

## Slay Some Earthly Demons VII

Document: n3345

Author: Martin Uecker

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

- J.2.19 needs more work, cf. SC22WG14.25600 (**note to editor:** parts applied by mistake)
- J.2.21 done (incl. additional change), (**note to editor:** there is a “not“ missing in 6.3.2.1)
- n3340 J.2.40 (→ J.2.38) withdrawn in June, now revised (cf. SC22WG14.25600)
- J.2.56 done
- J.2.57 done (option 1)
- n3341 J.2.58 (→ J.2.54) not discussed in June
- J.2.60 (→ J.2.56) direction to editor (**note to editor:** not yet done)
- n3342 J.2.63 (→ J.2.59) no consensus in June, now revised to make implementation-defined
- n3343        wording change not related to an entry in Annex J
- J.2.67 done
- J.2.69 done (alternative wording for semantic section)
- n3344 J.2.75 (→ J.2.70) now revised (cf. SC22WG14.25600)
- J.2.77 (→ J.3.13. 2) not discussed in June, but fixed editorially
- J.2.78 (→ J.3.13. 3) not discussed in June, but fixed editorially
- n3345 J.2.79 (→ J.2.72) not discussed in June**
- n3346 J.2.80-J.2.82 (→ J.2.73-J.2.75) not discussed in June (cf. SC22WG14.25600)
- n3347 J.2.87 (→ J.2.80) not discussed in June

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Annex (J.2.72 N3301, J.2.79 N3220)

(72) The value of an unnamed member of a structure or union is used (6.7.11).

Example (updated)

<https://godbolt.org/z/ET79qMPa8>

```
struct mar { char; int t; };  
struct foo { struct { int x; }; };  
struct bar { int:4; int t; };
```

Analysis (updated)

There seem to be two cases where unnamed members are allowed: anonymous structures and unions and unnamed bitfields (6.7.3.1p1+p2). Members of anonymous structures or unions become members of the enclosing structure or union (6.7.3.2p15). There is no way how an anonymous structure or union could be accessed directly. Bitfields with no name can also not be addressed directly and are intended to be used as padding. One could take the address of the structure and read the representation bytes of anonymous structures or unions or bitfields, but this does not give direct access to their value, only the values of their representation bytes. If anonymous structures or unions had a tag, one could create a compatible type using the new tag compatibility rules and access it via such a pointer, but they don't. Unnamed padding bytes could be accessed using such a pointer, but padding bytes are not members of a structure or union. Structure assignment can not be considered use of the value of the members because it is even allowed to copy structures or unions whose members have a non-value representation, which would not be possible if using a value of a structure would imply the use of the values of its members.

Proposed Change

Remove from Annex J.2