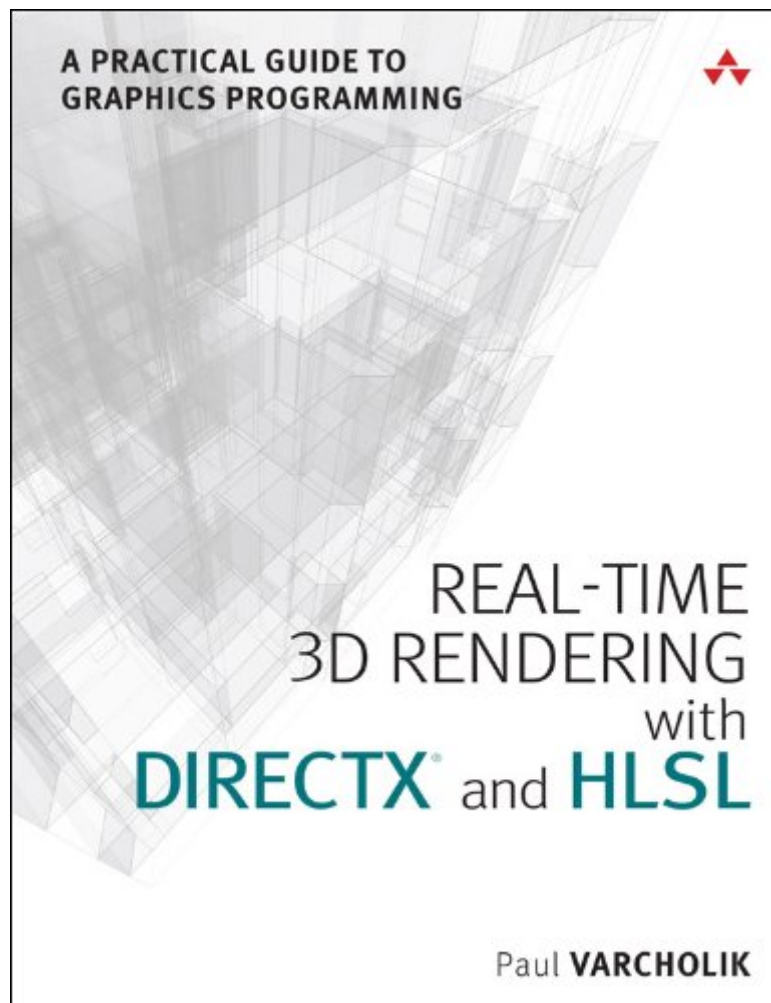


The book was found

# Real-Time 3D Rendering With DirectX And HLSL: A Practical Guide To Graphics Programming (Game Design)



## 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

## Book Information

File Size: 58427 KB

Print Length: 592 pages

Simultaneous Device Usage: Up to 5 simultaneous devices, per publisher limits

Publisher: Addison-Wesley Professional; 1 edition (May 3, 2014)

Publication Date: May 3, 2014

Sold by:Â Digital Services LLC

Language: English

ASIN: B00K3NR6OC

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #693,707 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #10

inÂ Books > Computers & Technology > Programming > Graphics & Multimedia > DirectX #54

inÂ Books > Computers & Technology > Graphics & Design > Rendering & Ray Tracing #153

inÂ Books > Computers & Technology > Games & Strategy Guides > Game Design

## Customer Reviews

The book is great for a novice course . Somebody wrote NVIDIA FX Compose won't work on Windows 8.1, but the book site pointed a version that actually works.The aspects of DX 11 HLSL programming are introduced in a step by step way.The approach is hands on code instead a deep mathematical explanation.This very good for persons with a relative low knowledge in mathematics, besides graphic programming is heavily dependant on mathematics and physics.Is indeed a good option for introductory course.Unfortunately , the instructor materials are difficult to obtain and I need them for a class.Hope I could get it before the classes start.

I just bought digital and printed version of this book. Content looks great but a lot of samples depends on NVIDIA FX Composer that do not works on Windows 8.1.I'm trying to use something different, but...

Great book, detailed chapters, I use this book along with the new game engine architecture by Jason Gregory. In order to code DirectX 11.1 and 11.2 you still need the DirectX 11 foundation.

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

Real-Time 3D Rendering with DirectX and HLSL: A Practical Guide to Graphics Programming (Game Design) Real-Time 3D Rendering with DirectX and HLSL (Book) and DirectX Essentials LiveLessons (Video Training) Bundle What is DirectX in Windows: This eBook explains what DirectX is and the utility that manages DirectX in the Windows environment. (PC Technology 9)

Introduction To 3D Game Programming With Directx 9.0 (Wordware Game and Graphics Library)  
 Introduction to 3D Game Programming with DirectX 9.0c: A Shader Approach (Wordware Game and Graphics Library)  
 Real Time Systems and Programming Languages: Ada 95, Real-Time Java and Real-Time C/POSIX (3rd Edition)  
 Managed DirectX 9 Kick Start: Graphics and Game Programming  
 Programming #8:C Programming Success in a Day & Android Programming In a Day! (C Programming, C++programming, C++ programming language, Android , Android Programming, Android Games)  
 Programming #57: C++ Programming Professional Made Easy & Android Programming in a Day (C++ Programming, C++ Language, C++for beginners, C++, Programming ... Programming, Android, C, C Programming)  
 Programming #45: Python Programming Professional Made Easy & Android Programming In a Day! (Python Programming, Python Language, Python for beginners, ... Programming Languages, Android Programming)  
 R Programming: Learn R Programming In A DAY! - The Ultimate Crash Course to Learning the Basics of R Programming Language In No Time (R, R Programming, ... Course, R Programming Development Book 1)  
 Real Estate: Learn to Succeed the First Time: Real Estate Basics, Home Buying, Real Estate Investment & House Flipping (Real Estate income, investing, Rental Property)  
 Directx 9 Graphics: The Definitive Guide To Direct3d (Wordware Applications Library)  
 C#: Design Patterns: The Easy Way Standard Solutions for Everyday Programming Problems; Great for: Game Programming, System Administration, App Programming, ... & Database Systems (Design Patterns Series)  
 C#: Programming Success in a Day: Beginners guide to fast, easy and efficient learning of C# programming (C#, C# Programming, C++ Programming, C++, C, C Programming, C# Language, C# Guide, C# Coding)  
 DOS: Programming Success in a Day: Beginners guide to fast, easy and efficient learning of DOS programming (DOS, ADA, Programming, DOS Programming, ADA ... LINUX, RPG, ADA Programming, Android, JAVA)  
 ASP.NET: Programming success in a day: Beginners guide to fast, easy and efficient learning of ASP.NET programming (ASP.NET, ASP.NET Programming, ASP.NET ... ADA, Web Programming, Programming)  
 FORTRAN Programming success in a day:Beginners guide to fast, easy and efficient learning of FORTRAN programming (Fortran, Css, C++, C, C programming, ... Programming, MYSQL, SQL Programming)  
 Prolog Programming; Success in a Day: Beginners Guide to Fast, Easy and Efficient Learning of Prolog Programming (Prolog, Prolog Programming, Prolog Logic, ... Programming, Programming Code, Java)  
 Parallel Programming: Success in a Day: Beginners' Guide to Fast, Easy, and Efficient Learning of Parallel Programming (Parallel Programming, Programming, ... C++ Programming, Multiprocessor, MPI)