
=== email ballot vote results =====
=== Vote ended May 1 2009 =====

Of 17 eligible voters 13 sent in their votes.

Heath, Tom, Jonathan, Steven, David, Neil, Mark, Francoise

Gord, Stu, Arturo, Mike Mintz, Don

[original text of email ballot is appended at the end]

DID NOT PASS: 15 p1800-2009draft8 ballot id

id 19 Francoise
id 37 in mantis 2700 Arturo
id 38 in mantis 2700 Arturo
id 44 mantis 2701 Tom, Gord, Arturo
id 47 mantis 2713 Tom. [Stu abstain]
id 57 mantis 2698 Tom
id 60 in mantis 2719 Jonathan
id 67 mantis 2358 Mark, Arturo
id 107 mantis 2711 Steven, Arturo
id 115 Tom
id 181 mantis 2305 Jonathan, Steven, Gord, Arturo
id 182 mantis 2514 Tom, Steven, Gord, Arturo
id 183 mantis 2510 Jonathan, Steven, Francoise
id 185 mantis 2342 Steven, Arturo
id 186 mantis 2288 Steven

ABSTAINS:

id 48 Tom

p1800-2009draft Ballot IDs that PASSED [YES votes]

id 54 allow for future enhancement
id 16, 17
sv-ec agrees with sv-cc resolution to keep these regions for future use.
Reject svdb 2632 statement.
id 20
svdb 2634 (svbc issue)sv-ec votes as well to accept the proposal as well.
id 35, svdb 2705
[as part of mantis 2700]
id 36,
id 39
id 40
id 41 svdb 2681
id 42 svdb 2682
id 43, 45 svdb 2430
id 46 svdb 2706
id 48
id 65, svdb 2723
id 80, svdb 2596

id 102,
id 105 (id 110 is duplicate of 105) No action required
id 106, svdb 2710
id 184, svdb 2473 CLOSE 2473, id 184 requires no further action:
id 192, svdb 1256
[as part of mantis 2719 the following ids]
id 58
id 61
id 104
id 108
id 112
id 117
id 118
id 119
id 122
id 137

=====

id 48 allow for future enhancement
☐ YES ☐ No

[Alsop, Thomas R] Abstain, I wasn't involved in the discussions and I don't see enough information in the spreadsheet to understand what future enhancement is currently being tabled.

id 19 No action required
☒ X ☐ YES ☐ No

[Alsop, Thomas R] Assuming that we are keeping the Preponed PLI region in the LRM. That is my vote, that it doesn't change.

id 115 No action required
☐ YES ☒ X ☐ No

[Alsop, Thomas R] This is a small change and makes sense. I would personally suggest just striking out the '(up to N-1) completely as it's just confusing, however the proposed change is more accurate, although again it does not make sense WRT to the 'M is 3 and N is 3' example that is provided.

id 44, svdb 2701 ☐ YES ☒ X ☐ No
[both svbc and svec will vote on this]

<http://www.eda.org/svdb/view.php?id=2701>

[Alsop, Thomas R] I have a lot of issues with the wording and understanding on this proposal for the new sub-clause 7.11.5.

- 1. 'Tools' should be 'Implementation'.***
- 2. The third sentence states that "For any such violating operation, a warning shall be issued", but then the next sentence it states "Tools should issue exactly one warning". In clause 1.5 the conventions for 'shall', 'should', 'may', and 'can' are clear. I just want to make sure we***

are being clear in this new sub-clause WRT to these conventions. Seems like the 4th sentence should read that "Implementations shall issue exactly one warning..."

