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Edizione	[3rd ed. 2015.]
Descrizione fisica	1 online resource (395 p.)
Disciplina	004 005.11 005.13
Soggetti	Computer games—Programming Computer programming Programming languages (Electronic computers) Game Development Programming Techniques Programming Languages, Compilers, Interpreters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Contents at a Glance; Introduction; Chapter 1: Welcome to Android Gaming; Setting Up Your Machine; Download and Install the SDK; Configure Android Studio; Installing the Native Development Kit; NDK Install; Install Cygwin; Install MinGW; Install Ant; Creating an Android Emulator; Creating an AVD; Configuring a Real Device; Importing the Source Code into Android Studio; Summary; Chapter 2: Gaming Tricks for Phones or Tablets; Setting Up Windows; Windows System Environment Variables; Configuring Cygwin; Creating the Android Project with Native Support; Application Architecture Build and Run Your First SDK ApplicationAdd Android Native Support; Main Activity; Compiling the Java Application; Native Library; Compiling the Shared Library; Testing the App on a Device; Java Wrappers for C/C++ Event Handling; Handling Audio Independently; Cascading Video Events; Pure Software Renderer; Mixed or Hybrid Renderer; Pure Hardware; Cascading Key Events; Cascading Touch Events; Multi-touch Tricks; MultiTouchGesture; MultiTouchScreen; TestActivity; Summary;

Chapter 3: More Gaming Tricks with OpenGL and JNI; The Power of Mobile Devices; OpenGL the Java Way
Creating Your First OpenGL Project
Creating an OpenGL and JNI Project; Java Main Activity; Surface View; GL Thread; CubeRenderer Class; Cube Class; Scaling Video Buffers with Hybrid OpenGL ES; Why Use Hybrid Scaling ?; Initializing the Surface; Drawing into the Texture; When the Image Is Not a Power of Two; Zoom and Draw; Zoom and Draw Implementation; Hybrid Scaler Rules of Thumb; Summary; Chapter 4: Efficient Graphics and Portability with OpenGL ES; Portability; Handling Immediate Mode; Loading Textures; Display Lists, Server Attributes, and Others; Using Library Wrappers
OpenGL ES Compatibility
OpenGL ES 3.0 and 3.1; Superb Efficiency with OpenGL ES 3.1; Shaders; Vertex Shaders; Fragment Shaders; Geometry Shaders; GLSL; Vertex Shader Language (VSL); Fragment Shader Language (FSL); Anatomy of a Shader; Creating the Shader Program; Loading the Shader; Attaching to the Shader; Linking the Shader Program; Getting the Link Status; Optional: Program Validation and Status; Enabling and Using the Program; Invoking OpenGL ES 3.1 in Android; Project Icosahedron; Reviewing the Shape; Tackling the Project; Manifest; Main Activity; Surface View; Surface Renderer
OpenGL ES 3.1 Configuration Chooser
Native Icosahedron; Project Shaders; Scene Initialization; Scene Rendering; Setting the Rotation Speed; Adding Swipe and Multi-Touch Pinch for Zooming; Compiling and Running; Summary; Chapter 5: 3D Shooters for Doom; The Sky Is the Limit with the Java/C Power Combo; Bringing Doom to a Mobile Device; Game Architecture for Doom; Java Main Activity; Creation Handler; Game Layout; Menu and Selection Handlers; Key and Touch Event Handlers; Native Callback Handlers; Graphics Initialization Handler; Image Update Handler; Message Updates; Fatal Error Handler
Audio Request Handlers

Sommario/riassunto

Combining actionable, real-world source code with graphics, Pro Android Games, Third Edition shows you how to build more sophisticated and addictive Android game apps with minimum effort. Harness the power of the latest Android 5.0 SDK to bring countless legendary, action-packed PC games to the Android platform. With actionable real-world source code, this one of a kind book shows you how to build more sophisticated and addictive Android game apps, by leveraging the power of the recent advancements found in the new Android 5.0 software development kit as well as those you've counted on in earlier releases. Multi-touch code gives these games and their players dynamic input and exchange ability, for a more realistic arcade game experience. Faster and better performance offers Android game players a more seamless, fun arcade experience like never before. There is also improved native C/C++ integration with Android's NDK as well, which makes coding, compiling, and converting both productive and efficient with gains in app performance. Pro Android Games, Third Edition features the following improvements: Updates to the latest version of the Android SDK, NDK, plus the latest Android Studio and Eclipse IDEs Greater focus on tablets, ever changing device resolutions, and hardware specs Native game development and hardware accelerated graphics Bigger and better real world engines, such as Quake I and II plus an oldie from the previous edition: Doom Coverage of the new Android TV SDK APIs, UI, UX, multi-touch and multi-tasking features available with the Android 5.0 release Advanced techniques for improving your game playing experience including better multi-tasking, improved performance optimization, battery management and more A "Quake 3D"-like game app case study You'll definitely have fun, and perhaps you'll even make some money. Enjoy! In the last few years,

Android has progressed with the debut of better fonts, new User Interface and Experience (UI/UX) APIs, tablet considerations, multi-touch capabilities, multi-tasking, faster performance, improved battery management techniques, and now the new Android TV SDK Apps for the Android game app developer repertoire.
