FEATU R ARTI CLES

Guest Editors' Introduction
Svetlana Kartashev and Steven Kartashev

Reusing and Interconnecting Software Components
Joseph A. Goguen
Realizing the considerable economic potential of software reuse requires new programming environment ideas. This article presents a library interconnection language featuring modest use of semantics.

Adaptable Software and Hardware: Problems and Solutions
Nikitas A. Alexandridis
The tremendous costs of software and ever-increasing performance requirements make adaptable, reusable software and hardware essential to mission-critical military computing systems.

Adaptable Software for Supercomputers
Thomas Schwederski and Howard Jay Siegel
Software used to control and program reconfigurable supersystems must efficiently exploit the hardware flexibility available. If not, the system does not fulfill its potential.

Supersystem Programming with Model
Noah Prywes, Yuan Shi, Boleslaw Szymanski, and Jine Tseng
With the Model equational language, programmers concentrate on the rules and relations of a problem, not on the underlying system hardware and software.

Adaptable Software for Dynamic Architectures
Svetlana P. Kartashev and Steven I. Kartashev
Reconfiguration software takes advantage of performance gains from reconfiguration. Retargetable software allays huge software development costs. Both are adaptable.

Fault Tolerance Techniques for Array Structures Used in Supercomputing
Roberto Negrini, Mariagiovanna Sami, and Renato Stefanelli
We can change reconfiguration algorithms to suit varying requirements while keeping VLSI and WSI arrays and their hardware and software interfaces standard.

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Design for Adaptability

DEPARTMENTS

88 The Workstation: Integrating AI into the avionics engineering environment
93 Update: Governing Board approves bylaws changes; 49 CS members named IEEE Fellows; Nominations sought for Eckert-Mauchly Award
98 Book Reviews: Natural Language Communication With Pictorial Information Systems; How to Write Computer Manuals for Users
102 Letters
104 New Products
110 IC Announcements
114 Microsystem Announcements
117 New Literature
119 Tables of Contents: Computer Society magazines and transactions
120 Call for Papers
123 Calendar
126 Classified Ads
136 Advertiser/Product Index
136A Reader Service Card
113 IEEE-CS Membership Application
6 Change-of-Address Form

On the cover
The natural coloring of the horned frog (Ceratophrys ornata) is adapted so perfectly to this carnivore's environment that the animal can appear invisible to predators and prey alike. Photograph by Rudolf König/Jacana. Cover design by Jay Simpson.

In the next issue
Introducing replicated VLSI to supercomputing

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