

Date: May 12 2011

Result of email vote concluded on Wednesday May 11 2011.

I have included all comments received on the reflector.

[9 mantis items: 3046, 2506, 3531, 3394, 2905, 3254, 3298, 3054]

PASS: 2935, 3254, 2905,

NOT PASS: 3045, 2506, 3531, 3394, 3298, 3054

(1) Mantis 3046 7 Yes 3 No

YES: Scott, Steven, Alex, Gord, Dave, Ray, Neil S.,

NO: Mark, Arturo, Neil, [Francoise]

(2) Mantis 2506 4 Yes 3 No 3 Abstain

YES: Scott, Mark, Arturo, Alex,

No: Gord, Dave, Ray

Abstain: Steven, Neil S., Neil, [Francoise]

(3) Mantis 3531 9 Yes 1 No

YES: Arturo, Scott, Steven, Alex, Gord, Dave, Ray, Neil S., Neil,

No: Mark, [Francoise]

(4) Mantis 3394 9Yes 1 No

YES: Mark, Arturo, Scott, Steven, Alex, Gord, Dave,Ray, Neil S.,[Francoise]

NO: Neil

(5) Mantis 2905 10 Yes 0 No

YES: Mark, Arturo, Scott, Steven, Gord, Alex, Dave, Ray, Neil S., Neil

[No: Francoise]

(6) Mantis 3254 10Yes 0No

Yes: Mark, Arturo, Scott, Steven, Gord, Alex, Dave, Ray, Neil S., Neil [Francoise]

(7) Mantis 3298 7 Yes 3 No

YES: Scott, Steven, Gord, Alex, Dave, Ray, Neil S.,

NO: Mark, Arturo, Neil, [Francoise]

(8) Mantis 3054 8 Yes 1 No 1 Abstain

YES: Mark, Scott, Steven, Gord, Alex, Dave,Ray, Neil S., Neil, [Francoise]

NO: Arturo

Abstain: Alex

(9) Mantis 2935 10 Yes 0 No

YES: Mark, Arturo, Scott, Steven, Gord, Alex, Dave, Ray, Neil S., Neil, [Francoise]

(1) Mantis 3046 ___Yes ___No

YES: Scott, Steven, Alex, Gord, Dave, Ray, Neil S.,

NO: Mark, Arturo, Neil, [Francoise]

Mark: I have some concern over the wording of the proposal. It says:

"If the dotted name fails to resolve in the scope of the randomize() with object class, it shall be resolved following normal resolution rules in the scope containing the inline constraint."

I thought we had changed or were planning to change the LRM to say if the first token of a dotted name resolves to a variable, but later tokens cannot be resolved, it is an error.

Arturo:

The term "strictly downwards manner" is not well defined. Also, the language is a bit awkward in treating dotted names specially when all it should say is that normal rules apply, which already deal with the first name of a dotted name. I do agree with the outcome of the examples shown in the Mantis.

[Gord]But normal rules do not apply. If the first name is not present in the target class, one does not want to do a hierarchical search upwards from the location of the class type definition. One wants to terminate the search immediately and start the search in the context surrounding the inline constraint, not the context of the class object type. That is why a clarification is needed.

Feel free to suggest better wording. But I don't think that "normal search" is going to be correct.

Neil: I agree with a lot of what Arturo mentioned.

To tell you the truth, I don't think this set of changes is even necessary.

I agree with the summary of the examples described in the mantis item, but it seems to me that the existing text leads to this conclusion.

Francoise:

The sentence "Dotted names other than those qualified by this or super shall first be resolved in a strictly downwards manner starting in the scope of the randomize() with object class."

What is the scope of the randomize object class? the scope of the call to randomize?

Previous sentence was using different terminology:

"Then, if a name fails to resolve within the randomize() with object class,"

I think we need some examples to illustrate these rules. Please add the example that were filed with the mantis item.

(2) Mantis 2506 ___Yes ___No

YES: Scott, Mark, Arturo, Alex,

No: Gord, Dave, Ray

Abstain: Steven, Neil S., Neil

Gord: Given the additional changes going into 2506 from other comments and the overall size of the proposal, I would like to have a final proposal go through unchanged before voting in favor.

