



IEEE DASC P1076.1 Working Group
<http://www.eda-twiki.org/vhdl-ams/>

Working Group Meeting
January 13, 2017

Ernst Christen
 WG Chair
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Agenda

- ◆ **Call to order**
- ◆ **Approval of agenda**
- ◆ **Administrative issues**
 - Minutes of December 7, 2016 meeting
 - IEEE patent policy
 - Elections
 - Action items
 - Path and timeline to go to ballot
- ◆ **Project discussions**
 - LRM review status
 - Recently modified LCSs
 - LRM collaterals
- ◆ **Next meeting**
- ◆ **AOB**
- ◆ **Adjourn**

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Administrative Issues

- ◆ **Approval of WG meeting minutes**
 - [Meeting of December 7, 2016](#)
 - Available at <http://www.eda-twiki.org/vhdl-ams/>
- ◆ **Review of IEEE patent policy**
 - <http://standards.ieee.org/board/pat/pat-slideset.pdf>
- ◆ **Elections**
 - Voting started first week of January 2017
 - Voting will end on January 16, 2017
- ◆ **Handling of copyrighted material**
 - Copyright Permission
 - Letters received: Cadence, Eastman Kodak, Accellera
 - Working on it: Synopsys

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Administrative Issues

- ◆ **Action items**
 - EC: Is it appropriate to include links to sites containing VHDL-AMS models, recommendations on the twiki?
 - Alain's recollection is no, but Ernst could not find any information about this in past minutes
 - JH: What is the future of the VDA packages/models, and are links to them OK?
 - EC: Do references to standards have to refer to their last version?
 - No, there is no such requirement, but caution should be applied when referencing withdrawn standards
 - I propose to retain the references used in 1076-2008
 - EC: Consistency of references to bibliographical items
 - TBD
 - EC: Use of colors instead of change bars to indicate 1076.1 content?
 - In contact with Jonathan Goldberg. No resolution yet

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P1076.1-201x Draft LRM Status

- ◆ New draft LRM version D0.2 from review of draft D0.1
<http://www.eda-twiki.org/cgi-bin/view.cgi/P10761/CommentsD01>



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P1076.1-201x Draft LRM Status: Per LCS (1)

LCS Nr.	Title	WG status	Clauses	Status
201x-01	External names	Approved	8.7	
201x-02	Simulation cycle	Approved	14.7.5	
201x-03	Architecture statements	Approved	3.3.3 11 14.5.3 Glossary	
201x-04	Types and natures	Revised	5	v2.1 integrated.
201x-05	Expressions	Approved	9	
201x-06	Sequential statements	Approved	10	
201x-07	Specifications	Revised	7	v1.1 integrated.
201x-08	Scope and visibility	Approved	12	
201x-09	Design units and their analysis	Approved	13	
201x-10	Lexical elements	Approved	15	
201x-11	Declarations	Approved	4.2.1 6 11.13 16.2.6	
201x-12	Design units	Revised	3 4	v2.1 integrated. v2.1 integrated.
201x-13	Predefined language environment	Revised	6 16	v2.1 integrated. v2.1 integrated.



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P1076.1-201x Draft LRM Status: Per LCS (2)

LCS Nr.	Title	WG status	Clauses	Status
201x-14	Elaboration and execution	Approved	14	
201x-15	Standard tool directives	Approved	24	
201x-16	VHPI	Approved	Annex H 19	
201x-17	Integration of IEEE Std 1076.1.1	Approved	16 Annex A Annex G Annex J	
201x-18	Resolution of IRs	Approved	5 6 7	
201x-19	Frequency Domain Modeling	Approved	14 16	
201x-20	Quantities at ASP	Revised	14 16	v1.1 integrated. v1.1 integrated.
201x-21	Alternate Forms of Lapl. and Z-Dom. Transfer Functions	Revised	16	
201x-22	Clauses 1 and 2	Revised	1 2	v1.2 integrated. v1.2 integrated.
201x-23	Glossary	Submitted	Annex I	Integrated. Remaining issue with index markers.



