

SV-BC Scope for 1800-2012

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Overview

- ▶ Process
- ▶ Results
- ▶ Feedback to 1800 WG

Process

- ▶ Solicited input on top issues: 82 raised by participants
- ▶ 19 participants voted on Top-25 issues *in priority order* from 1 (*highest*) to 25 (*lowest*)
- ▶ Vote completed on May 10, 2010
- ▶ Weighted score computed for each issue
 - ▶ Votes receive weight according to priority
- ▶ Issues sorted by weighted score
- ▶ Top-25 comprised of 25 highest scoring items
 - ▶ Issues either individual or parent Mantis entries
 - ▶ Implies Top-25 comprised of > 25 Mantis entries
- ▶ Effort and schedule not considered in selection of Top-25
 - ▶ Most issues appear to require non-trivial effort to resolve
 - ▶ Aligning issues to schedule requires further work

Results: 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



Results: Strong Mandate for Top Issues

- ▶ Weighted scoring system used
 - ▶ More points for highest priority votes
- ▶ High score indicates more votes at higher priorities
- ▶ Top-25 Range: 280-87
- ▶ Strong mandate for **Top-4 Issues**

Mantis ID	Summary	Score
696	Parameterized tasks, functions	280
2310	Clarified Macro Semantics	253
3053	Virtual interface and interface-port issues	221
3055	Design construction issues	201
2991	Extension of enumerated types	187
1566	Variable number of task and function arguments	173
2144	Problems in definition of modports/abstract modports	161
210	Generate for module port definitions and instance port connections	146

Results: Address Issues from February

Item	User	Producer	Combined	User Ordinal	Producer Ordinal	Combined Ordinal
Cleanup and Ambiguity Resolution -Rationalize the type system	31	56	87	1	1	1
AOP	25	5	30	2	8	2
Design Connectivity features (Cliff's X's)	16	1	17	3	17	5
Assertions & Checkers - The letter "t" - Real value assertions	15	6	21	4	7	4
Ease of use - Macros - Executable includes - Generates	13	2	15	5	14	8
Covergroups	10	3	13	6	11	10
Multiple Inheritance	8	3	11	7	12	11
Parameterized functions; variable number of arguments	6	4	10	8	9	12
Deprecating Features	6	4	10	9	10	13
Constraint Improvements	5	0	5	10		16
Connections to Analog -Verilog AMS -RF	4	17	21	11	2	3
Interfaces	3	12	15	12	4	7
General Directions & Vision	2	14	16	13	3	6
IEEE 1735/Encryption	2	3	5	14	13	
VPI/DPI Interactions	2	2	4	15	15	17
BlueSpec SV Enhancements	2	11	13	16	5	9
VCD	1	2	3	17	16	18
Class-based interface	1	7	8	18	6	14
Links to SystemC 1p (1p)	0	1	1	19	17	19
"DOT" Standards	0	0	0	20	20	20
Top-Down goals to drive lower groups (Vision)	0	0	0	21	21	21

2310(2), 3053(3), 3055(4),
3056(9), 3073(12), 1697(14),
1251(15), 2289(16), 2081(19),
1553(20)

2115(11), 3074(24)

210(8), 1084(10), 1697(13)

696(1), 1566(6)

2114(7), 1861(22)

Feedback to 1800 WG

- ▶ What about connection to Analog? SV-BC believes it to be better handled in a separate sub-committee or WG.
- ▶ What is WG position on addressing issues not in Top-25?
 - ▶ “*Issues not in the Top-25*” refers to existing Mantis issues as well as issues filed in the future
 - ▶ Will it be the WG's direction to not work on issues outside of Top-25 except for minor errata?
- ▶ What is WG position on not resolving issues in Top-25?
- ▶ **Suggestion:** Top-25 issues handled as ballot issues. Should be addressed before other issues. Addressing an issue means to come up with a proposal or agree not to work on it.