As in the computer industry in general, Japan has become a world leader in the development of computer graphics technology and its applications. In this issue and in the next, we present a collection of original articles reflecting the variety of computer graphics activity in Japan.

One reason for the popularity of computer graphics is its capability of producing beautiful and realistic images. The first article, by Masaki Aono and myself, describes new models for generating images of varieties of botanical trees, such as Japanese pine trees and bamboo trees, all in 3-D. With these models, based on scientific studies of plant morphology, a landscape designer can interactively "grow" trees and arrange them, for example as street trees, viewing them from any side on the CRT screen.

An application of computer graphics in medicine is the subject of the next article, by Shohei Nakamura, whose image processor for analysis of computed ultrasound tomography has been successful in the detection of bladder cancer at the University of Tokyo Hospital.

Tsuneo Ikedo details the architectural innovations of Seilac's latest high-speed, 3-D, color display terminal, one of many Japanese high-performance, interactive terminals now competing in the world market. (Another example will be described in an article in the June issue.)

In a lower price range, the personal computer, in Japan as elsewhere, is bringing graphics capabilities to an increasing number of users. In our fourth article, Jiro Yamada, Nagatoshi Saito, and Akio Tamura describe a typical low-cost drafting workstation based on a Hitachi personal computer. The system is useful and affordable for many business graphics and design applications.

Another important application of computer graphics, cartography, is illustrated in the next article. The ALIS geographical information system developed by Sachio Kubo has been used extensively by local governments in Japan as a time- and money-saving tool in urban analysis and planning.

The final article in this issue deals with a major problem in interactive CAD/CAM systems. Norio Okino, Yukinori Kazazu, and Masamichi Morimoto present an algorithm—an enhancement of the well-known TIPS-I solid modeling system—developed to enable visualization of hidden surfaces. (Two more articles in the CAD/CAM area will appear in the June issue.)

Thus, this two-part special issue presents a small set of examples of research, technological development, and applications of computer graphics in Japan. It is just a beginning glimpse into the Japanese computer graphics community. I would like to thank the authors and all the referees, who, in carefully reviewing the articles, contributed significantly to the quality of this special issue.

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