

## Annual Report of the SIG Governing Board

For the period  
1-July-04 through 30-June-05

Submitted by:  
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### 1. Governance

#### 1.1 The SIG Governing Board (SGB)

The SGB is comprised of the chief executive officer or designee of each regular SIG. The SGB is charged with forming SIGs, with managing them and setting policies for their management, and with recommending their dissolution. The SGB elects a Chair, Executive Committee and 3 additional representatives to Council.

#### 1.2 The SGB EC

The SGB elects a Chair and an Executive Committee, which has full authority to act on behalf of the SGB between its meetings. The SGB EC is bound by the SGB's actions and the SGB may override any decision of the SGB EC. The SGB EC is made up of the following positions:

##### **SGB Chair**

##### **SGB Past Chair**

**Vice Chair for Operations** – Presides over SGB meeting, including SGB EC conference calls

**Vice Chair for SIG Development** – Identifies emerging technical areas, oversees transitional SIGs, the SGB Information Director, SGB committees, and SIG Liaisons to ACM Boards.

**Secretary** – Acts as elections advisor, policy advisor and financial and budgetary advisor

**Conference Advisor** – Oversees issues related to conferences as directed by the SGB

**Large SIG Advisor** – Acts as liaison for large SIG issues

**Small SIG Advisor** – Acts as liaison for small SIG issues

**Publications Advisor** – Acts as liaison between SGB and Publications Board

**Director of SIG Services** – Staff liaison

During FY'05 the following individuals held the positions indicated:

<b>Name</b>	<b>Position</b>	<b>Term End</b>
Robert Walker	Chair	July 1, 2006
Alan Berenbaum	Past Chair	July 1, 2006
Alex Wolf	Conference Advisor	July 1, 2005
Hans Boehm	Vice Chair for SIG Development	July 1, 2005
Janice Sipior	Small SIG Advisor	July 1, 2006
Joseph Konstan	Vice Chair for Operations	July 1, 2006
Henry Walker	Secretary	July 1, 2005
Michael Burke	Large SIG Advisor	July 1, 2006
Keith Marzullo	Publications Advisor	January 1, 2007
Donna Baglio	Staff Liaison	

### 1.3 Council Representatives

The SGB elects 3 representatives to the ACM council for two-year terms.

During FY'05 the following individuals held the ACM Council positions indicated:

<b>Name</b>	<b>Position</b>	<b>Term End</b>
Robert Walker	SGB Chair	July 1, 2006
Jim Cohoon	SGB Representative	July 1, 2005
Jennifer Rexford	SGB Representative	July 1, 2006
Mark Scott Johnson	SGB Representative	July 1, 2005

### 1.4 Standing Committees

The SGB is responsible for the oversight of the Federated Computing Research Conference Steering Committee.

### 1.5 Significant SGB actions

The SGB voted to conduct SIG elections electronically in Spring 2005. The SGB also voted to **modify the formula to allocate its share of the Digital Library revenue** so that no SIG would receive less than \$10,000. In addition, the **SGB** voted to grant the Computer Science Teachers Association (CSTA) \$100,000 a year from **its share of the Digital Library revenue** for a period of 3 years, contingent on annual reports from the CSTA to the SGB.

### 1.6 Miscellaneous Appointments

The SGB liaisons are either the Chairs of the corresponding ACM Board or Committee or have joint appointments with the corresponding ACM Board or Committee. This includes the Education Advisor, the Publications Board Liaison, the Membership Activities Board Liaison and the Awards Committee Liaison.

