

SIGAda

The ACM Special
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Report from



*The
SIGAda
Awards
Committee*

1999 SIGAda AWARD WINNERS

Outstanding Ada Community Contributions

Ted Baker

(Florida State University)

David Emery

(The MITRE Corporation)

Dirk Craeynest

(Ada Belgium)

SIGAda Distinguished Service Awards

Norman Cohen

(IBM Watson Laboratory)

SIGAda's ASIS Working Group,
chaired by Currie Colket *(MITRE, &
SIGAda Vice Chair for Meetings and
Conferences)*

Past Winners (1994-1998)

Christine Anderson
John Barnes
Kenneth L. Bowles
Richard Conn
Robert Dewar
John Goodenough
Audrey Hook
Jean Ichbiah

Magnus Kempe
Bob Mathis
Jim Moore
Emmett Paige, Jr.
Richard Riehle
Edmond Shonberg
Tucker Taft
William Whitaker

Brad Balfour
Benjamin Brosgol
Ed Colbert
Chuck Engle
Mike Feldman
Gerry Fisher
Anthony Gargaro
Mark Gerhardt

Hal Hart
Mike Kamrad
Charlene Roberts-
Hayden
SIGAda's Numerics
Working Group
(Chaired by Gil Myers)

It was our pleasure (along with my SIGAda Awards Committee Co-Chair Ed Colbert) to honor **Ted Baker, Dave Emery, Dirk Craeynest, Norm Cohen, and SIGAda's ASIS Working Group (Chaired by Currie Colket)** at SIGAda'99 in Redondo Beach in October as the sixth class of SIGAda Award winners. This continues a SIGAda tradition — annual awards that are recognized as the most prestigious in the Ada community. SIGAda has two categories of competed awards: Outstanding Ada Community Contributions, recognizing broad, lasting contributions to the overall state of Ada technology and usage, and ACM SIGAda Distinguished Service Award, recognizing exceptional “volunteer” contributions to SIGAda activities and products.

Each award winner has made multiple distinguished contributions in the Ada community or SIGAda. In almost all 1999's cases, their contributions fit both award categories and it was fairly arbitrary which award they received. Some of their highlight accomplishments are summarized below, based on citations from their nominations. (*My apologies for flagrant omissions of important accomplishments.*)

Ted Baker: No other individual has done more to make Ada fit into real-time systems than Ted Baker. Ted has made several important technical contributions to both the Ada language and to its implementations. The facilities in the Ada95 Real-Time Systems Annex can be traced back to Ted's work. He was technical editor for the Ada Binding to the IEEE Real-Time Extensions (IEEE P1003.5b), and also coordinated other Ada binding efforts within POSIX. In support of his own research on integrating Ada and POSIX Threads, he and his students at Florida State University (where Ted is professor and chair of the CS department) developed the “FSU Threads” library, which has had a significant impact on the evolution of real-time Unix/POSIX systems. Building on one of the first (C language) threads implementations to claim conformance with the POSIX Real Time extensions, Ted and his students went on to provide open source implementations of POSIX/Ada bindings and Ada Runtime systems for the GNU Ada compiler. Within SIGAda, Ted has been one of the organizers of the ARTEWG and the Real-Time Ada workshops.

Because Ted Baker has advanced the state of the art in Ada, facilitated the use of Ada on those complex real-time systems that were the original justification for the Ada program, and probably impacted every real-time system implemented in Ada today, Ted is a richly deserving recipient of a 1999 SIGAda Award for Outstanding Ada Community Contributions!

Norman Cohen: If quantity is quality, Norm Cohen has written the best Ada books ever! If wit is recognized as a great motivator for a cause, few people have done more for Ada than Norm Cohen. :-)

Seriously, Norm exhibits those properties (and really has authored one of the most popular Ada books, Ada as a 2nd Language), but also he has continuously made high quality contributions to both Ada technical activities too numerous to mention and to the organizing of SIGAda activities such as serving as SIGAda Secretary, Program Committee Chair of Tri-Ada'97, and a member of SIGAda's conferences' Program Committees many times. Norm's winning style has brought success to his Ada and SIGAda endeavors, and has motivated many others to contribute also.

