

## Re: Fundamental question

**Source:** <http://coding.derkeiler.com/Archive/C/ CPP/comp.lang.c/2004-06/0638.html>

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Guillaume <[grsNOSPAM@NO-SPAMmail.com](mailto:grsNOSPAM@NO-SPAMmail.com)> writes:

> > *Thus your claim of "equal priority" is refuted.*  
>  
> *Is it? I'm not sure you understood what I meant by that.*  
>  
> *If && and || don't have equal priority, which of them*  
> *has higher priority then? Good luck. ;-)*  
>  
> *Both logical operators guarantee left-to-right evaluation,*  
> *and that is it. This does not add up to different priority*  
> *in the algebraic sense, as in: 'A + B \* C'. This is what*  
> *I meant. '\*' has higher priority than '+'.  
>  
> *Is what I said clearer now?**

No, it isn't.

I thought you were making some distinction between priority and precedence, but I don't think you are.

$A + B * C$  is equivalent to  $A + (B * C)$ , so "\*" has higher precedence than "+".

$A || B \&\& C$  is equivalent to  $A || (B \&\& C)$ , so "&&" has higher precedence than "||".

The "&&" and "||" operators are evaluated left-to-right, with short-circuit semantics, but that's a separate issue. For "+" and "\*", precedence is a question of which operators apply to which operands; it's more syntactic than semantic. The precedence of the "&&" and "||" operators is determined in exactly the same way.

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We must do something. This is something. Therefore, we must do this.