



Introduction to 3D Graphics and DirectX



Outline

- Introduction
- Prerequisites
- Recommended Hardware
- Intended Audience
- Installing DirectX 9.0

Introduction

- This course is an introduction to programming interactive 3D computer graphics using DirectX 9.0
- DirectX is a set of APIs for developing multimedia applications on the Windows platform.
- In this course we are concerned with a particular DirectX subset, namely Direct3D

Parts

- **Mathematical Prerequisites**
- **Direct3D Initialization**
- **The Rendering Pipeline**
- **Drawing in Direct3D**
- **Color**
- **Lighting**
- **Texturing**
- **Blending**
- **Stenciling**
- **Fonts**
- **Meshes**

Prerequisites

- Algebra
- Trigonometry
- Development environment (e.g., Visual Studio)
- C++
- Fundamental data structures
- Windows programming

Recommended Hardware

- All the samples can be run using the REF device
- Newer features, such as point sprites recommend a graphics card at the level of a GeForce2
- Vertex and pixel shaders will need a graphics card that supports shaders such as the GeForce3

Intended Audience

- Intermediate level C++ programmers
- 3D programmers experienced with an API other than DirectX (e.g., OpenGL)
- Experienced Direct3D programmers
- Game Programmers
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