<b>Name</b>	<b>Position</b>	<b>Term End</b>
[Vacant]	Education Board Liaison	
Joseph A. Konstan	Membership Board Liaison	January 1, 2007
Tamer Oszu/	Publications Board Liaison	January 1, 2005/
Keith Marzullo		January 1, 2007
Barbara Ryder	FCRC Steering Comm. Chair	June 30, 2007

### 1.7 SGB Nominating Committee

The SGB Nominating Committee nominates candidates for the SGB EC, in addition to nominating candidates for SGB Chair and SGB Representatives to ACM Council. The nominating committee:

<b>Name</b>	<b>Position</b>	<b>Term End</b>
Alan Berenbaum	Past SGB Chair	July 1, 2006
Robert Walker	SGB Chair	July 1, 2006
Donna Baglio	Staff Liaison	

## 1.8 Volunteer Development

Volunteer development is critical to the success of the SIGs. To emphasize its importance, the SGB now requires SIG leaders to summarize their volunteer development efforts as part of viability reporting.

During the March SGB meeting, the SGB leaders were informed of the ACM President's concerns about the lack of younger participants on various boards and committees. Several indicated that conference committees could be a great source of candidates. At the conference committee level administrative, communication and leadership skills can be gauged before considering an individual for a larger role with the SIG.

## 2. SIGs and SIG Membership

Appendix B summarizes basic SIG Statistics for FY'05. Included are member and subscriber totals, newsletter and proceedings activity, and conference involvement.

### 2.1 Membership Counts by class of membership:

	<b>FY'03</b>	<b>FY'04</b>	<b>FY'05</b>
ACM/SIG Members	38,754	37,747	36,394
SIG Only Members	8,064	7,923	8,792
Subscribers	3,272	2,800	2,596
Total SIG Memb/Subs	50,090	48,470	47,782
Total ACM Members	73,709	77,585	81,013

The SIGs overall member/subscriber count is 47,782 as compared to 48,470 in FY'04.

### 2.2 Membership Gains and Losses

#### Most Significant Membership Gain

<b>SIG</b>	<b># New Members</b>
GRAPH	4,252
CHI	1,793
PLAN	733
SOFT	659
CSE	562

#### Most Significant Membership Loss

<b>SIG</b>	<b># Lost Members</b>
GRAPH	2,712
CHI	1,332
PLAN	1,117
DA	950
SOFT	868

### 2.3 Membership Renewal Rates

Membership renewal rates are indicators of several realities, including 1) the degree to which members are satisfied with the services they are receiving as a result of membership and 2) the rate at which individuals are leaving the technical specialty.

#### The SIGs with the highest retention are:

Ada	78%
METRICS	78%
CSE	76%
APL	75%
SOFT	74%

#### The SIGs with the lowest retention are:

APP	44%
DA	45%
DOC	60%
Ecom	60%
KDD	61%

## 3. New SIG Formation and Dissolution

SIGEVO was chartered during FY'05 and started officially on January 1, 2005.

### **Genetic and Evolutionary Computation [SIGEVO](#)**

The ACM Special Interest Group on Genetic and Evolutionary Computation operates an annual Genetic and Evolutionary Computation Conference (GECCO) (combining the formerly held International Conference on Genetic Algorithms and Genetic Programming Conferences), supports and periodically operates other specialized conferences and events, provides support for student participation in the activities of the organization and educational activities, and promotes public information about the field of genetic and evolutionary computation.

SIGGROUP was dechartered in October 2004, and its conferences will continue under the sponsorship of ACM.

## **4. SIG Program Reviews and Annual Reports**

### **4.1 Program Reviews**

Every 4 years the SIG Chairs are required to provide a short presentation including a question and answer period during the SIG Chairs meeting. This presentation **is intended to show that the SIG is viable as based on a growing or stable membership, solid finances, healthy conferences, and publications or other member benefits being delivered and well received by members.**

The SGB conducted 12 full program reviews during the year: SIGACCESS, SIGART, SIGecom, SIGKDD, SIGMICRO, SIGMM, SIGMOBILE, SIGMOD, SIGSAC, SIGSAM, SIGSIM and SIGSOFT were deemed viable under existing criteria.

