



**ORACLE®**



## **Technical Committee Status** 06/16/11

Neil Korpusik  
P1800 Technical Chair

# SV-AC

- The following mantis items have been resolved
  - 2271 sequence events require a clocked sequence
  - 2556 Explicit package scope indication is not allowed for checkers
  - 3213 Update definition of sampled value
  - 3295 need a way to control only asserts/covers/assume directives
  - 3491 Incorrect local variable flow rule in F.5.4
- The following have been sent back from the Champions
  - 2412 Allow clock inference in sequences
  - 2476 Need clarification about system functions \$onehot, etc
  - 3113 Add port\_identifier to constant\_primary BNF for sequences, properties and checkers
  - 3135 Verbal explanation of nexttime and always is misleading for multiple clocks.
  - 3385 Possible ambiguity when deferred assertion action block calls nested function
- Currently working on the following checker usability enhancements
  - 3033 Allow procedural control statements in checkers
  - 3034 Allow continuous and blocking assignments in checkers
  - 3035 More flexible definition of checker argument sampling
- Draft 1 updates have all been reviewed
  - There are 12 mantis items in the Editor state

# P1800

SV-BC SystemVerilog Basic Committee Updates June 10, 2011

## STATUS

- Meeting bi-weekly
- Top 25 now Top 24
  - 2991 Moved to SV-EC as motivated by testbench users
- Mantis 2 of Top 24 resolved (210 & 696)
- 24 total issues now in 'Resolved' state

## 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

- **1523** - behavior of ?: on complex types
- **2289** - parameters inside comp unit and gen block are local
- **1504** - parameterized structures (and unions)
- **3073** - \$bits issues
- **1251** - x/z behavior
- **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

- Currently working on mantis 3087
  - Expecting this to take about 2 months to complete
  - No update since last time (May 12<sup>th</sup>)

# SV-DC

- Met three times since the last Working Group meeting
  - Next meeting will be June 29<sup>th</sup>
- Mantis 3398
  - Joint proposal from Cadence/Mentor
  - User defined nets and resolution functions
  - **Has been resolved**
  - This proposal addresses all of the “MUST” requirements
- Planning to address additional roadmap items
  - Discussion of generic interconnect began on June 1<sup>st</sup>
- Possible related patent – Jess Chen of Qualcomm

# SV-EC

## Status

- Held 2 regular meetings since last update.
- Held two email votes.
  - One ending May 11, 2011 for 9 mantis items.
    - 3046, 2506, 3531, 3394, 2905, 3254, 3298, 3054, 2935. [some are trivial]
    - 3 passed: 2935, 3254, 2905
    - 2506 passed during regular sv-ec meeting
  - Second, ending June 6, 2011
    - All 3 were approved in June 6 2011 meeting: 3278, 3279 and 3293.
- Review and Discussion of major mantis items, Interface classes (1356), AOP (3002), etc.
  - Would like to get more email discussion on mantis items to help expedite final approval.
- Member list/reflector modified according to P&P's
  - Accellera DRA (Jonathan Bromley) and Editor (Stu Sutherland) now attending sv-ec meetings.
- Approved mantis items highlighted in green on next slide.

## Risks / Opens / Issues

- A few complex items consume a lot of the available time.
- Progress has been slower than we would need for meeting the deadlines.

## June/July/August 2011 PLANS

- Continue with high-level review.
- Finalize all major mantis item proposals for approval.
- Next regular meetings will be June 20, July 18, August 1, 15, and 29 2011

# 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 37 mantis items ending June 11
  - 29 were approved
- There are ~10 mantis items ready for the Champions
  - These will be part of the next email vote