1450.4 meeting minutes – 07/22/10

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

Agenda:
- IEEE Meeting Preamble (No discussion of proprietary information).
- Minutes from last week are now on the web.
    - Finish up Variables stuff from the discussions that Bruce and Ernie had. To that end, please review the summary that Ernie prepared and sent around (his email dated 7/12/2010, subject: [STDS-1450.4:] Boolean and mathematical expressions). I've reviewed this two or three times, and so far, have found no errors - though I did find his example from the NRW_Units example of ""7uF2V2R:S2" == "7uW" - while legal - to be amusing, highly unlikely, and perhaps worthy of some chastising - not for Ernie, who was simply trying to illustrate a legal corner case - but for anyone who would choose to express something in such a confusing manner). I'm quite comfortable accepting things as Ernie has written them up (subject to any real errors that are discovered), and would like to get agreement on this.

    - Use S2 instead of SS – repeated units of same type not allowed.

    - Use single quotes (as in dot0 mathemetical expressions) to delineate boolean expressions? Could enclosing parentheses be used instead? Resolution – no delimiters needed for expressions used in dot4.

    - Drop Pass/Fail as alternative ways of specifying True/False.

    - Assignment illegal inside a conditional expression (If (a = b) illegal; if (a == b) legal.

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- Discussion items
    - Discussion of the issues resolutions listed in Ernie's email of 6/2/2010 (subject: stds stil.4: 5/27/2010 mini-conference). From Ernie's summary of meeting:

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5/27/2010
+ PROPOSED: Define array size VAR_NAME[unsigned_expr] as opposed to VAR_NAME[const_unsigned_expr]
  *RESOLVED* (AGREED)

+ Syntax doc, line 257 | VAR_NAME[integer_expr];
  PROPOSED: change comment "Uninialized" to "Inialized to None"
  *RESOLVED* (AGREED)

+ Syntax doc, line 265 | VAR_NAME[(integer_expr)] = [initial_value_list];
  PROPOSED: add comment: evaluated "integer_expr" must equal size of "initial_value_list"
          add comment: LHS and RHS types must match or RHS type must be implicitly convertible to LHS type
  *RESOLVED* (AGREED)

+ support multi-dimensional array ?
  PROPOSED: NO for phase I
  *RESOLVED*: changed to YES, support in phase I, requires additional syntax (AGREED – WHAT WILL THE SYNTAX
FOR THIS BE?)

* Variables scoping precedence order: local, TestProgram block vars, Spec & unamed global Variables block
(from dot1)
  RESOLVED: OK as stated except unnamed global Variables block is not used directly by dot4 (may be used by
patterns) (AGREED)

+ Hierarchical variable access syntax: a.b.c.  What if variable names are quoted: "a"."b"."c" (invokes STIL.0
string concatenation ? i.e., "a." . "b" are internally handled as the single character string "a.b." <- STIL.0
typo ? ref pg 58)
  PROPOSED: don't permit quoted varnames in dot4
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   *RESOLVED*: make dot operator context sensitive, syntax document must be explicit about contexts where
string concatenation does or does not take place (AGREED - WHO WILL WRITE THE RULES, THOUGH?)

+ Enumerated type: request Size operator (application: force array enum same size as array)
   PROPOSED: YES
   *RESOLVED* (AGREED)


===============================================================================
6/2/2010

+ real_var_type initialization to None: allow/require units ? e.g., "Seconds s = Nones;", "Compound c =
NoneA;"
   PROPOSED:
     1. permit None without units, Compound requires units restriction, e.g., { Units A2; }
     2. permit None followed by Units, e.g., Nones (is None seconds) or NoneA; application: Spec variables
using meas field only,
     *RESOLVED*:
       a. Compound variable units are restricted on initialization but not with curly brace expression
       b. "Compound c;" same as "Compound c = None;", restricted to units Double
       c. "Compound c = NoneA2;", restricted to units Amperes squared
       d. "Compound c = 1.0V:s;", restricted to units Volts per Second
       e. Composite units examples:
             V:s2 same as V:ss = Volts per Second squared,
             :A2 = Amperes raised to the power of -2
           Syntax rules:
             i.  all units before the colon operator have implicit superscript of 1 or are followed by an
unsigned integer
             ii. all units after  the colon operator have implicit superscript of 1 or are followed by an
unsigned integer
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  o Discussion of SignalGroups reference for TestProgram block. No discussion (lack of time).

- Open issues - are there other open issues that should be considered? A review of the open issues list can guide us here.
  o Issues list:
    http://spreadsheets.google.com/ccc?key=0AoKiPr1I9LY9dF95dkhSTVVqOU5GbWJyWFNhY0JPX0E&hl=en
  o Namespace resolution examples document:
    http://docs.google.com/Doc?docid=0AYKiPr1I9LY9ZGY4dmNjNTNfMGZkOGJ2bmZy&hl=en
  o If logged into your google account, can edit. If not, can only view.
- Next Meeting 06/17/10.

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