

Unity Multiplayer Games

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Unity Multiplayer Games

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ADRIENNE AYDIN

Unity Android Game Development by Example Beginner's Guide Packt Pub Limited
 Newly Edited and Updated Version (Third Edition) for Unity 2020 Learn C# with Unity, and create a full FPS game without the headaches Without this book, most people spend too long trying to learn C# with Unity the hard way. This book is the only one that will get you to learn Unity fast without wasting so much time. It includes twelve chapters that painlessly teach you the necessary skills to create an FPS game and to learn intermediate C# and Unity techniques. What you will learn After completing this book, you will be able to: - Use Unity's built-in methods. - Use RigidBody physics to propel airborne objects. - Use a Finite State Machine to create intelligent Non-Payer Characters(NPCs). - Manage 3D animations for the NPCs. - Create NPCs who can chase the player. - Create and manage weapons and ammunition for the player. - Include advanced Artificial Intelligence for NPCs including: vision, hearing, random paths, fleeing from or ambushing the player. - Create a 2D scrolling shooter. Content and structure of this book The content of the books is as follows: - In Chapter 1, you will create a simple 3D game where the user has to reach the end of the level by avoiding projectiles from intelligent robots. - In Chapter 2, you will create a gun and a grenade launcher that the player can use to defeat enemies. - In Chapter 3, you will start to use Mecanim and NavMesh navigation to control an animated character that detects, follows, or attacks the player. - In Chapter 4, you will combine the skills that you have acquired in the previous chapters to create a fully functional level where the player needs to escape a level full of armed NPCs. You will also learn how to generate a game level dynamically from your code. - In Chapter 5, you will add off mesh links and manage costs and areas so that NPCs can avoid sections. - In Chapter 6, you will make it possible for NPCs to follow fixed or random paths. - In Chapter 7, you will add vision and hearing to the NPCs. - In Chapter 8, you will create smarter NPCs that can flee from or ambush the player. - In Chapter 9, you will control an army of NPCs and create an AI-driven opposite team. - In Chapter 10, you will create a simple 2D scrolling shooter. - In Chapter 11, you will improve your game by adding explosions and a scrolling background. - In Chapter 12, you will add intelligent spaceships that attack the player. - In Chapter 13, you will include a shield to the player's spaceship, along with other interesting features (e.g., sound FX, a scoring system, etc). If you want to create FPS games, Intelligent NPCs, and 2D Shooters with Unity using a tried-and-tested method: download this book now!

[Building an FPS Game with Unity](#) "O'Reilly Media, Inc."

Create ready-to-play 3D games with reactive environments, sound, dynamic effects, and more! Key FeaturesBuild a solid foundation for game design and game developmentUnderstand the fundamentals of 3D such as coordinates, spaces, vectors, and camerasGet to grips with essential Unity concepts including characters, scenes, terrains, objects and moreBook Description This book, written by a team of experts at Unity Technologies, follows an informal, demystifying approach to the world of game development. You'll learn the 3D and C# fundamentals before starting to build one short segment of the full game — a vertical slice. With every progressing chapter, you'll learn to improve this game (alongside building your own) to make it ready to pitch to studios. Within Unity 3D Game Development, you will learn to: Design and build 3D characters, and the game environmentThink about the users' interactions with your gameDevelop the interface and apply visual effects to add an emotional connection to your worldGrasp a solid foundation of sound design, animations, and lighting to your creationsBuild, test, and add final touches The book is split between expert insights that you'll read before you look into the project on GitHub to understand all the underpinnings. This way, you get to see the end result, and you're allowed to be creative and give your own thoughts to design, as well as work through the process with the new tools we

introduce. Join the book community on Discord: Read this book with Unity game developers, and the team of authors. Ask questions, build teams, chat with the authors, participate in events and much more. The link to join is included in the book. What you will learnLearn fundamentals of designing a 3D game and C# scriptingDesign your game character and work through their mechanics and movementsCreate an environment with Unity Terrain and ProBuilderExplore instantiation and rigid bodies through physics theory and codeImplement sound, lighting effects, trail rendering, and other dynamic effectsCreate a short, fully functional segment of your game in a vertical slicePolish your game with performance tweaksJOIN the 'book-club' to read alongside other users, Unity experts, and ask the authors when stuckWho this book is for Our goal with this book is to enable every reader to build the right mindset to think about 3D games, and then show them all the steps we took to create ours. The main target audience for this book is those with some prior knowledge in game development, though regardless of your experience, we hope to create an enjoyable learning journey for you.

