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Vol. 4, No. 6, June 1984 (Monthly)
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A 3-D Graphics Display System with Depth Buffer and Pipeline Processor
Akira Fujimoto, Christopher G. Perrott, and Katsuyuki Iwata
This terminal produces smooth color-shaded surfaces quickly for applications in science, engineering, and animation.

A Unified Algorithm for Boolean Shape Operations
Fujio Yamazaki and Yoshihisa Tokuda
Most algorithms for Boolean shape operations are complicated, slow, and of limited applicability. This one, based on a triangulation of potentially intersecting faces, is relatively fast and simple.

Formgraphics: A Form-Based Graphics Architecture Providing a Database Workbench
Hiroyuki Kitagawa, Toshiya K. Kami, Motoshi Azuma, and Sohei Mizuki
Complex combinations of text, graphics, and alphabetic strings can be manipulated easily and quickly by this architecture.

Geonap III: Designing Solids with Free-Form Surfaces
Yamakatsu Komura
This software is designed to include the capability of modeling solids objects with complex surfaces. A geometric modeler is incorporated with new techniques to combine design functions.

IEEE Micro
Vol. 4, No. 3, June 1984 (Bimonthly)
Nonmembers, $60/yr.; members, $12/yr.

An Efficient Software Driver for the Am9511 Arithmetic Processor
Borivoje Furlan and Peter Lee
This driver enables easy implementation of the Am9511 as a coprocessor in Intel 8085-based systems.

A System Executive for Real-Time Microcomputer Programs
Walter S. Heath
Don’t want to use an off-the-shelf system executive but lack the resources to develop one from scratch? This description will help you build your own custom package.

A Reduced High-Level-Language Instruction Set
Peter C. Schulteis
The Object Pascal Architecture provides 22 simple stack instructions which enable straightforward compilation of Pascal-like languages.

The IEEE P1591:0 Expansion—Proposed Standard
The IEEE P1591 Working Group
This proposed standard allows small increments of IO to be added or modified in an easy, cost-effective way. It is offered here for public comment before submission to the IEEE Standards Board.

IEEE Transactions on Pattern Analysis and Machine Intelligence
Vol. PAMI-6, No. 4, July 1984 (Bimonthly)
Nonmembers, $100/yr.; members, $10/yr.

Research on Machine Recognition of Handprinted Characters
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Nonmembers, $130/yr.; members, $12/yr.

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Picture Indexing and Abstraction Techniques for Pictorial Databases
S. K. Chang and S. H. Lii
The Ada programming language and its implementation throughout the defense community is one of the significant computer events of the 80's. And the focal point for planning and monitoring this implementation is right here at IDA — the Institute for Defense Analyses.

This is creating high visibility career opportunities for software engineering professionals at all levels from junior to very senior.

The work will be performed by the Computer and Software Engineering Division of IDA, a not-for-profit organization headquartered in Washington, D.C., serving the Office of the Secretary of Defense and the Joint Chiefs of Staff.

The IDA effort on behalf of Ada is focused on five areas: validation of Ada language processors and programming support environments (the highest priority); analysis of policy implications (including the impact of DoD policies on the domestic computer industry); education and training; promoting the adoption of Ada; and the development of automated Ada tools.

The broad-based mission of the Computer and Software Engineering Division also encompasses other important tasks. These include reducing the time required for VHSIC technology insertion, addressing applications software requirements for WIS (the WWMCCS Information System), and performing other major scientific and technological analyses with regard to the development and use of computing systems.

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