Image Synthesis – Practical 4

Interactive Web3D application with Three.JS

For our fourth and final practical we change tack completely and return to real-time graphics.

The task in this practical is to create an interactive 3D application for the web, using the Three.js engine.

The remit for the practical is very open: you can do what you want!

Here are a couple of ideas:

Idea 1: Make a game

Three.JS is a visualization API, not a game engine, but you can still make a simple game with it. Try making a simple racing game (e.g. http://hexgl.bkcore.com/), maybe with a procedural track, for example. Or an endless runner (http://hellorun.helloenjoy.com/). Or an arcade game (https://www.cubeslam.com/).

http://www.threejsgames.com/extensions/ provides some useful extensions which help with game development.

Idea 2: Make a fun visualization

You can make a 3D engine visualize anything. At the most basic level you can make a high quality visualization of a 3D model (e.g. http://carvisualizer.plus360degrees.com/threejs/).

More interestingly, you can use 3D to visualize geographical data that would be very difficult to visualize in 2D (e.g. http://armsglobe.chromeexperiments.com/). The difficulty here is in finding and correctly parsing the data.

Idea 3: Collaborative application

The real benefit of the modern web is real-time collaboration. You can write a simple server in Node.JS or PHP to bounce messages to all clients (or use an existing one: https://github.com/jagenjo/SillyServer.js) and enable them to interact in real-time.