Subject: Multiple statements in for loop
Posted by dolik.rce on Tue, 30 Sep 2008 18:31:55 GMT
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Hi everybody!

I've just came to interesting problem while playing with a for loop controlled by two variables. Can somebody please tell me what's wrong with this code:for(bool first=true,bool cond=true;
    first==true||cond==true;
    cond=!(a>=3),first=false)
{
    a++;
} It won't compile (using g++4.1) complaining about "error: expected unqualified-id before ‘bool’" in the first line.

When I declare the second bool before the loop like this:bool cond;
for(bool first=true,cond=true;
    first==true||cond==true;
    cond=!(a>=3),first=false)
{
    a++;
} it compiles without errors...

So, my question is: Is this how the compiler is supposed to work? From what I've read, it should be allowed to use multiple declaration and/or expression statements (to cite concrete reference: http://msdn.microsoft.com/en-us/library/b80153d8.aspx). I'd like to know how to write it correctly, while keeping both variables defined only in the for loop scope (I mean any other way than enclosing it all into another set of {} braces).

Bye, Honza

Subject: Re: Multiple statements in for loop
Posted by bytefield on Tue, 30 Sep 2008 18:44:26 GMT
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Why do you not use something like this?

for(bool first = true, cond = true;
    first==true||cond==true;
    cond=!(a>=3),first=false)
{
    a++;
}

In that way you keep both variables defined in for loop.

Subject: Re: Multiple statements in for loop
Posted by mr_ped on Tue, 30 Sep 2008 18:45:10 GMT
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As long as the two variables have same type, the:
bool a = true, b = true;
looks ok to me, the same declaration as outside of for can be used.
(and both are scoped as local variables)

The interesting question is what happens when you have:

bool b = false; //outer scope
for (bool a, b; ...

Is "b" still new variable?
I was so curious, that I had to try.
Yes, the second "b" is new local variable scoped to "for" only.
(both MSC8 and MINGW)

If you want two different types... how to?? I have no idea, looks impossible to me, to define them inside the "for".

Anyway allocating 2+ variables in for-init can often lead to less readable source, so use with caution. I think it's better to avoid it whenever possible.

Edit: I completely missed the "bool cond;" line from original post, so I was sort of thinking you already have correct solution for this case. Sorry, keep my mistake in mind when reading my reply, otherwise it may not make any sense.

Subject: Re: Multiple statements in for loop
Posted by dolik.rce on Tue, 30 Sep 2008 19:01:47 GMT
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I'm ashamed that I missed so obvious solution Probably because I ussualy declare only 1 variable per line if I initialize them.

What if we extend this problem a bit?
Let's say, one would like to have there two variables of different type. Then it's impossible to write for(bool b=true,int i=0;...;...){} I tried this, but it seems that anything after "bool" is handled as declaration of bool.

Quote:Anyway allocating 2+ variables in for-init can often lead to less readable source, so use with caution. I think it's better to avoid it whenever possible.

Yes, I'm aware of that I was just playing with this idea before I found the right way to do it using just one variable.

Anyway, thanks for quick response

Edit: Oups I've missed that mr_ped already thought about the two types case... sorry