



ORACLE[®]



Technical Committee Status 12/09/10

Neil Korpusik
P1800 Technical Chair

SV-AC

- The following mantis items have been re-resolved (had champion's feedback)
 - 1933: 16.13.6 reference to triggered method can be improved
 - 2252: Several symbols in Annex F are in green
 - 2291: the description of \$assertoff blurs assertions and attempts
 - 2330: Clarify that number_of_ticks argument to \$past must be compile-time constant
 - 2552: Confusing comments regarding nexttime operator
 - 2722: Errors in Figures 16-14, 16-15, and 16-16
 - 2839: Contradictory statement of increment/decrement operators usage.
 - 2871: Clause 16 does not forbid assertion local variables within clocking event expressions
 - 2927: Precedence between sequence/property operator and normal expression operator
 - 2934: Precedence and associativity of case operator is not shown in the table
 - 3168: expression1 is not an argument to \$past
- Discussing the introduction of continuous assignments in checkers
 - Several options considered have serious drawbacks and we are looking for an acceptable definition.
- Re-elected the current Chair and Co-Chair
 - Chair – Dmitry Korchemny (Intel)
 - Co-Chair – Tom Thatcher (Oracle)

SV-BC November Update

▶ Topics getting attention

- ▶ Interfaces: Still under discussion thanks to Peter Flake ☐
- ▶ Macros: Building consensus on how to approach the problem. The standard lacks considerable information.
- ▶ Design Construction & Port related issues: Shalom chipping away at the numerous issues.

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

- The first set of mantis items(9) has gone to the Champions

2034: sv_vpi_user.h lacks vpiChandleVar and vpiChandleTypespec

1581: Immediate assertion VPI diagram needs a special section

1652: Which VPI class defn does a data member class var refer to?

0744: Does vpiMethods iteration include built-in functions and tasks?

3116: No method/transition path to get to typespecs of named events or named event arrays

3188: No way to distinguish join, join_none, and join_any for fork-join blocks in VPI

3193: Need defined value for built-in class type process-class for vpiClassType property.

1477: virtual interfaces information model

1434: Which kind of fork join is not available in VPI (27.9)

- Mantis 3087

- A large proposal is in the works for the DPI
- Cadence is presenting on this over the span of 3 meetings
- OO import/exports for various languages (e, SystemC, C++)

- Election of Chair and Co-Chair

- Held elections yesterday

SV-DC

- Met Nov. 17th, Dec. 1st (Next meeting: Jan. 12th)
- Starting work on atomic aggregate nets with real valued components
 - Idea is to solve the general problem and demonstrate its quality by specializing it to real valued nets
 - Mentor, Synopsys, and Cadence are working on an initial proposal and will report back in Jan. 12th meeting
- Election of new Co-Chair
 - The current Co-Chair is on a leave of absence (John Havlicek)

STATUS

- Held regular bi-weekly meetings
 - December 6 2010 was this year's last meeting.
- Held elections for chair and co-chair:
 - Previous chair/co-chair were nominated and were unanimously re-elected for the next term.
 - Chair – Mehdi Mohtashemi (Synopsys)
 - Co-Chair – Neil Korpusik (Oracle)
- From the list of 25 mantis items:
 - 2505 was resolved.
 - 2845, 2848 are very close to being finalized
 - Working on two major mantis items:
 - 1356: multiple inheritance
 - 2506: coverage
 - Related to 1356 the following were added:
 - 3279: Enhance method override rules to allow covariant typing
 - 3278: Virtual method type rules
 - 3293: Clarify \$cast behavior on class handles

Risks / Opens / Issues

- The new voting policy may hamper effective participation from previous usual attendees.
- A few complex items on the review list may consume all available time.

January 2011 PLANS

- Continue work on the top 25 list.
- Finalize 1356 and 2506.
- Will hold a non-voting discussion meeting on Jan 13 2011.
- Next regular meetings will be January 17 and January 31 2011 to keep the present bi-weekly theme.

SV-EC mantis item list for 2012 Draft

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

- Not active
- Not expected to be needed for this PAR

Champions

- An email vote is currently in progress for the next 31 resolved mantis items
 - Scheduled to complete on Monday December 13th.
- There are about 12 more in the resolved state
- Two Champions are currently unavailable
 - Stu Sutherland (Sutherland HDL)
 - John Havlicek (Freescale)
- The remaining 6 Champions are
 - Neil Korpusik (Oracle) – Chair
 - Dave Rich (Mentor) – Co-Chair
 - Francoise Martinolle (Cadence)
 - Shalom Bresticker (Intel)
 - Brad Pierce (Synopsys)
 - Surrendra Dudani (Synopsys)