Dave: Would like a final review in a CC.

Ray: The BNF changes need to be replicated in Annex A. Also does there need to be a restriction on the visibility of functions declared within the scope of a cross.

Abstain: Steven, Neil S., Neil, [Francoise]

[Neil: I didn't have time to review this one in detail.]

[Francoise: I need more time to properly review this long proposal.]

(3) Mantis 3531 ___Yes ___No

YES: Arturo, Scott, Steven, Alex, Gord, Dave, Ray, Neil S., Neil,

[Steven: I am not seeing blue text for the additions in A.8.4, though I see it for Syntax 11-8. If this isn't just a problem with my viewer, then this should be fixed.

No: Mark, [Francoise]

Mark: I have some reservations about this change. The LRM describes 'null' as a special value. It is only legal in a few contexts. There are no casting rules between 'null' and integer types. It does not have a self-determined type. I am worried we need more text to restrict where this can be used. Apparently it is already in primary, so we probably already have this problem.

[Francoise: I think that the literal null should also be added to 11.2.1]

(4) Mantis 3394 ___Yes ___No

YES: Mark, Arturo, Scott, Steven, Alex, Gord, Dave, Ray, Neil S.,

NO: Neil

Neil: It isn't clear to me that this example is invalid.

Aren't both the existing text and the proposed text legal?

I agree with the change in the comment for dest2.

(5) Mantis 2905 ___Yes ___No

YES: Mark, Arturo, Scott, Steven, Gord, Alex, Dave, Ray, Neil S., Neil

[NO: Francoise]

Question: Why is it that we do not allow attributes for timeunits?

We allow attributes on every other declaration]

(6) Mantis 3254 ___Yes ___No

Yes: Mark, Arturo, Scott, Steven, Gord, Alex, Dave, Ray, Neil S., Neil

Comment: [Arturo]The sentence seems somewhat tautological: `constraint_set` is .. `constraint set`.

Perhaps we can find better verbiage – the intent is to define a `constraint_set` as either a single constrain or a group of constrains bracketed by curly braces. I'm voting yes because the same language exists in implication so this is no worse.

(7) Mantis 3298 ___Yes ___No

YES: Scott, Steven, Gord, Alex, Dave, Ray, Neil S.,

[Scott Friendly amendment: The new text should be in blue.]

[Steven: BTW, it would also make sense to allow 'this' in initializers on non-static properties. These are effectively executed in the constructor, which is a non-static method. And these initializers can

presumably refer to other class properties using the normal scoping rules, and this is an implicit reference to 'this' already.]

NO: Mark, Arturo, Neil, [Francoise]

Mark: What about the use of 'this' in randomize with blocks.

Doesn't that need to be included in this section also?

Arturo:

Must mention constrains: A friendly amendment (which may need discussion):

The this keyword shall only be used within nonstatic class methods, **constrains, inlined constrain methods, or embedded covergroups (see 19.4)** ;

Neil:

By making this change, it creates a new problem in the existing text.

The following sentence assumes 'this' can only be used in a class subroutine.

"The this keyword denotes a predefined object handle that refers to the object that was used to invoke the subroutine that this is used within."

Friendly amendments:

The new text should be in blue and not underlined.

The mantis item should also be shown at the top of the proposal.

[Francoise: Editorial issue: The mantis item does not include the title neither mantis #

(8) Mantis 3054 ___Yes ___No

YES: Mark, Scott, Steven, Gord, Dave, Ray, Neil S., Neil

NO: Arturo

Abstain: Alex

Arturo:

Although allowing \$countones and \$onehot in constrains is reasonable. There is no explicit proposal that describes the semantics associated with such constrains. For example, do these function calls partition the constrains (as with other "allowed" functions) or are they to be treated differently? If the semantics are the same as for other function calls, the LRM can simply state that constrains will allow functions ***and system function*** that adhere to the existing limitations.

Abstain: Alex

Alex - Arturo had already voted NO on this one. I want to fully understand Arturo's objection before making my decision.

(9) Mantis 2935 ___Yes ___No

YES: Mark, Arturo, Scott, Steven, Gord, Alex, Dave, Ray, Neil S., Neil,

[Steven: I haven't actually seen the fixed version, but I will take Shalom's word for it.

