

Textures

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This is a solution that contains 9 projects that have been created to show different abilities of Direct3D to work with Textures.

Introduction to Texturing

This project is an introduction to texturing. It will load a part of a texture on a triangle.

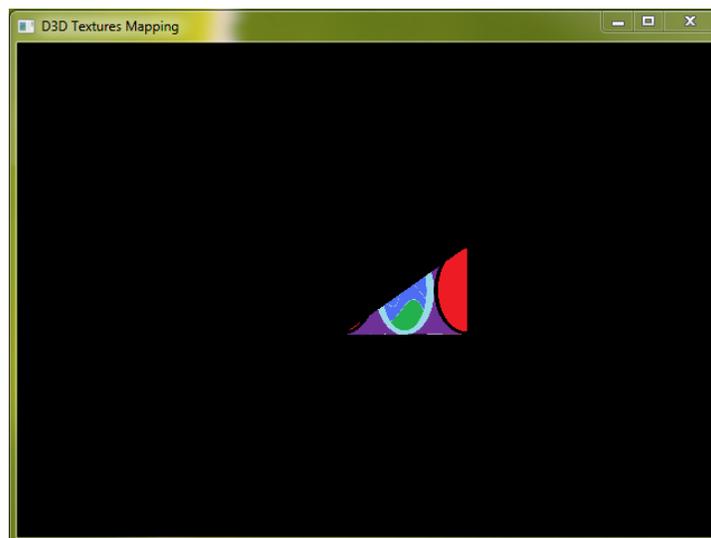


Figure 1- Introduction to Texturing

Screenshot

In this project I have implemented how to save the back buffer into an image file. By pressing S, an image file by Screenshot.jpg will be stored on the HDD.



Figure 2- ScreenShot

Multi Texturing

In this project we will mix two textures on a plane in a single pass.

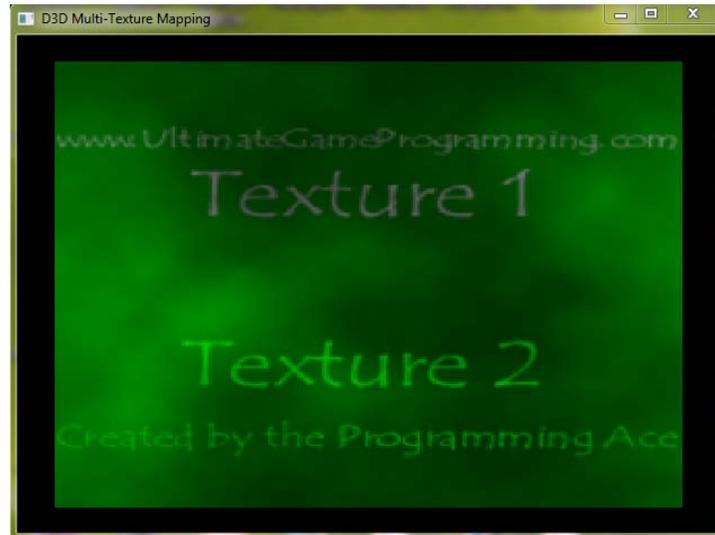


Figure 3-Multi Texturing

Multi-Pass Texturing

In this project, a plane is textured in multiple pass. This has an advantage that shows us how to implement more than 8 operations when texturing is done. Because Direct3D 9 just supports 8 operations in a single pass.



Figure 4- Multi-Pass Texturing

Point Sprite

In this project, using sprite is implemented. Sprite is a point in the scene. Here where a sprite is positioned, a plane will be replaced that is always faced to the camera.

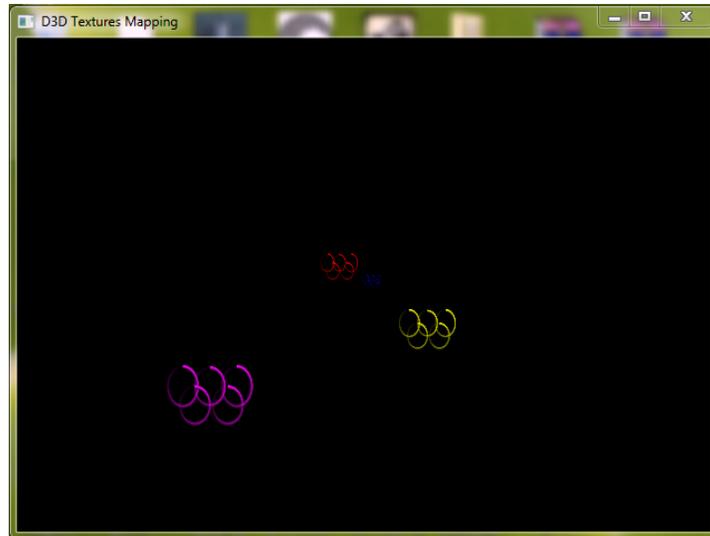


Figure 5- Point Sprite

Fire

In this project, Point Sprite will be used to implement fire. This system is used by today's games.

