ACM SIGAda's Annual International Conference:

SIGAda 2000

Johns Hopkins University / Applied Physics Laboratory
Laurel MD, USA
November 12-16, 2000

Sponsored by ACM's Special Interest Group on the Ada Programming Language, In Cooperation With DC ACM, Ada-Europe, SIGAPP, SIGBIO, SIGCAS, SIGCSE, SIGPLAN, and SIGSOFT and Hosted by Baltimore and DC SIGAda Chapters

Ada Technology Update

SIGAda 2000 provides a special technology update on Ada and related technologies, presented by leading practitioners, researchers, and educators from the Ada community and general software industry. Ada has been successful where reliable software matters for real-time, distributed systems in the defense, space, aeronautics, ground transportation, air transportation, ships, industrial process control, sensor processing, communications, and scientific research domains.

Ada continues to be a critical element in the successful deployment of high-reliability applications, and this conference offers a unique opportunity to hear from key people developing, using, and teaching Ada.

Whether you are from industry, government, or academia, if you are interested in where Ada is today and where it is going, this is a conference that you need to attend.

Advance Program

Tutorials (pages 2-3)

Speakers (details, pages 4-5)

Workshops (page 6)

Registration Form (page 7)

TOPICS & INVITED SPEAKERS

STATE OF ADA
Ben Brosgol, SIGAda Chair (Ada Core Technologies)

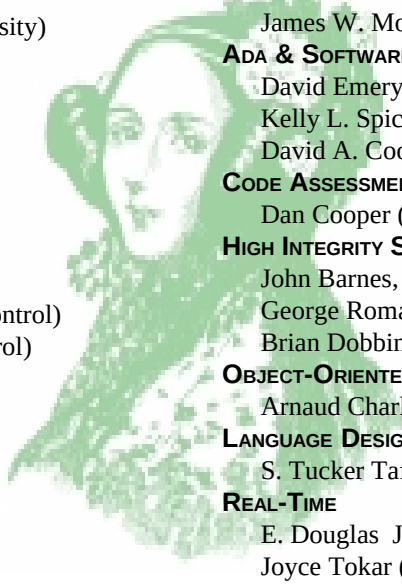
ADA & ACADEMIA
Michael Feldman (George Washington University)
Alan Burns (University of York, UK)
Lars Asplund (Uppsala University, Sweden)

ADA & DISTRIBUTED SYSTEMS
Brad Balfour (Objective Interface Systems)
David Botton (AdaPower)

ADA EXPERIENCES
Thierry Lelegard (Canal+, TV/Media, France)
Rod Chapman (Praxis Critical Systems, UK)
Judith Klein (Lockheed-Martin, Air Traffic Control)
Jon Dehn (Lockheed-Martin, Air Traffic Control)
Mike Kamrad (TopLayer Networks)
Steve Hovater (Rational)
Wiljan Derks (Philipps, Netherlands)

ADA & JAVA
Franco Gasperoni (ACT Europe, France)
David Hardin (aJile Systems)

ADA & OPEN SOURCE
Robert B. K. Dewar (Ada Core Technologies)



ADA RESOURCES
Richard Conn (Lockheed-Martin)

ADA STANDARDIZATION
James W. Moore (MITRE)

ADA & SOFTWARE ENGINEERING
David Emery (MITRE)
Kelly L. Spicer (Raytheon Missile Systems)
David A. Cook (STSC Draper Labs)

CODE ASSESSMENT
Dan Cooper (Boeing)

HIGH INTEGRITY SYSTEMS
John Barnes, Ada Europe Chair (John Barnes Informatics, UK)
George Romanski (Verocel)
Brian Dobbing (Aonix, UK)

OBJECT-ORIENTED GRAPHICS
Arnaud Charlet (ACT Europe, France)

LANGUAGE DESIGN
S. Tucker Taft (Averstar)

REAL-TIME
E. Douglas Jensen (MITRE)
Joyce Tokar (DDC-I)
Juan de la Puente (Universidad Politécnica de Madrid, Spain)
Ted Baker (Florida State University)

Special Plenary Sessions with:

Ted Baker *John Barnes*
Robert B. K. Dewar *E. Douglas Jensen* *S. Tucker Taft*

AT LEAST TEN GOOD REASONS WHY YOU SHOULD COME TO SIGADA 2000

Hear recognized speakers on Ada and software engineering issues relevant to your organization

Network with others addressing the same software engineering problems facing your organization

Learn how Ada is being used successfully in application areas where Fortran, COBOL, C, etc.,were previously chosen

Explore for yourself how Ada compilers and tools are becoming more powerful and cost effective than before

See how Ada is being used to support the development of distributed, real-time, highly-reliable systems

Understand how Ada is open to interfacing with legacy & COTS software programmed in other languages

Realize the growing number of tools and third-party libraries available to Ada programmers

Find out how Ada validation/certification has helped users make their software more reliable, portable, and maintainable

Discover that Ada is easy to learn and is used by many colleges and universities in introductory computer science courses

Take tutorials that will advance your career professionally

Participate in Workshops that will evolve Ada technology

SIGAda 2000 TUTORIAL PROGRAM

Sunday Full-Day Tutorials (9:00am – 5:30pm)

SF1: Intro to Ada and Ada 95 (half-day Intro to Ada Programming, half-day Advanced Ada 95 features)
David A. Cook & Leslie Dupaix

This full-day tutorial is designed for those having no knowledge of Ada, or who only have programmed in Ada 83. The morning session will consist of an introduction to the basics of programming in Ada. The afternoon will concentrate on the newer features of Ada 95, including object-oriented programming, the Ada 95 annexes, and other advanced features.

SF2: The Personal Software Process
Dan Roy

For the last several years, SEI Fellow Watts Humphrey, in conjunction with the SEI process program, has been developing techniques to help software engineers better manage and control their work while improving their personal skills and capabilities. This body of work is referred to as the Personal Software Process.

The Personal Software Process (PSP) is a scaled-down version of the industrial process that is suitable for individual use. The goal of the PSP is to make software engineers aware of the processes they use to do their work and the performance of those processes. Software engineers set personal goals, define methods to be used, measure their work, analyse the results, and adjust their methods to meet their goals.

This full-day tutorial is designed for engineers and managers who want to better understand the PSP and its potential impact on their software development practice.

SF3: Implementing Design Patterns in Ada95,
Matthew Heaney

The patterns movements, made popular by the book Design Patterns, is sweeping across the software community. In this tutorial, attendees will learn how to implement design patterns in Ada95. This tutorial is illustrated with myriad idioms for module structure, object-oriented programming, data synchronization, and inter-process communication. In essence, participants will learn techniques that facilitate the construction of large software systems written in Ada 95.

SF4: Real-Time and Non-Real-Time CORBA Programming for Ada 95,
Brad Balfour

This tutorial is aimed at Ada 95 developers interested in using CORBA technology in their Ada 95 applications to create high-performance distributed client/server applications and/or to mix Ada 95 with other languages on heterogeneous computing platforms. Familiarity with object-oriented programming in Ada 95 will be helpful, but not required. No experience or knowledge of CORBA is assumed.

SF5: Developing COM, DCOM, and COM+ Enabled Applications with Ada 95
David Botton

A full day tutorial covering the creation and use of COM, DCOM and COM+ objects using GNATCOM, the Ada 95 COM/DCOM/COM+ development framework and tool set. GNATCOM comprises a framework covering binding and creation of all COM (Component Object Model) technology based objects and four powerful tools, MakeGUID, COMScope, BindCOM, and CreateCOM. The tutorial will cover an introduction to COM technologies and detailed coverage of creating and using COM, DCOM and COM+ objects. Time will also be spent on demonstrating the use of important COM based components available for Windows platforms, such as Active Data Objects (ADO), Microsoft Message Queueing (MSMQ), Microsoft's XML Parser, and the Internet Explorer Web Browser.

SF6: Java for Ada Programmers,
Ben Brosgol

This tutorial will consist of four parts: Part One will cover Java fundamentals, basic properties of classes, and run-time models. Part Two will cover lexical properties, expressions and statements, data type topics, and OOP (inheritance, polymorphism, dynamic binding, and interfaces). Part Three will cover exceptions, threads, and advanced OO features (such as cloning and inner classes). Part Four will cover the Abstract Windowing Toolkit and applets. Participants will know how to write Java applications and applets after this tutorial, and also will understand how Java conpares with other languages, particularly Ada. Knowledge of Ada 83 or Ada 95 is useful for this tutorial.