Mark:

(1) Mantis 3046 ☐ Yes ☒ No

<http://www.eda.org/svdb/view.php?id=3046>

[Dotted names within inlined constraints]

[proposal: 3046_inline_dotted_names.pdf]

I have some concern over the wording of the proposal. It says:

"If the dotted name fails to resolve in the scope of the randomize() with object class, it shall be resolved following normal resolution rules in the scope containing the inline constraint."

I thought we had changed or were planning to change the LRM to say if the first token of a dotted name resolves to a variable, but later tokens cannot be resolved, it is an error.

(2) Mantis 2506 ☒ Yes ☐ No

<http://www.eda.org/svdb/view.php?id=2506>

[Non-trivial coverage space shapes and joint conditions are difficult to specify with covergroups]

[proposal: Proposal for Mantis 2506_v5.pdf]

(3) Mantis 3531 ☐ Yes ☒ No

<http://www.eda.org/svdb/view.php?id=3531>

[null should be allowed in constant expressions]

[proposal file: 3531_null.pdf]

I have some reservations about this change. The LRM describes 'null' as a special value. It is only legal in a few contexts. There are no casting rules between 'null' and integer types. It does not have a self-determined type. I am worried we need more text to restrict where this can be used. Apparently it is already in primary, so we probably already have this problem.

(4) Mantis 3394 ☒ Yes ☐ No

<http://www.eda.org/svdb/view.php?id=3394>

[invalid example for dynamic array]

[proposal: 3394_illegal_example.pdf]

(5) Mantis 2905 ☒ Yes ☐ No

<http://www.eda.org/svdb/view.php?id=2905>

[BNF bug for attribute instance along with timeunits_declaration]

[proposal: 2905_attribute_timeunits.pdf]

(6) Mantis 3254 ☒ Yes ☐ No

<http://www.eda.org/svdb/view.php?id=3254>

[18.5.6 if-else constraints mistakenly uses the work "block" when it means "set"]

[proposal: 3254_constraint_set.pdf]

(7) Mantis 3298 ☐ Yes ☒ No

<http://www.eda.org/svdb/view.php?id=3298>

[Use of 'this' in a coverpoint expression]

[proposal: 3298_this_covergroup.pdf]

What about the use of 'this' in randomize with blocks. Doesn't that need to be included in this section also?

(8) Mantis 3054 ☒ Yes ☐ No

<http://www.eda.org/svdb/view.php?id=3054>

CLOSE as duplicate of 3202 (sv-ac)

[\$countones and \$onehot system functions in constraints]

(9) Mantis 2935 ☒ Yes ☐ No

<http://www.eda.org/svdb/view.php?id=2935>

CLOSE: already fixed in new version of the LRM and uploaded [Correction to example in 9.7. in 1800-2009]

Arturo:

Below are my votes:

(1) Mantis 3046 ☐ Yes ☒ No

The term “strictly downwards manner” is not well defined. Also, the language is a bit awkward in treating dotted names specially when all it should say is that normal rules apply, which already deal with the first name of a dotted name. I do agree with the outcome of the examples shown in the Mantis.

(2) Mantis 2506 ☒ Yes ☐ No

(3) Mantis 3531 ☒ Yes ☐ No

(4) Mantis 3394 ☒ Yes ☐ No

(5) Mantis 2905 ☒ Yes ☐ No

(6) Mantis 3254 ☒ Yes ☐ No

The sentence seems somewhat tautological: `constraint_set` is .. constraint set. Perhaps we can find better verbiage – the intent is to define a `constraint_set` as either a single constrain or a group of constrains bracketed by curly braces. I’m voting yes because the same language exists in implication so this is no worse.

(7) Mantis 3298 ☐ Yes ☒ No

Must mention constrains: A friendly amendment (which may need discussion):

The `this` keyword shall only be used within nonstatic class methods, `constrains`, `inlined constrain methods`, or `embedded covergroups` (see 19.4) ;

(8) Mantis 3054 ☐ Yes ☒ No

Although allowing \$countones and \$onehot in constrains is reasonable. There is no explicit proposal that describes the semantics associated with such constrains. For example, do these function calls partition the constrains (as with other “allowed” functions) or are they to be treated differently? If the semantics are the same as for other function calls, the LRM can simply state that constrains will allow functions ***and system function*** that adhere to the existing limitations.

