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## Lost in the dark, a unity engine based videogame

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### ABSTRACT

*In this paper, we present the design and implementation of the game called Lost In Dark. It is a unique game and was developed keeping the Windows Operating Systems in mind. The aim behind the project was to promote small range games. The students playing our game go through FPP (First Person Perspective) in a dark place to find his way out where simultaneously he survives from the monsters. The player can elevate and complete the tasks so that he can move up to next level in this unity powered game.*

**Keywords:** Unity Game Engine, 3Ds Max, Blender, Visual Studio, C#, Animations

### 1. INTRODUCTION

One thing that might not take as a capstone project is game development but in fact it can be a key project to highlight the curiosity and skills that requires to make a project on unity-based game. The main objective of a game development demands a variety of challenges which requires series of skills to fulfill the need to please the consumer is an intense work. Gamedevelopment not only empowers developers to innovate more but also aspires all the branches of the industry that contribute to enhance the gaming experience, games work or render better with more powerful GPU'S and they need to process fast and efficient so it generates whole R&D over gaming enhancements to processors with higher clock speeds and better efficient architectures, along with these additions gaming feels better with good sound and it creates sound mixing techniques and end product accessories like speakers/headphones and other accessories.

In this paper we present our experience in creating a game based on the Unity game engine and promoting game in any low specification PC. We want to use this more visual, more easily accepted medium to depict the world through which we can play in low end PC's. Our game is a

Horror Survival game where player will encounter doors and monsters in dark place. When it comes to a shooter game it depends on the player and his reaction time with respect to the visual, he/she is witnessing on their screens, which compels the user to experience the theme and the way that the developer intended to feel the game. Unity3D Game Engine is a development tool which develops video games, visual applications, 3d models for popular platforms like windows, mac os etc., though it runs on only two platforms, it has the ability of developing applications for multiple platforms which are mentioned as follows –Windows, Windows Phone, Web Player, etc. All we need for it to develop the application on respective platforms is the software development kit (SDK) for it.



### 2. TEXTURING



Texturing started right after we created the room after completion of UV in the game. According to our theme the room should be scary and dark so we went with the brown texture for walls and we took hard layer for the ground. For each contained material, these libraries provided bump maps, normal maps and differently colored layers which artist could switch on or off, to create new textures fast and easy.

### 3. SUMMARY OF THE GAME DEVELOPMENT

1. **Game Name:** Lost In The Dark
2. **Game Genre:** Horror, Survival, Shooter
3. **Platform:** Supports Multi-platform (Windows PC)
4. **Game Characteristics:** In this game player will survive in a dark place finding a way out and encounter many monsters in his way this is FPP game.

This is completely based on a character whose was stuck in the dark underworld which looks and feels darker to the eyes and generates gory sound which makes the experience more darker than it is suppose to be and as the character explores the environment he/she encounters the very first monster which comes all of a sudden and the character has to eliminate it to avoid the hurdle in the path to the light which saves the character from the place and as the game passed the player encounters different monsters and gains skills to defeat them with weapons and moves up ahead through levels.



### 4. MODULES

#### Game UI screen

>>Modules:

- 1) Play
- 2) Settings
- 3) Rules
- 4) Quit

**Play:** This module directs the player to the depicted scene of the game where the player can play the main game. The player can pause and resume the game.

**Settings:** This module can be used to modify the volume for the game.

**Rules:** This module shows the rules and controls required for the movement and exploration by the player in the game and constraints need to be followed by the player.

**Quit:** This module is used to close the game window that is to exit from the game application.



### 5. EFFECTS, SHADER PROGRAMMING

As soon as the main part of the game was finished, effects like fire and smoke, fog, water, dust, lens flare and explosions were implemented. All these effects, except lens flare and fog, were created with an Ellipsoid Particle Emitter or a Mesh Particle Emitter provided by Unity. Fog was simply activated in Unity's render settings.



### 6. SOUND

In the final phase background music and sound effects were added to the game. To add a sound file to an object in Unity, an 'Audio Source Component' had to be added to the specified object. In Unity's audio source options, the audio clip had to be defined and some other options like the volume were individually adapted.

### 7. CONCLUSION

This study aims to design and develop a gaming application using Unity Game Engine. Through this cornerstone for a new concentration on Game Development, we have conveyed our views and ideas on promoting education via innovation. The functions that Unity3D supports autonomously are very abundant. All game developments are possible such as shader, physics engine, network, terrain manipulation, audio, video, and animation, and it is enabled so that it is possible to revise, meeting demand of user according to the need.

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