Subject: Quiz #4
Posted by mirek on Sat, 18 Dec 2021 08:21:40 GMT
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Now for something much more fun:

```
CONSOLE_APP_MAIN
{
 int x = 0;
 CoDo([&] {
  CoWork::FinLock();
  x++;
 });
 DDUMP(x);
}
```

What can you say about the number printed to the log?

Subject: Re: Quiz #4
Posted by Oblivion on Sat, 18 Dec 2021 09:24:50 GMT
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Quote:Now for something much more fun:

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 int x = 0;
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What can you say about the number printed to the log?

Ideally it should be 1.

But in this case the result should (or expected to) be "0 < x <= INT_MAX", depending on the underlying hardware/OS task/process scheduling?

Best regards,
Oblivion

Subject: Re: Quiz #4
Posted by mirek on Sat, 18 Dec 2021 13:08:38 GMT
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Oblivion wrote on Sat, 18 December 2021 10:24Quote:Now for something much more fun:

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Best regards,
Oblivion

Incorrect.

Subject: Re: Quiz #4
Posted by Oblivion on Sat, 18 Dec 2021 20:21:15 GMT
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OK. What am I missing here?

AFAIK,

- CoDo() function is blocking, i.e. it will wait for the threads to join, before it exits.

- CoDo() calls CoWork::Loop(). The API document states that:

Schedules fn to be run on all worker threads and on calling thread. After the first thread returns from fn, all other scheduled fn jobs that has not started yet are unscheduled. Waits for all started jobs to finish.

Best regards,
Oblivion

Subject: Re: Quiz #4
Posted by mirek on Sun, 19 Dec 2021 08:28:19 GMT
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You are not completely wrong.

1 really is the most probable result with current implementation. This is basically pure race condition - how many worker threads will CoDo unblock until it registers that first of them finished.

Anyway, INT_MAX is definitely a little bit high - the teoretical maximum is the number of worker threads.

Mirek
