SIGAda

The ACM Special Interest Group on Ada

ACM

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Dear SIGAda Members:

The ACM SIGAda election process is complete and SIGAda now has a new slate of officers. I'm sure that you find some familiar names. I think that you will find some new ones. The SIGAda officers are

Chair
  John W. McCormick
  University of Northern Iowa
  mccormick@cs.uni.edu

Vice Chair for Meetings and Conferences
  Ricky E. Sward
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International Representative
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Secretary
  Clyde Roby
  Institute for Defense Analyses
  ClydeRoby@acm.org

Treasurer
  Martin C. Carlisle
  USAF Academy
  (Currently on sabbatical at
  Auburn University)
  carlislem@acm.org

Past Chair
  Currie Colket
  The MITRE Corporation
  colket@mitre.org
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The term of office for the new officers is July 1, 2005 to June 30, 2007. All of the new officers stand on the shoulders of those that preceded them. I would like to thank the past set of officers for their efforts over the past four years.

I appreciate the outstanding job Currie Colket did as Chair. I particularly thank him for his efforts in revitalizing the SIGAda Bylaws approved by the membership this past June. The original Bylaws were established in 1984. Currie spent many hours coordinating and recording the thoughts of the executive committee to clarify, update, and rewrite the bylaws. You can find them at **http://sigada.org/SIGAda_bylaws.html**. Currie's enthusiasm and optimism for Ada's future is unmatched. He has left me with a very large pair of shoes to fill.

As Vice Chair for Meetings and Conferences, David Harrison coordinated the efforts of four SIGAda Ada conferences. As Program Chair for the first two and General Chair of the last conference, I know how much effort this job entails. I thank David for helping make these conferences successful.

Ann Brandon has been our link with other organizations such as the Ada Resource Association (ARA) that funds our Ada Awareness program. Ann was responsible for the series of Ada success stories. These stories are an important resource for those of us who staff the Ada booth at exhibit halls across the country.

Over the years the Secretary's job has evolved from note taker and vote counter to webmaster. Our website is probably the most visible aspect of SIGAda to the public. Clyde Roby spent the last four years keeping the SIGAda website up to date. I'm glad to have him continue in this role.

Jean-Pierre Rosen has served as our liaison to the many people outside of the United States with Ada interests. Jean-Pierre has been especially helpful in publicizing our conferences in Europe and coordinating our efforts with the people who organize the annual Ada Europe meeting. By the way, Ada Europe 2006 will be held June 5-9 in Porto, Portugal. For the past two years he personally handled the SIGAda conference publicity mailings to our friends in Europe.

Ben Brosgol served as SIGAda Chair for the four years before Currie Colket. The advice that Ben provided the executive committee over the past four years was invaluable. Although Ben is now retired from his position of Past Chair, the number of executive committee e-mails with Ben's address in the cc makes it evident that we will continue to seek his consul.

Finally, while he was not officially on the 2001 – 2005 executive committee, I would like to express my thanks to another past SIGAda Chair, Hal Hart. Hal has recently retired from TRW (I know it is no longer called TRW but I cannot associate him with any other company). Hal has served as SIGAda Conference Treasurer for many years and has been responsible for the financial success of all of the conferences with which I have been involved. SIGAda 2005 marks his last time in this role. I for one cannot imagine a SIGAda conference without Hal Hart. I hope that you will all come to Atlanta to give Hal a raucous send off. Hal has also been

responsible for the SIGAda Booth. If you have ever wondered where the booth resides between shows, it is at Hal's home.   Hal has graciously offered to impart his years of Ada Booth knowledge to our new Vice Chair for Liaison. In his e-mail signature, Hal lists his interests as Black Jack semi-pro, Golfer, World Traveler, Habitat for Humanity Construction Worker/Crew Leader. He was key builder on the Greater Los Angeles Habitat's *Operation Home Delivery* to build-5-houses-in-5-days starting at 3:30am every day 9/26-9/30.   I have a difficult time imagining Hal, the SIGAda Conference night owl, waking up to begin work at 3:30am. Perhaps if we hold future SIGAda conferences near a casino we might tempt Hal to make a guest appearance.

