

## Essential Books on Graphics Programming CD-ROM

Dear Fellow Programmer,

When the editors of *Dr. Dobb's Journal* sat down to discuss the "Essential Books on Graphics Programming" CD-ROM, our first challenge was to select the books. Each of us came up with a list of candidates which was narrowed down to the titles you'll find on the CD-ROM today.

What we whittled the list down to are seven books that explore and examine the full range of graphics programming technology...from fundamental algorithms to the most complex techniques. These books, some of which are the most important books ever written about graphics programming, will help you write more powerful, more exciting graphics programs.

These books--combined with the powerful search and indexing capabilities of CD-ROM-based technology--make this CD-ROM reference an invaluable programming tool. And besides making you more productive, being able to find algorithms, source code, and other reference material in a flash brings fun back to the craft of programming.

I think you'll agree that these seven books will both instruct and motivate you. Take a moment to review these books and you'll see why we selected them for the "Essential Books on Graphics Programming" CD-ROM.

### *Applied Concepts in Microcomputer Graphics* by Bruce Artwick

Programming today's PCs requires a working knowledge of computer hardware, software, and graphics methods. *Applied Concepts in Microcomputer Graphics* covers animation, business graphics, simulation graphics, and computer-aided design, and other topics, with the appropriate techniques and "tricks" to get the job done.

### *Digital Halftoning* by Robert Ulichney

Digital halftoning lets you create the illusion of continuous-tone pictures on displays that are capable of producing only binary picture elements. *Digital Halftoning* provides a comprehensive catalog of halftoning techniques organized by computational complexity and according to the nature of the dots produced, displayed, or clustered.

### *Digital Image Warping* by George Wolberg

From movies and TV commercials to computer games, digital image "morphing" is common place--and this book is the most important book ever written on the subject. Digital image warping and geometric transformation techniques are at the root of image synthesis and special effects. *Digital Image Warping* introduces the fundamental concepts of digital image warping. It is a practical guide to implementing warping algorithms and comprehending the underlying concepts.

*Algorithms for Graphics and Image Processing*  
by Theo Pavlidis

*Algorithms for Graphics and Image Processing* describes the forms of pictorial data, gray scale images, reconstruction techniques used in computerized tomography, data structures for pictorial data, processing bi-level images, and topics such as contour tracing, contour filling, and thinning, curve and surface fitting, and generation of graphic displays.

*Photorealism and Ray Tracing in C*  
by Christopher Watkins, Stephen Coy, and Mark Finlay

Many of today's movies use computer graphics to create special effects and the programs and libraries in *Photorealism and Ray Tracing in C* let you produce high-quality photorealistic computer renderings. In addition to other subjects, *Photorealism and Ray Tracing in C* discusses the tools for handling vector mathematics and matrix algebra, production and use of a ray tracer, procedurally defined objects, production of a 3-dimensional model tool, methods for improving image quality, and graphical display devices.

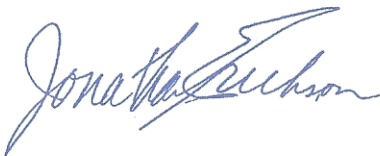
*Practical Image Processing in C*  
by Craig Lindley

Imaging and graphics is becoming an important part of the world around us. In support of this revolution in imaging technology, *Practical Image Processing in C* brings image-acquisition and processing capabilities within the reach of the individual. The device-independent code in this book lets you book is based on lets you process input data from most popular hand scanners, frame grabbers, and other graphics input devices.

*Zen of Graphics Programming*  
by Michael Abrash

*Zen of Graphics Programming* gives you methods with which to create screaming fast, great looking PC graphics. Abrash gives you easy-to-follow techniques for programming leading-edge graphics including 2-D and 3-D game creation, texture-mapping, 3-D animation, hidden surface removal, antialiasing, 3-D shading, color modeling, and more. The book includes a complete 3-D, 256-color animation library to create applications from games to virtual worlds.

Regards,



Editor-in-Chief, *Dr. Dobb's Journal*