### **4.2 Annual Reports**

Annual reports for FY'05 were received from:

SIGACCESS, SIGACT, SIGAda, SIGAPL, SIGAPP, SIGARCH, SIGART, SIGBED, SIGCAS, SIGCHI, SIGCOMM, SIGCSE, SIGDA, SIGDOC, SIGecom, SIGEVO, SIGGRAPH, SIGIR, SIGITE, SIGKDD, SIGMETRICS, SIGMICRO, SIGMIS, SIGMM, SIGMOBILE, SIGMOD, SIGOPS, SIGPLAN, SIGSAC, SIGSAM, SIGSIM, SIGSOFT, SIGUCCS, SIGWEB.

## **5. SIG Technical Highlights**

The strength of the SIGs lies in their technical excellence. Once again we have seen a continued growth in conferences, improvements in publications, innovations in many areas, expansion of the awards program, increased attention to educational activities and increased cooperative efforts among the SIGs. The following excerpts from the FY'04 SIG Annual Reports detail only some of the outstanding activities going on in the SIG Community. I urge you to review the individual SIG Annual reports, which can be found in Appendix D.

### **5.1 Electronic Community**

ACM SIGGRAPH hired a webmaster for siggraph.org, rather than relying on a volunteer base to support this critical asset. The SIG used reserve funds to fund the position during the first year. A diverse array of great candidates were interviewed, Mr. Viveka Wieley was hired as the official siggraph.org webmaster. He started in mid-January of 2005, and the completely revamped website, with some design changes and major back of house production paradigm changes, went live on July 1<sup>st</sup>, 2005. The website is now Plone based.

Introduced to the graphics community at the SIGGRAPH 2004 conference, the SIGGRAPH Academic Information Index (AII) fulfills and extends the goals of the previous Education Directory. The AII is an online resource that provides information concerning curricula in

computer graphics for SIGGRAPH's three primary audiences: students, educators and professionals. Please visit the Website: <http://www.education.siggraph.org>.

SIGMETRICS is exploring approaches to improve services offered to its members; one such example is the provision of the PE Grad Student Database on its web page, which includes a database of students in performance evaluation who are graduating and looking for academic and industrial jobs.

## **5.2 Publications**

The April 2004 issue of SIGPLAN Notices was a special issue that contained "20 Years of the ACM SIGPLAN Conference on Programming Language Design and Implementation (1979 - 1999): A Selection." The thirteen member program committee, chaired by Kathryn McKinley, compiled a selection of what they deemed to be the fifty most influential papers published in PLDI from 1979 to 1999.

Starting this year, SIGMOD stopped production of hard copy proceedings for conference attendees (they had stopped shipping hard copies to members some years ago). Instead, this year electronic proceedings were produced and were distributed to the attendees on USB keys. Also starting in 2004, CD versions of the annual SIGMOD/PODS Proceedings were produced and sent to members free of charge (with the June issue of SIGMOD Record).

## **5.3 Technical Meetings**

The SC'XY Conference is jointly sponsored by SIGARCH and the IEEE Computer Society. Formerly known as the Supercomputing Conference, the conference has successfully evolved away from its focus on supercomputers and is now the High Performance Networking and Computing Conference. In addition to its technical success, SC'XY is large enough that it must be scheduled many years in advance.

CHI has dramatically restructured the flagship CHI conference by removing the separate high-cost tutorial (replacing them with nominal-cost, in-line courses) and by organizing the conference around a set of community-controlled venues with greater flexibility to accommodate practitioner communities. While these changes have generated substantial heat (both from the research community, elements of which feel that the traditional dominance of research papers is threatened and from the practitioner community which feels CHI may not be going far enough), the SIGis confident that these changes, carefully managed and tuned, will help keep CHI as the premier forum for HCI work--research and practice.

The 2005 SIGCSE Technical Symposium (SIGCSE 2005) was held on February 23-27, 2005, in St. Louis, MO. The conference set two significant SIGCSE records: 335 papers were submitted (up from about 225 the previous several years), and attendance reached just over 1200. The 2005 Innovations and Technology in Computer Science Education Conference (ITiCSE 2005) in June 2005, at the Universidade de Nova Lisboa in Portugal, set similar records: 225 papers submitted (up from 150) and attendance reached 212.