[Unity iOS Game Development Beginners Guide](#) Apress

Bachelor Thesis from the year 2014 in the subject Computer Science - Software, grade: 1,3, LMU Munich (Meideninformatik), language: English, abstract: This project is done in collaboration with the German Heart Center. The goal of the project is to research and develop systems that help children with heart disorders to recover physical illness after having an operative treatment. The system uses electronic games to help motivate the children to perform exercise. Playing games will cause the children to perform moves that are supporting the rehabilitation process. The patients physical engagement is measured by biomedical sensors and used for controlling the intensity and frequency of moves that are stressed by playing the game.

Massively Multiplayer Game Programming With Unity 3d and Mirror Packt Publishing Ltd

A seat-of-your-pants manual for building fun, groovy little games quickly with Unity 3.x.

[Learning 2D Game Development with Unity](#) Packt Publishing Ltd

Learn how to build a complete 3D game using the industry-leading Unity game development engine and Blender, the graphics software that gives life to your ideas About This Book Learn the fundamentals of two powerful tools and put the concepts into practice Find out how to designand buildall the core elements required for a great game - from characters to environments, to props— Learn how to integrate Artificial Intelligence (AI) into your game for sophisticated and engaging gameplay Who This Book Is For This book has been created for anyone who wants to learn how to develop their own game using Blender and Unity, both of which are freely available, yet very popular and powerful, tools. Not only will you be able to master the tools, but you will also learn the entire process of creating a game from the ground up. What You Will Learn Design and create a game concept that will determine how your game will look and how it will be played Construct 3D models of your game characters and create animations for them before importing them into the game Build the game environment from scratch by constructing the terrain and props, and eventually put it all together to form a scene Import and integrate game assets created in Blender into Unity—for example, setting up textures, materials, animation states, and prefabs Develop game structures including a game flow, user interface diagram, game logic, and a state machine Make the game characters move around and perform certain actions either through player inputs or fully controlled by artificial intelligence Create particles and visual effects to enhance the overall visual aesthetic Deploy the game for various types of platforms In Detail In the wake of the indie game development scene, game development tools are no longer luxury items costing up to millions of dollars but are now affordable by smaller teams or even individual developers. Among these cutting-edge applications, Blender and Unity stand out from the crowd as a powerful combination that allows small-to-no budget indie developers or hobbyists alike to develop games that they have always dreamt of creating. Starting from the beginning, this book will cover designing the game concept,

constructing the gameplay, creating the characters and environment, implementing game logic and basic artificial intelligence, and finally deploying the game for others to play. By sequentially working through the steps in each chapter, you will quickly master the skills required to develop your dream game from scratch. Style and approach A step-by-step approach with tons of screenshots and sample code for readers to follow and learn from. Each topic is explained sequentially and placed in context so that readers can get a better understanding of every step in the process of creating a fully functional game.

