DASC Overview

The Design Automation Standards Committee is the sponsor responsible for standards in the area of Electronics Design Automation, that is computer languages, formats and software that engineers use for the design of electronic systems. Technical development of standards within DASC is undertaken within several working groups. The DASC Steering Committee oversees their operation. DASC liaises with IEC TC93/WG2 to facilitate adoption of IEEE design automation standards by IEC.

DASC is governed by a Steering Committee comprising the DASC officers, chairs of working groups and ex officio members. The Steering Committee met four times during the year, and conducted business by email between meetings.

DASC Standards and Projects

The following approved standards were current at the end of 2003:

- 1029.1-1998 IEEE Standard For VHDL Waveform and Vector Exchange (WAVES) to Support Design and Test Verification
- 1076.3-1997 IEEE Standard VHDL Synthesis Packages
- 1076.6-1999 Standard for VHDL Register Transfer Level (RTL) Synthesis
- 1164-1993 Standard Multivalue Logic System for VHDL Model Interoperability (Std_logic_1164)
- 1364-2000 Standard for Verilog Hardware Description Language
- 1364.1-2002 IEEE Standard for Verilog Register Transfer Level Synthesis
- 1481-1999 Standard for Delay and Power Calculation System
- 1499-1998 IEEE Standard Interface for Hardware Description Models of Electronic Components
- 1603-2003 A Standard for an Advanced Library Format (ALF) Describing Integrated Circuit (IC) Technology, Cells, and Blocks
The following standards development projects were active at the end of 2003:

- P1076.1.1 Standard VHDL Analog and Mixed-Signal Extensions - Packages for Multiple Energy Domain Support (new standard project)
- P1076.6 (revision of 1076.6-1999)
- P1164 (revision of 1164-1993)
- P1364 (revision of 1364-2000)
- P1481 Standard for Integrated Circuit (IC) Open Library Architecture (OLA) (revision of 1481-1999)
- 1604 Standard for Inclusion of VHDL Library Units in the VHDL Library IEEE (new standard project)
- 1647 Standard for the Functional Verification Language ‘e’ (new standard project)

The following Study Groups were active at the end of 2003:

- VHDL-HF Extensions to VHDL for High-Frequency Modeling
- SystemC The SystemC Language

The following inactive Working Groups and Study Groups were disbanded during 2003:

- P1510 Standard for Chip Hierarchical Design System Technical Data (CHDstd) (new standard project)
- P1551 Standard for VHDL Electronic Digital System and Interface Design (new standard project)
- P1029.1 IEEE Standard For VHDL Waveform and Vector Exchange (WAVES) to Support Design and Test Verification (no PAR current)
- P1577 Standard for Object-Oriented Extensions to IEEE Standard VHDL (new standard project)
- HPM High-Performance Modeling Study Group
- SLD System Level Design Study Group

Activities and Events

During 2003, the following recommendations were submitted to the Standards Board:

- Administrative withdrawal of 1029.1-1998
- Extension of 1076.3 pending preparation of revision PAR
- Extension of 1499 pending reaffirmation
- Withdrawal of P1510, P1551 and P1577

Other significant activities:

- P1364 revision PAR approved, technical work in progress
- P1647 new standard PAR approved, working group formed, technical work in progress
• P1076.6 revision PAR approved, draft revised standard balloted, resolving negative comments started.

• 1603 approved

• Ballot of P1076.1.1 commenced

• Election of DASC Officers:
  Chair: Peter Ashenden
  Vice Chair: Victor Berman
  Secretary: Stephen Bailey
  Treasurer: Oz Levia

**Governance Review**

During the course of 2003, it became clear that the governance of DASC needed some attention. The DASC Bylaws had been developed some time earlier, prior to the IEEE Standards Association being formed. As a consequence of the evolving context surrounding DASC, inconsistencies had arisen between the DASC Bylaws and the policies and procedures of parent organizational units. Moreover, adherence to procedures within DASC and its subgroups had been less than rigorous. The DASC Steering Committee found it difficult to operate with inconsistent and incomplete policies.

In June, the Steering Committee resolved to review applicable policies and procedures and to develop new procedures for operation of the DASC, the Steering Committee and Working Groups. A review subcommittee undertook extensive consultation with DASC members and officers of IEEE-CS SAB and IEEE-SA. New procedures were drafted, consistent with SAB, SA and IEEE procedures. DASC has since voted on adoption of the procedures, and will forward them to SAB for approval.