The Sixth ACM Conference on Electronic Commerce (EC-05) was held in June 2005, in Vancouver. One of the exciting new features of the conference was an associated workshop on Sponsored Search Auctions, organized by David Pennock (Yahoo! Research Labs). This is an extremely hot topic, which fits quite well with the traditional conference themes. Academic interest in sponsored search auctions is relatively new, however, and it is estimated that this one workshop may have doubled or even tripled the number of technical papers published on the topic.

SIGGRAPH 2004 exceeded all expectations with an overall 14 percent increase in attendance over the previous year and close to a five percent increase in technical program attendance. One of the most striking aspects of this year's conference was the incredible diversity of uses for the technical advances in computer graphics and interactive techniques. In addition, the energy on the exhibit floor was vibrant and exhibitors reported solid interest in the computer graphics hardware and software tools on display.

The Twenty Seventh Annual ACM SIGIR International Conference on Research and Development in Information Retrieval, SIGIR'04 (<http://www.sigir.org/sigir2004/> /) was held in Sheffield, UK from July 25 – July 29, 2004. The meeting featured a strong technical program: 58 full papers, 65 posters, and 7 demonstrations were presented. There were 347 paid attendees for the main conference, and more than 100 each for workshops and tutorials, making it by far largest SIGIR outside of the US. The conference was successful financially as well, returning more than \$30k to SIGIR.

SIGMICRO's flagship conference, the International Symposium on Microarchitecture (MICRO-37), was held from December 4 to 8, 2004 in Portland, Oregon. (<http://www.microarch.org/micro37>). 158 papers were submitted (a record for MICRO) out of which 29 were accepted. There were 286 total attendees.

ACM Multimedia 2004 (MM04) was held at Columbia University, New York, NY, from Oct 10-16, 2004. Total participation in all conference related events was 523 with 405 attending the main technical program and 59 unpaid volunteer or invited registrants. These numbers are a big improvement (more than 50%) over the last year and are one of the best in the history of this conference.

SIGSAC has sponsored the ACM Conference on Computer and Communications Security (CCS) since 1993. From its inception, CCS has established itself as among the very best research conferences in security. This reputation continues to grow and is reflected in the high quality and prestige of the program. In 2004, CCS received 251 submissions, from which 35 papers were selected. The standards for acceptance continued to remain high for ensuring a quality program. As in previous years, the program of CCS 2004 included a parallel industry and tutorials track and seven co-located workshops. CCS attendance continues to show a healthy growth, from nearly 100 participants up to 2001 to over 400 participants in 2004.

#### 5.4 Professional Recognition/Awards

<b>Sponsors</b>	<b>Award</b>	<b>Awardee</b>
ACT	Godel Prize (with EATCS)	Noga Alon, Yossi Matias, Mario Szegedy
	Danny Lewin Best Student Paper Award	Vladimir Trifonov
	Edsger W. Dijkstra Prize in Distributed Computing (with SIGOPS)	G. Gallager, P. A. Humblet, P. M. Spira
Ada	SIGAda Outstanding Ada Community Contributions SIGAda Distinguished Service Award	The SPARK Team Martin C. Carlisle
APP	SIGAPP Distinguished Service Award	Roger L. Wainwright
ARCH	The Eckert-Mauchly Award (co-sponsored with IEEE CS) Maurice Wilkes Award Influential ISCA Paper	Robert P. Colwell Steven L. Scott Norman P. Jouppi
ART	Autonomous Agents Research Award	Makoto Yokoo
CAS	SIGCAS 2005 Making a Difference Award SIGCAS 2005 Outstanding Service Award	Simon Rogerson Charles (Chuck) Huff