One of Ben Brosgol's final official duties was the putting together the slate of candidates from which the current set of officers was elected. One of the criteria used by ACM to evaluate the viability of every SIG is the quality of the slate of officer candidates. I would like to thank all those who were willing to volunteer time over the next two years to keep SIGAda moving forward. David Harrison, Greg Gicca, David Botton, Ann Brandon, Thomas Panfil, and Pascal Leroy have all contributed a great deal to the Ada community. Their willingness to run for office has strengthened our organization.

In the past two months through meetings with ACM staff and discussions among current and past officers the new officers have learned more about the workings of ACM and SIGAda. Starting in this issue of Ada Letters, each of the officers will be introducing themselves and be sharing some of this knowledge with you. In this issue, our Treasurer, Martin Carlisle tells us about our SIG's revenue and expenses.

Just a little over a week ago, I was the banquet speaker at the CCSC-Midwest Conference. CCSC stands for the Consortium of Computer Science Colleges. CCSC has been involved with computer science education for the past 20 years. I met Dr. Leslie Schwartzman, a faculty member at Roosevelt University and the invited speaker chair for CCSC-Midwest, when she stopped by the SIGAda Booth at the ACM SIGCSE (Special Interest Group in Computer Science Education) Technical Symposium. I must have had some extra caffeine that day as Leslie thought that my enthusiasm for Ada would make for an inspirational dinner talk. She invited Dr. Keith Miller, a professor at the University of Illinois at Springfield, to give the opening plenary address. Keith's areas of expertise include software testing and ethics. Leslie had the creative idea to link our talks on a common theme: *How Good is Good Enough?*. Keith addressed the issue of quality from an ethical perspective informed by technical knowledge. I was charged with addressing the issue from a technical perspective informed by an ethical sensibility. I was captivated by the philosophical issues Keith presented as he addressed the problem of when do we stop testing? Utilitarian, Deontological, and Rawlsian analyses were new concepts for this software engineer. His conclusions from the three analyses were consistent.

- The current system of IT delivery emphasizes commerce over professionalism.
- The balance between producers and consumers is unbalanced in favor of producers.
- Quality is less important than features.
- Power relationships in IT are largely invisible and very powerful.

I thought the conclusions of his ethical analyses were also valid for program language selection.

After showing a video of my students working on software to monitor and control the large model railroad in my lab (available on the web at http://www.cs.uni.edu/~mccormic/RealTime/), I presented my data and analyses of Ada versus C in an academic setting. I explained how strong typing and accurate scalar modeling allowed my Ada students to succeed while my C students did not. I shared the data on defect rates that Watts Humphrey showed in his keynote address at SIGAda 2004. As Watts pointed out, while 1.05 defects per thousand lines of code produced by the average CMM level 5 shop seems very good, that still leaves more than a thousand defects in a million line system. I passed on Watts' suggestions of two ways to improve this defect rate: His own Team Software Process and Correct by Construction, the process created by the folks at Praxis High Integrity Systems.

I spent an hour after my talk ended discussing the issues with a group of computer science educators excited to hear that Ada "was still alive" and to discuss some of the new features of Ada 2005. The negative myths of Ada are still strong in the academic community — high costs, long compile times and slow execution. You would be amazed to hear how important the Ada 2005 object.method syntax is to these folks. At the end, several have decided to give Ada a try in their software engineering classes next spring and have begun a dialog with me on obtaining the necessary tools.

Speaking of dialogs, SIGAda 2005 is just a few weeks away. This year we have experimented with holding the conference at the same location as last year. Using the same key people as last year, this decision has reduced the time necessary to organize the meeting. For you folks on the other side of the country, plans are in the making for a western venue in 2006. As pointed out in Martin Carlisle's note in this issue of Ada Letters, the revenue generated by the SIGAda Conference generates a significant portion of our revenue. Conference revenue is generated by registration fees and vendor sponsors. We have the usual great line up of tutorials and papers well worth the cost of admission. The final day is devoted to Ada 2005. Our vendor sponsors will be happy to discuss your needs. So I hope to see you all there.

