

Game Development with Game Maker, Flash and Unity

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ABSTRACT

This tutorial will present and compare three software platforms for developing video games: Game Maker, Flash and Unity Pro. Game Maker is suited for developing quick prototypes. Flash is a natural choice for production of web-based software and Unity is a good choice for gamers who wish to develop and deploy their products to a multitude of platforms. The first part will involve modifying and creating games with game maker. The second part will involve modifying and creating games with flash. The third part will focus on unity. Finally, a discussion on the pros and cons of each platform is presented.

Categories and Subject Descriptors

K.3.2 [Computer and Information Science Education]:

Games

General Terms

Video games, prototypes, SDLC, IDE

Keywords

Game Engine, Game Maker, Flash, Unity.

1. GAME MAKER AND PROTOTYPES

The software development life cycle (SDLC) of a videogame (fun game or serious game) may benefit by developing a prototype. Unlike the development of many traditional applications, following the client's specifications is no guarantee for a successful game.

Game maker allows users to create entire games without writing a single line of code using an Interactive Development Environment (IDE). The minimum steps to create a program with Game Maker include creating an image (called sprite), creating an object, associating the object with events and actions, and placing the object in a room.

2. FLASH AND WEB-BASED GAMES

Adobe Flash is a tool for developing animations over the web. It is also a tool very well suited for videogames. There is a lot of textbooks, web-sites and sample applications with source code available to learn flash.

Adobe Flash is divided into two main parts. Designing animations can be done with drag and drop entirely through IDE. Flash programming is done with the Action script programming language. The focus of this tutorial will be Action script 3.0. However, Action script 2.0 will also be discussed.

3. UNITY – UBIQUITOUS DEVICES

The third section of this tutorial will present Unity. This tool is for serious gamers and allows the deployment of games to a wide variety of platforms such as mobile phones, consoles, and ipad. This tutorial will present the basics of Unity and why this tool was chosen instead of other popular game development tools such as Torque.

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