Title

Cel-Shaded Graphics Make Awesome Game Worlds

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Summary

The graphical style of a video game is essential in conveying a sense of immersion in the game world. Different graphical styles convey completely different senses of the same game world. One popular graphical style is cel shading: while many games nowadays aim for photo-realism, cel shading instead aims for simplicity. Cel shading can be used to convey a simpler, almost cartoon view of the game world. Many highly profitable, successful recent games,The Legend of Zelda: Skyward Sword, Tales of Vesperia, Borderlands, and No More Heroes have used this style. I have personally played many games created with this style and felt it was an amazing choice for the game world. The intention of the project is to research the cel shading art style and produce the effect using OpenGL.

Goals

Use the models supplied in class or my own models created using Google SketchUp and render them in OpenGL using the cel shading graphcial style. To that end I must accomplish at least the following:

- Understand exactly what cel shading means; what does the effect produce?
- Understand the different concepts required: texturing, mapping, coloring, lighting, etc.
  - This project will build on the skills obtained from program two and three.
- Use C++ and OpenGL to render multiple models concurrently.
- Create appropriate shaders using GLSL to perform shading.
- (Maybe) create additional models using Google SketchUp; will need a parser for OpenGL.

References

Preliminary references include

http://en.wikipedia.org/wiki/Cel-shaded_animation

http://www.gamedev.net/page/resources/_/technical/graphics-programming-and-theory/cel-shading-r1438