

From the Editor's Desk

Alok Srivastava

Welcome to this issue of ACM Ada Letters. In this issue you will find two very interesting papers Priority Inversion with Fungible Resources by Gertrude Levine and Making Alive Register Transfer Level and Transaction Level Modeling in Ada by Negin Mahani. Trudy's paper discusses the Priority inheritance protocols developed to limit priority inversions during competition over shared resources. Negin's paper presents a specialized form of Ada as a system description language, like the way SystemC is used for description of systems.

The issue also provides details on AdaCore compiled **Ada Gems**:

- Where did my memory go? by *Emmanuel Briot*
- Speedy Shift and Rotate in SPARK by *Rod Chapman*
- GNAT Semaphores by *Pat Rogers*
- Type-Based Security by *Yannick Moy*
- The Distributed Systems Annexes by *Thomas Quinot*
- Ada Quiz 1 – Basic Types by *Quentin Ochem*
- The Distributed Systems Annex – Mailboxes by *Thomas Quinot*

In this issue you will find the Call for Technical Contributions for the High-Integrity Language Technology SIGAda 2012 conference to be held from December 2-6, 2012 in Boston USA. Another major Ada event, the International Conference on Reliable Software Technologies Ada-Europe 2012 will be held from June 11-15, in Stockholm, Sweden.

Once the National Bodies' comments on the Ada 2012 were taken care, the incoming version will soon be a reality. The WG9 committee, after discussions with the ARG and with members of the Ada community, has instructed the ARG to complete the Amendment to Ada 2005 so that ISO standardization of the new version can be completed by 2012. This is a relatively short horizon, but it matches the interval between previous releases, demonstrates that the language continues to evolve with software theory and practice, and at the same time places a bound on the changes to the language, and ensures that they do not present an undue implementation burden on existing compilers. The most important enhancements are those directly related to correctness, namely the introduction of more powerful assertion mechanisms in the language: pre- and post conditions for subprograms, global assertions, type invariants, are other mechanisms that encourage the programmer to better specify the meaning of the code they write, and allow the run-time to verify that this meaning is in fact obeyed.

Our regular contributor Trudy Levine has provided updates to the Ada Reusable Software Components.

Ada Letters is a great place to submit articles of your experiences with the language revision, tips on usage of the new language features, as well as to describe success stories using Ada. We'll look forward to your submission. You can submit either a MS Word or Adobe PDF file (with 1" margins and no page numbers) to our technical editor:

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We look forward to hearing from you!

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Editorial Policy (from Alok Srivastava, Managing Editor)

As the editor of Ada Letters, I'd like to thank you for your continued support of ACM SIGAda, and encourage you to submit articles for publication. In addition, if there is some way we can make Ada Letters more useful to you, please let me know. Note that Ada Letters is now on the web! See http://www.acm.org/sigada/ada_letters/index.html. The two newest issues are available only to SIGAda members. Older issues beginning March 2000 are available to all.

Now that Ada is standing on its own merits without the support of the DoD, lots of people and organizations have stepped up to provide new tools, mechanisms for compiler validation/assessment, and standards (especially ASIS). The Ada 2005 language version is fulfilling the market demand of robust safety and security elements and thereby generating a new enthusiasm into the software development. Ada Letters is a venue for you to share your successes and ideas with others in the Ada community. Be sure to take advantage of it so that we can all benefit from each other's learning and experience.

As some of the other ACM Special Interest Group periodicals have moved, Ada Letters also transitioned from quarterly to a **tri-annual publication**. With exception of special issues, Ada Letters now is going to be published three times a year, with the exception of special issues. The revised schedules and submission deadlines are as follows:

Deadline	Issue	Deadline	Issue
February 1 st , 12	April, 2012	June 1 st , 12	August, 2012
October 1 st , 12	December, 2012	February 1 st , 13	April, 2013

Please send your article to Dr. Pat Rogers at rogers@adacore.com

Guidelines for Authors

Letters, announcements and book reviews should be sent directly to the Managing Editor and will normally appear in the next corresponding issue.

Proposed articles are to be submitted to the Technical Editor. Any article will be considered for publication, provided that topic is of interest to the SIGAda membership. Previously published articles are welcome, provided the previous publisher or copyright holder grants permission. In particular, keeping with the theme of recent SIGAda conferences, we are interested in submissions that demonstrate that "Ada Works." For example, a description of how Ada helped you with a particular project or a description of how to solve a task in Ada are suitable.

Although Ada Letters is not a refereed publication, acceptance is subject to the review and discretion of the Technical Editor. In order to appear in a particular issue, articles must be submitted far enough in advance of the deadline to allow for review/edit cycles. Backlogs may result in an article's being delayed for two or more issues. Contact the Managing Editor for information on the current publishing queue.

Articles should be submitted electronically in one of the following formats: MS Word (preferred) Postscript, or Adobe Acrobat. All submissions must be formatted for US Letter paper (8.5" x 11") with one inch margins on each side (for a total print area of 6.5" x 9") with no page

numbers, headers or footers. Full justification of text is preferred, with proportional font (preferably Times New Roman, or equivalent) of no less than 10 points. Code insertions should be presented in a non-proportional font such as Courier.

The title should be centered, followed by author information (also centered). The author's name, organization name and address, telephone number, and e-mail address should be given. For previously published articles, please give an introductory statement (in a distinctive font) or a footnote on the first page identifying the previous publication. ACM is improving member services by creating an electronic library of all of its publications. Read the following for how this affects your submissions.

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Back issues of Ada Letters can be ordered at the price of \$6.00 per issue for ACM or SIGAda members; and \$9.00 per issue for non-ACM members. Information on availability, contact the ACM Order Department at 1-800-342-6626 or 410-528-4261. Checks and credit cards only are accepted and payment must be enclosed with the order. Specify volume and issue number as well as date of publication. Orders must be sent to:

ACM Order Department, P.O. Box 12114, Church Street Station, New York, NY 10257 or via FAX: 301-528-8550.

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