3. *This sentence really confused me "If a violating operation attempts to write more than one element of a bounded queue, any element with index less than or equal to the bound shall be written exactly as it would be if the queue were unbounded." Perhaps an example would help.*

id 47, svdb 2713 ☐ YES ☒ No

<http://www.eda.org/svdb/view.php?id=2713>

[Alsop, Thomas R] Just want to understand why the proposal is using "Error, see text"? What text? Is this something the implementations are expected to print out? Can we just put "Error"?

id 57, svdb 2698 ☐ YES ☒ No

<http://www.eda.org/svdb/view.php?id=2698>

[Alsop, Thomas R] I am not convinced that 'pure' is required in order to create what is coined a 'pure virtual method'. It's really ambiguous and seems like you can create a prototype virtual method and any level of abstract class hierarchy and only be forced to override it when you extend it to a non-abstract class and hence create the object out of it. I guess I am asking what the intent behind the 'pure' keyword is? If an abstract class at any level only prototypes a method, does that mean we have to label it 'pure'.

id 182, svdb 2514 ☐ YES ☒ No

<http://www.eda.org/svdb/view.php?id=2514>

[Alsop, Thomas R] I agree with the premise of the proposal, just not with some of the wording as it's not consistent with the draft8 wording. Specifically the references to 'concrete type' (Clause 8.24, third paragraph on page 142). → "A generic class is not a type; only a concrete specialization represents a type. In the example above, the class

vector becomes a concrete type only when it has had parameters applied to it, for example" But this proposal states "A pure constraint represents an obligation on any concrete (non-virtual) derived class", defining a concrete class to a non-virtual class. I'm just unclear about using the wording of 'concrete'.

~~~~~  
Jonathan votes YES to all EXCEPT THE FOLLOWING 4 ITEMS:  
~~~~~

id 181, svdb 2035 ☐ YES ☒ No

<http://www.eda.org/svdb/view.php?id=2035>

If it's illegal to have methods with static lifetime, then the word "default" in the first sentence of the proposal should be deleted; methods are automatic whether you like it or not, and there's no question of a default. I will change my vote to YES if this is done as a friendly amendment.

id 183, svdb 2510 ☐ YES ☒ No
<http://www.eda.org/svdb/view.php?id=2510>

I completely disagree with this change. Clocking blocks are static declarative constructs, fixed at elaboration time, and the linkage between a clocking block and its clocking signals is essentially static.
This change may possibly make sense as a future enhancement but I see no reason to implement it at this time.

id 186, svdb 2288 ☒ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2288>

Since this is about getting the wording right, we should stop using the ill-defined word "entry" and restrict the description to indices only. I would change my vote to YES if the words
 "entry whose index"
were replaced with
 "index whose value"
in both sentences.

svdb 2719 all YES except id 60 ☐ YES ☒ No

The first occurrence of "typedef" in this sub-proposal should be replaced with "type". I will change my vote to YES if this is done.

id 67, svdb 2358 ☐ YES ☒ No
<http://www.eda.org/svdb/view.php?id=2358>
Mark: Shalom has proposed some additional changes.

Steven:

>id 107, svdb 2711 ☐ YES ☒ No
><http://www.eda.org/svdb/view.php?id=2711>

I will not approve any further creep in the functionality of ref args of covergroups, until it has been specified that the actuals to such arguments must be static variables. At present there is nothing to prevent passing an actual whose lifetime is shorter than the covergroup.

>id 181, svdb 2035 ☐ YES ☒ No

>
><http://www.eda.org/svdb/view.php?id=2035>

While I tend to agree that these are not very useful, and that the distinction between static methods and static lifetimes is confusing to users, the fact is that they were allowed before. Therefore this is not backward compatible. While it may still be reasonable to do this, I am not willing to do it hastily as part of the ballot review.

>id 182, svdb 2514 ☐ YES ☒ No
>
><http://www.eda.org/svdb/view.php?id=2514>

I don't have an objection to most of the proposal, which I thought was very well thought out and written. However, I find the syntax "pure constraint" to be misleading. For a "pure virtual" function, the "pure" modifies the "virtual", so that it doesn't appear to suggest that the function is pure. It suggests to me that it is purely virtual, not real yet. But "pure constraint" seems to suggest that there is something pure about the constraint. Was the possibility of the syntax "pure virtual constraint" considered? Would there be any problems with that syntax, aside from being wordier?

