

QuickRollGame Documentation

1. Introduction

The QuickRollGame project contains various components for building a complete game within Unity. This documentation describes key scripts and their functionalities across several core modules.

2. Blockers Module

The Blockers module contains scripts responsible for managing game blockers, animations, and related elements.

Script	Description
BlickAnimation.cs	Handles the animation for blockers. The script is responsible for animating visual effects and providing feedback to players.
Blocker.cs	This script represents a blocker object in the game. It contains logic for handling interactions and behavior of blockers.

3. Map Module

The Map module is responsible for generating the level map and managing its components.

Script	Description
MapCreator.cs	This script is responsible for generating the level map. It creates the terrain, road, and obstacles dynamically based on game settings.

4. Player Module

The Player module contains scripts managing player actions, input, movement, and shooting mechanics.

Script	Description
Player.cs	The main player script, managing overall player behavior, health, and core logic.
PlayerInputPanel.cs	Handles the input panel for controlling the player character in the game.
PlayerInputTouch.cs	Script that manages touch input for mobile controls.
PlayerMovement.cs	This script handles the player's movement in the game, including walking, running, and other movement mechanics.
PlayerShooter.cs	Manages the shooting mechanics of the player, including aiming, firing bullets, and tracking ammo.
Road.cs	Controls the road generation and interactions between the road and the player.

5. WindowsService Module

This module manages different windows in the game, such as main menu and result screens.

Script	Description
MainScreenView.cs	This script manages the main screen view in the game, handling UI interactions and main menu logic.

6. Level Generator

The Level Generator is a tool used to automatically generate levels in Unity based on various parameters and randomization options.

Setting	Description
CenterElement	The central Transform object that the level will be generated around.
BlockerPrefab	The GameObject prefab used as the base object for generated elements.
AmountElement	Determines the number of elements to be generated. Can be set to a constant value or a random range.
RadiusBetweenBlocks	Specifies the minimum distance between generated elements. Can be constant or randomized.
LevelData	Stores the position data for each block in the level.
Width/Length	Sets the dimensions of the spawn area for element generation.

Level Generator Methods

Method	Description
GenerateLevel()	Generates a level based on the current settings. Spawns elements around the CenterElement using BlockerPrefab.
SaveLevelData()	Saves the current positions of all generated elements to LevelData.
LoadLevelData()	Loads previously saved level data, restoring element positions.
ClearExistingBlocks()	Clears all currently generated blocks before starting a new generation.
GenerateMultipleLevels(int numberOfLevels)	Generates a specified number of levels in sequence, using the current settings.

7. Conclusion

This documentation covers the core scripts of the QuickRollGame project. By understanding the purpose and functionality of each component, developers can modify and extend the game to suit their needs.