WG 14 N1714

WG14 CFP meeting minutes for the meeting on 2013/05/16

Attendees: Ian, Jim, Fred, David, Mike, Marius, Rajan

Last meeting action item: F.3 as a footnote - Done
Email sent on April 12th, 2013

Next meeting: June 13th, 2013, 12:00 EST, 9:00 AM PDT
Continuing with the Oracle teleconference number

Action items:
AI: Formatting and reference changes made to part 1 have to be made to part 2
AI: Jim to send an email to WG14 asking for the one term change of "generic" to "traditional". Can also list the terms we rejected.
AI: Mike to respond to Jim's reset email

Next C pre-meeting mailing is September 2nd, 2013
We need to have any documents we want to be discussed at the C meeting in the mailing at that time

Part 1:
Made all changes from the comments submitted + some other other editorial ones that were found
The final changed version has been posted on the Wiki (n1711)
First ISO ballot (3 month) will be on that document
We will need to respond to comments on that ballot

Part 2:
Comment by Willem regarding changes made to Annex F by all the parts being confusing
Jim sent messages regarding minimal changes in part 2 and part 3 to Annex F so this does not seem to be too much of a problem
AI: Formatting and reference changes made to part 1 have to be made to part 2

Rajan's "quantum exponent return type" email comments:
Fred: Why not use long long?
Jim: _Decimal1024 would be larger than int64. We'd still have a built in limitation
Jim: Prefers option 2, though it wouldn't work for extended types for large exp vs significands. We could make this a limitation on extended types
Jim: Also not compatible to the decimal TR
Rajan: Maybe allow the base cases (32, 64, 128) with int return types, and option 2 for larger types
Mike: Or a new name for the option 2 types with the basic ones (32, 64, 128) staying the same as the TR so the common case is fast and easy to implement and the new name for all types including extended ones. We may want to review other functions to see if they can return a decimal type if int is constraining it
Choose Option 2 with the mod suggested by Mike.
Naming: Look at precedence like ilogb for something like dquantexpdN

Part 3:
The term interchange type caused a lot of confusion in the committee
Sentiment was not to have types for interchange encodings, especially with the similar names

like _FloatN (with _Float16 as a special case)
Mike: Data only types are not really fitting from the C point of view
Ian: I disagree with having _Float16 as a mandatory type. Very few groups have hardware _Float16
Marius: Intel supports _Float16 to some extent on 3rd gen Cores, limited to store now, with _Float32 evaluation
Jim: We can come back to _Float16
Mike: Do we want to make the arithmetic vs non-arithmetic distinction in C?
Rajan: Can we remove non-arithmetic types?
AI: Mike to respond to Jim's reset email
Jim's "reset part 3" email comments:
5) generic -> general
"general" could mean any floating point type
How about classic, traditional, standard, basic floating?
We could just not use the term and list the types wherever we have generic
AI: Jim to send an email to WG14 asking for the one term change of "generic" to "traditional". Can also list the terms we rejected.
Can we not make an allowance of float32/64 being float/double and macro definition of the functions to allow the "traditional" type functions to be used (can be done for extended types as well)
Would not work with constant rounding modes and macro suppression
Require the new types, but allow #defines, or make them optional to simplify Part 3, or keep it the way it is with the encoding change?

Regards,

Rajan Bhakta