to do it..

Thanks

varun

Subject: Re: running program at different speeds
Posted by dolik.rce on Sat, 11 Aug 2012 08:28:52 GMT
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Hi Varun,

The MT flag tells U++ to add support for multithreading. To learn how to add flag to main package see Getting started with TheIDE paragraph 3.1. The list of standard flags and their meanings can be found on this page.

Honza

Subject: Re: running program at different speeds
Posted by varu on Sat, 11 Aug 2012 11:59:34 GMT

hi honza

Thanks..my program is error free..and i am using

the timer as shown by you

ie

Timer t;
t.SetTimeCallback(-500,callback(SomeFn));

but this "SomeFn" does not get called at all...can u please tell me why

thanks

varun

Subject: Re: running program at different speeds
Posted by dolik.rce on Sat, 11 Aug 2012 12:43:58 GMT

Hard to tell without seeing more of the code... The only thing coming to my mind is that your program exits before the timer has even chance to call the callback.

Honza