

More on attributes

This lesson touches upon some more features of the attributes in C++ 17

WE'LL COVER THE FOLLOWING



- Ignoring unknown attributes
- Attribute namespaces without repetition

Ignoring unknown attributes

The feature is mostly for clarification.

Before C++17, if you tried to use some compiler-specific attribute, you might even get an error when compiling in another compiler that doesn't support it. Now, the compiler omits the attribute specification and won't report anything (or just a warning). This wasn't mentioned in the Standard, and it needed clarification.

```
#include <iostream>
using namespace std;

// compilers which don't
// support MyCompilerSpecificNamespace will ignore this attribute

[[MyCompilerSpecificNamespace::do_special_thing]]

void foo();

int main() {}
```



For example in GCC 7.1 there's a warning:

warning: ‘`MyCompilerSpecificNamespace::do_special_thing`’ scoped attribute directive ignored `[-Wattributes]` `void foo();`

Extra Info: The change was described in [P0283R2](#)(wording) and [P0283R1](#)(reasoning).

Attribute namespaces without repetition

The feature simplifies the case where you want to use multiple attributes, like:

```
void f() {  
    [[rpr::kernel, rpr::target(cpu,gpu)]] // repetition  
    doTask();  
}
```



Proposed change:

```
void f() {  
    [[using rpr: kernel, target(cpu,gpu)]]  
    doTask();  
}
```



That simplification might help when building tools that automatically translate annotated code of that type into different programming models.

Extra Info: The change was described in: [P0028R4](#).

The next lesson provides a brief summary of all the concepts introduced in this chapter!