
Pertinent Concepts in Computer Graphics. Proceedings of the Second University of Illinois Conference on Computer Graphics. *M. Faiman and J. Nievergelt*, editors. University of Illinois Press, Urbana. 1969. 439 p. \$12.50.

Computer graphics deals with the science and technology of visual display of information, where computers process or prepare the display for contemplation by humans. Frequently, but not always, this is done interactively, i.e. the human modifies inputs, emphases, etc., in ways strongly influenced by what he sees. With the increasing importance of computers and the growing sophistication of the tasks they can perform (as well as the speed with which they are performed), there is a growing need for better ways for humans to communicate with computers.

This book contains twenty-two papers covering a broad spectrum of computer graphics topics. Most have reasonably adequate bibliographies. Regrettably, there is no index, but if a topic is treated at all, one can often make a good guess about where it would be found from the titles of the papers in the table of contents. Some papers are sketchy summaries, others reasonably complete treatments. Some deal with the physics of particular components, others with systems, terminals, and particular devices. Some deal with programs or programming languages designed to handle particular kinds of problems; some are highly theoretical, while others are very down-to-earth and practical. Manipulation of texts, geometrical figures, computer animation, photomask layout, turbine-blade design, helicopter-fuselage-vibration analysis, and the creation of symbolic diagrams (e.g. circuits) are some of the applications treated in some detail. Some papers deal with scenic descriptions and their computer processing, feature extraction, and information compression.

A book like this becomes outmoded much more rapidly than does a text in a mature field, and its parts, inhomogeneous initially, become obsolete in different elapsed times. The material in such a field is scattered over many journals, and few texts in it exist. The book will thus be useful until good systematic treatments appear, and the more carefully written individual surveys and discussions of applications may remain useful even longer. It will be of interest for libraries and to a number of different specialists, but the general technical reader or student will doubtless want to invest the price of the book elsewhere.

JEROME ROTHSTEIN