INTRODUCTION TO COMPUTER GRAPHICS

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- Computer graphics

DESCRIPTION:
This new introductory text to computer graphics is an adaptation of Computer Graphics: Principles and Practice, Second Edition which remains the most comprehensive and authoritative work in the field. While retaining the currency and accuracy of the larger book, this abbreviated version focuses on topics essential for all beginners in computer graphics and provides expanded explanations for readers with little or no technical background. Worked examples have been added to illustrate important concepts and techniques, and program code has been written in the C language to enhance the book's usefulness. In addition, the book contains an extensive illustration program, with more than 50 full-color images.

Topic coverage includes basic graphics programming, hardware, and applications. Important algorithms are included to facilitate implementation of both 2D and 3D graphics. A separate chapter covers SPHIGS—a simplified dialect of the PHIGS 3D standard—and coincides with the availability of an updated version of the software. Chapter 9 presents a concise overview of interaction issues and techniques. Advanced material from the larger book has been condensed, and the mathematics needed for it has been explained carefully.

The result is an accessible introduction to computer graphics, crafted to provide a solid foundation for further work in this exciting field.

FEATURES:
- Adaptation of the definitive computer graphics book in the field—half the length.
- Presents key concepts geared toward students with minimal technical background.
- Provides worked examples in C.
- Retains the high level of teaching standards of the parent graphics text.

CONTENTS:

PREFACE


Improving the Point-Light-Source Model * Multiple Light Sources * Physically Based Illumination Models * Shading Models for Polygons

Includes bibliographical references (p. 527-543) and index.

SUPPLEMENTS to the book are available at publishers site. See http://hegschool.aw.com/cseng/authors/foley/compgrafix/compgrafix.sup.html.

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Introduction to Computer Graphics.

2 What is computer graphics? Computer graphics refers to the creation, storage and manipulation of pictures and drawings using digital computers. Used in diverse fields to represent data.

3 Application of Computer Graphics

- Designing engineering and architectural systems use graphics for designing consumer products and many other applications.
- CAD (computer-aided design) is used frequently in designing buildings, cities, aircraft, spacecraft, defence mechanism and so on. Graphics make computer applications much more interactive, active and dynamic.
- It opens unlimited experimenting options for the designer.

"Pretending to not be afraid is as good as actually not being afraid." — David Letterman