P1666

Submitter Email: skrolikoski@gmail.com
Type of Project: Revision to IEEE Standard 1666-2005
PAR Request Date: 01-Dec-2009
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, PAR for a Revision to an existing IEEE Standard 1666-2005

1.1 Project Number: P1666
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Standard SystemC(R) Language Reference Manual

Old Title: IEEE Standard SystemC(R) Language Reference Manual

3.1 Working Group: System C Standardization Working Group (C/DA/SystemC)
Contact Information for Working Group Chair
Name: Stanley Krolikoski
Email Address: skrolikoski@gmail.com
Phone: 925-336-9343
Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE Computer Society/Design Automation (C/DA)
Contact Information for Sponsor Chair
Name: Victor Berman
Email Address: vhberman@comcast.net
Phone: 978 927 0555 x 27
Contact Information for Standards Representative
None

4.1 Type of Ballot: Entity
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 07/2010
4.3 Projected Completion Date for Submittal to RevCom: 12/2010

5.1 Approximate number of entities expected to be actively involved in the development of this project: 12
5.2 Scope: This standard defines SystemC® with Transaction Level Modeling as an ANSI standard C++ class library for system and hardware design.

Old Scope: This standard defines SystemC®1 as an ANSI standard C++ class library for system and hardware design.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: The general purpose of this project is to provide a C++-based standard for designers and architects who need to address complex systems that are a hybrid between hardware and software.
The specific purpose of this standard is to provide a precise and complete definition of the SystemC class library including a Transaction Level Modeling library so that a SystemC implementation can be developed with reference to this standard alone. This standard is not intended to serve as a users guide or to provide an introduction to SystemC, but does contain useful information for end users.

Old Purpose: The general purpose of this project is to provide a C++-based standard for designers and architects who need to address complex systems that are a hybrid between hardware and software.
The specific purpose of this standard is to provide a precise and complete definition of the SystemC class library so that a SystemC implementation can be developed with reference to this standard alone. This standard is not intended to serve as a users guide or to provide an introduction to SystemC, but does contain useful information for end users.

5.5 Need for the Project: As the electronics industry builds more complex systems involving large numbers of components including software, there is an increasing need for a design language that can manage the complexity and size of these systems. SystemC provides a mechanism for managing this complexity with its facility for modeling hardware and software together at multiple levels of abstraction. This capability is not available in traditional hardware description languages. Stakeholders for this project are Electronic

Design Automation (EDA) companies that implement the technology, Integrated Circuit (IC) suppliers who use the technology, and end users who build systems based on the technology.

SystemC was standardized by the IEEE in 2005. Since then the ability to do Transaction Level Modeling (TLM) has been developed and will be added to the standard.

5.6 Stakeholders for the Standard: Electronic systems and hardware designers.

Intellectual Property
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: Yes
If yes please explain: A copyright transfer letter will be required from the Open SystemC Initiative (OSCI). OSCI has indicated that they will provide such a letter.

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

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7.1 Are there other standards or projects with a similar scope?: No
7.2 International Activities
a. Adoption
Is there potential for this standard (in part or in whole) to be adopted by another national, regional or international organization?: No
b. Joint Development
Is it the intent to develop this document jointly with another organization?: No
c. Harmonization
Are you aware of another organization that may be interested in portions of this document in their standardization development efforts?: No

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8.1 Additional Explanatory Notes (Item Number and Explanation):