1450.4 meeting minutes – 12/03/09

Attendees: Jim O'Reilly, Ernie Wahl, Bruce Parnas, Ajay Khoche
Not present: Markus Seuring
Agenda:

- IEEE Meeting Preamble (No discussion of proprietary information).
- Discussion items.
    - Review of changes to syntax document. I'll simply point out the areas that have changed; please read through them and comment to the group via email before or after the meeting. The revision comments for the D29 draft describe what's changed.
        - Walked through the changes
            - Corrected some discrepancies in comments and line number references.
            - Deleted **SignalRef** and **SignalVariable** from *var_type* (not needed in this context).
            - Added **.Name** operator to SigGroup type (SIG_GROUP_NAME.**Name**), in addition to **.Name** operator for SigGroup elements (SIG_GROUP_NAME[*index*].**Name**)

    - Discussed the following additional items/proposals – these were added to the GoogleDocs Issues list. No conclusions were reached. We'll continue discussions on this next week.
        - Spec variables whose Min|Typ|Max|Meas fields are uninitialized, contain NaN
            - In dot0, accessing an uninitialized field other than Meas is a compile time error, in Dot4 access is permitted. Any operation involving NaN results in NaN and may result in a runtime error.
        - Do we want to support array arithmetic? e.g., SpecVariable + scalar or SpecVariable + SpecVariable. Might be used for guardbands.
            - dot0 spec var automatically refers to Typ if there's no selector and Typ is all that is defined. Can't do that in dot4 if array arithmetic is permitted.
        - Do we want to support a NotInitialized member function for variable types?
            - Using NaN to indicate NotInitialized does not work for all variable types.

    - Units operator for SpecVariable type.
        - From dot0 – all spec values are *time_expr*. *time_expr* is defined in section 6.13 of IEEE-1450-1999 (pp 61-63 as printed on page, pp 69-71 of pdf file). Note the units and unit prefixes as outlined in tables 3 and 4.
        - From dot2 – all spec values are *dc_expr*. *dc_expr* is defined in 5.2 of IEEE-1450.2-2002 (p14 as printed on page, p16 of pdf file).
        - A proposal to support these, and only these, units, for spec variable values will be discussed at next week's meeting. Variables can be of other types, but There's no need for a Units operator for those variable types (which is proposed to allow type-checking parameters as passed into a Test or Flow), since other than the Spec variables (which can have a variety of units, depending on what type of spec it is), other variables are of predefined types, and can be type-checked without additional information.

    - Other areas that need attention. Not discussed
        - NameMaps
        - Axis blocks - issue #37, p12, of attached document from STARC (caution: you'll have to zoom in to see it!!). Currently, STARC is using NameMaps to define Shmoo blocks and Margin blocks. It seems to me that a general axis block type is needed. We need to define this.

    - Discussion of retest proposal (included at the end of the current syntax document).

- Other issues:
    - Conversions from one data type to another – what are the rules? These need to be explicitly defined.
    - Limits as a specific data type?
        - How to specify an open limit on one end of a comparison?
        - Specify >=, >, <=, < - what does the syntax look like?
        - Limits x 0nS >= n <= 3nS
    - List of reserved words by tester type as an integral part of dot4? (should this be a dot3 addition?). Does NameChecks in dot3 cover this, or could it cover it with some extensions.
    - Added issue #44 (extensions to signal types In, Out, InOut, Pseudo) are needed – for instance, to permit specification of unused package pins.
        - Perhaps a signal type called NC (no-connect) would be useful in these cases.

- Open issues - are there other open issues that should be considered? A review of the open issues list can guide us here.
    - http://spreadsheets.google.com/ccc?key=pEI1-gPUmt2ZTw_kcCTgnKw&inv=jim_oreilly@ieee.org&t=93304845348855187 1&guest.
    - If logged into your google account, can edit. If not, can only view.

- Next Meeting 12/10/09.

For reference STIL .4 information can be found at the IEEE STIL website:
http://grouper.ieee.org/groups/1450/ (select the P1450.4 link from the table) or use the direct link
http://grouper.ieee.org/groups/1450/dot4/index.html