Building Multiplayer Games in Unity Packt Publishing Ltd

Build a high-end, multiplayer role-playing game (RPG) from scratch with C# and Unity 2018 Key Features Get insights into Unity's user interface (UI) system and build UIs for your RPG Implement artificial intelligence (AI) to build intelligent entities that take your game to the next level Develop multiplayer features for an RPG using Unity 2018 Book Description In a role-playing game (RPG), users control a character, usually in the game's imaginary universe. Unity has become a top choice for developers looking to create these kinds of immersive RPGs. Building an RPG with Unity 2018, based on building some of the most common RPG features, teaches you tips, tricks, and techniques that can be applied to your own game. To start with, the book guides you through the fundamentals of role-playing games. You will learn the necessary aspects of building an RPG, such as structuring the game environment, customizing characters, controlling the camera, and designing other attributes such as inventory and weapons. You will also explore designing game levels by adding more features. Once you have understood the bigger picture, you will understand how to tackle the obstacles of networking in Unity and implement multiplayer mode for your RPG games. By the end of the book, you will be able to build upon the core RPG framework elements to create your own immersive games. What you will learn Construct a framework for inventory, equipment, characters, enemies, quests, and game events Understand how to load and unload scenes and assets Create multiplayer game settings for your RPG Design a UI for user input and feedback Implement AI for non-character players Customize your character at runtime Who this book is for Building an RPG with Unity 2018 is for you if you are a programmer interested in developing and further enhancing your skills when developing RPGs in Unity 2018. This book does not cover the basics of Unity, and so is for intermediate or more advanced users.

Unity 3.x Game Development by Example lthare.com Website GmbH

The Practical Guide to Building Reliable Networked Multiplayer Games Networked multiplayer games are a multibillion dollar business: some games now attract tens of millions of players. In this practical, code-rich guide, Joshua Glazer and Sanjay Madhav guide you through every aspect of engineering them. Drawing on their immense experience as both game developers and instructors, the authors lead you through building a robust multiplayer architecture, and creating every engine-level system. You'll learn through in-depth working code examples for two complete games: an action game and a real time strategy (RTS) game. First, Madhav and Glazer review the essentials of networking and network programming from the standpoint of game developers. Next, they walk through managing game data transmission, updating game objects across the network, and organizing the devices that join your game. You'll learn how to ensure reliable performance despite the Internet's inherent inconsistencies, and how to design game code for maximum security and scalability. The authors conclude by addressing two increasingly crucial issues: incorporating gamer services and hosting your games in the cloud. This guide's content has been extensively tested through the authors' multiplayer game programming courses at USC. It is equally valuable both to students and to working game programmers moving into networked games. Coverage includes How games have evolved to meet the challenges of networked environments Using Internet communication protocols and standards in game development Working with Berkeley Socket, the most widely used networking construct in multiplayer gaming Formatting game data for efficient Internet transmission Synchronizing states so all players share the same world Organizing networking topologies for large-scale games Overcoming latency and jitter problems that cause delays or lost data Scaling games without compromising performance Combating security vulnerabilities and software cheats Leveraging the networking functionality of the popular Unreal 4 and Unity game engines Integrating gamer services such as matchmaking, achievements, and leaderboards Running game servers in the cloud About the Website C++ source code for all examples is available at github.com/MultiplayerBook. Instructors will also find a full set of PowerPoint slides and a sample syllabus.

Multiplayer Game Programming Addison-Wesley Professional

A guide to developing network programs covers networking fundamentals as well as TCP and UDP sockets, multicasting protocol, content handlers, servlets, I/O, parsing, Java Mail API, and Java Secure Sockets Extension.

High Performance Browser Networking Apress

Holistic Mobile Game Development with Unity: An All-In-One Guide to Implementing Mechanics, Art Design and Programming for iOS and Android Games Master mobile game design and development in this all-in-one guide to creating iOS and Android games in the cutting-edge game engine, Unity. By using Penny de Byl's holistic method, you will learn about the principles of art, design, and code and gain multidisciplinary skills needed to succeed in the independent mobile games industry. In addition, hands-on exercises will help you throughout the process from design to publication in the Apple App Store and Google Play Store. Over 70 practical step-by-step exercises recreating the game mechanics of contemporary mobile games, including Angry Birds, Temple Run, Year Walk, Minecraft, Curiosity Cube, Fruit Ninja, and more. Design principles, art, and programming in unison – the one-stop shop for indie developers requiring interdisciplinary skills in their small teams. An introduction to essential two- and three-dimensional mathematics, geometry and physics concepts. A portfolio of royalty free reusable game mechanics and assets. Accompanying website, www.holistic3d.com, features project source code, instructional videos, art assets, author blog, and teaching resources. Challenge questions and lesson plans are available online for an enhanced learning experience.

