

# IFIP TC 10 Report - August 2001

## *Part 1 - General Assembly*

### *1- Meetings held and scheduled*

The annual TC10 meeting for 2001 will be held on September 10, in Pirenópolis, Brazil (near Brasília), in conjunction with SBCCI'2001 (the 14th Symposium on Integrated Circuits and System Design).

### *2- Changes in Officers and Membership*

#### *2.1- TC*

No change in membership.

#### *2.2- WGs*

Two new chairs have been elected:

- for 10.3, Kemal Ebcioglu, from IBM Watson Research Center, takes over from Jean-Luc Gaudiot (University of Southern California),
- for 10.5, Flavio Wagner, from the Federal University of Rio Grande do Sul (Porto Alegre, Brazil) takes over from Jean Mermet, from University of Grenoble.

No change in membership has been reported (as a reminder, last year, 10.3 had welcomed two new members, and 10.4 seven).

### *3- Working group activities*

The two most active WGs have been 10.4 and 10.5.

#### *3.1- WG 10.1 — CAST: Computer-aided systems theory*

No report received.

#### *3.2- WG 10.3 — Concurrent Systems*

No WG meeting, nor business meeting, have been mentioned.

The 10.3 members have had a joint publication this year. Selected papers from a WG workshop that was held in Paris, France last year have appeared as the March 2001 special issue (Volume 11, number 1) of the "Parallel Processing Letters". The guest editors were WG members Michel Cosnard, Ulrich Finger and Jean-Luc Gaudiot.

PACT (Parallel Architectures and Compilation Techniques) was organized in 2000 for the 8th year in a row. There were 161 total attendees (130 for the main conference itself). It was sponsored by our Working Group (34%), the IEEE Computer Society (33%), and ACM (33%). PACT 2000 took place in Philadelphia, Pennsylvania (<http://www.ece.orst.edu/~pact2000>) in October. PACT did a major re-design of its Web site in 2000, and increased its reach by merging its mailing list with other major conferences such as HPCA and MICRO. The program chair was Prof. Mary-Lou Soffa (University of Pittsburgh) and the general chair was Prof. Ali Hurson (Penn State University).

The WG has also been associated with a number of conferences:

- Euro-Par 2000 (<http://www.in.tum.de/europar2k/>), held in Munich, Germany, between August 28 and September 1, 2000.
- Euro-Par 2001 (<http://europar.man.ac.uk/>), held in Manchester, UK between August 28 and 31, 2001.

- SBAC-PAD 2000, the 12th Symposium on Computer Architecture and High Performance Computing, held in Sao Pedro, Brazil, between October 24 and 27, 2000 (<http://www.dc.ufscar.br/sbac2000/>).
- IWCC 2001, International Workshop on Cluster Computing, held in Mangalia, Romania, between September 1 and 6, 2001. The organizers include Prof. Bertil Folliot (IFIP WG 10.3 member) (<http://www.infoiasi.ro/~iwcc2001/>).

This year's PACT will take place between September 8 and 12 in Barcelona, Spain (<http://www.ac.upc.es/pact01>). 126 papers were submitted out of which 26 were accepted. Prof. Mateo Valero (UPC Barcelona) is the general chair, and Prof. John Shen (Intel) and Prof. Todd Mowry (CMU) are the program chairs. There will be keynote speakers from IBM, Intel and Compaq.

### 3.3- WG 10.4 — *Dependable Computing and Fault Tolerance*

The two regular yearly meetings of the WG took place.

The 39th meeting was held on February 28 - March 3, 2001, in Paraty (Brazil). It was hosted by January 2000, in Martinique (French Caribbeans), and hosted by by Eliane Martins and Cecília Rubira (UniCamp, Campinas, SP, Brazil). Attendance was composed of 10 members, plus 14 guest observers or speakers. The main theme of the meeting was a one-and-a-half-day workshop on *Dependability Benchmarking*, coordinated by Profs. Henrique Madeira and Philip Koopman, the leaders of the SIG on Dependability Benchmarking. Sixteen presentations (organized into 4 sessions and 3 panels) were delivered. During the Research Report session, 10 presentations were delivered.

