FEATURE ARTICLES

12 Viewing Transformations of Voxel-Based Objects via Linear Octrees
   I. Gargantini, T.R. Walsh, and O.L. Wu
   The three algorithms presented for displaying gray-level, octant-based regions offer a choice between internal and external viewing positions.

22 Guest Editors' Introduction
   Jack Grimes and John Dill

24 The Texas Instruments 34010 Graphics System Processor
   Mike Asal, Graham Short, Tom Preston, Richard Simpson, Derek Roskell, and Karl Guttag
   This 32-bit graphics microprocessor was designed for flexibility and high performance by combining some of the best attributes of the RISC and CISC architectures.

40 National's Advanced Graphics Chip Set for High-Performance Graphics
   Charles Carinalli and John Blair
   Many of the new graphics VLSI ICs suffer from restricted performance and applicability across the graphics spectrum, but there is an optimum architecture to solve the inherent problems.

49 A New VLSI Graphics Coprocessor—The Intel 82786
   Glen Shires
   A high-performance graphics processor capable of supporting today's graphics standards, and a powerful display processor that supports windowing in hardware are combined in a single chip.
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Published by the IEEE Computer Society