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5 Color 3-D Imaging of Normal and Pathologic Intracranial Structures
Edward J. Farrell, Rosario Zappulla, and Wen C. Yang
The overall feasibility of 3-D imaging for intracranial soft tissues depends on three vital areas: the display method, the display options, and the image processing system.

20 A Smooth Surface Based on Biquadratic Patches
Herbert A. Steinberg
Ray tracing can generate high-quality color images of free-form surfaces. To reduce CPU time, introduce extra knots into the system and use biquadratics instead of bicubics.

24 An Efficient Ellipse-Drawing Algorithm
Jerry R. Van Aken
Low-cost PCs and workstations with bit-mapped graphics possess limited processing power. As a result, efficient algorithms are needed to draw curves interactively.

36 Offsets of Two-Dimensional Profiles
Wayne Tiller and Eric G. Hanson
An offset capability for planar curves and profiles in a solid modeler leads to the solution of some practical design problems.

48 An Algorithm for Locating and Displaying the Intersection of Two Arbitrary Surfaces
Mark B. Phillips and Garrett M. Odell
A new method for numerically computing the intersection of implicitly defined surfaces provides the capability to display intersections that are impossible to find analytically.

SPECIAL FEATURE

62 Siggraph 84
Ware Myers
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