Building a Game with Unity and Blender "O'Reilly Media, Inc."

First Edition, Published in September 2019 Content and structure of this book In this book, the fifth book in the series, you will become comfortable with creating your own RPG. If you were ever interested in creating systems for your game to speed-up your coding and create and maintain levels easily, then this book is for you. The book includes a list of the learning objectives at the start of each chapter, step-by-step activities, and quizzes to test your knowledge, and the content of each chapter is as follows: - Chapter 1 gives an introduction to the RPG genre. You will learn the design principles that will help you to speed-up your development process. - Chapter 2 helps you to create and animate your main 3D character, add a camera that will follow this character as well as a mini-map. You will also learn to use ProBuilder to create a village. - Chapter 3 explains how to create a dialogue system from an XML file, and how to integrate it seamlessly into your game. - Chapter 4 explains how you can create a simple inventory system and use it to collect, store, and use items that you will find in your quest. - Chapter 5 shows you how to create a shop where the player can buy items that will then be added to the inventory. - Chapter 6 explains how you can create different types of animated and intelligent NPCs that will challenge the player. - Chapter 7 explains how you can create a quest system based on an XML file to manage the objectives for each of your levels.

You will learn to read, and use this file for your game. - Chapter 8 explains how you can create an XP attribution system where the player can use the Xps gained in the previous level to increase his/her skills (e.g., accuracy, power, etc.) - Chapter 9 shows you how you can create a maze randomly using a procedural method so that the maze is different every time the game is played. - Chapter 10 combines the skills that you have learned so far to create a final level where the player needs to eliminate guards, collect gold, and also defeat the boss. After reading this book you will become a better game programmer, improve your knowledge of coding and unity, understand how to make a more complex product, learn some techniques to make an RPG game more modular, especially the quest system, use reusable code/assets that you can employ in your own game, create an inventory for your characters and much more... If you want to get started with your first RPG in Unity and learn reusable systems for your other games, using a tried-and-tested method: buy this book now!

Unity 3D Game Development by Example Nerds for Nerds Publishing GmbH

How prepared are you to build fast and efficient web applications? This eloquent book provides what every web developer should know about the network, from fundamental limitations that affect performance to major innovations for building even more powerful browser applications—including HTTP 2.0 and XHR improvements, Server-Sent Events (SSE), WebSocket, and WebRTC. Author Ilya Grigorik, a web performance engineer at Google, demonstrates performance optimization best practices for TCP, UDP, and TLS protocols, and explains unique wireless and mobile network optimization requirements. You'll then dive into performance characteristics of technologies such as HTTP 2.0, client-side network scripting with XHR, real-time streaming with SSE and WebSocket, and P2P communication with WebRTC. Deliver superlative TCP, UDP, and TLS performance Speed up network performance over 3G/4G mobile networks Develop fast and energy-efficient mobile applications Address bottlenecks in HTTP 1.x and other browser protocols Plan for and deliver the best HTTP 2.0 performance Enable efficient real-time streaming in the browser Create efficient peer-to-peer videoconferencing and low-latency applications with real-time WebRTC transports

Holistic Mobile Game Development with Unity "O'Reilly Media, Inc."

If you have C# knowledge but now want to become truly confident in creating fully functional 2D RPG games with Unity, then this book will show you everything you need to know.