This meeting favored the strengthening of the relationship already with the Brazilian community that is very active in the domain of fault-tolerant and dependable computing. In particular, this contributed to the preparation of a new event, The Latin American Dependable Computing Symp. (LADC), that will be also co-sponsored by IFIP WG 10.4 and IEEE TC-FTC. The first edition of LADC is scheduled for September 2003 in São Paulo, Brazil.

The 40th meeting was held in Stenungsund (near Göteborg), Sweden, on July 4-8, 2001, and was hosted by Prof. Jan Torin (Chalmers University of Technology, Göteborg, Sweden). Total attendance was 46, including 35 members and 11 guest observers or speakers. The main theme of the meeting consisted in a two-day workshop on *Utilization of Formal Methods in Dependable Systems*, that was jointly coordinated by Dr John Rushby (SRI International, Menlo Park, CA, USA) and Prof. Neeraj Suri (Chalmers University of Technology, Göteborg, Sweden). Six presentations were delivered. During the Research Report session, 15 presentations were delivered.

During the meeting was celebrated the 20th anniversary of the founding of the WG. This celebration took the form of a special session, coordinated by Algirdas Avizienis (UCLA, CA, USA) and Alain Costes (LAAS-CNRS, Toulouse, France): looking-back and looking-ahead perspectives on the WG.

Business meetings of the WG were conducted during each meeting.

The SIG on Dependability Benchmarking (chaired by Phil Koopman, CMU, and Henrique Madeira, University of Coimbra) held two meetings, in addition to the Paraty meeting of the WG (aimed at sharing the progress made and the issues addressed within the SIG with the WG members): at Carnegie-Melon University in November 2000, and at IBM in Poughkeepsie, on May 2001. At both meetings, attendance was about 20, including representatives from several major industries (Compaq-Tandem, IBM, Intel, Lucent, Microsoft, Sun).

The second edition of DSN, the International Conference on Dependable Systems and Networks, took place in Goteborg, Sweden, on July 1-3, 2001, with Jan Torin (Chalmers University) as General Chair, and Roy Maxion (Carnegie-Mellon University) and Paulo Verissimo (University of Lisboa) as co-Program Chairs. DSN results from the merger of the IEEE CS-sponsored FTCS (Fault-Tolerant Computing Symposium, 29

editions held) and the IFIP-sponsored DCCA (Dependable Computing for Critical Applications, 7 editions held). IFIP and IEEE CS act as co-sponsors for DSN. Attendance was 297, and the programme was composed of multi-track sessions (53 presentations selected among 153 submissions), two workshops (Evaluating and Architecting Systems for Dependability, Information/System Survivability), one plenary keynote addresses, one panel, a special track reporting on the Dependability Initiative (DEPPY) of the Information Society Technologies programme of the European Commission, a student forum, a fast abstract track (62 presentations).

WG 10.4 also provided “in cooperation” support for the following events:

- IEEE Int. Workshop on Embedded Fault-Tolerant Systems, Washington, DC, USA, September 21-22, 2000.
- 2nd Joint IFIP WG 1.2 (Descriptive Complexity - Prof. D. Wotschke, J.W. Goethe Univ., Germany) and WG 10.4 Workshop on Formal Descriptions and Software Reliability Workshop (adjunct to ISSRE, San Jose, CA, USA, 8-10 Oct. 2000).
- SRDS'2000 (19th IEEE Symposium on Reliable Distributed Systems), Nürnberg, Germany, October 16-18, 2000.
- SAFECOMP'2000 (19th International EWICS Conference on Safety, Reliability and Security of Computer Systems), Rotterdam, The Netherlands, 25-27 October 2000.
- 2000 Pacific Rim Int. Symp. on Dependable Computing (PRDC 2000), UCLA, Los Angeles, CA, USA, December 18-20, 2000
- ISORC'2001 (4th IEEE International Symposium on Object-oriented Real-time distributed Computing), Magdeburg, Germany, May 2-4, 2001.

