

## **EIC Report for *Annals of the History of Computing*, November 1999**

Michael R. Williams

This is my last year as EIC of *Annals* and I must say I have enjoyed the position very much. It has been a great deal of work at times, but the friendly, cooperative nature of the IEEE employees and the friendships I have made at the various PUBS Board meetings have been a delight. I would like to especially thank the production editor, Arthur Gordon, for his unfailing good humor, useful suggestions, and wonderful production work. Without his help it would have been impossible to keep up the standards to which we aspire.

Since the last reporting period there have been a few changes to the Annals Editorial Board: Several people have been removed or have changed responsibilities and new individuals have been added.

In particular I would like to mention that one of my two Assistant Editor-in-Chief, Paul Ceruzzi of the Smithsonian has stepped down from his position to being an “article editor” on the Board. I very much appreciate his contributions to *Annals* in the past and would like to take this opportunity to express it.

Three new additions to the Board will help to give a different flavor to its composition: Raul Rojas and Ulf Hashagen will broaden our representation in Germany and Alan Clements will provide an additional British viewpoint.

The statistics for the last three years vary a bit depending on the length of papers and the use of special issues. However we have always used up our page budget and, for the first time, now have a small backlog of accepted papers for the coming year.

In 1977 we published 26 papers in 4 regular issues; in 1998 we published 42 papers in 2 special issues and 2 regular issues; and in 1999 we published 27 papers in 2 regular and 2 special issues. The 1998 special issues were to help celebrate the 25th anniversary of the field of computer graphics and our own 20 years of publication. The 1999 special issues were devoted to the history of Computing in Scandinavia and a special issue on the history of computing in Central and Eastern Europe as our contribution to the Eastern European Initiative of the IEEE Computer Society. The Eastern European special issue was particularly well received with several letters to the editor congratulating us on the issue.

While I am assuming that a new Editor-in-Chief will be appointed soon, I have, of course, planned for the year 2000 issues of *Annals* as follows:

Issue 1 (already in press) will be a general issue containing 4 papers (plus or regular “departments”) as follows:

- A memoir by James Birkenstock (ex V.P. of IBM) detailing his life, achievements, and (unusually for this type of material) his errors.
- A paper by David Grier on the Background to Atanasoff’s famous ABC computer at Iowa State
- A multi-author paper on the history of code-breaking in the US during the Second World War
- A paper by JAN Lee on the development, use, and fate of Aiken’s Mark III computer.

Issue 2 (currently being prepared) will contain memoirs by Eldon Hall (developer of the Apollo moon shot computers) and Gerald Estrin about early computer collaboration in the Energy Research community, and three other papers on subjects as diverse as the history of GE’s computer division, the development of the calculator manufacturing industry in St. Louis, and BITNET.

Issue 3 is currently unplanned, but I suspect that some of the material from earlier issues will not fit, so this is being left open to contain general papers from those issues plus others that we might receive in the mean time.

Issue 4 will be a special issue on the history of computer simulation. The special guest editor is Ralph Huntsinger who has a very high profile in the computer simulation community.

## **EIC's report on CG&A,**

General status and Issues:

IEEE CG&A successfully produced the following special issues in 1999:

Image Security, VRML, Medical Graphics, Color, Visualization and Data Mining (dual theme), and Virtual Reality

Half the 1999 issues included tutorials, and the VR issue included a special report on the state-of-the-art of VR by senior researcher Fred Brooks.

The Calender for 2000 is:

Vision 2000 (a progostication of graphics in the future by top names in the field), a backlog issue to draw down the queue, Off the Desktop... (information appliances), ...And Onto the Wall (large displays), Visualizing Big Data, and Virtual Reality

Again, theme issues will also include tutorials and backlog articles in most cases. We chose themes to meet reader interests and to inform readers of coming trends. All but the backlog issue look at the future of graphics in one way or another, playing off the millenium. A board member and/or Associate EIC Maureen Stone oversee the process.

We've also had excellent results with our columnists (Jim Blinn and Andrew Glassner) and departments, particularly Applications. We refocused the Visualization department to include opinion pieces as well as case studies and the About the Cover to focus on work by people in the field as well as artists. This peer-to-peer approach seems to be paying off. Associate EIC Turner Whitted keeps an eye on departments and tutorials, handled by ed board member Frank Bliss. Frank has succeeded in lining up an impressive queue of tutorials and works with guest editors for theme tutorials.

Our most pressing immediate issue is identifying reviewers for submitted papers  
not part of theme issues.

Nancy Hays (Group Managing Editor), Bill Ribarsky (ex-Chair of TCVG), Hans Hagen (EIC of TVCG), and Jim Thomas (EIC of CG&A) are working together to produce a "community" for computer graphics for IEEE. Our initial focus will be on attracting and retaining new young readership. We have met twice, once at Siggraph and again at Vis 99, and have chosen to begin with a specific project, now in the initial planning stages.