Mobile Game Development with Unity Apress

Take a deep dive into creating large-scale, multiplayer games with Unity 3D, using Mirror Networking and a variety of powerful transports. You will learn the fundamentals of RPC/Command multiplayer architecture and dig deeper into networking and data persistence to achieve scalable, highly performant, large-scale, multiplayer games in Unity. This book explains how to develop multiplayer games using Unity within a commercial or enterprise environment. You will take a look at the networking fundamentals behind multiplayer games, including packets and the importance of keeping packets small. Next, you will look into Mirror Networking and see how to leverage a variety of transport layers to achieve large-scale, multiplayer games. Using Unity 3D as the core focus, you will get an understanding of the RPC/Command architecture and how you can utilize different authoritative structures to best suit your needs. You will also learn how to scale your architecture and explore industry-leading methods of deploying your game to the masses. You will also get a solid understanding of networking principles. The book wraps up with advice from leading experts who shed light on past mistakes and provide valuable insights for your next project. This book breaks down daunting concepts into easy-to-understand pieces of knowledge to help you create your first multiplayer game. It is a must-read for any developer looking to understand multiplayer games and networking. What You Will Learn ● Learn advanced multiplayer concepts and how to use them ● Understand the key concepts for creating multiplayer virtual experiences ● Know the basics of computer networking and how to employ them ● Deploy large, scalable multiplayer infrastructures for your games ● Gain insights from other industry professionals Who Is This Book For Intermediate to advanced Unity 3D developers looking to understand multiplayer networking and deploying large-scale products. Having a solid understanding of C# and Unity is required, and having an understanding or prior experience with networking principles such as IPv4 would be advantageous.

Mastering Unity 2D Game Development Packt Publishing Ltd

Create your own augmented reality games from scratch with Unity 5 About This Book Create your own augmented reality game from scratch and join the virtual reality gaming revolution Use the latest Unity 5 VR SDK to create pro-level AR games like Pokemon Go Innovate and explore the latest and most promising trend of AR gaming in the mobile gaming industry Who This Book Is For This book is for those who have a basic knowledge of game development techniques, but no previous knowledge of Unity is required. Some basic programming knowledge would be desirable, but the book is an introduction to the topic. The book is also suitable for experienced developers new to GIS or GPS development. What You Will Learn Build a location-based augmented reality game called Foodie Go Animate a player's avatar on a map Use the mobile device's camera as a game background Implement database persistence with SQLite4Unity3D to carry inventory items across game sessions Create basic UI elements for the game, inventory, menu, and settings Perform location and content searches against the Google Places API Enhance the game's mood by adding visual shader effects Extend the game by adding multiplayer networking and other enhancements In Detail The heyday of location-based augmented reality games is upon us. They have been around for a few years, but the release of Pokemon Go was a gamechanger that catalyzed the market and led to a massive surge in demand. Now is the time for novice and experienced developers alike to turn their good ideas into augmented reality (AR) mobile games and meet this demand! If you are keen to develop virtual reality games with the latest Unity 5 toolkit, then this is the book for you. The genre of location-based AR games introduces a new platform and technical challenges, but this book will help simplify those challenges and show how to maximize your game audience. This book will take you on a journey through building a location-based AR game that addresses the core technical concepts: GIS fundamentals, mobile device GPS, mapping, map textures in Unity, mobile device camera, camera textures in Unity, accessing location-based services, and other useful Unity tips. The technical material also discusses what is necessary for further development to create a multiplayer version of the game. At the end, you will be presented with troubleshooting techniques in case you get into trouble and need a little help. Style and approach This book shows you how to create every step of the game and gives practical examples.

Developing Turn-Based Multiplayer Games Addison-Wesley Professional

Follow a walkthrough of the Unity Engine and learn important 2D-centric lessons in scripting, working with image assets, animations, cameras, collision detection, and state management. In addition to the fundamentals, you'll learn best practices, helpful game-architectural patterns, and how to customize Unity to suit your needs, all in the context of building a working 2D game. While many books focus on 3D game creation with Unity, the easiest market for an independent developer to thrive in is 2D games. 2D games are generally cheaper to produce, more feasible for small teams, and more likely to be completed. If you live and breathe games and want to create them then 2D games are a great place to start. By focusing exclusively on 2D games and Unity's ever-expanding 2D workflow, this book gives aspiring independent game developers the tools they need to thrive. Various real-world examples of independent games are used to teach fundamental concepts of developing 2D games in Unity, using the very latest tools in Unity's updated 2D workflow. New all-

