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Draft PAR Confirmation Number: 192837336.20996**Submittal Email:** perry.alexander@ieee.org**Type of Project:** PAR for a New Standard**1.1 Project Number:** P**1.2 Type of Document:** Standard for**1.3 Life Cycle:** Full**1.4 Is this project in ballot now?** No**2.1 Title of Standard:** Rosetta Systems Level Design Language Definition**3.1 Name of Working Group:** Rosetta Systems Level Design Language Working Group**Contact information for Working Group Chair**

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Contact Information for Working Group Vice Chair

Email:

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3.2 Sponsoring Society and Committee: IEEE Computer Society/Design Automation (C/DA)**Contact information for Sponsor Chair:**

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Contact information for Standards Representative:

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3.3 Joint Sponsor: / ()**Contact information for Sponsor Chair:**

Email:

Phone:

Contact information for Standards Representative:

Email:

Phone:

4.1 Type of Ballot: Individual**4.2 Expected Date of Submission for Initial Sponsor Ballot:** 2008-06**4.3 Projected Completion Date for Submittal to RevCom:** 2008-10**5.1 Approximate number of people expected to work on this project:**

5.2 Scope of Proposed Standard: A standard for the Rosetta specification language and its base collection of domains. The language definition will specify concrete and abstract syntax, denotational semantics for language constructs, and required libraries for AST definition and reflection. The domain definition will specify a collection of base modeling domains required of all Rosetta implementations. The standard document will include both formal definitions and descriptive text.

5.3 Is the completion of this standard is dependent upon the completion of another standard: No

If yes, please explain:

5.4 Purpose of Proposed Standard: As electronic system complexity continues to grow, so does the need to integrate design information from multiple, heterogeneous design domains, each with their own vocabulary and semantics. Existing design languages typically allow specification of requirements in one or two, predefined domains. In contrast, Rosetta provides support for developing, composing and analyzing specification models from multiple, concurrent domains. Rosetta enables the system-level approach mandated by current design complexity.

5.5 Need for the Project: In the late 1990's, the Semiconductor Industry Council identified requirements for a system-level design language motivating Rosetta language development. Rosetta allows systems architects to assess design trade-offs at the system level, mix specifications from multiple domains, and predict emergent interactions between subsystems. It allows system engineers and IP providers to define design constraints as first-class models. Finally, it provides a precise, formal semantics for tool vendors supporting formal and semi-formal analysis and integration of analysis results. Rosetta stakeholders recognize the importance of standards in mitigating risk making ad hoc or proprietary languages unacceptable. Thus, a standard is required for wider adoption in industry and academia.

5.6 Stakeholders for the Standard: Electronic system architects, systems engineers, EDA tool vendors, design engineers, intellectual property (IP) providers

Intellectual Property

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes

If yes, state date: 2006-11-15

If no, please explain:

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? Yes

If yes, please explain: Copyright for the current draft standard is held by Ashenden Designs, LTD PTY. They have agreed to assign the copyright to IEEE should this project be approved. Documentation of this agreement has already be obtained.

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

If yes, please explain:

7.1 Are there other standards or projects with a similar scope? No

If yes, please explain:

and answer the following: Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Future Adoptions

Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? Do not know at this time

If Yes, the following questions must be answered:

Technical Committee Name and Number:

Other Organization Contact Information:

Contact person:

Contact Email address:

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No

If yes, please explain:

7.4 Additional Explanatory Notes: (Item Number and Explanation)

8.1 Sponsor Information:

Is the scope of this project within the approved scope/definition of the Sponsor's Charter?

Yes

If no, please explain:

Contact the [NesCom Administrator](#)