Game Coding Complete, Fourth Edition

Mike McShaffry, David Graham
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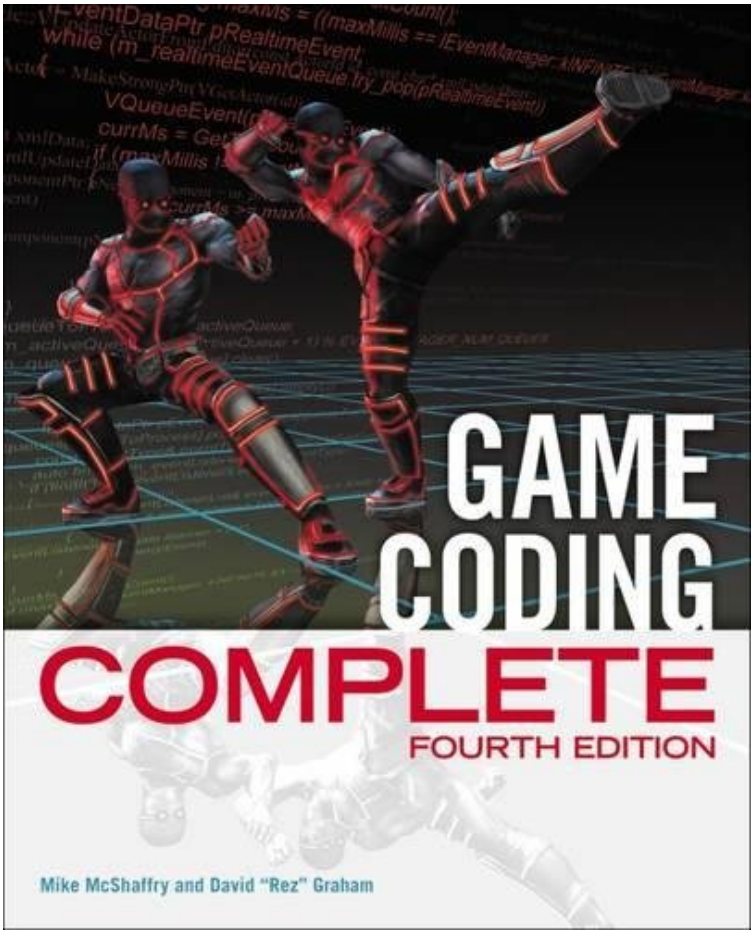

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Mike McShaffry, David Graham : Game Coding Complete, Fourth Edition before purchasing it in order to gage whether or not it would be worth my time, and all praised Game Coding Complete, Fourth Edition:

4 of 4 people found the following review helpful. If you want to learn what it takes to make a game/game engine, this book is it!By BakerThis book cover's just about everything you would need to know about making a game and game engine and making it right. I have had this for about a year and a half and have been using it as a reference as I make my own, little games.It goes through the process of making a "game engine on training wheels" throughout the book, giving hints and tips as to best practices and industry standards. The authors "MrMike" and "Rez" write in a very easygoing manner, which makes picking up some of the tougher topics much easier. They speak from experience; they will tell you what has worked for them and what is expected from anyone trying to make it as a developer.The book is focused on programming primarily (other topics come up but they are generally related to the engineering involved) and you should be comfortable with C++ to get the most out of this.Another big selling point is the online forums; the authors regularly post there and will answer questions and give advice to those asking. The community there is great

and there are a lot of people of varying skill levels who post regularly.The best part? You get access to the source code for the engine they make so you can mess with it and make your own games with it! The code is purposely made to be easy to understand and learn from.I would recommend this to anyone who desires to learn about game and game engine development!2 of 2 people found the following review helpful. Insanely Good. Must Read for Aspiring Game Developers.By A. M. HernandezFinally, Ive got around to reading (and finishing) Game Coding Complete, and its up there on the list of great game development resources. Id been meaning to read this book for quite some time, but got distracted with DirectX and Windows hooking for use with my 3D driver. Now that Im back on the 3D engine kick, it seems like a good time to hit this book. Reading through this, I was thoroughly impressed by the content and the writing style. Dont be discouraged by the lengthy size, this text is well worth the time to read.The authors, both seasoned game developers, working on the Ultima series and various Sims games, have a lot of collective knowledge and it comes through in the book. There are a lot of snippets and stories about things the went right (or wrong) on the production of some of the games they worked on. I found these insights to be refreshing, and certainly interesting to read about. It also helps to teach people what professional game development is like, and things to expect if you are looking for a job in the industry.Aside from the stories, there is a lot of topics covered in the book. They go over game loops, component architecture, process system, an event system, 3D math, DirectX, audio, collision and physics, scripting with Lua, AI, a game editor in C#, debugging, version control, multi-threading, etc. Really almost everything you would need to know. They werent joking when they said Complete. Although the book is long, its really amazing what they managed to cram in there. Granted, most topics only get one chapter, which isnt really enough to fully cover everything. But its a great overview on a ton of stuff.I found the coverage of the event and process system to be every insightful, and I will probably be using a variation of these in my own engine. The event system basically allows different objects to fire events at key points, and then have other objects respond without tight coupling. The process system allows objects to spawn logic loops, that will be updated along with the rest of the engine. So, for example, the player can hit a key to throw a grenade. That would fire an event, which would spawn a grenade with the proper velocity. The grenade itself would have a process, that would count down a few seconds and then explode. At the time of explosion, this could fire another event, which would then cause the audio system to play a sound and the particle engine to create a visual effect. This is a very clean way of handling events and processes, and this is probably the single more useful thing I found in the text.If you are looking at creating your own game or engine, or just want to see what goes into a commercial title, Game Coding Complete may be one of the best resources to do so. While there is a good amount of C++ code in the book, it is not so much of a cookbook, it is more of an overview of architecture. The writing style is casual and friendly, and I really love all the stories told throughout the book. This is a great resource, and should not be missed. My only regret is that I did not read this book sooner. Highly recommended.3 of 3 people found the following review helpful. Great resourceBy D. SmithExcellent book if you want to know how more professional games are put together. Just note that it assumes a decent knowledge of C++ and programming so is not a good choice if you are looking to learn how to code. It gave me some good ideas for improving my work though.