For broad, highly effective contributions to Ada and SIGAda, it is my pleasure to finally recognize a treasured friend, Norman Cohen, as recipient of a 1999 SIGAda Distinguished Service Award!

Dirk Craeynest: Dirk is and has been for many years a driving force on both the Ada-Europe and Ada-Belgium boards. He is also responsible for the Ada-Belgium website and its annual conference, served as editor of Ada User Journal, and is always involved in the annual Ada-Europe conference. In

encouraging people to promote Ada, and actively promoting Ada himself he plays a central role in the development of the Ada community in Europe and especially Benelux (Belgium, The Netherlands, Luxembourg).

In short, for his years of tireless “behind the scenes” organizing of many Ada activities, his activism in getting U.S. Ada personalities to appear at European Ada events and otherwise playing important roles in keeping these two communities connected, I am very pleased to personally recognize our delightful colleague Dirk Craeynest with a 1999 SIGAda Award for Outstanding Ada Community Contributions!

David Emery: Ada bindings have been the key to allowing Ada to integrate with software written in other languages, and David Emery has become known as “Mr. Bindings” for his work on a variety of binding projects and technologies, most notably IEEE Std 1003.5-1992, the Ada Binding to POSIX. Not only have the POSIX/Ada bindings been a critical part of many important large Ada software projects, the standard itself (with its rationale) has been cited many times as “the bindings Bible.” Dave also participated in the WG9 Ada 83 Uniformity Rapporteur Group, again emphasizing issues related to interfacing Ada to other languages and the underlying system. He made several contributions to the Ada95 program, in the area of bindings and interfaces, and in the Information Systems annex, leading an ATIP project that contributed both language concepts and working prototype implementations of decimal arithmetic and formatted output. Most recently, his technical work has been in the area of software and systems architectures.

Dave has been very active in SIGAda since 1982, serving as Secretary and later as Treasurer. He has presented many papers and tutorials at Ada conferences in Europe and North America, and his paper on Software Architecture (co-authored with R. Hilliard and T. Rice) won “Best Paper” at Ada Europe '96. He has made several SIGAda Lectureship presentations on Ada and Open Systems and Software Architectures. In addition, he was a member of the ACM task force on local Special Interest Groups and is a member of the ACM Technical Standards Committee. He also has received awards from the IEEE for his work on POSIX and was honored as a member of the Computer Society "Golden Core" of influential IEEE CS members.

David Emery’s body of accomplishments since the early days of Ada constitute one of the strongest cases ever for both SIGAda awards, so I excited to finally honor Dave for what I regard as long-overdue recognition with a 1999 SIGAda Award for Outstanding Ada Community Contributions!

Ada Semantics Interface Standards (ASIS) Working Group: ASIS became an ISO standard in 1998 through the efforts of the volunteers in this SIGAda working group. ASIS began as an AJPO-sponsored activity in the late 1980’s, but was continued and eventually made successful by ASISWG Chair Currie Colket and several other dedicated, expert members of ASISWG for whom ASIS was more often a personal technical passion than an employer-sponsored endeavor. In short, ASIS provides a basis for implementing portable tools (capable of working with all compilers) to analyze static properties in Ada source code, making broadly available for Ada improved development processes for highly reliable and safety-critical systems that are unparalleled for other languages. Code comprehension, reliability, and quality are all directly enhanced by the analysis of software engineering features of Ada enabled by ASIS. As testimony to ASIS’s success, it is now supported by most Ada compiler vendors and is used in more than 20 nations worldwide, including for analysis of most recent Boeing commercial and military systems.

Following the Numerics Working Group which received one of the first SIGAda awards for carrying important numerics packages through to ISO standardization, it is exceedingly fitting that ASISWG, the

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second SIGAda working group to accomplish carrying a product from inception to international standardization, be awarded a 1999 SIGAda Distinguished Service Award!