

Re: while (1) vs. for (;;)

Source: http://coding.derkeiler.com/Archive/C_CPP/comp.lang.c/2005-09/msg00163.html

- *From:* Alan Balmer <albalmer@xxxxxxx>
 - *Date:* Thu, 01 Sep 2005 10:08:14 -0700
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On Wed, 31 Aug 2005 21:12:25 -0700, "Baxter"
<lbax02.spamguard@xxxxxxxxxxxxx> wrote:

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>"Keith Thompson" <kst-u@xxxxxxx> wrote in message  
>news:ln4q96r875.fsf@xxxxxxxxxxxxxxxxxxxxx  
>> "Baxter" <lbax02.spamguard@xxxxxxxxxxxxx> writes:  
>> [...]  
>>> Why not code it like you would read it in English:  
>>>  
>>> bool done = false;  
>>> while (!done) { // while not done do  
>>> ...  
>>>  
>>> bool mainloop = true;  
>>> while (mainloop) { // while mainloop do  
>>> ...  
>>>  
>>> Because clear English is not necessarily clear C.  
>  
>It's not your job to write to the machine or to the compiler. Your job is  
>to write to the next guy (probably yourself) who will be reading the code.  
>  
>Do you know any C programmer who would have difficulty reading this  
>code? Would you?  
>>  
>> You've declared "done" and "mainloop" as variables, which means their  
>> values could change.  
>  
>Yep.  
>  
>>With "while (1)" (or "for (;;)") I can see at a  
>> glance that the loop is an infinite one;  
>  
>Infinity is a very long time. Your program will absolutely stop before  
>then.  
  
>You are unfamiliar with the term "infinite loop"?  
>  
>>with your suggestion, I can
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>> never be sure unless I analyze the program and verify that "done" will
>> always be false (and then I'll wonder why the heck you used a
>> variable).

>

>You could also use a #define -- while (PROGRAM_IS_RUNNING) {
>

Why? Since we are indeed writing a computer program, not a novel, I
still have to go find the definition of PROGRAM_IS_RUNNING.

>>

>> The clear meaning of "while (!done)" is that the variable "done"
>> represents a condition that will become true when the loop is meant to
>> terminate.

>

>That program WILL terminate sometime. If nothing else, when the power
>switch is flipped.

Are you saying that the power switch will change the value of "done"?
I suspect that's implementation-dependent.

>

>>

>> I assume that anyone reading my code either is familiar with C, or
>> just won't be able to understand the code.

>>

>Not a good assumption. Even you can mis-read your own code on a bad day --
>you'll wonder the next day how you could have written such code.

Much more likely to happen if you obfuscate the code in the ways
you're suggesting.

--

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• **Follow-Ups:**

◆ **[Re: while \(1\) vs. for \(;; \)](#)**

◇ From: Baxter

• **References:**

◆ **[Re: while \(1\) vs. for \(;; \)](#)**

◇ From: Baxter

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