(9) Mantis 2935 ☒_X_Yes ☐_No

Arturo

Steven:

(1) Mantis 3046 ☒_X_Yes ☐_No

(2) Mantis 2506 ☐_Yes ☐_No ☒_X_Abstain

I have not followed the discussions well enough to vote on this.

(3) Mantis 3531 ☒_X_Yes ☐_No

I am not seeing blue text for the additions in A.8.4, though I see it for Syntax 11-8. If this isn't just a problem with my viewer, then this should be fixed.

(4) Mantis 3394 ☒_X_Yes ☐_No

(5) Mantis 2905 ☒_X_Yes ☐_No

(6) Mantis 3254 ☒_X_Yes ☐_No

(7) Mantis 3298 ☒_X_Yes ☐_No

BTW, it would also make sense to allow 'this' in initializers on non-static properties. These are effectively executed in the constructor, which is a non-static method. And these initializers can presumably refer to other class properties using the normal scoping rules, and this is an implicit reference to 'this' already.

(8) Mantis 3054 ☒_X_Yes ☐_No
CLOSE as duplicate of 3202 (sv-ac)

(9) Mantis 2935 ☒_X_Yes ☐_No
CLOSE: already fixed in new version of the LRM and uploaded

I haven't actually seen the fixed version, but I will take Shalom's word for it.

Alex Gran:

- > (1) Mantis 3046 ☒_X_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=3046>
> [Dotted names within inlined constraints]
> [proposal: 3046_inline_dotted_names.pdf]
>
- > (2) Mantis 2506 ☒_X_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=2506>
> [Non-trivial coverage space shapes and joint conditions are difficult
> to specify with covergroups]
> [proposal: Proposal for Mantis 2506_v5.pdf]
>
- > (3) Mantis 3531 ☒_X_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=3531>
> [null should be allowed in constant expressions]
> [proposal file: 3531_null.pdf]
>
- > (4) Mantis 3394 ☒_X_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=3394>
> [invalid example for dynamic array]
> [proposal: 3394_illegal_example.pdf]
>
- > (5) Mantis 2905 ☒_X_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=2905>
> [BNF bug for attribute instance along with timeunits_declaration]
> [proposal: 2905_attribute_timeunits.pdf]
>
- > (6) Mantis 3254 ☒_X_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=3254>
> [18.5.6 if-else constraints mistakenly uses the work "block" when it
> means "set"]
> [proposal: 3254_constraint_set.pdf]
>
- > (7) Mantis 3298 ☒_X_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=3298>
> [Use of 'this' in a coverpoint expression]
> [proposal: 3298_this_covergroup.pdf]
>
- > (8) Mantis 3054 ☐_Yes ☐_No
> <http://www.eda.org/svdb/view.php?id=3054>
> CLOSE as duplicate of 3202 (sv-ac)
> [\$countones and \$onehot system functions in constraints]
Abstain - Arturo had already voted NO on this one. I want to fully understand Arturo's objection before making my decision.

- > (9) Mantis 2935 ☒_X_Yes ☐_No

> <http://www.eda.org/svdb/view.php?id=2935>

> CLOSE: already fixed in new version of the LRM and uploaded

> [Correction to example in 9.7. in 1800-2009]

>

>

Gord:

Yes to all except 2506.

Given the additional changes going into 2506 from other comments and the overall size of the proposal, I would like to have a final proposal go through unchanged before voting in favor.

Gord.

Yes to all except 2506. Would like a final review in a CC.

Dave Rich

Verification Technologist

Mentor Graphics Corporation

New Office Number: 510-354-7439

(1) Mantis 3046 ☒_X_Yes ☐_No

(2) Mantis 2506 ☐_Yes ☒_X_No

The BNF changes need to be replicated in Annex A. Also does there need to be a restriction on the visibility of functions declared within the scope of a cross.