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P1076.1-201x Draft LRM Status: Per Clause

LRM clause	Notes
Frontmatter	Acknowledgements added
1. Overview	LCS 201x-22_v1.2 integrated.
2. Normative references	LCS 201x-22_v1.2 integrated.
3. Design entities and configurations	LCS 201x-12_v2.1 integrated.
4. Subprograms and packages	LCS 201x-12_v2.1 integrated.
5. Types and natures	
6. Declarations	
7. Specifications	LCS 201x-07_v1.1 integrated.
8. Names	
9. Expressions	
10. Sequential statements	
11. Architecture statements	
12. Scope and visibility	
13. Design units and their analysis	
14. Elaboration and execution	LCS 201x-20_v1.1 integrated.
15. Lexical elements	
16. Predefined language environment	LCS 201x-13_v2.1 and 201x-20_v1.1 integrated.
17-23. VHPI	
19. VHPI information model	
24. Standard tool directives	



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P1076.1-201x Draft LRM Status: Per Annex

LRM annex	Version	Notes
A. Description of accompanying files		
B. VHPI header file		
C. Syntax summary		
D. Potentially nonportable constructs		
E. Changes from IEEE Std 1076.1, 2007 Edition		
F. Features under consideration for removal		
G. Guide to use of standard packages		
H. Guide to use of protect directives		
I. Glossary		LCS 201x-23 integrated.
J. Bibliography		

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Recently Modified LCSs

- ♦ **Unapproved LCSs (integrated in LRM)**
 - 201x-23 Glossary
- ♦ **LCSs changed in context with LRM review**
 - 201x-04: Added missing reference to nature in NOTE
 - 201x-07: Use "shall" instead of "is"
 - 201x-12: Exclude nature, terminal declarations in certain packages
 - 201x-13: Make function FREQUENCY impure
 - 201x-20: Include ASP_DONE in NOTE regarding signal sources
 - 201x-22: Reverted versions of referenced standards; updated scope/purpose to conform to Style Manual

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Mandatory Changes: LRM Clauses

Clause	Title	LCS	LRM Review
1	Overview of this Standard	201x-22	Reviewed
2	Normative references	201x-22	Reviewed
3	Design entities and configurations	201x-03, 201x-12	Reviewed
4	Subprograms and packages	201x-12	Reviewed
5	Types and natures	201x-04	Reviewed
6	Declarations	201x-11	Reviewed
7	Specifications	201x-07	Reviewed
8	Names	201x-01	Reviewed
9	Expressions	201x-05	Reviewed
10	Sequential statements	201x-06	Reviewed
11	Architecture statements	201x-03	Reviewed
12	Scope and visibility	201x-08	Reviewed
13	Design units and their analysis	201x-09	Reviewed
14	Elaboration and execution	201x-14, 201x-02	Reviewed
15	Lexical elements	201x-10	Reviewed
16	Predefined language environment	201x-13, 201x-17	Reviewed
17-23	VHPI	201x-16	Reviewed
24	Standard tool directives	201x-15	Reviewed

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Mandatory Changes: Annexes

Annex	Title	Status
A	Informative Description of accompanying files	201x-17 covers 1076.1.1
B	Normative VHPI header file	Related to 201x-16
C	Informative Syntax summary	Done as part of LRM editing, needs review
D	Informative Potentially nonportable constructs	TBD
E	Informative Changes from IEEE Std 1076.1-2007	TBD
F	Informative Features under consideration for removal	No candidates
G	Informative Guide to use of standard packages	201x-17 covers 1076.1.1
H	Informative Guide to use of protect directives	201x-15
I	Informative Glossary	201x-23
J	Informative Bibliography	Needs review
K	Informative Index	Done as part of LRM editing, but needs review