Of special note, Business Development Directives conducted a telephone readership survey of current subscribers recently for IEEE CG&A. Admittedly, we were talking to existing fans not likely to say bad things about us, but we still found their comments encouraging, especially in support of our efforts to achieve some how-to and applications-oriented material in every issue. Also interesting was the level of education and wide range of ages of readers. The following are the summary comments (full text available from CS Research and Planning Manager John Keaton):

## **EXECUTIVE SUMMARY**

### **ABOUT THE PARTICIPANTS**

\* The average age range of participants is really across the board. Thirty-two percent fall into the 46 to 55 age range, 29 percent in the 36 to 45 age range and 23 percent in the 26 to 35 age range.

\* Participants are also highly educated. Every participant holds at minimum a college degree. Forty-seven percent have their master's degree, with 23 percent have achieved their Ph.D.

\* The majority of participants categorize themselves as an engineer (48%). Other job titles include professor (10%) and consultant (10%).

\* Participants use the magazine's content in their profession for reference (30%) and to keep up-to-date with what is going on in the world of graphics (23%). Also to note, 21 percent do not use the magazine's content in their profession at all, they use it for their own enjoyment.

## CONTENT AND QUALITY

\* The most valued thing about Computer Graphics and Applications is the information on technology (37%) and the breadth of articles (24%).

\* These participants do not want Computer Graphics and Applications magazine to change too much. When asked if anything should be dropped or what they find least valuable, the answers were "No," "I can't think of anything," or "keep it the way it is."

## READERSHIP

\* Over half of the participants read the publication right after receiving it. Of the respondents that don't, 40 percent read the publication within one week. Also, 70 percent of participants spend more than one hour with each issue.

\* When asked, in the open-ended question regarding departments, columnists or articles, only two departments were recalled. They were Jim Blinn's Corner and Andrew Glassner's Notebook.

\* The most frequently read departments/columns are Jim's Blinn's Corner, New Products, Tutorials, Applications and Andrew Glassner's Notebook. About the Cover, Projects in VR and Archival Quality articles were of least interest to readers.

\* An overwhelming 69 percent of participants want to see more Application articles in Computer Graphics and Applications magazine. When given a list of types of articles Applications was again number one (65%), followed by How-tos (61%) and Research Results (53%).

\* When asked more specifically on their interest on article topics, 3D Graphics (4.5) rated the highest, followed by Modeling (3.9), Animation (3.8) and Visualization (3.7). (Mean scores are gleaned from the one to five scale where one is low interest and five is high interest.)

\* Most participants do not subscribe to any other publication regarding computer graphics. One of the small sampling who do however, respondents are most likely to subscribe to ACM Siggraph Computer Graphics more than any other publication.

\* Nearly every participant is going to subscribe to Computer Graphics and Applications magazine next year (85%). Apparently, they are willing to put their money where their heart is, with CG&A.

## OVERALL ASSESSMENT

\* Finally, Computer Graphics and Applications was rated overall Very Good or Excellent by 84 percent of participants. (Participants used the one to five scale, where one represents Poor and five represents Excellent.) Again, this further confirms the strong showing of support that has been demonstrated throughout this research.

\* This a publication that is extremely well organized, well liked and strongly supported by its readership base. We discovered that these readers can't wait to receive CG&A, read it immediately, almost like a child devouring an ice cream cone and spend hours pouring over and through it.

### **EIC report for Micro (Ken Sakamura)**

Year 1999 is my first year as EIC of IEEE Micro. Every issue of IEEE Micro has been the special theme issue. Special themes in this year are as below.

Nov-Dec99	Entertainment Technology
Sep-Oct 99	European MEDEA Project
Jul-Aug 99	Cool Chips II
May-Jun 99	Processor Modeling and Validation
Mar-Apr 99	Hot Chips '98
Jan-Feb 99	Hot Interconnects '98

I'm planning for the year 2000 as follows.

Nov-Dec2000	Micropocessors in 21 st Century(Part2)
Sep-Oct2000	Micropocessors in 21 st Century(Part1)
Jul-Aug2000	Intel IA-64 Processor
May-Jun2000	Microprocessor Education
Mar-Apr2000	Hot Chips '99
Jan-Feb2000	Hot Interconnects '99

The statistics are as below.

-1996	number of papers published	41
-1997	number of papers published	45
-1998	number of papers published	40
-1999(till Sep/Oct issue)		
	number of papers submitted	116
	number of papers accepted	33
	number of papers rejected	61
	number of papers withdrawn	2
	number of papers pending	20
	number of papers published	35

Below is number of articles for the special themes in this year. Some of the special theme articles were picked up and selected from papers submitted to the conferences which cooperated with Micro.