The two annual meetings for the year 2002 will be held as follows:

- 41st Meeting (winter 2002): The meeting will take place in Saint Johns, US Virgin Islands, on January 4-8, 2002. It will be hosted by Charles B. Weinstock, Software Engineering Institute, Pittsburgh. This meeting being the first one after the celebration of the 20th anniversary of the WG, a special Workshop will be organized on *Major Challenges in the field of Dependable Computing*. The Workshop will be coordinated by the WG officers: Jean Arlat, Takashi Nanya and Bill Sanders.
- 42nd Meeting (summer 2002): Hilton Head Island, SC, USA. The meeting will just follow DSN-2002. The meeting will be hosted by Dr. Jaynarayan H. Lala, DARPA. The topic of the Workshop will be on *Dependability and Survivability*, and it will be coordinated by Dr. Carl E. Landwehr (Mitreteck Systems) and Dr. David Powell (LAAS-CNRS).

Subsequent editions of DSN are planned as follows:

- DSN-2002 in Washington, D.C., on June 23-26, with Dr. Jaynarayan H. Lala (DARPA), as General Chair, and Dr. Jean-Charles Fabre (LAAS-CNRS) and Prof. Farnam Jahanian (The University of Michigan), as Program Co-Chairs.
- DSN-2003 in San Francisco, in June 2002. In addition to the usual contribution opportunities, DSN 2003 will feature two symposia: *Dependable Computing and Communications Symposium (DCCS)*, and *Performance and Dependability Symposium (PDS)*. The Conference Chair will be Dr. Charles B. Weinstock (Software Engineering Institute), and the DCCS PC co-Chairs will be Dr. Richard D. Schlichting (AT&T Labs Research) and Prof. João Gabriel Silva (University of Coimbra, Portugal). The PDS PC co-Chairs will be selected by early 2002.
- DSN-2004 will take place in Florence, Italy; the Conference Chair will be Prof. Luca Simoncini (CNUCE - CNR, Pisa, Italy).
- DSN-2005 will take place in Yokohama, Japan; the Conference Chair will be Prof. Takashi Nanya (The University of Tokyo, Japan).

### 3.4- WG 10.5 — *Design and Engineering of Electronic Systems*

Two regular meetings have been held since August 2000:

- August 23rd, 2000 - Beijing, China
- March 12th, 2001 - Munich, Germany

In addition, an informal meeting was held in Las Vegas on June 20, 2001.

A new SIG has been formed, on Embedded Systems. The proposal was made during the Beijing meeting of TC10, by Prof. Franz Rammig, and warmly supported by the TC. The launch of the SIG happened during the DIPES2000 workshop (Schloss Eringerfeld, Germany, October 2000). The SIG is led by WG 10.5, chaired by Bernd Kleinjohann, Univ. Paderborn and C-LAB, Germany, and is supported by 10.3 and 10.4.

A book on *System-on-Chip Methodologies and Design Languages*, edited by Peter Ashenden, Jean Mermet, and Ralf Seepold, has been published at Kluwer in June 2001. It contains the best papers from:

- HDLCon'2000 (Hardware Description Language Conference and Exhibition),
- FDL'2000 (Forum on Design Languages),
- APChDL'2000 (Asia Pacific Chip Design Language Conference).