digital channels for distribution, such as Nintendo eShop, Xbox Live Marketplace, the Playstation Store, the App Store, Google Play, itch.io, Steam, and GOG.com have made it easier than ever to discover, buy, and sell games. The golden age of independent gaming is upon us, and there has never been a better time to get creative, roll up your sleeves, and build that game you've always dreamed about. Developing 2D Games with Unity can show you the way. What You'll Learn Delve deeply into useful 2D topics, such as sprites, tile slicing, and the brand new Tilemap feature. Build a working 2D RPG-style game as you learn. Construct a flexible and extensible game architecture using Unity-specific tools like Scriptable Objects, Cinemachine, and Prefabs. Take advantage of the streamlined 2D workflow provided by the Unity environment. Deploy games to desktop Who This Book Is For Hobbyists with some knowledge of programming, as well as seasoned programmers interested in learning to make games independent of a major studio.

Unity Game Development Essentials Packt Publishing Ltd

Build fully functional, professional 3D games with realistic environments, sound, dynamic effects, and more!

Practical Game Design with Unity and Playmaker Genever Benning

Unleash the full potential of Unity to build a fully playable, high-quality multiplayer RPG About This Book- Learn to build a multiplayer real-time strategy game from scratch using Unity- Gain knowledge of Unity's UI system to build complex user interfaces- See how to build and customize your framework for your RPG games Who This Book Is For if you have always wanted to create a high-end RPG using Unity, then this book is for you. Prior knowledge of game development is required and experience working with Unity will be beneficial. What You Will Learn- Construct a framework for inventory, equipment, characters, enemies, quests, and game events- See how to load and unload scenes and assets- Create multiplayer game settings for our RPG- Design a UI for user input and feedback- Enhance Game Master to handle all aspects of the RPG- Develop a custom pathfinding system- Implement AI for character and non-character players In Detail Unity is one of the most cutting-edge game engines in the world. Developers are looking for the best ways to create games of any genre in the engine. This comprehensive guide on building an RPG with Unity teaches you high-end techniques currently used in developing modern games - the tips, tricks, and techniques can be applied to your own role RPG. We begin with an introduction to, and the fundamentals of, RPG games. Moving further, you will learn the necessary parts of building an RPG, such as structuring the game environment, customizing characters, controlling the camera, and designing other attributes like inventory, weapons, and so on. We also cover designing levels of the game by adding more features to it and making the game more interesting. You will also learn how to get around the obstacle of networking in Unity and be able to implement Multi-Player mode for your RPG games. By the end of the book, you will be able to build upon core the RPG framework elements to create your own game experience. Style and approach This step-by-step tutorial will teach you how to build a multiplayer RPG. In this book you will explore the core concepts of what typical strategy one might need to build a complete game.

Unity 4.x Game Development by Example Beginner's Guide Patrick Felicia

Create your first turn-based multiplayer game using GameMaker Studio 2's built-in networking functions as well as using a simple NodeJS server. This book introduces you to the complexities of network programming and communication, where the focus will be on building the game from the ground up. You will start with a brief introduction to GameMaker Studio 2 and GML coding before diving into the essential principles of game design. Following this, you will go through an introductory section on NodeJS where you will learn how to create a server and send and receive data from it as well as integrating it with GameMaker Studio. You will then apply multiplayer gaming logic to your server and unlock multiplayer game features such as locating a player, syncing their data, and recording their session. What You Will Learn Discover the architecture of GameMaker Studio 2 Add new features to your game with NodeJS modules Integrate GameMaker Studio 2 with NodeJS Master GameMaker Studio 2's built-in networking functions Who This Book Is For GameMaker Studio users who want to understand how the networking components of GMS 2 work. Basic JavaScript knowledge is required.