>id 183, svdb 2510 ☐ YES ☒ No
>
><http://www.eda.org/svdb/view.php?id=2510>

It may not be clear enough that 6.21 disallows these things from being clocking variables. We have run into issues elsewhere with what is considered a procedural context.

If the problem is that this text is more restrictive than the text in 6.21, then why not just use text more like that section. Leave the sentence, but change "dynamic variables" to "elements or members of dynamic variables", and change "or dynamic arrays" to "or elements of dynamic arrays".

>id 185, svdb 2342 ☐ YES ☒ No
>
><http://www.eda.org/svdb/view.php?id=2342>

I am fine with disallowing virtual and static for constructors. I agree that these make no sense.

But the proposal explicitly allows local and protected, and I think there are some problems with this.

The first problem is that by the formal definitions of these in the LRM, I don't think they would have the expected effect on a constructor. They are described as preventing access by hiding the name of the member. But the constructor doesn't actually have a name. It is invoked with the reserved keyword "new", which is not technically a name. Since it is not an identifier, it doesn't

follow normal symbol table type rules. It is a reserved word that is always available, so it cannot be hidden. To get the desired effect, I think you would need to revise the description of how these qualifiers work.

If you try to define the qualifiers by saying that these methods simply cannot be called from those places, then I think you run into another problem with "local". You have to be able to call the super.new from the derived class new. But that would not be allowed if the super.new were declared to be "local". If you aren't allowed to call it, as opposed to not being allowed to use the name, then that would apply to the implicit super.new call also. The whole mechanism of chained constructors would fail. If the idea is to disallow only an explicit super.new, but allow the implicit one, then more special wording is needed. Ditto if the idea is to allow calling it only from the derived class constructor but not place else in the derived class. Though my previous issue could be dismissed as pedantic on the basis that everyone knows what is meant, I really don't know what is meant here.

Frankly, I don't know that the idea of a "local" constructor is useful, and it is not clear to me what meaning is intended. I do agree that the idea of a "protected" constructor is useful, and I understand what is meant by it, even though I think there are issues with the LRM there. If "protected" is the only qualifier allowed, then there is no need for a semantic rule for this. Just replace {method_qualifier} with [protected] in the productions for constructor declarations.

```
>id 186, svdb 2288      ____ YES   __X__ No
>
>http://www.eda.org/svdb/view.php?id=2288
```

If we are being pedantic, it is not the entry that is smallest or largest, but its index.

Francoise:

I vote yes on most proposals except for id 19 and 183 for which I would like a different resolution.

id 19 No action required
____ YES __X__ No I would add the bubble with preponed for showing the PLI region, at least it shows consistency.

id 183, svdb 2510 ____ YES __X__ No It is not clear what is allowed as a clocking signal and why the text in 6.21 applies to clocking signals. I think the text should be present or at least a reference to a particular paragraph of section 6.21
<http://www.eda.org/svdb/view.php?id=2510>

Gord: yes on all except:

No on:

id 44, svdb 2701
id 181/182, svdb 2514

Abstain on: id 185, svdb 2342
> id 44, svdb 2701 ☐ YES ☒ No
> [both svbc and svec will vote on this]
> <http://www.eda.org/svdb/view.php?id=2701>

I'm going to object to this on the philosophical basis that I think that this change (as well as others) is going way too far in terms of trying to dictate the details of vendor implementations regarding warnings. For issues such as warnings (LRM mandated or not), vendors have legacy reasons, optimization reasons, flow reasons, etc. to not be too tightly bound by the LRM. Vendors will, if business or technical reasons dictate, ignore any such mandates and trying to be too prescriptive in this arena is almost certainly going to be routinely ignored. Mandating a warning is bad enough, trying to dictate the details is not something that I am willing to support.

If the reference to a single error per operation is removed, I will grudgingly support the rest.

