

Unapproved Working Document - Property of IEEE P1500

## Status Report

# P1500 Documentation Task Force


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IEEE P1500 WG Meeting  
June 20, 2001  
DAC'01 – Las Vegas

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## Task Force Organization

- **Mission**  
Produce first full draft document of P1500 standard for non-merged digital logic and memory cores
- **Target**  
Document progress of technical Task Forces with at most one WG meeting delay
- **Members**
  - Erik Jan Marinissen\* (Philips Research)    – Tony Taylor (Synopsys)
  - Nilanjan Mukherjee (Mentor Graphics)    – Jon Udell (Palmchip)
  - Mike Ricchetti (Intellitech)
- **Meetings**
  - Biweekly teleconference meetings of 1.5 hours  
  Thanks to Mentor Graphics (Nilanjan) for providing facilities!
  - Password-protected web site at IEEE computer

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## Draft Releases

- P1500/D0.1 released January 31, 2000
- P1500/D0.2 released May 5, 2000
- P1500/D0.3 released January 4, 2001
- P1500/D0.4 released June 15, 2001

### Distribution

- PDF document available at CTAG and CTL-TF password-protected web sites and via e-mail to Merged Cores TF
- Selected 'experts' (see under Review)

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## P1500/D0.3 Review

- Review by Task Force members
  - Luis Basto (Analog Devices) done
  - Maurice Lousberg (Philips) done
- Review by selected external experts
  - For P1500/D0.3:
    - Ben Bennetts (Bennetts Associates) done
    - Erica Cota + Luigi Carro (UFRGS / UCSD) done
    - Paulo Prinetto (Politecnico di Torino) done
    - Al Crouch (Motorola) not done
    - Pat McHugh (Lockheed Martin) not done
  - For subsequent releases, other experts will be asked

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## IEEE P1500/D0.4 Disclaimers

- This is an unapproved draft of a proposed IEEE standard
- All text is preliminary and subject to change
- Certain sections are still empty
- This document cannot be well understood without proper introduction

In order not to create misunderstanding for those previously not involved in IEEE P1500 or for those unaware of the current status of IEEE P1500, we do not yet release this document to the general public!

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## Table of Contents P1500/D0.4

Title, Abstract, Key Words  
Introduction, Participants, Acknowledgements,  
Table of Contents

### Part 1: Introduction

1. Overview
2. References
3. Definitions, Acronyms and Abbreviations
4. Structure of This Standard
5. Dual Compliance Levels

### Part 2: Core Test Language

(see next slide)

### Part 3: Scalable Architecture Hardware

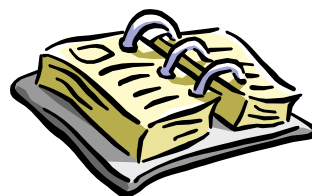
(see next slide)

### Part 4: Compliance Definitions

1. IEEE 1500 Unwrapped
2. IEEE 1500 Wrapped

### Annexes

- A. Glossary
- B. Bubble Diagram Definition



132 pages

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## Table of Contents P1500/D0.4

### Part 2: Core Test Language

1. Introduction
2. Process/Data Flow
3. Purpose of CTL
4. Introducing CTL
5. Enhancements to STIL required by CTL
6. The CTL Data Model
7. Environment
8. Common Enumerations
9. CTL Block
10. CoreInstance Block
11. Internal Block
12. ScanInternal Block
13. CoreInternal Block
14. Relation Block
15. External Block
16. PatternInformation Block
17. TestConstraints Block
18. ForMode

### Part 3: Scalable Architecture Hardware

1. Overview
2. Wrapper Interface Port
3. Wrapper Instruction Register
4. Wrapper Bypass Register
5. Wrapper Boundary Register
6. WIR Instructions
7. P1500 System Chip Configuration

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## P1500/D0.4 Release Notes

### Improvements

- Most editorial comments ("typos") of reviewers of D0.4 have been handled
- All sections of the document have been updated to reflect the latest stage of the Working Group, apart from the section on the Wrapper Boundary Register
- History log tables have been added to all sections
- The figure and table numbering and referencing has been improved.

### Known Bugs

- This document is incomplete, preliminary, and subject to change. Many (especially introductory) texts are still missing.
- List of Working Group members is so volatile, that we have decided not to include in for the moment.
- The usage of change bars has not always been correct in the various sections. Hence, some changes compared to D0.3 are not identified by change bars.
- The definition of syntax and semantics of CTL will move under IEEE 1450. This was decided only at VTS'01. The current document does not yet reflect that change, i.e., still contains the CTL syntax and semantics definition. It is expected that D0.5 will reflect this change.
- IEEE Standards editors did not agree with our current scheme of numbering of sections and pages. The break-out of the overall document into four parts will disappear together with the move of the CTL part to IEEE 1450. Hence, it is expected that in D0.5 we will have IEEE-compliant numbering.
- A few minor editorial comments ("typos") of reviewers of D0.3 have not yet been handled. The technical review comments still need to be addressed.
- Some figures have no captions.
- **Tip for Proper Viewing in Adobe's Acrobat**  
For proper viewing of this PDF file, change the following (default) setting of Adobe's Acrobat viewer:  
File → Preferences → General:  
disable "Use Greek Text Below xx Pixels"

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## **P1500 DocTF Continues...**

- Continue biweekly teleconference meetings
- 'To Do' list:
  - Taking care of reviewer comments
  - Working together with technical Task Forces to complete texts
  - Writing of (currently missing) introductory texts

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