(3) Mantis 3531 ☒_X_Yes ☐_No

(4) Mantis 3394 ☒_X_Yes ☐_No

(5) Mantis 2905 ☒_X_Yes ☐_No

(6) Mantis 3254 ☒_X_Yes ☐_No

(7) Mantis 3298 ☒_X_Yes ☐_No

(8) Mantis 3054 ☒_X_Yes ☐_No

(9) Mantis 2935 ☒_X_Yes ☐_No

Regards,

Ray Ryan

(1) Mantis 3046 ___Yes _X_No

I agree with a lot of what Arturo mentioned.

To tell you the truth, I don't think this set of changes is even necessary.

I agree with the summary of the examples described in the mantis item, but it seems to me that the existing text leads to this conclusion.

(2) Mantis 2506 ___Yes ___No
2506_v5.pdf

I didn't have time to review this one in detail.

(3) Mantis 3531 _X_Yes ___No

(4) Mantis 3394 ___Yes _X_No

It isn't clear to me that this example is invalid.

Aren't both the existing text and the proposed text legal?

I agree with the change in the comment for dest2.

(5) Mantis 2905 _X_Yes ___No

(6) Mantis 3254 _X_Yes ___No

(7) Mantis 3298 ___Yes _X_No

By making this change, it creates a new problem in the existing text.

The following sentence assumes 'this' can only be used in a class subroutine.

"The this keyword denotes a predefined object handle that refers to the object that was used to invoke the subroutine that this is used within."

Friendly amendments:

The new text should be in blue and not underlined.

The mantis item should also be shown at the top of the proposal.

(8) Mantis 3054 _X_Yes ___No CLOSE as duplicate of 3202 (sv-ac)

(9) Mantis 2935 _X_Yes ___No

Francoise:

(1) Mantis 3046 ___Yes X___No

<http://www.eda.org/svdb/view.php?id=3046>

[Dotted names within inlined constraints]

[proposal: 3046_inline_dotted_names.pdf] A few comments: the mantis name needs to include the title and mantis #.

The sentence "Dotted names other than those qualified by this or super shall first be resolved in a strictly downwards manner starting in the scope of the randomize() with object class."

What is the scope of the randomize object class? the scope of the call to randomize?

Previous sentence was using different terminology:

"Then, if a name fails to resolve within the randomize() with object class,"

I think we need some examples to illustrate these rules. Please add the example that were filed with the mantis item.

(2) Mantis 2506 ___Yes ___No

<http://www.eda.org/svdb/view.php?id=2506>

[Non-trivial coverage space shapes and joint conditions are difficult to specify with covergroups]

[proposal: Proposal for Mantis 2506_v5.pdf]

I need more time to properly review this long proposal.

(3) Mantis 3531 ___Yes __X_No

<http://www.eda.org/svdb/view.php?id=3531>

[null should be allowed in constant expressions]

[proposal file: 3531_null.pdf]

I think that the literal null should also be added to 11.2.1

(4) Mantis 3394 _X_Yes ___No

<http://www.eda.org/svdb/view.php?id=3394>

[invalid example for dynamic array]

[proposal: 3394_illegal_example.pdf]

(5) Mantis 2905 ___Yes __X_No

<http://www.eda.org/svdb/view.php?id=2905>

[BNF bug for attribute instance along with timeunits_declaration]

[proposal: 2905_attribute_timeunits.pdf]

Question: Why is it that we do not allow attributes for timeunits?

We allow attributes on every other declaration

(6) Mantis 3254 __X_Yes ___No

<http://www.eda.org/svdb/view.php?id=3254>

[18.5.6 if-else constraints mistakenly uses the work "block" when it means "set"]

[proposal: 3254_constraint_set.pdf]

(7) Mantis 3298 ___Yes _X_No

<http://www.eda.org/svdb/view.php?id=3298>

[Use of 'this' in a coverpoint expression]

[proposal: 3298_this_covergroup.pdf]

Editorial issue: The mantis item does not include the title neither mantis #

(8) Mantis 3054 _X_Yes ___No

<http://www.eda.org/svdb/view.php?id=3054>

CLOSE as duplicate of 3202 (sv-ac)

[\$countones and \$onehot system functions in constraints]

(9) Mantis 2935 ☒ Yes ☐ No

<http://www.eda.org/svdb/view.php?id=2935>

CLOSE: already fixed in new version of the LRM and uploaded [Correction to example in 9.7. in 1800-2009]