SF7: Cleanroom Software Engineering: An Overview
Bill Bail

Cleanroom Software Engineering is an approach to the development of software that is strongly rooted in formal methods and mathematics. Developed by Harlan Mills and his colleagues at IBM in the late 1970s, and officially named Cleanroom in 1987, this technique emphasizes defect avoidance. While not gaining the notoriety that other techniques have enjoyed, projects that have applied Cleanroom have experienced significant benefits, including low defect rates. Cleanroom emphasizes multiple builds in an incremental model, with each build constructed using forms known as box structures. Verification of the structures is accomplished using correctness proofs, while software certification is based on usage models which facilitate statistical testing. Recent work has integrated Cleanroom with Object-oriented models. In addition the SEI has released a Cleanroom Software Engineering Reference Model, providing an integrated set of work products and processes for organizations wishing to apply this technique.

SIGAda 2000 TUTORIAL PROGRAM(cont.)

Monday Full-Day Tutorials (8:30am – 5:00pm)

MF1: GtkAda, an Ada95 object-oriented graphic toolkit & GUI builder
Arnaud Charlet

This tutorial will introduce attendees to GtkAda. Gtk is at the same level as Motif (with complex widgets ready to use), but is much easier to use. As opposed to Motif, Gtk was created from the beginning to make it easy to create bindings for languages other than C. There are already bindings for C++, Lisp, Perl, and many more. Most of Motif functions in C can have an indefinite number of arguments which makes it very difficult to have a strong type safety in an Ada binding. Gtk, on the other hand, makes it really easy to provide this, thus allowing most of the programming errors to be caught at compilation time by the compiler, and saving tremendous time in your development cycle.

The Gtk port is free and is now running on Windows native, without the need of running an X server (it is based directly on the Win32 API).

MF2: Introduction to Web Technologies for Effective Dissemination of Information
Currie Colket, John McCormick, Clyde Roby, and David A. Wheeler

This tutorial provides the basic information on disseminating information effectively using the World Wide Web. The tutorial addresses the use of HTML and XML for developing web pages, incorporation of graphics, effective designs for web pages, and using automated tools (both UNIX and PC-based). Strategies for announcements, configuration management, mailing lists, and databases are addressed.

The Ada Common Gateway Interface, AdaCGI, will be discussed; AdaCGI supports developing Ada programs to generate data, process forms, and perform other requests for WWW users.The ACM host machine will be used as a model. Although this tutorial is specifically designed to support the needs of SIGAda Working Groups and SIGAda Chapters, the information will be useful to all interested in learning how to set up a WWW home page.

Monday Morning Tutorials (8:30am – 12:00 Noon)

MA1: SPARK - High Integrity Ada Programming
John Barnes

Critical software - software that can be trusted - takes many forms. Historically we were most concerned with safety-critical software where failures would be life threatening. Increasingly, however, businesses are relying on software which is critical to their security or even financial survival. SPARK, which was developed to meet the rigorous requirements of safety-critical systems, provides a cost-effective approach to the develpment of all critical systems. SPARK is a language designed to support the development of software used in applications where correct operation is vital either for reasons of safety or business integrity. There are versions of SPARK based on Ada 83 and Ada 95. With its support tool, the SPARK Examiner, and the high-quality mainstream Ada products, SPARK provides a solid engineering basis for complex, computer-based systems.

MA2: Developing Ada for the Java Platform with JGNAT
Gary Dismukes

This tutorial will introduce JGNAT, which comprises a compiler generating Java bytecode compatible with Java virtual machines conforming to Sun's specification (JDK 1.1 and above), and a set of tools to aid in developing Ada programs for the Java platform. JGNAT comes with a tool called jvm2ada that serves to automatically generate compatible Ada bindings for the complete Java API (and in fact for any set of class files). Programmers can use any Java class or component as well as develop Ada classes or components to be used in Java applications and applets and be assured that their code will inter-operate with the Java world and Java-enabled browsers. An interesting set of applets and applications is provided with JGNAT to illustrate interfacing between Ada and the Java world.