I'll close this letter with one final note of thanks. I thank the SIGAda membership for giving me and my fellow officers the opportunity to serve you. We are all highly dedicated to the goals of SIGAda (now so well stated in our revised Bylaws). We all look forward to working with you to make SIGAda a more valuable resource for its members. All of us are eager to hear from you.

John W. McCormick
Chair, ACM SIGAda

Responsibilities of SIGAda Secretary

A Note from Secretary Clyde Roby

According to the SIGAda By-Laws, Article 4(g), the responsibilities of the Secretary include:
  i.   Maintaining the records and correspondence of SIGAda
  ii. Keeping and distributing the minutes of business meetings of SIGAda
  iii. Serving as the SIGAda Information Director
  iv. Maintaining the SIGAda Home Page
  v.   Maintaining the SIGAda Mail lists
  vi. Maintaining and distributing a manual of all SIGAda policies and procedures

Below, I've expanded on what I believe the SIGAda Secretary's role and responsibilities in each of these areas currently include or should include. You will notice that items iv. and v. above are actually part of my responsibilities as SIGAda Information Director.

i. Maintaining the records and correspondence of SIGAda
This is a relatively easy task to perform, since most correspondence is performed by email, either as email messages, or as attachments to email messages. Although not all email correspondence of all SIGAda's email lists are archived, I, in my role as Secretary do have an archive of messages on my own workstation. Every so often I compress the files and they are then placed on another of my computers and/or other officers' computers (with their permission after I request such).

ii. Keeping and distributing the minutes of business meetings of SIGAda
During the past several years, there has been and continues to be only one business meeting of SIGAda each year; it is held usually on the Monday night of the annual SIGAda Conference.

The SIGAda Chair distributes an agenda to the SIGAda Extended Executive Committee (EEC) a short time before the meeting. From that, I create an initial outline and fill it in from a "template" which is then expanded as I take notes during the actual meeting. Within a couple weeks after the SIGAda Conference, I distribute the draft minutes to the EEC for review and corrections. A final draft is usually distributed soon after that.

Shortly before the next business meeting, I distribute those minutes again to remind the EEC what had happened at the previous meeting. This is usually used as the basis for the next meeting's initial draft agenda created by the SIGAda Chair.

iii. Serving as the SIGAda Information Director
The SIGAda Secretary is also the SIGAda Information Director. Information Directors are given the responsibility of managing and maintaining a set of appropriate Information Services. The two major areas are website development and maintenance and email distribution list management and coordination.

As a hosting service, ACM also allows the Information Director the flexibility to load additional software where desired and will often facilitates software purchases if required. As SIGAda's Information Director, I have developed a few scripts that we use for SIGAda's annual Conference registration.

If you'd like to see what resources are available for Information Directors, you may go to ACM's web page at http://www.acm.org/infordir/

iv. Maintaining the SIGAda Home Page
Actually, this should really be "maintaining the SIGAda website" as the "home" page is only one of several pages I maintain. Although I directly maintain several web pages (mostly update existing web pages, but very occasionally create a new one or two), I have help from others who are responsible for the content of their web pages. For example, I update the SIGAda Booth web page based upon the suggestions I receive from Hal Hart and others or update the EDWG web page based upon inputs from its chair, Mike Feldman.

In addition, I interact with ACM's Information Services as needed regarding SIGAda Mailing List servers, accounts for SIGAda members, and file security. I also deal with Working Groups and local chapters to help them set up their accounts and file directory structures on ACM's servers.

This is perhaps the most time consuming part of the SIGAda Secretary's responsibilities.

v. Maintaining the SIGAda Mail lists
There are two aspects about the maintenance of the SIGAda Mailing Lists that I perform. Both are relatively easily done with ACM's LISTSERV software and/or web page interfaces.

