Computer Graphics Research

The Integrated Systems Group of the Computer Research Laboratory of Tektronix, Inc. is looking for hardware and software engineers to participate in research and development of advanced high performance processors for 3-dimensional computer graphics.

• Senior Digital Systems Designer
  Research and develop system-level architectures for advanced computer graphic systems. Provide technical leadership in the VLSI implementation of highly parallel architectures. Requires advanced degree in EE or CS (or equivalent) and proven ability to contribute in a research environment.

• Computer Graphics Researcher
  Perform research and development in topics in computer graphics, including hidden surface algorithms, surface representation, lighting models and special hardware architectures for high performance. Knowledge of digital systems and VLSI design is desirable. Requires advanced degree in EE or CS (or equivalent) and a proven ability to contribute in a research environment.

The Computer Research Lab is a part of the corporate Applied Research Laboratories, whose function is to explore and develop the potential capabilities of emerging technologies, and to provide technology-based product opportunities for our operating divisions.

Located in the Portland, Oregon metropolitan area, we are within a two-hour drive of the beautiful Cascade mountains and ocean beaches. The close-by natural playgrounds and the city of Portland provide a wide variety of recreational and cultural opportunities.

We offer competitive salaries and excellent benefits, including liberal educational support, insurance and profit sharing programs.

If you would like to find out more about this or other opportunities in the Computer Research Laboratory, please send your resume or contact: Kit Bradley, Manager Integrated Systems Group, MS 50-662, Tektronix, Inc., P.O. Box 500, AJX1, Beaverton, OR 97077. Phone: (503) 627-1497 (collect).

ARPANET: kitb.tektronix@rand-relay
CSNET: kitb@tektronix
USENET: (ucbvx | decvax) | tek labs | kitb

We are an equal opportunity employer m/f/h.

NC mill interface

The interface between the octree modeling (CAD) and the NC mill (CAM) is a Tektronix 4050 series graphics system. The cutter paths generated above are transferred to the 4050 through a simple communications line. An overview diagram of the system actually used is shown in Figure 9. Once the data have been transferred, the milling process is the same as that used in the ship model manufacturing system. Briefly, the Tektronix is directly interfaced to the NC mill controller. A program running in the 4050 converts the cutter path to NC milling codes as the part is produced. Additionally, a graphical display of the cutter path is produced on the 4050 display. The final sample object cut by the NC machine is shown in Figure 10.

The integration of an octree-based solid modeling system into an existing surface-based computer-integrated manufacturing system has been demonstrated. This is partially accomplished by generalizing the octree...