Editor-in-Chief: Ted Lewis
Administrator: June Martin
10662 Los Vaqueros Circle
Los Alamitos, CA 90720

Editorial Board
Dennis Allison (Stanford University), Barry Boehm (TRW Defense Systems Group), Susan Gerhart (MCC), Ted Lewis (Oregon State University), Michael Lutz (GCA Corp.), William McKeeman (Wang Institute of Graduate Studies), John Musa (AT&T Bell Telephone Laboratories), Paul Oman (University of Idaho), Robert Poston (Programming Environments, Inc.), Sorel Reisman (California State University at Fullerton), Mary Shaw (Carnegie Mellon University), Vincent Shen (MCC)

Magazine Advisory Committee
Michael Evangelist (chair)
Vishwani Agrawal, James Farrell III, Ted Lewis, David Pessel, True Seaborn, Bruce Shriver, John Staudhammer

Publications Board
J. T. Cain (chair)
Vishwani Agrawal, J. Richard Burke, Gerald Engel, Michael Evangelist, James Farrell III, Lansing Hatfield, Ronald Hozeleman, Ted Lewis, Ming Liu, Ezzahouraai, David Pessel, C. V. Ramamoorthy, Vincent Shen, Bruce Shriver, John Staudhammer, Steven Tanimoto

Staff
Editor and Publisher: True Seaborn
Managing Editor: Angela Burgess
Assistant Editor: Galen Gruman
Contributing Editors: Ware Myers, Joe Schallan
Assistant to the Publisher: Pat Paulsen
Art Director: Jay Simpson
Designer: Kevin Reagan
Production: Stephen Wright
Circulation Manager: Christina Champion
Advertising Director: Dawn Peck
Advertising Coordinators: Heidi Rex, Marian Tibayan

Submissions: Send eight double-spaced copies of articles and special issue proposals to Ted Lewis, Editor-in-Chief, IEEE Software, c/o Computer Science Dept., Oregon State University, Corvallis, OR 97331; Compmail + t.lewis; CSnet lewis@oregon-state. Send letters and departmental submissions (two double-spaced copies) to Angela Burgess, Managing Editor, IEEE Software, 10662 Los Vaqueros Cir., Los Alamitos, CA 90720; Compmail + soft. one; Sourcemail epa183. All submissions are subject to editing for style, clarity, and space considerations.

Editorial: Unless otherwise stated, bylined articles and columns, as well as products and service descriptions, reflect the author's or firm's opinion. Inclusion in IEEE Software does not necessarily constitute endorsement by the IEEE or the Computer Society. IEEE Software subscribes to the Computer Press Association's code of professional ethics.

Copyright and reprint permission: Copyright © 1987 by the Institute of Electrical and Electronics Engineers, Inc. All rights reserved. Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limits of US copyright law for private use of patrons those post-1977 articles that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 29 Congress St., Salem, MA 01970. Instructors are permitted to photocopy isolated articles for noncommercial classroom use without fee. For other copying, reprint, or republication permission, write to Permissions Editor, IEEE Software, 10662 Los Vaqueros Cir., Los Alamitos, CA 90720.

Circulation: IEEE Software (ISSN 0740-7459) is published bimonthly by the Computer Society of the IEEE. IEEE headquarters: 345 E. 47th St., New York, NY 10017. Computer Society publications office: 10662 Los Vaqueros Cir., Los Alamitos, CA 90720; (714) 821-8380. Annual subscription: $16 in addition to any IEEE group or society dues; $25 for members of other technical organizations. Single copies: $7.50 for members, $15 for nonmembers. This magazine is available on microfiche.

Postmaster: Send undelivered copies and address changes to Circulation Dept., IEEE Software, 10662 Los Vaqueros Cir., Los Alamitos, CA 90720. Second-class postage paid at New York, N.Y., and at additional mailing offices.

Published by the Computer Society of the IEEE

DEPARTMENTS

5 Software Letters
Applying Cocomo • Strategic
Defense Initiative
86 Software Standards
Preventing Most-Probable Errors in Planning
92 New Product Reviews
BSW-Make • MathPlan • Norton
Utilities • SRMS • FTL Modula-2 •
MathCAD • Word For Word •
Wines on Disk
97 New Products
100 Product Highlights
101 Soft News
Steve Jobs Keynotes Unix
Conference • NSF Computing Chief
on Research Directions • Reusability
Libraries
107 Calendar • Call for Papers
108 Book Reviews
Programming Productivity • Files
and Databases: An Introduction •
Handbook of Software Maintenance •
Document Formatting and
Typesetting on the Unix System •
The C + + Programming Language
111 Computer Society Roster

It seems like an obvious solution to reduce the tremendous investment required to write new software: Why not reuse parts of existing programs and save on development time and testing costs? One reason reusability has been no more than a suggestion is that the tools to make reusability work didn’t exist. But now these tools are appearing, and this issue’s articles show you several of them. With them, reuse may become a reality.

Cover photo by Tony Bullard
Cover design by Kevin Reagan