September 28, 2009

1. Status

N1401 is a revised draft incorporating the changes detailed in the Markham minutes (N1380) plus a few more corrections and editorial changes. It contains diff marks for all of the changes from N1362 except for minor formatting changes and subclause number changes.

2. Newly Applied Content

1. N1349 *Parallel memory sequencing model proposal*

   I omitted the **atomic_ssize_t** type since we don't have **ssize_t**.

2. N1350 *Analyzability* (#1, #4 - conditionally normative)

   We should consider whether the definition of **__STDC_LIB_EXT1__** should be changed, now that it's part of the Standard.

3. N1353 **FLT_EVAL_METHOD** *issues* (first change only)

4. N1356 **_Bool** *bit-fields*

5. N1357 **tgamma** *range error* (first way)

6. N1358 *Extensions to the C1X Library* (#1, #2, #3 along the lines)

   Note that the table of modes in change #2 is incorrect: the modes starting with **w** are included by reference from **fopen**. The table should include the corresponding modes starting with **u**.

7. N1359 *Technical corrigendum for C1X*

   4. I did not add the forward reference to 6.7.6 since there is already a forward reference to all of 6.7.

   11. I did not add forward references to 6.7.5.2 because there were already refences to 6.7.5.2.

8. N1360 *Benign typedef redefinition*

9. N1361 **FLT_EVAL_METHOD** *and constants* (back out N1321)

10. N1363 *Editor's Report*

    2.7 Moved feature test macros to 6.10.8, made the **wchar_t** encoding implementation-defined if not ISO/IEC 10646, and removed the footnote from **quick_exit** that claimed (incorrectly) that file buffers are not flushed.

11. N1364 *Thread-local storage* (plus make auto access imp-def just like thread local)

12. N1365 *Constant expressions* (second bullet except "are covered" rather than "are not covered")

13. N1367 *Contractions and expression evaluation methods*

14. N1371 *Thread Unsafe Standard Functions*

    This required extensive reworking since it was written as edits to the C++ draft, which is organized quite differently than the C standard. I opted not to make the changes specified for 18.4 and 21.5 at this time.

    I believe it is already unspecified whether a call to **atexit** after **exit** has been called (and similarly **at_quick_exit** after **quick_exit**) succeeds or not and no explicit statement to that

effect is necessary. (The committee may disagree.)

I intend to make the changes specified in 21.5, but require some additional time to ensure they are made correctly in the context of the C standard.

15. N1372 *Threads for the C Standard Library*

16. N1373 *Wording improvements for* **mblen**, **mbtowc**, *and* **c16rtomb**

     For the last two changes, I opted to make changes along the lines suggested to the containing clauses rather than specifically to the **bmtowc** and **c16rtomb** functions so that similar functions would be covered, too.

17. N1376 *Adding pole error to math library functions*

18. N1377 *xxx_***DECIMAL_DIG** macros for **<float.h>**

     Also added to Annex E.

     Is the requirement that the implementation's values be greater or equal to the examplars correct for these values?

19. N1380 *Minutes for Markham, March/April 2009* (4.29 WG14 Mail 11572)

20. N1381 **memset_s()** *to clear memory, without fear of removal*

     Since this was written as a bounds-checking function, I added it to Annex K with the others.

21. N1382 **FLT_EVAL_METHOD** *and return*

3. Previously Applied Content

1. N1252 *A finer-grained specification of sequencing*
2. N1282 *Clarification of Expressions*
3. N1285 *Extending the lifetime of temporary objects* (factored approach)
4. N1300 *Draft minutes for April 2008* 9.19 *N1271*
5. N1310 *Requiring* **signed char** *to have no padding bits*
6. N1311 *Initializing static or external variables*
7. N1316 *Conversion between pointers and floating types*
8. N1319 *Adding* **EPOLE** *to math library functions* (modulo change in minutes N1346)
9. N1320 *Integrating C89 Defect Report 25 into C1x* (modulo N1346)
10. N1321 *Split* **FLT_EVAL_METHOD** *into operations and constants* (modulo N1346) [subsequently removed by N1361]
11. N1326 *Adding TR 19769 to the C Standard Library*
12. N1327 *Abandoning a Process (adding* **quick_exit** *and* **at_quick_exit***)* (modulo N1346)
13. N1330 *Static Assertions* (modulo N1346)
14. N1338 *More Thoughts on Implementing* **errno** *as a Macro*
15. N1346 *Draft Minutes for September 2008* (3.2 Report of the Project Editor) [Update Annex C (Sequence Points) to match revised text]

4. N1362 Errata

1. In 5.2.4.2.2p9, the reference to constants was removed from the overall description of **FLT_EVAL_METHOD** but not from the descriptions of the individual values. This is moot since the changes were undone by N1361.

2. References to **EPOLE** were added due to a misunderstanding of what was agreed to from N1319. They have been removed.

5. Other changes and comments

1. I added C99 and its corrigenda to the Bibliography along with TR 24731−1.

2. I spelled "September" correctly in the page heading this time (cf. N1256).

6. Open Issues

1. The N1371 21.5 changes need to be completed.

2. The index probably needs work, particularly for the newly added material.

3. The list of changes from the previous edition needs to be populated.

4. The library synopses need to be examined and extraneous headers removed.

--   Larry Jones