CHI	CHI Lifetime Achievement Award CHI Lifetime Service Award	Tom Landauer Gary Perlman, Marilyn Mantei Tremaine, Sara Bly, Don Patterson, John "Scooter" Morris
	CHI Social Impact Award	Gregg Vanderheiden
COMM	SIGCOMM Lifetime Achievement Award	Paul Mockapetris
CSE	SIGCSE Award for Outstanding Contributions to Computer Science Education The SIGCSE Lifetime Service Award	Kim Bruce Andrew McGettrick
DA	ACM/IEEE William J. McCalla ICCAD Best Paper Award	Xin Li, Jiayong Le, Padmini Gopalakrishnan, Lawrence T. Pileggi, Ronald Freund
	ACM Outstanding Ph.D. Dissertation Award in Electronic Design Automation	Chao Wang
	Distinguished Service Award	Mary Jane Irwin
	SIGDA Outstanding New Faculty Award	Kaustav Banerjee Igor Markov
DOC	Joseph T. Rigo Award Diana Award	Alan Cooper STC (Society for Technical Communications)
GRAPH	SIGGRAPH Computer Graphics Achievement Award Significant New Researcher Award Outstanding Service Award	Hugues Hoppe Zoran Popovic Judith R. Brown, Steve Cunningham
KDD	SIGKDD Innovation Award SIGKDD Services Award	Jiawei Han Xindong Wu
METRICS	SIGMETRICS Achievement Award	Stephen S. Lavenberg
MIS	Magid Igbaria Outstanding Conference Paper Award	Kelly J. Fadel, Mohan Tanniru
MOBILE	SIGMOBILE Outstanding Contribution Award	Andy Hopper
MOD	SIGMOD Contributions Award	Surajit Chaudhuri
OPS	Mark Weiser Award	Brian Bershad
PLAN	ACM SIGPLAN Programming Languages Achievement Award	Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides
SOFT	ACM SIGSOFT Distinguished Service Award Outstanding Research Award SIGSOFT/IEEE TCSE ICSE Most Influential Paper	Richard Taylor Jeff Kramer, Jeff Magee Michael Jackson, Pamela Zave
UCCS	SIGUCCS Penny Crane Award	Linda S. Hutchison
WEB	Vannevar Bush Award (with SIGIR)	Gordon W. Paynter
	Douglas C. Engelbart Award	David Kolb
	Theodor Holm Nelson Award	George Buchanan, Ann Blandford, Matt Jones, Harold Thimbleby

## 5.5 Educational Programs and Special Projects

SIGACT sponsored Larry Stockmeyer Day, held immediately before STOC 2005, a tribute to one of the pioneers of complexity theory. The day consisted of seven presentations surveying Larry's work and its ramifications. This was valuable both to older members of the community, and to younger members who probably studied much of the material but were unaware of the historical aspects of the discoveries.

A Student Travel Award Program was also established to assist SIGAPP student members in attending conferences sponsored by or in-cooperation with SIGAPP. Modeled after similar programs in other SIG's, e.g. SIGPLAN, 15 students were granted awards to attend SAC 2005, including 2 from Europe, 1 from Africa and 1 from India (unfortunately the latter two were still not able to attend).

The SC conference often has a large surplus due to its exhibition component. SIGARCH and the SC Steering Committee have agreed that future profits from SC'XY will be in large part returned to the SC community, in the form of a series of large project-oriented grants (to be matched by the other sponsor of SC'XY, the IEEE Computer Society). In 2004 the grants provided funds for mentoring and education programs for the community.

To broaden its efforts to connect with the networking community in Latin America, SIGCOMM dedicated \$10,000 to fund four junior faculty from Latin America to attend SIGCOMM'05 in Philadelphia.

SIGCSE has established a program to fund a limited number of special projects to help its members investigate and introduce new ideas in the learning and teaching of computing. The maximum funding is \$5,000 USD per proposal and the level of funding is subject to the quality of proposals received and the availability of funds targeted for such projects.

SIGGRAPH entered into a deal with CreativeHeads.net, a job board in the computer graphics, gaming, animation, etc world, to be the official job board of ACM SIGGRAPH, as well as the JobFair onsite at the SIGGRAPH conference. If it works well for both parties, it may be expanded.

