

PEARSON NEW INTERNATIONAL EDITION

Computer Graphics with Open GL
Hearn Baker Carithers
Fourth Edition



Pearson New International Edition

Computer Graphics with Open GL
Hearn Baker Carithers
Fourth Edition

PEARSON

Computer Graphics with Open GL

Table of Contents

Cover

Table of Contents

1. Computer Graphics Hardware

Computer Graphics Hardware Color Plates

2. Computer Graphics Software

3. Graphics Output Primitives

4. Attributes of Graphics Primitives

5. Implementation Algorithms for Graphics Primitives and Attributes

6. Two-Dimensional Geometric Transformations

7. Two-Dimensional Viewing

8. Three-Dimensional Geometric Transformations

9. Three-Dimensional Viewing

Three-Dimensional Viewing Color Plate

10. Hierarchical Modeling

11. Computer Animation

12. Three-Dimensional Object Representations

Three-Dimensional Object Representations Color Plate

13. Spline Representations

14. Visible-Surface Detection Methods

15. Illumination Models and Surface-Rendering Methods

Illumination Models and Surface-Rendering Methods Color Plates

16. Texturing and Surface-Detail Methods

Texturing and Surface-Detail Methods Color Plates

17. Color Models and Color Applications

Color Models and Color Applications Color Plate

18. Interactive Input Methods and Graphical User Interfaces

Interactive Input Methods and Graphical User Interfaces Color Plates

Table of Contents

19. Global Illumination

Global Illumination Color Plates

20. Programmable Shaders

Programmable Shaders Color Plates

21. Algorithmic Modeling

Algorithmic Modeling Color Plates

22. Visualization of Data Sets

Visualization of Data Sets Color Plates

Appendix: Mathematics for Computer Graphics

Appendix: Graphics File Formats

Bibliography

Index