> id 181, svdb 2514 ☐ YES ☒ No
> <http://www.eda.org/svdb/view.php?id=2035>
> id 182, svdb 2514 ☐ YES ☒ No
> <http://www.eda.org/svdb/view.php?id=2514>

This seems to be too much to adopt on an email ballot.

> id 185, svdb 2342 ☐ YES ☐ No ABSTAIN
> <http://www.eda.org/svdb/view.php?id=2342>

I think the semantic issues that Steven has raised do need to be addressed.

Stu:

I was not able to complete my voting because the Mantis server was taken down "for maintenance" in the middle of my going through the proposals. Please consider any items with no vote indication as an abstain.

ids 36,37,38,39,40
svdb 2700 ☒ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2700>

I am voting yes, but wonder if two friendly amendments are needed. For the equality operator, the proposed new text states:

“If both operands are string literals, the operator is the same equality operator as for integer types”

Should “integer types” be “integral types”?

The same question applies to the matching text for the comparison operators. .

id 47, svdb 2713 ☐ YES ☒ No

<http://www.eda.org/svdb/view.php?id=2713>

The “see text” that is added by the proposal is not clear. See what text, where? I will change my vote to Yes if “see text” is replaced with a cross reference.

Arturo:

I voted NO on 37,38, 44, 67, 107, 181, 182, and 185 - and YES on everything else.

ids 36,37,38,39,40

svdb 2700 ☐ YES ☒ No

<http://www.eda.org/svdb/view.php?id=2700>

Items 37 & 38 are misleading. The part in Equality and Comparison that says:

Each operand can be a string literal or an expression of string type. If one of the two operands is a string literal, it shall be implicitly converted to string type ...

Can be misinterpreted to mean that when both operands are string literals the operation is a string operation. A better way might be:

One or both operands can be an expression of type string; one operand can be a string literal. If only one of the two operands is a string literal, it shall be implicitly converted to string type ...

Likewise, the change to concatenation seems to change the semantics of string $s = \{ "a", "b", "c" \}$ and is IMHO less clear than the original text – the only change to concatenation should be to replace “of type string” to “expression of type string”.

id 44, svdb 2701 ☐ YES ☒ No

[both svbc and svec will vote on this]

<http://www.eda.org/svdb/view.php?id=2701>

The new text is way too verbose, less accurate, and way too restrictive regarding when and how many warnings should be issued. There was nothing wrong with the previous verbiage. The issue raised in this item was to clarify the behavior of the assignment of an unbounded queue to a bound queue. I believe this can be better handled by clarifying the behavior of assigning to a bounded queue an aggregate type (i.e., a queue or other unpacked array) in terms of the set of individual assignments. As to the warnings, this proposal is too restrictive to vendors, and the LRM generally gives wider latitude to implementations with respect to warnings.

id 67, svdb 2358 ☐ YES ☒ No

<http://www.eda.org/svdb/view.php?id=2358>

I'd like to see some of Shalom's feedback incorporated and more carefully reviewed.

id 107, svdb 2711 ☐ YES ☒ No
<http://www.eda.org/svdb/view.php?id=2711>

I don't think these should be allowed.

id 181, svdb 2514 ☐ YES ☒ No
<http://www.eda.org/svdb/view.php?id=2035>

I'm not sure the simplification is worth the backward incompatibility.

id 182, svdb 2514 ☐ YES ☒ No
<http://www.eda.org/svdb/view.php?id=2514>

I agree with the general intent of the proposal, but the use of the term "obligation" for the case in which neither pure nor extern is specified seems too strong. I'd also like to hear more discussion on the need for "extern constrain" since constrains do not exhibit the syntactical ambiguity that forced us to introduce this notation for methods. Is it needed strictly for orthogonality with methods?

id 185, svdb 2342 ☐ YES ☒ No
<http://www.eda.org/svdb/view.php?id=2342>

I'd like more discussion on this than a hasty email vote.

Sent: Tuesday, April 28, 2009 4:36 AM

To: sv-ec@eda.org

Subject: [sv-ec] email ballot: response due by 11:00am PDT Friday May 1 2009

We are conducting an email vote on the following issues related to the p1800-2009 draft 8 LRM Ballot comments.