For more detailed information, select "Tutorials" from http://www.acm.org/sigada/conf/sigada2000/

Monday Morning Tutorials (continued)

MA3: Ada Tasking
David A. Cook

In most languages, writing potentially parallel code is very difficult – hard to implement and hard to test. Tasking, a construct of Ada, allows developers to design and code parallelism with great ease. This tutorial is targeted at developers who want to understand how Ada tasking works, and see how to build Ada tasks. Knowledge of basic Ada syntax is all that is required. There will be multiple examples of Ada code showing how to correctly design and code Ada tasks.

MA4: TASH - an Ada Binding to TCL/Tk
Terry Westley

Imagine creating platform-independent graphical user interfaces, performing regular expression pattern matching and using associative arrays as easily in Ada as you can in scripting languages such as Perl, Tcl, and awk. You can with TASH, a freely available Ada binding to Tcl/Tk. Tcl/Tk is a great scripting language. It is easy to learn and is very portable. This tutorial will emphasis platform-independent scripting and GUI development with Ada using this free tool.

Monday Afternoon Tutorials (1:30-5:00pm)

MP1: Building Ada Development Tools with ASIS-for-GNAT,
Sergey Rybin and Vasily Fofanov

This tutorial will explain how you can build your own development and program analysis tools when working with GNAT. The existing GNAT toolset and different approaches to tool development will be presented. The use of the Ada Semantic Interface Specification (ASIS) as a tool-building technology is covered in detail. The discussion will also provide examples of ASIS-based tools and the ASIS implementation for GNAT. Participants should have a good understanding of Ada semantics. Basic experience in programming with GNAT is helpful, but not required.

MP2: New Directions in Windows GUI Programming
David Botton

This tutorial will cover techniques to rapidly create GUIs for Microsoft Windows based Ada 95 applications. Includes detailed examples of binding to Microsoft's Dynamic HTML model and other ActiveX/COM GUI technologies and an overview of using GWindows, a new open source Windows framework.

MP3: Software Systems Architecture: A Practical Architectural Method
David Emery

The IEEE recently approved a Recommended Practice for Architectural Description. A key part of the IEEE approach is that architectural descriptions consists of sets of views, where each view is an instance of a (potentially reusable) viewpoint. In Ada terms, each view is an instance of a generic viewpoint. This tutorial will review the requirements for Architectural Descriptions that conform to IEEE 1471. It will then concentrate on developing a reusable set of viewpoints that can be used by the participants to describe architectures.

MP4: The Software Engineering Body of Knowledge (SWEBOK)
James W. Moore and Terry Bollinger

Is Software Engineering really Engineering? Not yet, according to the usual requirements of the engineering profession. SWEBOK is a joint project of the IEEE Computer Society and the Association for Computing Machinery that may change that state of affairs. The current "Stone Man" version of the Guide outlines ten knowledge areas of software engineering, identifies generally accepted topics within these knowledge areas, points to relevant reference material for all topics, and specifies other disciplines related to software engineering. This half-day tutorial will provide an overview of the SWEBOK project with particular focus on one of the ten knowledge areas most strongly related to the Ada language—Software Construction.

Summary Conference Schedule

TUTORIALS (Details on pages 2-3)

Sunday, November 12

Full Day (9:00am – 5:30pm)

SF1 **Introduction to Ada & Ada95 Programming Language**
David A. Cook and Leslie Dupaix

SF2 **The Personal Software Process**
Dan Roy

SF3 **Implementing Design Patterns in Ada95**
Matthew Heaney

SF4 **Real-Time and Non-Real-Time CORBA Programming for Ada 95,**
Brad Balfour

SF5 **Developing COM, DCOM, and COM+ Enabled Applications With Ada95**
David Botton

SF6 **Java for Ada Programmers**
Ben Brosgol

SF7 **Cleanroom Software Engineering: An Overview**
Bill Bail

Monday, November 13

Full Day (8:30am – 5:00pm)

MF1 **GtkAda, an Ada95 Object-Oriented Graphic Toolkit & GUI Builder**
Arnaud Charlet