Welcome to Game Coding Complete, Fourth Edition, the newest edition of the essential, hands-on guide to developing commercial-quality games. Written by two veteran game programmers, the book examines the entire game development process and all the unique challenges associated with creating a game. In this excellent introduction to game architecture, you'll explore all the major subsystems of modern game engines and learn professional techniques used in actual games, as well as Teapot Wars, a game created specifically for this book. This updated fourth edition uses the latest versions of DirectX and Visual Studio, and it includes expanded chapter coverage of game actors, AI, shader programming, LUA scripting, the C# editor, and other important updates to every chapter. All the code and examples presented have been tested and used in commercial video games, and the book is full of invaluable best practices, professional tips and tricks, and cautionary advice.

PART I: GAME PROGRAMMING FUNDAMENTALS. 1. What is Game Programming Really Like?. 2. What's in a Game?. 3. Coding Tidbits and Style That Will Save You. 4. Building Your Game. PART II: GET YOUR GAME RUNNING. 5. Game Initialization and Shutdown. 6. Controlling the Main Loop. 7. Loading and Caching Game Data. 8. Programming Input Devices. 9. User Interface Programming. PART III: CORE GAME TECHNIQUES. 10. Game Event Management. 11. Scripting with Lua. 12. Game Audio. 13. 3D Basics. 14. 3D Scenes. 15. Collision and Simple Physics. 16. Network Programming Primer. PART IV: ADVANCED TOPICS AND BRINGING IT ALL TOGETHER. 17. An Introduction to Game AI. 18. Introduction to Multiprogramming. 19. A Game of Teapot Wars!. 20. A Simple Game Editor in C#. 21. Debugging Your Game. 22. Driving to the Finish.About the AuthorMike McShaffry, aka "Mr. Mike," began programming games as soon as he could tap a keyboard. After graduating from the University of Houston, he worked for Warren Spector and Richard Garriott, aka "Lord British," at Origin Systems on Martian Dreams, Ultima VII: The Black Gate, Ultima VIII: Pagan, Ultima IX: Ascension, and Ultima Online. Seven years later he formed his first company, Tornado Alley. Mike later accepted a position at Glass Eye Entertainment, working for his friend Monty Kerr, where he produced Microsoft Casino. Ten months later, Monty asked Mike and his

newly assembled team to start their own company, called Compulsive Development, which would work exclusively with Microsoft on casual casino and card games. Mike served as the Head of Studio, and together with the rest of the Compulsive folks, produced three more casual titles for Microsoft until August 2002. Compulsive was acquired by Glass Eye Entertainment to continue work on Glass Eye's growing online casual games business. Mike was later recruited to start an Austin studio for Maryland-based Breakaway Games. Mike is currently self-employed, helping teams build a positive, creative and energetic environment so they can do what they do best--make great games. David "Rez" Graham is a self-taught programmer who has been writing games in his basement since 1996. In 2005, he landed a programming job at Super-Ego Games where he worked on mini-games and AI for Barbie Diaries: High School Mystery for the PC. He also worked on a comedy adventure game called RatRace for the PlayStation 3. In 2008, Rez went to work for Planet Moon and worked on Brain Quest for the Game Boy DS and Drawn to Life: The Next Chapter for the Wii. Rez went to PlayFirst in 2010 where he worked on Diner Dash: Grillin' Green for the iPad and was the lead engineer for Wedding Dash for the iPhone 4. Rez currently works at Electronic Arts as an AI programmer for the Sims division. He has shipped two titles there, which include The Sims Medieval and the Pirates Nobles Adventure Pack. He is currently the lead AI programmer for an upcoming Sims title.