

Spike: 15

Title: Unreal Engine Familiarisation

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Goals / deliverables:

The goal is to create a report on three game created in unreal and discuss the pros and cons on why unreal was a good/ bad choice.

Create an actor that constantly prints out a string on the console using the unreal blueprints system and show the two types of commenting styles within the blueprints.

To create this spike, you require:

- Unreal Engine
- Report on Games made in unreal: See appendix

Technologies, Tools, and Resources used:

List of information needed by someone trying to reproduce this work

- Unreal engine
 - <https://docs.unrealengine.com/latest/INT/GettingStarted/Installation/>
- Knowledge of blueprints
 - <https://docs.unrealengine.com/latest/INT/Engine/Blueprints/index.html>
- Games created in unreal

Tasks undertaken:

- Research games made in unreal and discuss the games
 - Pros and Cons
 - Unreal element or why you should use another game engine for the game.

- Create a project in unreal and add a blueprint
 - Print a message to the screen
 - Add both style of comments to the blueprint

Unreal Engine

Infinity Blade – Mobile App

Pros

- The game assets look good
- Runs smooth outside of battles

Cons

- Game controls makes it difficult to use combos
- Lag occurs while you attempt to use combos

Overall I believe that this game should have been made in a different game engine that can handle mobile device inputs better. Even though you might sacrifice the details in the assets, you can recreate a smooth game everyone can enjoy. The good assets do save the game from being a flop, but with poor playability during intense fights reduces the games from possibly being one of the best mobile games to an average game. A good game engine to use is Unity. They are moving forward and enabling developers to port to mobile devices easily. Unity has the input premade so you are only calling the input. While with unreal, you need to create it programmatically. This makes it easier to create bugs unknowingly.

Borderlands 2 – PC, PS 3-4, Xbox 360 – One

Pros

- Physics within the game is enhanced to compliment the cartoon style graphics
- Multiplayer campaign can increase fun due to higher difficulty and playing with others can help you get pass missions you thought were too hard to solo
- The use of elemental weapons which can help or hinder you when versing enemies. (Corrosive good against robots but bad against shields)

Cons

- Cartoon graphics affect the gameplay when there is a heavy screen load in battles
- The particles at times can be blinding

I never knew that this game was made in the unreal engine because I honestly thought 2K would have used their own engine. After doing a bit of research I discovered that they are using a heavily modded Unreal Engine 3. The cartoon graphics and abnormal physics make the game interesting because you feel like you are watching a cartoon on pay to air tv but in control of the main character enables you to make it your own show. The abnormal physics like the constant gravity which protects you from fall damage... unless you fall of the map (which you die)! The cars have a relatively small turning circle you would normally see in a small hatchback, so they are extremely agile but built like tanks so you can take a lot of damage. The Unreal Engine was a good idea to make this game because everything complements each other. In Borderland, while walking in the snow. There will be a check in the blueprints to see what type of surface you're walking on. The blueprint can

switch the physic material on the ground via a Switch statement called EPhysicalSurface and then you can select the any of the available surface.

Smite – PC, PS4, Xbox One

Pros

- MOBA DOTA/LOL style game in third person
- Requires skill since no attack is locked on an enemy
- Final objective is a Titan that has high health and attack which means a whole team must attack instead of someone hiding in the shadows and destroys the tower while everyone is waiting to respawn.
- Runs smooth on low graphics if your computer just reaches the minimum required specs

Cons

- Not original game style
- Beginning difficulty is hard due to high skill requirements

Smite was a massive hit due to the key dynamic of a third person DOTA style game people were crying for. The use of the Unreal engine was genius with its great assets that run smoothly even on the lower settings. The game brings elements from previous MOBA games and redefined them to suit a mythological battle with Gods from the Greek, Roman and Aztec mythology with titans, soldiers, archers and brutes dressed in ancient battle armour. The camera system they use is a camera that searches for your player's relative position within the world. When your camera moves. It stays within the boundaries of the player, not causing any motion sickness