MF2 **Web Technologies for Effective Dissemination of Information,**
Currie Colket, John McCormick, Clyde Roby, and David A. Wheeler

Morning (8:30am – 12:00 Noon)

MA1 **SPARK - High Integrity Ada Programming**
John Barnes

MA2 **Developing Ada for the Java Platform with JGNAT**
Gary Dismukes

MA3 **Ada Tasking**
David A. Cook

MA4 **TASH - An Ada Binding to Tcl/Tk**
Terry Westley

Afternoon (1:30-5:00pm)

MP1 **Building Ada Development Tools with *ASIS-for-GNAT***
Sergey Rybin and Vasily Fofanov

MP2 **New Directions in Windows GUI Programming**
David Botton

MP3 **Software Systems Architecture: A Practical Method**
David Emery

MP4 **The Software Engineering Body of Knowledge (SWEBOK)**
James W. Moore and Terry Bollinger

5:30 - 7:00 pm	**Local SIGAda Representatives' Dinner** (Open to all Ada Society Representatives)
7:00 - 11:00 pm	**SIGAda Extended Executive Committee Meeting** (Open to all)

Tuesday, November 14

8:45 - 9:00am	**OPENING PLENARY:** **Welcome** - *Currie Colket,* General Chair **Conference Overview** - *Franco Gasperoni,* Program Chair
9:00 - 9:30am	**Whither Ada? State of the Ada Address,** *Ben Brosgol*, SIGAda Chair
9:30 - 10:30am	**A Perspective on the State of Distributed Real-Time Research and Practice,** *E. Douglas Jensen*
	10:30 - 11:00am Morning Break - Exhibit Hall Opens
11:00am - 12:30pm	*Parallel Tracks:* **Track 1 – Distributed Systems** **Real-time and Embedded CORBA Technology Update for Ada,** *Brad Balfour* **Taming the Powers of the Dark Side: Empowering Ada on the Desktop with COM/DCOM and ActiveX,** *David Botton* **Track 2 – Ada & Software Engineering** **Describing Architectures,** *David Emery* **A Successful Example of a Layered-Architecture Based Embedded Development with Ada 83 for Standard-Missile Control,** *Kelly L. Spicer*
	12:30 -2:30pm Mid-Day Break & Exhibits **(Vendor Presentations 12:45 - 2:15)**
2:30 - 3:30pm	**Plenary Session** **Ada & Embedded/Real Time Linux,** *Ted Baker*
	3:30 - 4:00pm Afternoon Break & Exhibits
4:00 - 5:30pm	**TRACK 1** **[Standardization Issues]** **Ada Standardization Status and Issues,** *James W. Moore* **[Ada & Academia]** **Ada as a Foundation Programming Language: Starting Off on the Right Foot,** *Michael B. Feldman* **Track 2 – Ada & Java** **Why Your Next Embedded CPU Should Provide Hardware Support for Multitasking and Multiple Virtual Machines,** *David S. Hardin* **Ada 95 on the JVM: Tea for Two and Two for Tea,** *Franco Gasperoni*
	(5:30 pm) Adjourn
7:00 - 9:00 pm	**Buffet Reception** **Gala - Don't Miss this Live, On-Stage Appearance by Lady Ada!**

Please check the SIGAda 2000 Website frequently for updates

Wednesday, November 15

PLENARY SESSION:
Welcome
SIGAda Awards - *Hal Hart*, **Past Chair, ACM SIGAda**

The ACM Position on Licensing Software Engineers - *David Emery*
(Cf. Workshops, page 6)

(9:15)

Open Source/Free Software Issues,
Robert B. K. Dewar

(10:15 - 10:45am) Morning Break & Exhibits

(10:45am - 12:15 pm) *Parallel Tracks:*

Track 1 High Integrity Systems	Track 2 Ada Experience
High Integrity Software for High Integrity Systems, *George Romanski*	**Using Ada for Semiconductor Assembly Equipment,** *Wiljan Derks*
Safety Critical Systems Based on Formal Models, *Lars Asplund*	**Using Ada in Interactive Digital Television Systems,** *Thierry Lelegard*