Articles for special themes (1999,till Sep/Oct issue)

number of papers submitted	89
number of papers accepted	31
number of papers rejected	58
number of papers withdrawn	0
number of papers pending	0
number of papers published	31

Also here is the MMS statistics. Recently many articles are reviewed using the MMS, but some were not. We are now in the process of transforming to the full use of the MMS.

MICRO MMS Statistics (As of Oct. 30th)

	1998	1999
Received	13	35
Published	3	11
Rejected	4	3
Withdrawn	2	2
Pending	4	19
Accepted	3	11
Queue	1	2

## **IT Professional EIC Report**

5 Nov. 99

IT Professional ends its first year having published 30 articles, 28 Perspectives/Opinions columns, and 37 news pieces (Trends, Briefs, and Profiles). The editorial board and CS staff proved to be an effective team in developing editorial for this competitive niche. Fully two-thirds of the articles were solicited or written by the editorial board; only five unsolicited articles were accepted for publication.

We were able to provide editorial on several hot topics in information technology, including system integration, IT architecture, the Y2K problem, networking, wireless, and software metrics. To broaden our coverage, we added new editorial board members to cover the important areas of programming languages and data mining.

An April telephone survey was able to ask questions of 141 subscribers to IT Pro, 22 of which became new CS members because of IT Pro. These 22 new people have a median age of 35 or 36, and were overwhelmingly from the US and from industry (rather than academia). Though only a small sample, these results give us some encouragement.

**IEEE Design & Test of Computers**

	1997	1998	1999
Received	52	77	76
Published	28	42	20
Rejected	11	12	10
Withdrawn	2	5	4
Pending	9	15	30
Special Issue	28	32	38
Accepted	30	45	29
Queue	2	3	9

Special Issues accepted/published  
1997

Title: Microprocessor Complexity, Guest Editors: Marc E. Levitt, Month of issue: Jan-Mar

Title: Methods and Tools in Europe, Guest Editors: Peter Marwedel and Carlos A. Lopez-Barrio  
Month of issue: Apr-Jun

Title: Economics of Design and Test, Guest Editors: Tony Ambler and Magdy Abadir, Month of issue: Jul-Sep

Title: Embedded Core-Based Systems, Guest Editors: Yervant Zorian and Rajesh K. Gupta,  
Month of issue: Oct-Dec

## 1998

Title: Field-Programmable Gate Arrays, Guest Editor : Fabrizio Lombardi, Month of issue: Jan-Mar

Title: Analyzing Packaged Systems, Guest Editors: David E. Schimmel and Chryssa Dislis  
Month of issue: Jul-SepTitle: Monitoring Online VLSI Activity, Guest Editors: Ramesh Karri and Michael Nicolaidis  
Month of issue: Oct-Dec

## 1999

Title: DRAM Architecture and Test, Guest Editors: Bruce F. Cockburn, Fabrizio Lombardi,  
and Fred J. Meyer, Month of issue: Jan-Mar

Title: Reengineering Systems, Guest Editors: Vijay K. Madisetti, Month of issue: Apr-Jun

Title: Test and Product Life Cycle, Guest Editors: Tony Ambler and Ben Bennetts, Month of issue: Jul-Sep

Title: Microelectromechanical System (MEMS) Design and Test, Guest Editors: Shawn Blanton and Bernard  
Courtois, Month of issue: Oct-Dec

**Multimedia (Bill Grosky)**

Our Special Issues are:

Winter 1999 - Satellite Systems for Mobile Multimedia Services

Spring 2000 - Papers from the 1999 IEEE International Conference on Multimedia Computing and Systems

Summer 2000 - Papers from the Special Session on Virtual World Heritage from the Fourth International Conference on Virtual Reality and Multimedia

Fall 2000 - Intelligent Techniques for Video Coding and Transmission

Winter 2000 - Multimedia Computer Supported Cooperative Work

Spring 2001 - Web Engineering

Summer 2001 - Papers from the 1999 International Symposium on Intelligent Multimedia and Distance Education

New board member:

Nevenka Dimitrova from Philips

She is taking over the column Visions and Views

**IEEE TRANSACTIONS ON SOFTWARE ENGINEERING**

November 5, 1999

Richard A. Kemmerer, EIC

	Total	1996	1997	1998	1999
Received	897	125	257	281	234
Accepted or Pub	156	28	67	45	16
Accepted Percentage	17%	22%	26%	16%	7%
In Accepted Queue	14	0	2	5	7
Published	142	28	65	40	9
Reject	303	57	110	106	30
Withdrawn	37	3	14	15	5
Pending	344	37	66	93	148
Special Issue	57	0	0	22	35

Special Issues/Sections 1998:

