

The book was found

Real-Time 3D Rendering With DirectX And HLSL (Book) And DirectX Essentials LiveLessons (Video Training) Bundle



Synopsis

Get Started Quickly with DirectX 3D Programming: No 3D Experience Needed This step-by-step text demystifies modern graphics programming so you can quickly start writing professional code with DirectX and HLSL. Expert graphics instructor Paul Varcholik starts with the basics: a tour of the Direct3D graphics pipeline, a 3D math primer, and an introduction to the best tools and support libraries. Next, you'll discover shader authoring with HLSL. You'll implement basic lighting models, including ambient lighting, diffuse lighting, and specular highlighting. You'll write shaders to support point lights, spotlights, environment mapping, fog, color blending, normal mapping, and more. Then you'll employ C++ and the Direct3D API to develop a robust, extensible rendering engine. You'll learn about virtual cameras, loading and rendering 3D models, mouse and keyboard input, and you'll create a flexible effect and material system to integrate your shaders. Finally, you'll extend your graphics knowledge with more advanced material, including post-processing techniques for color filtering, Gaussian blurring, bloom, and distortion mapping. You'll develop shaders for casting shadows, work with geometry and tessellation shaders, and implement a complete skeletal animation system for importing and rendering animated models. You don't need any experience with 3D graphics or the associated math: Everything's taught hands-on, and all graphics-specific code is fully explained. Coverage includes The Direct3D API and graphics pipeline A 3D math primer: vectors, matrices, coordinate systems, transformations, and the DirectX Math library Free and low-cost tools for authoring, debugging, and profiling shaders Extensive treatment of HLSL shader authoring Development of a C++ rendering engine Cameras, 3D models, materials, and lighting Post-processing effects Device input, component-based architecture, and software services Shadow mapping, depth maps, and projective texture mapping Skeletal animation Geometry and tessellation shaders Survey of rendering optimization, global illumination, compute shaders, deferred shading, and data-driven engine architecture 5+ Hours of Video Instruction Real-time graphics programming is often considered a dark art, full of complex mathematics and esoteric tools. Even experienced programmers can find the material difficult to absorb. Furthermore, the rapid pace of advancement makes modern graphics programming a moving target, and establishing a foothold can be difficult. Quality educational material is a necessity for newcomers to the field. DirectX Essentials LiveLessons introduces viewers to graphics programming through a moderately deep-dive into shader programming and the Direct3D API. Dr. Paul Varcholik guides viewers with a practical, hands-on approach to modern DirectX application development. While these videos are geared towards programmers, no prior knowledge of graphics programming or 3D math is required.

The lessons begin with "Hello, World!" style rendering (drawing a single point and triangle) and extend into introductory lighting models including ambient and diffuse lighting, specular highlights, point lights, and spotlights. The videos also cover texture mapping, environment mapping, normal mapping, and color blending and introduce viewers to 3D math in a straight-forward, stress-free fashion.

Skill Level -- All Levels

What You Will Learn

- DirectX 11 API essentials
- How to write shaders using High Level Shading Language (HLSL)
- The 3D mathematics behind 3D graphics
- How to load and render 3D models
- Mapping textures to 3D objects
- Ambient and diffuse lighting, specular highlights, point lights, and spotlights
- Environment mapping, fog, normal mapping, and color blending

Survey additional topics in modern rendering, including post processing, shadow mapping, skeletal animation, geometry and tessellation shaders, deferred rendering, global illumination, and compute shaders

Who Should Take This Course

Developers looking for a practical introduction to 3D rendering and modern DirectX

Course Requirements

Familiarity with the C++ programming language

About LiveLessons Video Training

LiveLessons Video Training series publishes hundreds of hands-on, expert-led video tutorials covering a wide selection of technology topics designed to teach you the skills you need to succeed. This professional and personal technology video series features world-leading author instructors published by your trusted technology brands: Addison-Wesley, Cisco Press, IBM Press, Pearson IT Certification, Prentice Hall, Sams, and Que. Topics include: IT Certification, Programming, Web Development, Mobile Development, Home and Office Technologies, Business and Management, and more. View all LiveLessons on InformIT at: <http://www.informit.com/livelessons>

0134176448 / 9780134176444 Real-Time 3D Rendering with DirectX and HLSL (Book) and DirectX Essentials LiveLessons (Video Training) Bundle

Package consists of:

- 0134181492 / 9780134181493 DirectX Essentials LiveLessons Access Code Card
- 0321962729 / 9780321962720 Real-Time 3D Rendering with DirectX and HLSL: A Practical Guide to Graphics Programming

Book Information

Misc. Supplies

Publisher: Addison-Wesley Professional; 1 edition (January 25, 2015)

Language: English

ISBN-10: 0134176448

ISBN-13: 978-0134176444

Product Dimensions: 6.9 x 1.2 x 8.9 inches

Shipping Weight: 2.5 pounds

Average Customer Review: Be the first to review this item

Best Sellers Rank: #9,332,193 in Books (See Top 100 in Books) #95 in Books > Computers & Technology > Programming > Graphics & Multimedia > DirectX #236 in Books > Computers & Technology > Graphics & Design > Rendering & Ray Tracing #1328 in Books > Computers & Technology > Graphics & Design > 3D Graphics

[Download to continue reading...](#)

Hacking: Tapping into the Matrix Tips, Secrets, steps, hints, and hidden traps to hacking: Hacker, Computer, Programming, Security & Encryption Jack and the Hungry Giant Eat Right With Myplate Managing Your Family's High-Tech Habits: (From Video-Games to the Dark Side of the Web) My First Bilingual Book; A Day (English; Vietnamese) Information Architecture: For the Web and Beyond Keep Your Love On: Connection Communication And Boundaries The Smarter Screen: Surprising Ways to Influence and Improve Online Behavior The New Rules for Love, Sex, and Dating A Lifelong Love: How to Have Lasting Intimacy, Friendship, and Purpose in Your Marriage Beautiful Data: A History of Vision and Reason since 1945 (Experimental Futures) Garden City: Work, Rest, and the Art of Being Human. Fear and Faith: Finding the Peace Your Heart Craves To Heaven and Back: The Journey of a Roman Catholic Priest WHO YA GONNA CALL?-The Kid's Directory for Self Help (Bluffton Book) A Doctor's Tools (Community Helpers and Their Tools) Why Suffering?: Finding Meaning and Comfort When Life Doesn't Make Sense Rainbow Warriors and the Golden Bow: Yoga Adventure for Children (Rainbow Warriors Yoga Series) Touching Heaven: A Cardiologist's Encounters with Death and Living Proof of an Afterlife Jenny's Winter Walk: A Kids Yoga Winter Book Maria Explores the Ocean: A Kids Yoga Book

[Dmca](#)