- Deadline is 11:00am PDT Friday May 1 2009. This is a shortened time voted on sv-ec meeting of April 27 2009, 4 days.
- An issue will pass if there are zero NO votes and half of the eligible voters respond with a YES vote.
- A NO vote must be accompanied with a reason.
The issue will be reviewed at next meeting of sv-ec.
- Note that we are referencing both ballot id and mantis id if both exist. Please read the description of each carefully.
- Mark your vote with an x.
- Note: There are many items in this email ballot, please review carefully.
- Please note if a mantis item is specified and listed below along with the ballot comment id it must have a proposal attached for vote.

Eligible voters as of April 27 2009 sv-ec meeting are as follows:
17 members.

NOTE: sv-ec voted to include Shalom in the eligible voter list.

Arturo Salz
Cliff Cummings
Dave Rich
Francoise Martinolle
Neil Korpusik
Ray Ryan
Gordon Vreugdenhil
Steven Sharp
Stu Sutherland
Heath Chambers
Don Mills
Jonathan Bromley
Mark Hartoog
Tom Alsop
Mike Mintz
David Scott
Shalom Bresticker

id 48 allow for future enhancement
_____ YES _____ No

id 54 allow for future enhancement
_____ YES _____ No

id 16, 17

sv-ec agrees with sv-cc resolution to keep these regions for future use.

Reject svdb 2632 statement.

_____ YES _____ No

id 19 No action required

_____ YES _____ No

id 20 svdb 2634 (svbc issue)

sv-ec votes as well to accept the proposal as well.

_____ YES _____ No

<http://www.eda.org/svdb/view.php?id=2634>

id 105 (id 110 is duplicate of 105)

No action required

_____ YES _____ No

id 115 No action required

_____ YES _____ No

id 35, svdb 2705 _____ YES _____ No

<http://www.eda.org/svdb/view.php?id=2705>

ids 36,37,38,39,40

svdb 2700 _____ YES _____ No

<http://www.eda.org/svdb/view.php?id=2700>

id 41, svdb 2681 _____ YES _____ No

[both svbc and svec will vote on this]

<http://www.eda.org/svdb/view.php?id=2681>

id 42, svdb 2682 _____ YES _____ No

<http://www.eda.org/svdb/view.php?id=2682>

id 43 and id 45,

svdb 2430 _____ YES _____ No

<http://www.eda.org/svdb/view.php?id=2430>

id 44, svdb 2701 _____ YES _____ No

[both svbc and svec will vote on this]

<http://www.eda.org/svdb/view.php?id=2701>

id 46, svdb 2706 _____ YES _____ No

<http://www.eda.org/svdb/view.php?id=2706>

id 47, svdb 2713 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2713>

id 57, svdb 2698 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2698>

id 65, svdb 2723 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2723>

id 67, svdb 2358 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2358>

id 80, svdb 2596 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2596>

id 102, svdb 2718 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2718>

id 106, svdb 2710 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2710>

id 107, svdb 2711 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2711>

id 181, svdb 2514 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2035>

id 182, svdb 2514 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2514>

id 183, svdb 2510 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2510>

id 184, svdb 2473
CLOSE 2473, id 184 requires no further action:
[Draft8 says
 An associative array type or class shall be illegal as a
 destination type. So this has already been made illegal.]
 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2473>

id 185, svdb 2342 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2342>

id 186, svdb 2288 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=2288>

id 192, svdb 1256 ☐ YES ☐ No
<http://www.eda.org/svdb/view.php?id=1256>

svdb 2719 for the following ids

| | | | | | |
|----|-----|--------------------------|-----|--------------------------|----|
| id | 58 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 60 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 61 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 104 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 108 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 112 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 117 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 118 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 119 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 122 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |
| id | 137 | <input type="checkbox"/> | YES | <input type="checkbox"/> | No |

<http://www.eda.org/svdb/view.php?id=2719>