Coming Next Month:
Chinese/Kanji Text and Data Processing

FEATURE ARTICLES

11 Guest Editor's Introduction: Practice and Progress in CAD/CAM
   Toshiyasu L. Kunii

14 A 3-D CAD/CAM System with Interactive Simulation Facilities
   Ken-ichi Kobori, Yoshiiiro Nagata, Yoshinobu Sato, Kenneth M. Jones, and Ikuo Nishioka
   To meet application requirements in all stages of the design process, an electric appliance
   manufacturer has developed an individualized system featuring realistic kinematic models.

25 Geomatic: A 3-D Graphic Relief Simulation System
   Daniel Laurent and Serge Moet
   Geomatic offers an aviator's view of terrain features; the geographic database can be
   manipulated interactively for higher or lower perspectives or to give the aviator a glimpse
   of the other side of the mountain.

32 Top-Down Construction of 3-D Mechanical Object Shapes from Engineering Drawings
   Hiroshi Yoshiura, Kikuo Fujimura, and Toshiyasu L. Kunii
   The automatic generation of 3-D images based on conventional engineering drawings and
   notations can improve the efficiency of CAD/CAM systems in many applications.

44 Interfacing Solid Modeling to CAD and CAM: Data Structures and Algorithms for Decomposing a Solid
   Tony C. Woo
   Because of their many possible uses, geometric models must be application-independent as
   well as informationally complete. This article examines four data structure conversions
   using two types of internal representation: a CSG tree and a boundary-representation graph.

50 Factory Automation: An Automatic Assembly Line for the Manufacture of Printers
   Hiroma Tanimoto
   Flexible enough to cope with model changes and diversified users' requirements, this
   robotics system is the company's first step toward totally unmanned operation.

73 An Autonomous, Decentralized Control System for Factory Automation
   Noriisa Komoda, Kazuo Kera, and Takeaki Kubo
   Hitachi's total factory automation systems are based on distributed workstations
   adaptable enough for use in a variety of industries. Key components are the flexible
   manufacturing cell controller and a process local area network.