(12:15 - 2:15pm) Mid-Day Break & Exhibits
(Vendor Presentations 12:30 - 2:00)

(2:15 - 3:45) PLENARY SESSION

Air Traffic Management in the 21st Century,
Judith Klein, Jon Dehn

The SPARK Way to Correctness is Via Abstraction,
John Barnes

3:45 - 4:15pm Afternoon Break & Exhibits (Exhibits Close at 4:15pm)

Track 1 High Integrity Systems	Track 2 Tools
Industrial Experience with SPARK, *Rod Chapman*	**Generation of Documentation using ASIS Tools,** *Steve Hovater*
Building Partitioned Architectures Based on the Ravenscar Profile, *Brian Dobbing*	**Gtk Marries Ada: The GUI Technology Revolution,** *Arnaud Charlet*

(5:45pm) Adjourn

7:00 - 11:00 PM Workshops/Birds-Of-a-Feather (BOF) sessions

Please contact *Local Arrangements Chair*, **Rush Kester**, (Rush.Kester@jhuapl.edu) to schedule a BOF.

Sponsored by ACM SIGAda,
and Hosted by the Baltimore SIGAda, and DC SIGAda Chapters

Thursday, November 16

(8:45am - 10:15am) Parallel tracks

Track 1 Real-Time	Track 2 Ada & Software Engineering
Real-Time Systems Programming with GNAT and OpenRavenscar, *Juan Antonio de la Puente*	**Why We Still Have Difficulty Achieving Software Quality,** *David A. Cook*
New Developments in Run-Time Profiles in Ada 95, *Joyce Tokar*	**Ada Code Analysis: Technology, Experience, and Issues,** *Dan Cooper*

(10:15 - 10:45am) Morning Break

(10:45am - 12:15pm) *Parallel Tracks:*

Track 1 Real-Time	Track 2
Ada Tasking: From the Ravenscar Profile to Dynamic Scheduling, *Alan Burns*	**[Ada Resources]** **Ada and Software Engineering Community Resources,** *Richard Conn*
Using Ada95 to Build Software for a Gigabit Layer 7 IP Networking Device: Ada's No Big Deal Anymore, *Mike Kamrad*	

(12:15 -1:30pm) Mid-Day Break

(1:30 - 2:30pm) PLENARY SESSION

Language Issues for Ada's Future,
S. Tucker Taft

(2:30pm) Closing comments

Friday, November 17

Workshop: Cost-Effective Approaches to Satisfy Safety-critical Regulatory Requirements, 9:00 AM - 12:00 Noon

Further Adventures of Lady Ada
Tuesday, November 14, 7:30 PM

(following the SIGAda 2000 Reception)

The *Adventures of Lady Ada* will be showcased, and will provide an Ada-centric evening of entertainment to follow our Reception Buffet. If you missed seeing these previous Gilbert & Sullivan parodies, you'll want to be sure to catch them this year, seen in videos of the live, onstage shows with professional singers/actors, chorus and orchestra. They have been among the most memorable events at the preceding four Ada Conferences. Sponsored yet again by Ada Core Technologies, and produced by Maestro Robert Dewar and fellow teacher, compiler writer, lyricist, and accompanist Ed Schonberg.

CONFERENCE OFFICERS

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Education WG Chair,
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EXHIBITORS

SIGAda 2000 will include vendor participation, featuring presentations on their products and services. For specific information, please contact the Exhibits Chair:
Hal Hart, +1-310-764-6880
Email: *Hal.Hart@acm.org* or see:
http://www.acm.org/sigada/conf/sigada2000/exhibit-sponsor-opportunities.html

CONFERENCE VENUE

We are very pleased to hold the SIGAda 2000 Conference at one of the premier applied research and development facilities in the world, the Johns Hopkins University Applied Physics Laboratory. APL is a not-for-profit Research and Development Center supporting the Department of Defense, NASA and other Government agencies through innovative applied research, technical development, and problem solving. The conference will be in APL's modern Kossiakoff Conference Center in Laurel, Maryland. Additional information on APL can be found on the Conference Website *http://www.acm.org/sigada/conf/sigada2000/jhuapl.html*