Unity 3D Game Development Packt Publishing Ltd

Trying to develop your own multiplayer online game can be overwhelming, especially as information on multiplayer specifics is very scarce. The nine-volume Development and Deployment of

Multiplayer Games series is an attempt to summarize a body of knowledge that is known in the industry, but is rarely published, let alone published together. The series is highly praised by prominent representatives of the multiplayer gamedev industry. An "Early Praise" page within the book lists several testimonials by people from billion-dollar and/or AAA companies with job titles ranging from Managing Director and CTO to Backend Technical Director and Principal Software Engineer. Genres: From Social Games to MMOFPS, with Stock Exchanges In Between. Development and Deployment of Multiplayer Online Games aims to cover pretty much all the MOG genres - ranging from social games to MMORPGs and MMOFPS. While there are certainly differences between the genres, around 80% of the discussed concepts apply across the board. Level: Intermediate+. This series is not trying to teach very basics of the programming (and is not a book to copy-paste your MOG from). Rather, it is intended for those intermediate developers who want to progress into senior ones, and all the way up to CTOs and architects. In particular, there is no explanation of what event-driven programming is about, what the difference is between optimistic locking and pessimistic locking, why do you need a source control system, and so on. Instead, there will be discussions on how the concept of futures fits into event-driven programming, when the use of optimistic locking makes sense for games, and how to use source control in the presence of unmergeable files. This Volume: Vol. I Vol. I starts Part ARCH(itecture), and includes three Chapters. Chapter 1 discusses Game Design Document (GDD) - mostly concentrating on its multiplayer specifics of GDDs. Chapter 2 explores the all-important aspects of cheating - which is virtually non-existent in single-player games and games between friends, but plays an enormous role in multiplayer games; the resulting analysis leads to Authoritative Server architectures (note that discussion on implementing anti-cheating measures is much longer than it is possible to fit into Vol. I, and will take the whole Vol. VIII). The largest chapter of Vol. I, Chapter 3, is dedicated to typical multiplayer communication flows. Along the course of this discussion, it will cover lots of different topics, including such different things as Client-Side Prediction, Low-Latency Compressible State Sync, Lag Compensation and its dangers, and Inter-DB Async Transfer with Transactional Integrity **Unity Multiplayer Games** Packt Publishing Ltd

Create a high-quality first person shooter game using the Unity game engine and the popular UFPS and ProBuilder frameworks About This Book Learn how to use Unity in conjunction with UFPS and ProBuilder to create a high-quality game quickly Create both interior and exterior environments A step-by step guide to building a project with clear examples and instructions to create a number of interesting scenarios Who This Book Is For This book is for those who want to create an FPS game in Unity and gain knowledge on how to customize it to be their very own. If you are familiar with the basics of Unity, you will have an easier time, but it should make it possible for someone with no prior experience to learn Unity at an accelerated pace. What You Will Learn Use UFPS to build custom weapons with custom meshes and behaviors Explore level design as you prototype levels, making use of Prototype to build levels out quickly Build environments that are realistic as possible while keeping peak performance and repetitiveness down Review tips and tricks on how to create environments using both terrain for outdoor areas and a modular workflow for interiors Develop a number of different encounters that your players can fight against, from a simple turret enemy to complex AI characters from Shooter AI Discover how to create unique objects such as exploding barrels and objects you can interact with Create a custom GUI to help your game stand out from the crowd Package your game for release, create an installer, and get your game out into the world In Detail Unity, available in free and pro versions, is one of the most popular third-party game engines available. It is a cross-platform game engine, making it easy to write your game once and then port it to PC, consoles, and even the web, making it a great choice for both indie and AAA developers. Building an FPS Game in Unity takes readers on an exploration of how to use Unity to create a 3D first person shooter (FPS) title, leveraging the powerful UFPS framework by VisionPunk and Prototype/ProBuilder 2.0 by ProCore3D. After some setting up, you will start by learning how to create custom weapons, prototype levels, create exterior and interior environments, and breathe life into our levels. We will then add polish to the levels. Finally, we will create a custom GUI and menus for our title to create a complete package. Style and approach An easy-to-follow guide with each project containing step-by-step explanations, diagrams, screenshots, and downloadable material. Concepts in Unity and C# are explained as they are used and for the more inquisitive, there are more details on the concepts used with additional external resources to learn from.