Organized and planned events are as follows:

- APChDL'2000 - Asia-Pacific Chip Design Language Conference Beijing, China, August 2000. Sponsored by WG 10.5. Proceedings published as part of the IFIP World Congress proceedings
- SBCCI'2000 - Symposium on Integrated Circuits and Systems Design Manaus, Brazil, September 2000. Organized by SBC, co-sponsorship of WG 10.5. Proceedings published by IEEE Computer Society Press
- FDL'2000 - Forum on Design Languages, Tuebingen, Germany, September 2000. Organized by ECSI, co-sponsorship of WG 10.5. Papers published on a CD-ROM.
- DIPES'2000 - Distributed and Parallel Embedded Systems, Schloss Eringerfeld, Germany, October 2000. Co-sponsored by WG 10.5, WG 10.3 and WG 10.4. Proceedings published as a book *Architecture and Design of Distributed Embedded Systems*, edited by Bernd Kleinjohann, Kluwer Academic Publishers, 2001.
- IP-BASED DESIGN'2000 - Int. Workshop on IP-based Synthesis and SoC Design, Grenoble, France, December 2000. Organized by INPG and Design & Reuse, sponsored by WG 10.5. Participants edition produced by the local organizers.
- FDL'2001 - Forum on Design Languages, Lyon, France, September 2001. Organized by ECSI, co-sponsorship of WG 10.5. Papers published on a CD-ROM. Best papers will be selected for a future book.
- SBCCI'2001 - Symposium on Integrated Circuits and Systems Design Pirenopolis, Brazil, September 2001. Organized by SBC, co-sponsorship of WG 10.5. Proceedings to be published by IEEE Computer Society Press.
- CHARME'2001 - Working Conference on Correct Hardware Design and Verification Methods, Livingston, Scotland, September 2001. Sponsored by WG 10.5. Proceedings to be published by Springer-Verlag as Lecture Notes Volume 2144.

The WG is also a co-sponsor for the DATE series of conferences and exhibitions.

Next meetings are planned as follows:

- September 10th, 2001 in Pirenopolis, Brazil,
- December 2nd, 2001, in Montpellier, France.

The 2002 edition of DIPES will be part of the programme of WCC'2002 in Montreal.

***4- TC meeting attendance statistics***

The record of TC meeting attendance is given as an annex.

***Part 2 - Technical Assembly***

Formation of the SIG on *Embedded Systems*, as a joint operation of 10.3, 10.4, 10.5, as reported in section 3.4.

**Annex: Attendance to TC10 meetings**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
10.1															
10.3	X				X						X		X	X	
10.4		X	X		X	X	X			X	X	X	X	X	X
10.5	X	X	X	X	X	X	X		X	X		X	X	X	X
10.6									X						
10.7															
ACM															
AR															
AT								X	X	X	X		X		
BE									X	X				X	
BG	X	X	X	X	X	X									
BR											X	X	X	X	X
CH														X	X
CN			X										X		
CZ									X	X				X	
DE		X			X	X	X		X	X	X	X	X	X	X
DK				X	X	X		X							
ES		X	X	X	X	X	X	X	X	X	X			X	
FR				X		X	X	X		X		X	X	X	X
FI		X	X	X		X							X		
GB	X	X	X	X	X	X	X	X		X					
GR															
HU		X		X					X		X				
IEEE CS															
IT															
JP							X			X	X	X		X	X
NL	X	X	X	X	X	X	X	X	X	X					
NO						X									
PL					X										
PT															
RU										X					
SI															
SK										X			X		
US	X									X		X	X		
ZA				X	X			X	X						
Total	6	9	8	10	11	10	8	7	10	15	8	7	11	12	8

- 1: 1987 - Rochester
- 2: 1988- Munich
- 3: 1989 - San Francisco
- 4: 1990 - Paris
- 5: 1991 - Toulouse
- 6: 1992 - Lyngby

- 7: 1992 - Madrid
- 8: 1993 - Manchester
- 9: 1994 - Johannesburg
- 10: March 1995 - Munich
- 11: Sep. 1996 - Canberra
- 12: Aug. 1997 - Gramado

- 13: Sep. 1998 - Budapest
- 14: Aug. 1999 - Toulouse
- 15: Aug. 2000 - Beijing
- 16: Sept. 2001 - Pirenopolis