CONFERENCE HOTEL

The Sheraton Columbia Hotel is located on the lovely Lake Kittamaqundi with abundant wildlife. It is walking distance to a number of up-scale restaurants and shares the parking garage with the Columbia Mall for excellent shopping. Information on the hotel is available on the Conference Website *http://www.acm.org/sigada/conf/sigada2000/hotel.html*

NOTE:
The Sheraton does not provide free airport shuttle service. Please see the Conference Website for transportation options. *http://www.acm.org/sigada/conf/sigada2000/transportation.html* Due to the distance between the Conference Hotel and the Conference Venue at JHU/APL, Shuttle service will be provided to transport Conference attendees between the two sites. Actual schedules will be provided as they are determined.

GRANTS TO EDUCATORS

As in past years, SIGAda is offering grants to educators to attend the conference. Grants cover the registration and tutorial fees; travel funds are not available. Details on the grant program are available from:

Prof. Michael B. Feldman
Tel: +1-202-994-5919
Fax: +1-202-994-0227

Email: *mfeldman@seas.gwu.edu* or see:
http://www.acm.org/sigada/conf/sigada2000/grants.html

Faculty members are encouraged to bring the Student Work-Grant opportunity below to the attention of their best Ada students.

STUDENT WORK-GRANTS & DAILY NEWSLETTER

SIGAda 2000 will feature a daily newsletter *Ada's Window on the World (Ada-WOW),* mixing interviews with key people, session summaries, and previews of next-day activities with local color, general computing thought pieces, and relevant world news briefs — in an informal, fun format. A limited number of student grants are available to staff Ada-WOW. Work involves full participation in conference activities, writing some of the articles, and production editing for some; an estimated 2-3 hours of newspaper work nightly will be required, Monday - Wednesday (Sunday, too, for those who arrive by then). Benefits include free lodging (2 or more per room) and free conference & tutorials registration. A room with computer production facilities and local ACM support will be provided.

Interested students should contact SIGAda Vice Chair for Liaison, Ron Oliver at: *sroliver@CSC.CALPOLY.EDU*

WORKSHOPS

Focused workshops are important in evolving the Ada technology to better meet the needs of the Ada community. Workshops are free for those registered for the conference. The following workshops are planned for SIGAda 2000:

1.) ***Ada Semantic Interface Specification (ASIS) Workshop***;
Sunday, 12 November, 7:00 - 10:00 PM

2.) ***Cost-Effective Approaches to Satisfy Safety-critical Regulatory Requirements;***
Friday, 17 November, 9:00 AM - 12:00 Noon

3.) ***Should Software Engineers be Licensed Engineers?***
Wednesday, 15 November, 7:00 - 10:00 PM

Workshop descriptions will be on the SIGAda 2000 Home Page when they are available. Additional workshops or Birds-of-a-Feather (BOF) are welcome. Workshops have a focused objective and result in a report to be published in Ada Letters. BOFs are informal discussion groups. If you would like to propose a Workshop or BOF, please contact the Workshops Chair, Alok Srivastava Email: *Alok.CTR.Srivastava@faa.gov*

Advance Registration Form

For On-line registration, see http://www.acm.org/sigada/conf/sigada2000/registration.html

SIGAda 2000

Sponsored by ACM SIGAda

November 12 - 16, 2000

First Name (Dr/Mr/Mrs/Ms.) Middle Initial Last Name

Title

Badge Name (as you wish it to appear)

Organization/Affiliation

Address

City State/Province

Zip/Postal Code Country

Telephone Fax

E-mail Address

Sponsoring or Cooperating Society & Member No. _____

You must provide your membership number above to qualify for discount. If you are not a member, join SIGAda and/or ACM now, and save money!

ACM & SIGAda Membership

- ☐ SIGAda Membership Only (non-ACM) $25
- ☐ ACM Associate Membership (special rate) $95
- ☐ ACM Student Membership $25
- ☐ SIGAda Student Membership $10

Total Membership Dues $_____

"To advance the sciences and arts of information processing, to promote the free interchange of information about the sciences and arts of information processing both among specialists and among the public, and to develop and maintain the integrity and competence of individuals engaged in the practice of information processing. As an ACM member, I subscribe to the purposes of ACM".

