

Abstract

This paper describes our game engine written in C++, using the DirectX libraries for graphics, sound and input. Since the engine is written using DirectX, an introduction to this system is given. The report gives a description of the structure of the game and the game kernel. Following this is a description of the graphics engine and its core components. The main focus of the engine is on the physics and how it is used in the game to simulate reality. Input is discussed briefly, with examples to show how it relates to the physics engine. Implementation of audio in the game engine is not described, but a general description of how sound is used in games is given. A theory for the basics of how artificial intelligence can be used in the engine is presented. The system for the architecture of the levels is described as is its connection to the graphics engine. The last section of the report is an evaluation and suggestions for what to do in the future. A user manual for the level editor is included as an appendix.