To further encourage student participation and growth, SIGIR introduced a Doctoral Forum program at SIGIR 2004 in which students explore their research interests in a workshop under the guidance of a panel of distinguished researchers. This is a new service. The 2004 DC was viewed as a great success by both the senior researchers and the students. The program will be continued in 2005, and most likely become a regular part of SIGIR conferences

The SIGITE Curriculum Committee completed the draft of the IT Volume of the Computing Curriculum 2005 that has been posted for public comment both on the ACM website and the SIGITE website

SIGSOFT began a project to document the PhD dissertations in software engineering by inviting people (members and non-members alike) to submit titles, abstracts, and URLs for capture on the SIGSOFT web site.

SIGSOFT continues to lead the Impact Project, whose goals are to conduct a scholarly assessment of the impact of software engineering research on software engineering practice, and to provide a roadmap for future research funding. SIGSOFT obtained a grant from the U.S. National Science Foundation to partially fund the activities of the group. A section of the SIGSOFT web site is dedicated to documenting and publicizing the project. Two reports have been submitted for publication in ACM TOSEM, with both expected to appear in 2005.

### **5.6 International Activities**

SIGMOBILE's conferences continue to make a substantial international impact. For example, this year the MobiSys 2005 conference generated media articles in the technical and popular press from at least ten countries around the world. Over 35 articles about MobiSys and the work presented there appeared in news media stories from Australia, Canada, Denmark, England, France, Italy, The Netherlands, Romania, Scotland, and USA. This international press coverage of MobiSys 2005 is summarized at <http://www.sigmobile.org/mobisys/2005/media.html>. In addition, MobiCom, its flagship conference, is currently ranked by CiteSeer (the widely used scientific literature digital library and search engine) as the computer science venue with the fifth highest impact. This impact ranking by CiteSeer is based on the average citation rate of all articles published in that venue.

In March, SIGMOBILE started a new Local Chapters program. It currently has two Local Chapters fully approved and operating, Nanyang Technological University Student Chapter in Singapore and Sydney Professional Chapter in Sydney, Australia. These two international Chapters extend the reach of SIGMOBILE and further emphasize SIGMOBILE as a truly global organization.

In spring 2005, SIGCOMM held its first SIGCOMM Asia Workshop in Beijing.

During 2004/2005 SIGART sponsored a Summer School on Agents and Multi-Agent Systems in China. The school is part of an effort to broaden the community in underdeveloped areas.

### **5.7 Collaborative Efforts**

SIGGRAPH is actively working with quality teams in related areas to form official alliances, share resources, and cross promote one another. These include AWN.com, the Visual Effects Society, SIGCHI, SIGDA, and Computer Graphics World Magazine. This is an ongoing effort to strengthen ACM SIGGRAPH's role within related communities.

SIGMOD has recently entered into an agreement with VLDB Endowment to establish the "SIGMOD/VLDB Digital Library Donation Program" whereby VLDB Endowment will purchase up to \$25,000 worth of SIGMOD Anthology Silver Edition to be distributed to developing countries. A joint committee has been formed to run this program. This should allow us to assist 1,000 institutions. To date, around 350 copies have been distributed. The collaboration with VLDB Endowment has now extended to cooperation in the running of conferences. Starting this year the SIGMOD and VLDB Conferences will coordinate the resubmission of papers from one conference to the next.

SIGWEB and the International World Wide Web Conference Committee (IW3C2) have reached an agreement in principle for SIGWEB and other SIG partners to sponsor the World Wide Web Conference starting from May 2007, completing more than two years of complex negotiations. SIGWEB has continued its partnership with GI, the computer science professional society for the German speaking countries within Europe.

Appendix A – Membership & Technical Activity Summary  
Appendix B – Financial Summary

Appendix C – Conference Summary  
Appendix D – Individual SIG Reports