January 1998, 2nd Special Issue on Formal Methods in Software Practice	Sriram Sankar (Sun Microsystems)	Laura Dillon (UC, Santa Barbara)
May 1998, Special Issue on Mobility and Network Aware Computing	Catalin Roman (Washington University)	Carlo Ghezzi (Politecnico di Milano)
July 1998, BEST PAPERS Fourth Symposium on the Foundations of Software Engineering (FSE-4)	David Garlan (CMU)	Mark Moriconi (SRI International)
August 1998, BEST PAPERS International Conference on Software Engineering (ICSE-97)	Alfonso Fuggetta (Politecnico di Milano)	Dick Taylor (UC, Irvine)
September 1998, BEST PAPERS Sixth European Software Engineering Conference/Fifth Mehdi Jazayeri Foundations of Software Engineering (ESEC/FSE 97)	Mehdi Jazayeri (Technical University Vienna)	
October 1998, Special Issue on Feature Interactions in Telecommunication Networks and Distributed Systems	Yow-Jian Lin (Bell Laboratories)	Mehdi Jazayeri (Technical University Vienna)
November 1998, Special Issue on Managing Inconsistency in Software Development	Bashar Nuseibeh (Imperial College)	Carlo Ghezzi (Politecnico di Milano)
December 1998, Special Issue on Scenarios in Software Engineering	Matthias Jarke (RWTH Aachen)	Reino Kurki-Suonio (Tampere University)

Achen, Germany) of Technology)  
Special Issues/Sections 1999:

Jan/Feb 1999, BEST PAPERS

IEEE International Conference  
on Engineering of Complex  
Computer Systems (ICECCS97)

Mauro Pezze' Carlo Ghezzi  
(Politecnico di (Politecnico di  
Milano) Milano)

Mar/Apr 1999, BEST PAPERS

7th International Workshop on  
Petri Nets and Performance  
Models (PNPM'97)

Giovanni Chiola Bill Sanders  
(Universita` di Genoa) (University of Illinois)

May/June 1999, Best Papers

USENIX Conference on  
Domain Specific Languages  
(DSL'97)

Chris Ramming  
(ATT Research)

David Wile  
(USC/Information Sciences  
Institute)

Jul/Aug 1999,

Special Issue on

Empirical Methods in Ross Jeffery  
Software Engineering (University of  
New South Wales)

Lawrence Votta  
(Lucent Technologies)

Sept/Oct 1999, BEST PAPERS

Dependable Computing for  
Critical Applications  
(DCCA-6)

Cathy Meadows  
(Naval Research  
Laboratory)

Bill Sanders  
(University of Illinois)

Nov/Dec 1999, BEST PAPERS

1997 International  
Conference on Software  
Maintenance (ICSM)

Mary Jean Harrold  
(Ohio State University)

Hausi Muller  
(University of Victoria)

Nov/Dec 1999,

Special Section on  
Managing Inconsistency in  
Software Development

Bashar Nuseibeh  
(Imperial  
College)

Carlo Ghezzi  
(Politecnico di  
Milano)

Special Issues/Sections 2000:

Mar/Apr 2000,

Special Issue on  
Architecture Independent  
Languages and Software  
Tools for Parallel  
Processing

Domenico Talia Pradip K: Srimani Mehdi Jazayeri  
(ISI - CNR) (Colorado State (Technical  
University) University Vienna)

May 2000, BEST PAPERS

Fifth International  
Conference on Software  
Reuse (ICSR5)

Prem Devanbu  
(UC, Davis)

Dewayne PerryJeffrey Poulin  
(Bell Labs) (Bell Labs)

July 2000, BEST PAPERS  
Formal Methods for Open  
Object-based Distributed  
Systems

Howard BowmanJohn Derrick Ed Brinksma  
(University of Kent) (University of Twente)

2000, BEST PAPERS

Fundamental Approaches  
Software Engineering to  
(FASE)

Egidio Astesiano  
(Genoa)

Carlo Ghezzi  
(Politecnico di  
Milano)

2000,  
Special Issue on  
Current Trends in Exception Handling      Alexander Romanovsky      Anand Tripathi  
(University of Newcastle upon Tyne)      (University of Minnesota)  
Dewayne E. Perry  
(Bell Laboratories)

2000, BEST PAPERS  
The First International Workshop on Software and Performance      Murray.Woodside  
(Carleton University)      Paul Clements  
(Software Engr. Institute)      Albert Cheng  
(University of Houston)

Sept 2000, BEST PAPERS  
Formal Methods '99      Jeannette Wing  
FM99      (Carnegie Mellon)      Jim Woodcock  
(Oxford University)

2000, BEST PAPERS  
International Conference on Software Engineering      Jeff Kramer  
ICSE99      (Imperial College)  
David Garlan  
(Carnegie Mellon)      David Rosenblum  
(UC, Irvine)