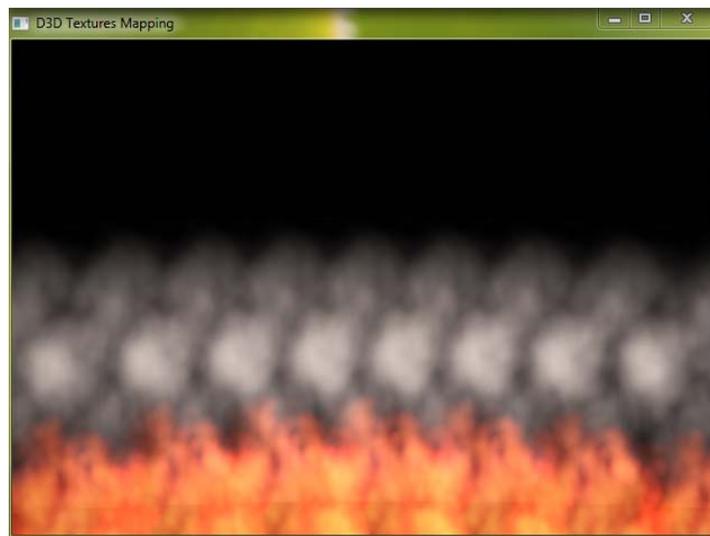


Figure 6-Fire

Alpha Transparency

In this project, alpha part of each color in TGA Image file format is used to make some parts of an image file transparent.

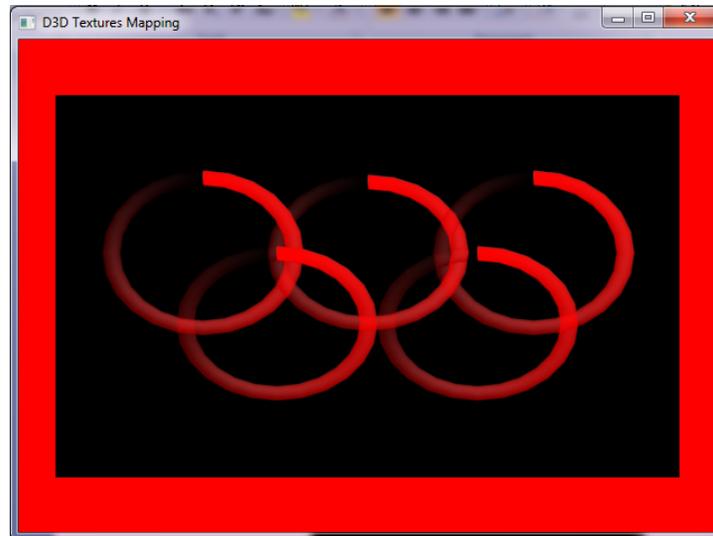


Figure 7-Alpha Transparency

Off-Screen Rendering

This project contains shows a plane that a texture of a rotating teapot is assigned to it. The teapot is in the current scene but cannot be seen by the user's camera. It is seen by another camera and the seen picture is saved in a surface and the achieved texture will be assigned to the plane. Mirror can be simulated by this technique.

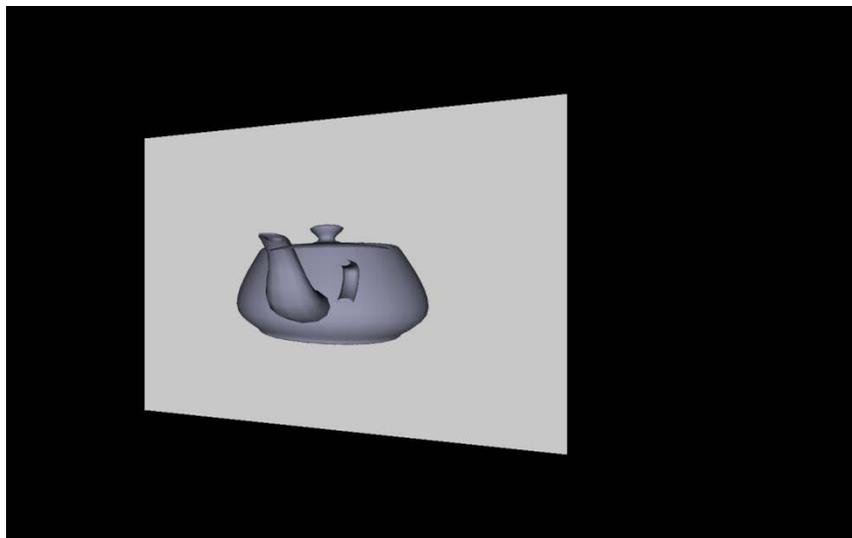


Figure 8-Off Screen Rendering

Bump Mapping

In this project, Bump map image will be used to make down and up in the vertices of the surface of an object.



Figure 9-Bump Mapping

Libraries that is used in this project:

- DirectX SDK

Packages used in this project:

- Visual Studio
- DirectX SDK
- 3D Studio Max

Files:

Textures_Executable.rar	Contains an executable Version of project.
Textures_Solution.rar	Contains the codes of the project. To build and run the solution, you need Visual Studio 2010.