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Technical Committee Status 05/12/11

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SV-AC

- The following mantis items have been resolved
 - 1675 Assertion system function syntax is not complete
 - 2209 Add optional event control to deferred assertions in 2005
 - 2271 sequence events require a clocked sequence
 - 2387 Layout of 16.11 is inconsistent
 - 2476 Need clarification about system functions \$onehot, etc
 - 2804 Need to clarify rule (b) in 16.15.6 to allow inferred clock when expression appears in procedural assertion
 - 3037 Introduce assertion system functions for 4-valued type support
 - 3191 Allow sequence methods with sequence expressions
 - 3377 Fix method names in C.2.3 ended sequence method
 - 3491 Incorrect local variable flow rule in F.5.4
- Currently working on the following enhancements
 - 3069 Relax rules for \$global_clock resolution
 - 3213 Update definition of sampled value – [this one is a bit controversial \(no clear consensus yet\)](#)
 - 3295 need a way to control only asserts/covers/assume directives
 - 3385 Possible ambiguity when deferred assertion action block calls nested function
- Draft 1 updates are being reviewed

This status covers the past 2-months

SV-BC

- The following mantis items have been resolved
 - 2982 Keyword "rand" is used in example as variable ident - this should not compile
 - 3230 task should be function in definition of static functions
 - 2662 misleading pseudo-nonterminal name in escaped identifier production in Annex A
 - 3216 'simple_type' excerpt error
 - 2901 var and type() in for_variable_declarations
 - 3233 implicit wire declarations should occur in instantiations of programs/interfaces also
 - 2835 It should be legal to explicitly specify let arguments as untyped
 - 3151 Unnecessary variable declaration in factorial function (13.4.2)
 - 3384 Clarifications on integer data type signing
 - 3026 Mess with \$rewind and \$frewind
 - 3362 "literal string" should be "string literal" - two more
 - 3274 'shortreal' should be bold
 - 3062 Extra space in %t example
 - 2977 [EDITORIAL ISSSUE] Wrong characters used in LRM example for array literal
 - 2976 wrong xref at end of configurations clause
 - 2595 protect pragma is also standard
 - 2929 ref_declaration should use list_of_variable_port_identifiers
 - 2395 Incorrect note attached to net_port_type production
 - 1106 procedural assign to nonconstant part select and force of nonconstant bit-select
 - 2889 .named_port(expression) in ANSI-style port declaration list should reset properties

SV-BC (cont.)

- Work in progress
 - Mantis 2991
 - Extending enums
 - #5 priority for SV-BC
 - Requesting additional input from users
 - Motivation appears related to testbench – may send to SV-EC
 - Mantis 210
 - "Generate for module port definitions"
 - #8 priority for SV-BC
 - Initial response was made, referencing current language features

Top-25 SV-BC Issues

Rank	Mantis ID	Summary
1	696	Parameterized tasks, functions
2	2310	Clarified Macro Semantics
3	3053	Virtual interface and interface-port issues
4	3055	Design construction issues
5	2991	Extension of enumerated types
6	1566	Variable number of task and function arguments
7	2114	Problems in definition of modports/abstract modports
8	210	Generate for module port definitions and instance port connections
9	3056	Master list of port issues
10	1084	Logical Expressions in Macros
11	2115	X-Optimism/X-Pessimism resolution
12	3073	Collected \$bits issues

Rank	Mantis ID	Summary
13	1697	Macro Loops
14	1202	define standard preprocessor
15	1251	x/z behavior in various contexts
16	2289	parameters inside comp unit and gen block are local
17	1504	Parameterized Structures (and Unions)
18	1144	Out-of-bounds array address
19	2081	always_comb statements
20	1553	nested module clarifications
21	2684	Variable part-selects
22	1861	Major enhancement of modports
23	1523	behavior of ?: on complex types
24	3074	Connectivity Enhancements
25	2124	`default_nettype var-type directive

