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Technical Committee Status 08/11/11

Neil Korpusik
P1800 Technical Chair

SV-AC

- The following mantis items have been resolved
 - 3135 Verbal explanation of nexttime and always is misleading for multiple clocks.
 - 3202 Clarify on whether certain system functions are allowed in classes, 'let', and other corner cases
 - 3213 Update definition of sampled value
- The following have been sent back from the Champions
 - 2476 Need clarification about system functions \$onehot, etc.
 - 3015 Examples of \$fatal have bad arguments
 - 3069 Relax rules for \$global_clock resolution
 - 3113 Add port_identifier to constant_primary BNF for sequences, properties and checkers
 - 3385 Possible ambiguity when deferred assertion action block calls nested function
- Currently working on
 - Reviewing draft 2
 - Champion's feedback
 - The following set of enhancements
 - 2328 Review and relax restrictions on data types in assertions
 - 3033 Allow procedural control statements in checkers
 - 3206 Deferred assertions are sensitive to glitches
- Meeting on a weekly basis (two hours)

SV-BC

STATUS

- Meeting bi-weekly
- 3rd of top 24 issues now resolved (2289)
- 4th of top 24 issues under email vote (1504)
- Agreed upon direction for 1251 and 1523. Need formal proposals.
- 2081 under discussion

Risks / Opens / Issues

- Macro issues require reference software to facilitate discussions. Long lead time to complete software.
- Limited proposal bandwidth from key contributors. Contention with SV-EC.

Near-Term Plans

- **3073** - \$bits issues
- **2081** – always_comb statements

Top-25 SV-BC Issues

Rank	Mantis ID	Summary	Rank	Mantis ID	Summary
1	696	Parameterized tasks, functions	13	1697	Macro Loops
2	2310	Clarified Macro Semantics	14	1202	define standard preprocessor
3	3053	Virtual interface and interface-port issues	15	1251	x/z behavior in various contexts
4	3055	Design construction issues	16	2289	parameters inside comp unit and gen block are local
5	2991	Extension of enumerated types	17	1504	Parameterized Structures (and Unions)
6	1566	Variable number of task and function arguments	18	1144	Out-of-bounds array address
7	2114	Problems in definition of modports/abstract modports	19	2081	always_comb statements
8	210	Generate for module port definitions and instance port connections	20	1553	nested module clarifications
9	3056	Master list of port issues	21	2684	Variable part-selects
10	1084	Logical Expressions in Macros	22	1861	Major enhancement of modports
11	2115	X-Optimism/X-Pessimism resolution	23	1523	behavior of ?: on complex types
12	3073	Collected \$bits issues	24	3074	Connectivity Enhancements
			25	2124	`default_nettype var-type directive



SV-CC

- Still working on DPI-OO proposal (mantis 3087)
- Requested estimates on time required to review mantis 3087
- Status remains unchanged from last time

SV-DC

- Met twice since the last Working Group meeting
 - Next meeting will be August 24th
- Revising mantis 3398 based on Champion's feedback
- Discussing generic interconnect
 - The vendors are working through the proposal details
 - No mantis item yet – the proposal is in outline form (Gord)
- A new co-chair was elected
 - Abhi Kolpekwar (Cadence)

SV-EC

Status

- Held 2 regular meetings since last update.
- Mantis items review
- Three mantis items were resolved
 - 2794, 2112, 2900
- Mantis 2506 went through further refinement
 - Requested Brad to review (BNF and his issues from the Champion's email vote).
- Reviewing and Discussing major mantis items
 - Interface classes (1356), AOP (3002), etc.
 - 1356 should be ready for a vote in next meeting
- Logistics
 - Was not able to hold a face-to-face meeting
 - Various reasons, everyone is busy with multiple committees and company work

Risks / Opens / Issues

- A few complex items consume a lot of the available time.
- Progress has been slow, bandwidth is low from contributors.
- Will not be able to finish all 25 items by deadline.

August/September 2011 PLANS

- Finalize all major mantis item proposals
- Next regular meetings on August 15, 29; September 12, 26

SV-EC top-25 mantis item list

top 25 Rank	Mantis ID	#Votes	weighted vote	Summary	Degree 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	
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

- Held an email vote for 15 mantis items ending August 5th
 - 5 were approved
 - 4 passed with friendly amendments
 - 6 were sent back to the committees
- There are 6 mantis items ready for the Champions
 - These will be part of the next email vote
- The rejection rate continues to be fairly high