The first is interfacing with ACM's Information Services people for the creation of any new mailing lists – at least one is created every year for that year's SIGAda Conference Committee – or deleting old unused ones (we perform an examination of all mailing lists about every other year to decide which ones are no longer needed).

The second is being the "editor" of most of SIGAda's mailing lists although most of them also have a secondary or backup editor. My responsibility here is to act as moderator on some of the lists. The primary duty here is to ignore certain spam messages that get past ACM's excellent email spam filters. Also, as moderator, some lists allow non-subscribers to email to members of those lists but I must approve them first.

vi. Maintaining and distributing a manual of all SIGAda policies and procedures
Although not a new responsibility of the SIGAda Secretary, this is one that is the least organized. So, this year I will be collecting all the information about all of SIGAda's policies and procedures and placing them in one place. Since most of them are electronic in nature, I plan to create a new web page that links to either existing electronic documents, other web pages, or to newly created web pages.

This is where I will need the help of the SIGAda community. What policies and procedures do you think that SIGAda should have in place but are currently unaware of? If they exist, we will definitely include them on this policies and procedures web page. If they do not, then we will draft something up – of course, we would like for you to participate either in the initial draft or in a follow-up review of such "documents".

Follow the Money

Martin C. Carlisle
SIGAda Treasurer

I've been a SIGAda member for a bunch of years now, but it's only since I became treasurer that I got a sense of where the money comes from and what it does. It seemed like it would be fitting to give the membership as a whole a sense of where SIGAda stands financially.

First let's talk about income—where does SIGAda get its money? This basically comes from 6 different areas (below are the numbers rounded to the nearest hundred from fiscal year 2005, which ended on June 30, 2005):

- Dues: $9900
- ACM Digital Library revenue sharing: $5500
- Non-member subscriptions: $5700
- SIGAda Conference Revenue: $42800
- Interest on the fund balance: $1500
- Contribution from the Ada Resource Association: $10000

ACM provides a digital library service at http://www.acm.org/dl. Revenue from subscriptions are shared amongst the various SIGs based on the number of downloads. So, be sure to download a bunch of SIGAda stuff from the DL! (Actually, starting this fiscal year, there is a minimum of $10000 from the Digital Library, which is what we'll get, so don't start slamming the Digital Library with meaningless downloads or I'll get in trouble ☺). Seriously, though, the Digital Library is a great resource for articles on Ada, and just about everything else related to computing.

Non-member subscriptions include things like libraries, which tend to buy a package of all ACM publications.

As you can see, the SIGAda conference is our biggest source of revenue (but as you'll se below, it's also our biggest expense). This year's conference will have lots of great info on Ada 2005, so I hope to see you in Atlanta.

We maintain a fund balance of about $50000, which ACM invests for us (through a brokerage). We earn interest on this which we can then use for SIG activities.

Ok, so that's where the money comes from. But where does it go?
- Publishing Ada Letters/other mailings: $21000
- Allocations: $12800
- SIGAda conference: $34600
- Promoting Ada at conferences: $14200
- Other: $450

The Ada Resource Association specifically gave money so that SIGAda could promote Ada at conference. Last year, we exhibited at the Embedded Systems Conference, the Systems and Software Technology Conference, and the Special Interest Group on Computer Science Education.

Allocations are kind of like taxes. That's the amount that ACM charges us for helping run our group.

Now, for those of you mathematicians out there (or folks who can add), you'll unfortunately see that we spent about $5000 more than we took in last year. But as any good elected official, I'll just blame that on the previous administration.

Unfortunately, this year is looking somewhat similar. I'll be working with the other officers to try to find ways we can save money.

Meantime, I'd encourage you to continue your membership and encourage others with an interest in Ada to join. SIGAda dues are very nominal (only $25/year), provide a significant discount for attending the conference, a subscription to Ada Letters (which includes the proceedings of the conference), and allows us to continue promoting Ada both at conferences and through our web site. And, in case you're worried, none of the money goes to me (so that's what the word "volunteer" meant!)