SV-CC

- Activity continues to be light
- Only addressing minor issues at this time
- Progress is being made on the top-10 issues
 - No proposals have made it to the SV-CC yet
- Concerned about ability to address many of them by the deadline
 - Will do a status update at Apr-27-2011 meeting
 - No update since last time (April 14th)
 - Mantis 3087 – DPI extensions for C++ and SystemC is in progress

SV-DC

- Met twice since the last Working Group meeting
 - Next meeting will be May 18th
- Mantis 3398
 - Joint proposal from Cadence/Mentor
 - User defined nets and resolution functions
 - Expecting to vote on it at the next meeting
 - Verilog-AMS committee reviewed it – no serious flaws found
 - This proposal addresses all of the “MUST” requirements
- Planning to address 2-3 roadmap items
 - Polling the committee for preferences

SV-EC SystemVerilog Testbench committee Update

STATUS

- Held 3 regular bi-weekly meetings
- Mantis items review:
 - Held an email vote for 9 mantis items
 - 3046, 2506, 3531, 3394, 2905, 3254, 3298, 3054, 2935
 - Voting completed last night
 - Will review in next sv-ec meeting, May 23 2011
 - Main Items from list of 25 being reviewed:
 - Mantis 1356 (Multiple Inheritance)
 - Mantis 3002 (AOP extensions)
 - The member list and reflector were modified according to the P&P's
 - Reduced the number of attendees (by about 7)
 - Will have one Accellera DRA participating - Jonathan Bromley

Risks / Opens / Issues

- A few complex items on the review list may consume most of the available time.

May/June 2011 PLANS

- Continue with high-level review.
- Finalize all major proposals for approval.
- Considering a F2F or moving to weekly meetings
- Next meetings – May 23, June 6, 20

SV-EC Top-25 Mantis Items

top 25 Rank	Mantis ID	Number of Votes	weighted vote	Summary	Degrees of difficulty
1	2848	7	159	Is it legal to assign an interface containing class declaration to a virtual interface	med
2	3002	8	125	Aspect Oriented Programming (AOP) features	High
3	3046	8	112	Dotted names within inlined constraints	Low
4	1356	6	112	Multiple Inheritance	High
5	3001	9	102	Proper Polymorphic behavior of instantiation	low
6	2999	7	99	Class Handle reference inside of Constraints	med
7	3003	6	98	Constraint Composition	High
8	3082	7	96	(4) Ambiguity resolution (see slide 10 for examples of parts of the Standard that have been interpreted differently by different simulators)	
9	2845	4	84	virtual interface type checking versus interface type that had been defparam'ed	high
10	2956	4	76	clarify class 'process' definition (9.7 vs 18.13.3, 18.13.4, 18.13.5)	low
11	2505	4	76	class select: what is allowed after the dot?	low
12	2735	4	73	Ballot Comment #48: Chaining of method calls	med
13	1706	4	72	Meaning of static prefix for virtual interface assignments	
14	2488	4	69	Are virtual method calls legal within class constructors?	med
15	2112	6	69	Remove restrictions on NBA assignments to class members	med
16	3028	6	68	constraints for unique array elements.	Med
17	2950	4	67	virtual method prototype matching	low
18	2794	4	64	Clarify queue methods return status	low
19	2993	4	63	Cross cover points across different cover groups	med
20	1442	3	63	Clocking blocks legal in modports, missing from text description in 20.9	
21	2506 [2953]	6	61	Algorithmic generation of covergroup bin contents [2506 to replace 2953]	high
22	1349	5	61	fork/join none: what if parent thread terminates without blocking statement?	
23	2949	4	60	LRM is silent about the semantics of referencing a clocking block output	low
24	2451	6	58	Omitting body defaults	med
25	2987	6	56	Soft Constraints	med
	3278	Related to 1356		virtual method type rules	
	3279	Related to 1356		Enhance method override rules to allow covariant typing	
	3293	Related to 1356		Clarify \$cast behaviour on class handles	

SV-FC

- No activity since the last Working Group meeting

Champions

- No mantis items have been reviewed since last time
- There are ~35 mantis items ready for the Champions
 - 20 came in from the SV-BC this month
 - Most of these 20 are quite small