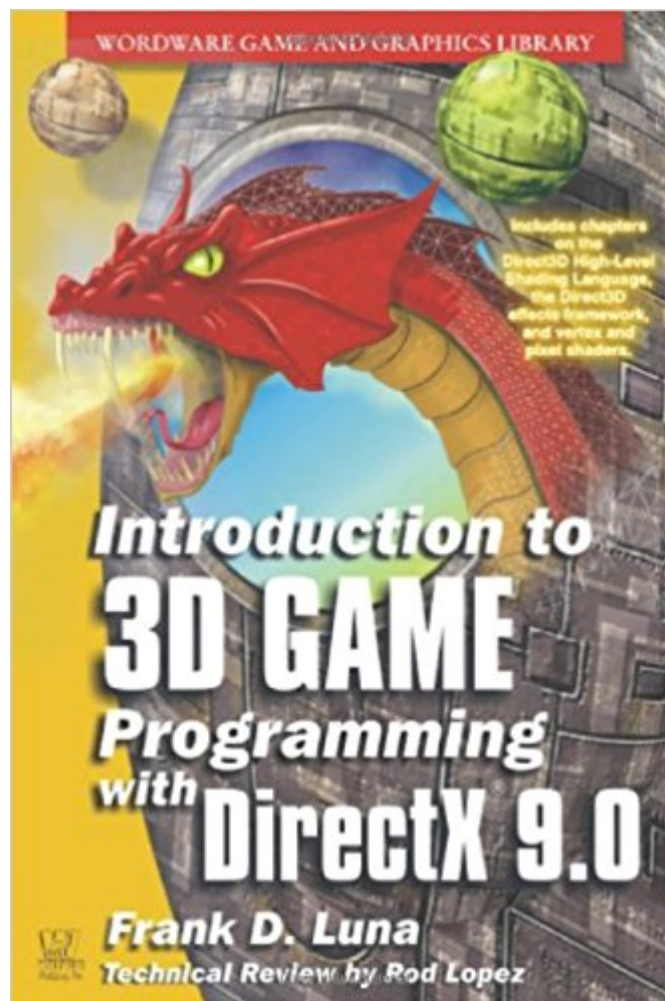# Introduction To 3D Game Programming With Directx 9.0 (Wordware Game And Graphics Library)

Synopsis

Introduction to 3D Game Programming with DirectX 9.0 provides an introduction to programming interactive 3D computer graphics using DirectX 9.0, with an emphasis on game development. The book begins with an explanation of mathematical tools and moves on to general 3D concepts. Other topics include performing basic operations in Direct3D such as primitive drawing, lighting, texturing, alpha blending, and stenciling, and using Direct3D to implement techniques that could be required in a game. Chapters on vertex and pixel shaders, including the effects framework and the new High-Level Shading Language, wrap up the discussion. Understand basic mathematical and 3D concepts; learn how to describe and draw interactive 3D scenes using the Direct3D 9.0 API; use Direct3D and the D3DX utility library to implement a variety of techniques and applications, such as transparency, shadows, reflections, fonts, meshes, using XFiles, progressive meshes, terrain rendering, particle systems, picking, cartoon rendering, and multitexturing; find out how to write vertex and pixel shader programs with the High-Level Shading Language; discover how to write and use effect files with the Direct3D effects framework.

Book Information

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Customer Reviews

I like the way this book is written. It is a good introduction for people who know how to program, but have not done any Direct3D development before. The book is written in a very straightforward and almost scientific manner. This book does not assume the reader to be a complete beginner when it

comes to many programming topics like so many other DX9 books do (even though they often claim they don't).This book simply covers the fundamental Direct3D topics as well as a bit of math, and it does so from the ground up as far as the DX API goes. Most of the samples are done soup to nuts, rather than using helper methods and API sample code that simplifies things a lot, but keeps too many details from the reader (once again: like so many other DX9 books seem to do).I like the focus of the book: It simply only describes Direct 3D graphics programming. Other DirectX topics, such as DirectPlay or DirectInput are NOT covered. Also, if you do not know what a game-loop is, then you won't learn it here. I think this is one of the things I like most about this book: It focuses on one topic, and it does a great job at that!But a small warning is in order as well: If you are not an experienced programmer and just want to get started with game development, then this book is NOT for you! Quite simply, many aspects of 3d graphics development are not for the faint of heart! Don't expect this book to read like a novel either. It is very much a DX9 text book.

This is a hard to fault book. My only criticism is that is wasn't longer. The presentation style is excellent. Readers will need a grasp of programming in C/C++ and an understanding of the MS environment to get the full learning value from the text. Concepts are explained clearly with supporting relevant code examples. The book should stand as a model of best practice in the area. Hopefully the author will produce another volume on dynamics in DirectX some time in the future.

This book is a great start for people wanting to learn Direct3D and a great reference for Direct3D programmers. Frank Luna's book covers several important topics for getting started with 3D graphics using DirectX 9.0, and refrains from any off-topic discussions or biased rants.The book includes a section on basic math concepts for 3d programming. Also includes sections on Direct3D fundamentals (which explains D3D9 initialization, the Direct3D rendering pipeline, and drawing in Direct3D with vertex/index buffers, color, lighting, textures, blending and stenciling) and applied Direct3D concepts (fonts, meshes, .x files, cameras, basic terrain rendering, particle systems, and "picking"). The author devotes the final section to vertex and pixel shaders and effects using HLSL (high-level shading language). He also includes a quick introduction to setting up a skeleton windows application as an appendix (where it should be located in a book on DirectX).One final thing to note about this book is that it only covers the Direct3D portion of DirectX 9.0, so you'll need to go elsewhere for coverage of DirectPlay, DirectInput, DirectSound, etc. Howver, the fundamentals of Direct3D are covered with the depth necessary to give a completely understanding of how to begin coding 3D graphics with DirectX 9. After reading several books on DirectX and

game programming, this is the book I wish had picked to read first.

This is a solid book covering the basics of Direct 3D (and only Direct 3D...no Direct Input, Sound, etc). BTW there is no CD, but the web site has all the code as promised (and unlike other intro D3D books the samples actually compile and run). And unlike other intro books I've seen the code is clear & crisp and a joy to work with.You will learn techniques in this book that you can use in real games. Sure, you will get the boring intro stuff like color and texturing but the coverage is more developer-oriented with detailed coverage of the API and an extensible code framework in real rather than butchered C++. And then its off to surfaces (terrain rendering) and a first-person camera to go along with it. In an intro book. Now, that just simply kicks butt. Not to mention an excellent particle class, and on to HLSL (even experienced DX folk can have an interesting lunch with this book).About the only thing I didn't agree with was the use of frustum diagrams in diagrams describing world-to-view space transformations. The frustum just goes along for the ride. The more important thing to show are the orthogonal axes in the transformation, and these were absent in some diagrams.I was going to give this book 4 stars...but its more deserving with its excellent development of simpler concepts into more advanced constructs with major payoffs for your first games as to tilt the balance.I can't think of a better book for a developer with their act together about to rock with D3D.

If you're going to learn Direct3D, GET THIS BOOK.I have other books (Beginning Direct3D Game Programming by Engel), and they don't hold a candle to this book.Not only does he explain everything you NEED to know, he tells you to look up whatever he doesn't explain within DX's SDK.Everything he does in this book has a plan. The organization is top notch, with the starting point being a primer on how to set up visual studio to compile and run directx programs. The next step is a math primer which should be mandatory for any book that is about 3D graphics, but apparently other authors would rather spend their time talking about higher level stuff in a beginner's book.I have to say that without this book, I would have had a lot tougher time learning Direct3D.

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