Signature _____ Date _____

RATE SCHEDULE (circle the applicable fees)

	Member		Non-Member		Full-Time Student	
	On/Before Oct 20	After Oct 20	On/Before Oct 20	After Oct 20	On/Before Oct 20	After Oct 20
Conference - Three Days	$400	$550	$550	$700	$50	$50
Conference - Any One Day ☐ TUE ☐ WED ☐ THU	$250	$250	$250	$250	$50	$50
Tutorials - Two Days	$500	$600	$700	$800	$50	$50
Tutorials - One Day or 2 Half Days	$350	$450	$450	$550	$25	$25

Tutorials are assigned first-come, first-served. Please circle the chosen tutorials in the Tutorial Selections box. Avoid scheduling conflicts.

Conference: Includes entry to all conference sessions, exposition, Tuesday Evening Reception, and one copy of Proceedings.
Conference - Any One Day: Includes entry to conference sessions, exposition, Tuesday Evening Reception, and one copy of Proceedings.
Tutorials - Two Days: Includes tutorial sessions totalling 2 days, exposition, and a Full Tutorials CDROM.
Tutorials - One Day: Includes entry to one full-day or two half-day tutorial sessions, exposition, and a Full Tutorials CDROM.

☐ Special Needs (please specify if any):

☐ Check here if you do NOT want your address distributed.

TUTORIAL SELECTIONS AP

	(circle tutorial numbers)
Sunday Full-day	**SF1 SF2 SF3 SF4 SF5 SF6 SF7**
Monday Full-day	**MF1 MF2**
Monday Morning	**MA1 MA2 MA3 MA4**
Monday Afternoon	**MP1 MP2 MP3 MP4**

PAYMENT COMPUTATION

- ☐ Conference Fee ..... $ _____
- ☐ Tutorials Fee ..... $ _____
- ☐ Membership Dues ..... $ _____
- ☐ Additional Proceedings: _____ copies x $50 $ _____
- ☐ Additional Tuesday Evening Reception: _____ tickets x $40 $ _____

TOTAL FEES ENCLOSED $ _____

PAYMENT OPTIONS

IMPORTANT: Your signature indicates your agreement to pay the conference fees with the credit card number you specified below. Please be advised that this transaction will be described on your monthly statement as a charge from **ACM.**

Card Nr. _____ Good Thru: _____

Cardholder's Name _____

Cardholder's Signature _____

Billing Address: _____
(if different from above)

Cancellation Policy: Confirmed registrants who cannot attend, and do not send a substitute, are entitled to a refund of paid fees (less a $50 processing fee) if a request is received in writing on or before October 20, 2000. Registrants are liable for their full fees after that date.

Those registered before 20 October 2000 will receive confirmation by fax or mail.

Mail Form with payment to:
ACM SIGAda 2000
C/O Thomas A. Panfil
REGISTRATION CHAIR
PO BOX 5210
LAUREL MD 20726-5210

Or Fax to: +1-301-604-3204

Faxed forms must include credit card payment information. Phone registrations are not accepted. For registration inquiries only, please call +1-301-498-7313
or e-mail: tapanfil@ieee.org

For additional information, visit our web site at:
http://www.acm.org/sigada/conf/sigada2000/

Please return this form **with full payment or it cannot be processed**.

- ☐ Check payable to **ACM SIGAda 2000**
- ☐ Visa
- ☐ MasterCard
- ☐ American Express

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HOTEL RESERVATIONS

A block of rooms has been set aside for SIGAda 2000 Conference attendees at the rate of **$109** (USD) single/$119 double per night. Please identify your affiliation with SIGAda 2000 to receive this rate. We are fortunate to have the same low government rate for all SIGAda Conference Attendees. Rooms in this block will be available at this rate until October 23, 2000, after which the Conference rate or room availability cannot be guaranteed. Register early to obtain the Conference rate. Shuttles will be available between the hotel and the conference venue at APL. Please make your Hotel reservations directly with

The Sheraton Columbia Hotel 10207 Wincopin Circle Columbia, MD 21044
+1 (800) 638-2817 (US & Canada only) **+1-410-730-3900 +1-410-730-2212 (FAX)**