

Document: n3484 Slay Some Earthly Demons V (update v3)

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This is an update of n3343, with the main change being grammar fixes in the normative text. It has also been updated to address the C2y draft standard (n3435).

This remaining issues from n3244 were split up into the following series:

n3340 - Slay Some Earthly Demons II

n3341 - Slay Some Earthly Demons III

n3342 - Slay Some Earthly Demons IV

**n3343 - Slay Some Earthly Demons V**

n3344 - Slay Some Earthly Demons VI

n3345 - Slay Some Earthly Demons VII

n3346 - Slay Some Earthly Demons VIII

n3347 - Slay Some Earthly Demons IX

Meeting notes about previous discussion can be found in n3281. The following numbers correspond to N3220 and the ones with (→) to N3301.

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## Analysis

Several paragraphs use “shall” in a semantics section (outside of a constraints section) without expressing a requirement and without implying undefined behavior (cf 4 Conformance).

Proposed Change (remove incorrect use of shall)

### 6.7.4.1

#### Semantics

11 ~~For~~ Two qualified types are to be compatible ~~both shall have the~~ if and only if they are identically qualified versions of a compatible types; the order of type qualifiers within a list of specifiers or qualifiers does not affect the specified type.

### 6.7.7.4

#### Semantics

14 ~~For~~ Two function types are to be compatible ~~both shall~~ if and only if all of the following hold:

- They specify compatible return types.
- ~~Moreover,~~ The parameter type lists ~~shall~~ agree in the number of parameters and whether the function is variadic or not.
- The corresponding parameters ~~shall~~ have compatible types.

### 6.7.7.3

#### Semantics

6 ~~For~~ Two array types are to be compatible, ~~both shall~~ if and only if both of the following hold:

- They have compatible element types
- ~~, and i.~~ If both size specifiers are present and are integer constant expressions, ~~then both size specifiers shall~~ they have the same constant value.

If the two array types are used in a context which requires them to be compatible, the behavior is undefined if the two size specifiers evaluate to unequal values.