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Status of LCSs

LCS	Title	LRM Clauses	Status	Review in LRM
201x-01	External names	8.7	Approved	Reviewed
201x-02	Simulation cycle	14.7.5	Approved	Reviewed
201x-03	Architecture statements	3.3.3, 11, 14.5.3	Approved	Reviewed
201x-04	Types and natures	5	Revised	Reviewed
201x-05	Expressions	9	Approved	Reviewed
201x-06	Sequential statements	10	Approved	Reviewed
201x-07	Specifications	7	Revised	Reviewed
201x-08	Scope and visibility	12	Approved	Reviewed
201x-09	Design units and their analysis	13	Approved	Reviewed
201x-10	Lexical elements	15	Approved	Reviewed
201x-11	Declarations	6, 11.13, 16.2.6	Approved	Reviewed
201x-12	Design units	3, 4	Revised	Reviewed
201x-13	Predefined language environment	16	Revised	Reviewed
201x-14	Elaboration and execution	14	Approved	Reviewed
201x-15	Standard tool directives	24	Approved	Reviewed
201x-16	VHPI	17-23	Approved	Reviewed
201x-17	Integration of IEEE Std 1076.1.1	Annex A, Annex G	Approved	Reviewed
201x-18	Resolution of IRs	5, 6, 7	Approved	Reviewed
201x-19	Frequency Domain Modeling	14	Approved	Reviewed
201x-20	Working with Quantities at an ASP	14, 16	Revised	Reviewed
201x-21	Alternate forms for transfer functions	16	Approved	Reviewed
201x-22	Introduction, Clauses 1 and 2	1, 2	Revised	Reviewed
201x-23	Glossary	Annex I	Submitted	

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Project Discussion: Other Projects

Project	Status	Review in LRM
Errata (IRs)	IRs 07.01...07.03: LCS 201x-18 Unfiled IR on Q'SLEW: Analyzed, incomplete	Reviewed No action
IEEE Std 1076.1.1 integration	LCS 201x-17	Reviewed
Table-driven modeling	Open Source	
Vector/Matrix operations	Proposed Open Source	
Frequency-domain modeling	LCS 201x-19	Reviewed
Minor enhancements	LCS 201x-20 Working with Quantities at an ASP LCS 201x-21 Alternate forms for 'LTF'/ZTF	Reviewed No action

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- ### Open Issues
- ◆ **LRM**
 - Review Annexes D (non-portable constructs), E (changes), J (bibliography), K (index)
 - Style issues: color instead of change bars to mark 1076.1 material?
 - ◆ **Acknowledgements of copyright holders**
 - Check that LRM text matches the text requested
 - ◆ **Packages**
 - 1076.1.1 packages
 - Update packages according to LCS 201x-17
 - 1076 packages
 - Add acknowledgement text requested by copyright holders. This is missing in the 1076-2008 versions
 - ◆ **Contingency plan**
 - What to do if we do not receive CPL from Synopsis
- IEEE DASC P1076.1 WG Meeting – January 13, 2017 <http://www.eda-twiki.org/vhdl-ams/> - 15

Project Planning

#	Task	Depends on	Start Date	Duration	End Date
1	Reviews				
2	Copyright Permission Letter (Synopsis)				
3	Coordination with IEEE TechPubs				
4	Completion of draft LRM and packages				2/10
5	Approval of draft standard by WG		2/10	4w	3/10
6	Document preparation for ballot			2/10	
7	Mandatory Editorial Coordination	2, 4, 5, 6	3/13		3/31
8	Formation of ballot pool	4, 5	3/13	4w	4/10
9	First ballot	3, 7, 8	4/10	1m	5/10
10	Public review	7, 8	4/10	2m	6/10
11	Ballot resolution	9, 10	5/10	6w	7/1
12	Recirculation ballot	11	7/1	2w	7/14
13	Preparation for RevCom	11	7/1		
14	Submission to RevCom	11, 12, 13			7/28
15	RevCom	14	9/7		9/7
16	PAR expires				12/31

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Next Steps

◆ Technical and administrative work

- Elections for WG Secretary
- Complete handling of copyrighted material
- Work with IEEE to get web site for packages
- Glossary, bibliography
- Second LRM review, possibly third
- LRM approval by WG

◆ Next meetings (announced at www.eda-twiki.org/vhdl-ams/):

- Wednesday, February 8, 2017, 08:00 am PST (16:00 UTC)

