



SCHOOL OF COMPUTING

SESSION 2020/2021 SEMESTER 2

SECV2213 - FUNDAMENTAL OF COMPUTER GRAPHICS SECTION 01

ASSIGNMENT 1- COMPUTER GRAPHIC APPLICATION

GROUP 8 - VIDEO GAME (PUBG)



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1. INTRODUCTION

Video game is one of the applications of computer graphics and uses a variety of computer graphic techniques in the visual aspect. In this report, we do some research on the visual making of the PUBG video game and we will discuss how the computer graphics were used in the visual effects in this video game. The outline of our discussion is as follows; Section 2 discusses how the computer graphic was used for visual effects, Section 3 discussed the computer graphics term found in this video game and the last section is the conclusion.

PUBG MOBILE HUNDRED RHYTHMS is a Battle Royale game played by over 1 billion players worldwide. The official PLAYERUNKNOWN'S BATTLEGROUNDS designed exclusively for mobile. People can play it free anywhere and anytime. PUBG is powered by Unreal Engine 4, and it delivers jaw-dropping HD graphics and 3D sound. Besides that, it is featuring customizable mobile controls, training modes, and voice chat. People can experience the most smooth control and realistic ballistics, weapon behaviour on mobile. [1]

2. HOW COMPUTER GRAPHICS WAS USED FOR VISUAL EFFECTS

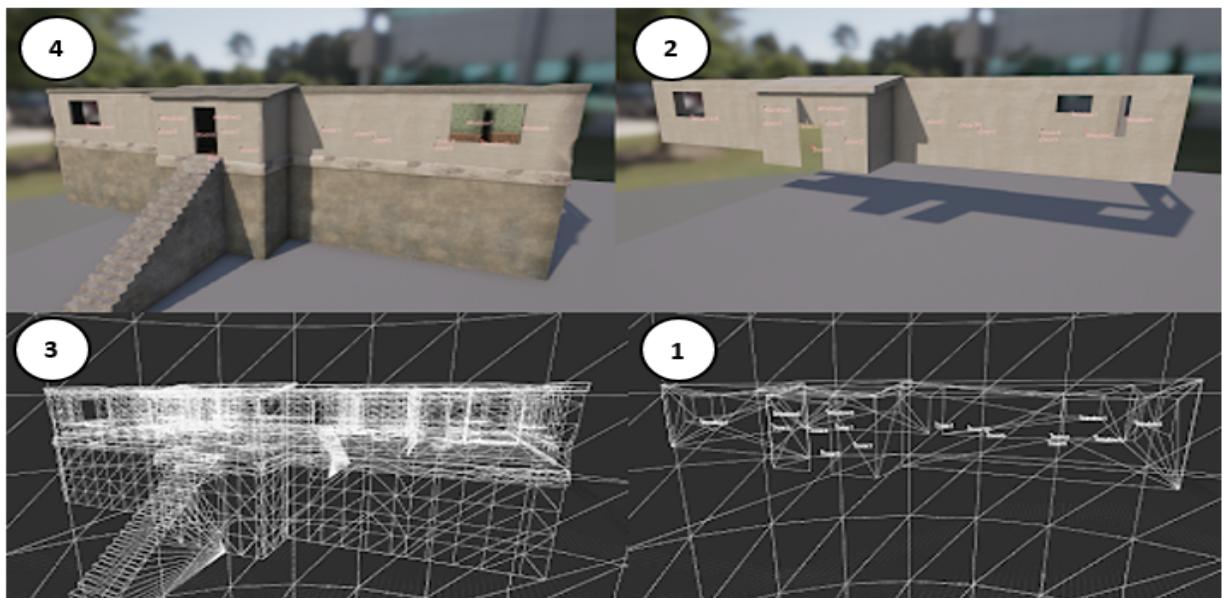


Figure 1: The wireframe for one of the building in pubg mobile

In figure 1 shows the wireframe for the building in PUBG Mobile. For image 1 it shows the base for the wireframe and image 3 it shows the full wireframe for the building. After finishing the wireframe, then we will add other processes like mockup, rendering, lighting and others that can make the building look realistic.

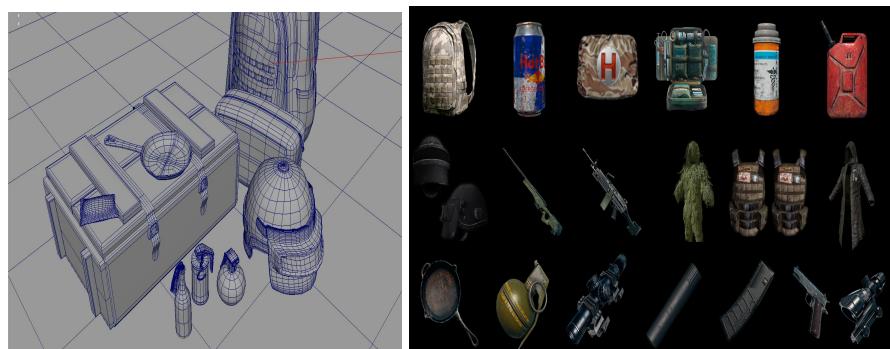


Figure 2: Before Wireframe weapon and After wireframe weapon

In Figure 2 also shows the wireframe for the weapon that was used in PUBG Mobile. After that will apply lighting to make the weapon look more real like a weapon in real life. It makes the player more easily recognize and know the function of the weapon easily when it is created in the game.

3. COMPUTER GRAPHICS TERM FOUND

There are actually many terms coined with the processes involved in video game, we selected these terms:

1. **Polygon** - The building blocks of all 2D or 3D objects (usually triangles) used to form the surfaces and skeletons of rendered objects.[2]
2. **Projection** - The process of reducing three dimensions to two dimensions for display is called Projection. It is the mapping of the visible part of a three dimensional object onto a two dimension screen.[2]
3. **Lighting** - Lighting is used to create realistic-looking scenes with greater depth instead of flat-looking or cartoonish environments.[2]

4. CONCLUSION

Computer graphics development has had a significant impact on many types of media and has revolutionized animation, movies, advertising, video games, in general.[3] PUBG video games is one of the popular video games nowadays that applies the computer graphic to produce the perfect and clearer visual effect for good gaming experiences to the player. In this report, we find out that some visual effects in PUBG have used the mockup, rendering, lighting and some other computer graphics techniques to display the visual environment and character in game to the players.

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VIDEO PRESENTATION

Link: <https://youtu.be/rAiCs4T4OX8>

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