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Autore	Mehta Prateek
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Note generali	"Learn about the most popular 3D graphics engine for game and graphical apps development"--Cover. Includes index.
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Nota di contenuto	""Contents at a Glance""; ""Contents""; ""About the Author""; ""About the Technical Reviewer""; ""Acknowledgments""; ""Preface""; ""Chapter 1: Benefits of the New API""; ""Modern Graphic-rendering API""; ""Devices Love It""; ""Easy App Development: Let's Create an OpenGL Surface View""; ""Determining OpenGL ES Version""; ""Creating the OpenGL Surface""; ""ES 2.0 Is for the Ambitious""; ""Where Are the Developers?""; ""Summary""; ""Chapter 2: Implementation Prerequisites""; ""Selecting a Development Device: Why Upgrade to Gingerbread?""; ""Choosing Inputs That Your Game Needs"" ""Tank Fence""""Creating Menus for the Game""; ""Setting Views Using setContentView and addContentView""; ""Sleek Design of XML Views""; ""Working with Buttons and the Counter Class""; ""Using Touch for Rotation""; ""Rotation Using Android Sensors""; ""Summary""; ""Chapter 3: ES 2.0 Fundamentals""; ""EGL on Android""; ""The GLSurfaceView Class""; ""Setting up the Renderer""; ""Renderer Thread""; ""Decoupling for Dedicated Performance""; ""Thread Safety""; ""Implemented Methods""; ""Anatomy of a Renderer""; ""GL SURFACE CHANGED Application""; ""Framebuffer""; ""Double Buffering""

""Clearing the Color Buffer""""Setting the Viewport""; ""GLSL""; ""Shader Program""; ""Vertex Shader Example""; ""Data Types""; ""Fragment Shader Example""; ""GL POINT BASIC Application""; ""Using the loadShader Method""; ""Attributes""; ""Drawing Line and Triangle Primitives""; ""Varyings""; ""Triangle Primitive""; ""Normalized Device Coordinate System""; ""3D-Transformation""; ""Types of Transformations""; ""The Matrix Class""; ""State Management""; ""Cull Face""; ""Depth Test""; ""Summary""; ""Chapter 4: 3D Modeling""; ""Drawing Shapes Using glDrawElements""
 ""GL POINT ELEMENTS Application""""Drawing Line and Triangle Primitives""; ""Blender for Modeling""; ""Default Layout""; ""Using Object Mode""; ""Panels in 3D View""; ""Translating Objects""; ""Using the Lasso-Select Command""; ""Modeling Objects for the Game""; ""Creating an Equilateral Triangle""; ""tankFence Blender File""; ""Material Context""; ""Player Object""; ""Adding Plane Mesh""; ""Editing the Player Object""; ""Exporting Mesh Data""; ""Parsing Objects for OpenGL ES""; ""Installing Perl""; ""Downloading Parser""; ""Using the Parser""; ""Using the Mesh Data""
 ""Adding the Player Object""""Basic Components in the Blender Interface: Screenshots""; ""Summary""; ""Chapter 5: Texturing and Shading""; ""Vertex Buffer Objects""; ""Types of Buffer Objects""; ""Using Buffer Objects""; ""Using Color Masks""; ""Textures""; ""2D Texture""; ""Loading the Image Data""; ""sampler2D Uniform Variable""; ""Using Texture and Color""; ""Cubemap Textures""; ""Loading Images for a Cubemap Texture""; ""samplerCube Uniform Variable""; ""Multi-Texturing""; ""Lighting Effects Using Shader Programs""; ""Illumination Models""
 ""Diffuse Reflection: Equations for Illumination""

Sommario/riassunto

Want to create sophisticated games and graphics-intensive apps? Learn OpenGL ES gets you started immediately with OpenGL ES. After mastering the basics of OpenGL ES itself, you will quickly find yourself writing and building game apps, without having to learn about object oriented programming techniques. This book demonstrates the use of a powerful open-source modeling tool, Blender. You will be guided, step by step, through the development of Tank Fence, a dynamic, interactive 3D game. Along the way you'll gain skills in building apps with Eclipse and the Android SDK or NDK, rendering graphics using hardware acceleration, and multithreading for performance and responsiveness. iOS developers will also find this book's information invaluable when writing their apps. You'll learn everything you need to know about: Creating simple, efficient game UIs Designing the basic building blocks of an exciting, interactive 3D game Pulling all the elements together with Blender, a powerful open-source tool for modeling, animation, rendering, compositing, video editing, and game creation Taking the next big step using custom and inbuilt functions, texturing, shading, light sources, and more Refining your mobile game app through collision detection, player-room-obstacle classes, and storage classes Doing all this efficiently on mobile devices with limited resources and processing.