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Nota di contenuto	Intro -- Table of Contents -- About the Author -- About the Technical Reviewer -- Acknowledgments -- Introduction -- Chapter 1: Introduction to Shaders -- What Is a Shader? -- Computational Objects and Meshes -- Vertices -- Normals -- UV Coordinates or Texture Coordinates -- Vertex Color -- Triangles and Polygons -- Programming Shaders -- Vertex-Fragment Shader -- Shader Programming Languages -- Shader Graph -- Shaders' Mathematical Foundations -- Vectors -- Adding Vectors -- Scalar Product -- Coordinate Systems -- Object Space -- World Space -- View Space -- Summary -- Chapter 2: Shader Graph -- Create a Unity 3D Project -- Unity Editor -- Create Your First Shader -- Create a Material -- Rendering Pipelines -- URP Pipeline -- Upgrading a Project to URP -- Install URP Package -- Set Up a URP Asset -- Upgrade Previous Materials -- Shader Graph Editor -- Main Preview -- Blackboard -- Graph Inspector -- Graph Settings -- Node Settings -- Master Stack -- Vertex Block -- Position Node -- Normal Node -- Tangent Node -- Fragment Block -- Base Color -- Normal -- Metallic -- Smoothness -- Emission -- Post-Processing Effects -- Ambient Occlusion -- Alpha -- Specular Color -- Shader Graph Elements -- Nodes -- Create Nodes -- Ports and Connections -- Node Previews -- Group Nodes -- Properties -- Properties Settings -- Reference -- Exposed -- Default -- Modes -- Redirect Elbow -- Sticky Notes -- Summary -- Chapter 3: Commonly

Summary -- Chapter 8: Interactive Snow Effect -- Scene Setup -- Give Movement to the Character -- Set Up Your IDE -- Create a Character Movement Script -- Snow Plane 3D Object -- Subdivided Plane Creation -- Import the Plane to Unity -- Interactive Snow Shader Graph -- Shader Graph Setup -- Apply Displacement Using Noise -- Apply Snow Color and Occlusion -- Interact with the Snow -- Using a Render Texture -- Painting the Character Path.
Recording Only the Character Path -- Adding a New Culling Mask to the Particles -- Update the Render Texture Camera Culling Mask -- Update the Main Camera Culling Mask -- Render Texture as a Displacement Mask -- Summary -- Index.

Sommario/riassunto

Discover how shaders can enhance your game and mesmerize players by making graphic gameplay elements more realistic and attractive. This book provides easy-to-follow recipes that will show you how to leverage the Unity Shader Graph to create more immersive, enjoyable games. Author Alvaro Alda takes you through each effect step by step, so that you gain a foundational understanding of how they are created using the Shader Graph tool. Practical projects help you put what you're learning into context, from simple effects like 3D scan lines to more complicated effects such as black holes, bubble particles, water, and even interactive snow. Twelve different effects are demonstrated, to cover almost everything related to shader graph. On completing this book, you will have a thorough understanding of the Shader Graph tool and samples to replicate and continue learning from. Whether you are an indie game developer or technical artist, Beginner's Guide to Unity Shader Graph will give you the confidence to use the Shader Graph tool to create games that will keep players glued to their screens. You will: Understand the purpose and use of every node and function in Shader Graph Gain a working knowledge of the mathematics needed to use the fragment and vertex shaders Create complex effects with Shader Graph using post processing and taking full advantage of the URP of the Unity 3D engine Develop procedural textures using mathematical nodes in Shader Graph.