Record Nr. UNINA9910786505103321 Autore Eden Rickard **Titolo** ¡MonkeyEngine 3.0 cookbook : over 80 practical recipes to expand and enrich your jMonkeyEngine skill set with a close focus on game development / / Rickard Eden Pubbl/distr/stampa Birmingham, England: ,: [Packt] Publishing, , 2014 ©2014 **ISBN** 1-78328-648-2 Descrizione fisica 1 online resource (298 p.) Disciplina 794.81536 Soggetti Video games - Design Video games - Programming Java (Computer program language) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes index. Note generali Cover; Copyright; Credits; About the Author; About the Reviewers; Nota di contenuto www.PacktPub.com; Table of Contents; Preface; Chapter 1: SDK Game Development Hub; Introduction; Setting up a project; Importing a model; Using Scene Composer; Modifying heightmaps with Terrain Editor: Adding a sky box and lighting: Adding water using a filter: Adding some ambient audio; Creating bitmap fonts with Font Creator; Retrieving an attachment node: Using ParticleEmitter - Soaring Birds: An advanced ParticleEmitter class; Chapter 2: Cameras and Game Controls; Introduction; Creating a reusable character control Attaching an input AppState objectFiring in FPS; Firing non-instant

Editor; Adding a sky box and lighting; Adding water using a filter;
Adding some ambient audio; Creating bitmap fonts with Font Creator;
Retrieving an attachment node; Using ParticleEmitter - Soaring Birds;
An advanced ParticleEmitter class; Chapter 2: Cameras and Game
Controls; Introduction; Creating a reusable character control
Attaching an input AppState objectFiring in FPS; Firing non-instant
bullets; Creating an RTS camera AppState object; Selecting units in RTS;
Making the camera follow units; Following a character with
ChaseCamera; Adding a game controller or joystick input; Leaning
around corners; Detecting cover automatically in a third-person game;
Chapter 3: World Building; Introduction; Using noise to generate a
terrain; Lighting your world and providing it with dynamic lights;
Deforming a terrain in real time; Automating trees" distribution;
Endless worlds and infinite space

Flowing water with cellular automataThe essentials of a cube-based world; Chapter 4: Mastering Character Animations; Introduction;

Previewing animations in SDK; Creating an animation manager control; Extending the animation control; Handling jump animations; Creating a custom animation - leaning; Creating a subanimation; Lip syncing and facial expressions; Eye movement; Location-dependent animation - edge check; Aligning feet with ground - inverse kinematics; Chapter 5: Artificial Intelligence; Introduction; Creating a reusable AI control class; Sensing - vision; Sensing - hearing

Decision making - Finite State MachineCreating the AI using cover: Generating NavMesh in SDK; Pathfinding - using NavMesh; Controlling groups of AI; Pathfinding - our own A\* pathfinder; Chapter 6: GUI with Nifty GUI; Introduction; Initializing Nifty and managing an options menu; Loading the screen; Creating an RPG dialog screen; Implementing a game console; Handling a game message queue; Creating an inventory screen; Customizing the input and settings page; Using offscreen rendering for a minimap: Chapter 7: Networking with SpiderMonkey; Introduction; Setting up a server and client Handling basic messagingMaking a networked game - Battleships; Implementing a network code for FPS; Loading a level; Interpolating between player positions; Firing over a network; Optimizing the bandwidth and avoiding cheating; Chapter 8: Physics with Bullet; Introduction: Creating a pushable door: Building a rocket engine: Ballistic projectiles and arrows; Handling multiple gravity sources; Selfbalancing using RotationalLimitMotors; The principles of a bridgebuilding game; Networked physics; Chapter 9: Taking Our Game to the Next Level; Introduction

Creating a muzzle flash using ParticleEmitter

## Sommario/riassunto

If you are a jMonkey developer or a Java developer who is interested to delve further into the game making process to expand your skillset and create more technical games, then this book is perfect for you.