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 **turban** Thicker line

9a8967b on Nov 2, 2013

1 contributor

105 lines (82 sloc) 3.28 KB

```
1  <!doctype html>
2  <html lang="en">
3  <head>
4  <title>three.js - Jotunheimen</title>
5  <meta charset="utf-8">
6  <meta name="viewport" content="width=device-width, user-scalable=no, minimum-scale=1.0, maximum-scale=1.0">
7  <style>
8      body { margin: 0; overflow: hidden; }
9  </style>
10 </head>
11 <body>
12 <div id="webgl"></div>
13 <script src="../lib/three.min.js"></script>
14 <script src="../lib/TrackballControls.js"></script>
15 <script src="../lib/TerrainLoader.js"></script>
16 <script src="../lib/d3.v3.min.js"></script>
17 </script>
18
19     var width  = window.innerWidth,
20         height = window.innerHeight,
21         terrainSize = 60, // 60 x 60 km
22         heightFactor = terrainSize / 12;
23
24     var scene = new THREE.Scene();
25     scene.add(new THREE.AmbientLight(0xeeeeee));
26
27     var camera = new THREE.PerspectiveCamera(45, width / height, 0.1, 1000);
28     camera.position.set(0, -terrainSize / 2, terrainSize / 2);
29
30     var renderer = new THREE.WebGLRenderer();
31     renderer.setSize(width, height);
32
33     var terrainLoader = new THREE.TerrainLoader();
34     terrainLoader.load('../assets/jotunheimen512.bin', createTerrain);
35
36     var projection = d3.geo.transverseMercator()
37         .translate([terrainSize / 2, terrainSize / 2])
38         .scale(terrainSize * 106.4)
39         .rotate([-9, 0, 0])
40         .center([-0.714, 61.512]);
41
42     var controls = new THREE.TrackballControls(camera);
43
44     document.getElementById('webgl').appendChild(renderer.domElement);
45
46     render();
47
48     function render() {
49         controls.update();
50         requestAnimationFrame(render);
51         renderer.render(scene, camera);
52     }
```

```
53
54 function createTerrain(data) {
55     var geometry = new THREE.PlaneGeometry(terrainSize, terrainSize, 511, 511);
56
57     for (var i = 0, l = geometry.vertices.length; i < l; i++) {
58         geometry.vertices[i].z = data[i] / 65535 * heightFactor;
59     }
60
61     var material = new THREE.MeshPhongMaterial({
62         map: THREE.ImageUtils.loadTexture('../assets/jotunheimen-texture.jpg')
63     });
64
65     var plane = new THREE.Mesh(geometry, material);
66     scene.add(plane);
67
68     d3.xml('../assets/jotunheimen-track.gpx', 'application/xml', gpxParser);
69 }
70
71
72 function gpxParser(gpx) {
73     var tracks = gpx.getElementsByTagName('trk'),
74         geometry = new THREE.Geometry();
75
76     for (i = 0; i < tracks.length; i++) {
77         var points = tracks[i].getElementsByTagName('trkpt')
78         for (x = 0; x < points.length; x++) { // points.length
79             var point = points[x],
80                 alt = parseInt(point.getElementsByTagName('ele')[0].firstChild.nodeValue),
81                 lat = parseFloat(point.getAttribute('lat')),
82                 lng = parseFloat(point.getAttribute('lon')),
83                 coord = translate(projection([lng, lat]));
84
85             geometry.vertices.push(new THREE.Vector3(coord[0], coord[1], (alt / 2470 * heightFactor) + (0.01 * heightFactor)));
86         }
87     }
88
89     var material = new THREE.LineBasicMaterial({
90         color: 0xffffff,
91         linewidth: 2
92     });
93
94     var line = new THREE.Line(geometry, material);
95     scene.add(line);
96 }
97
98 // Change coordinate space
99 function translate(point) {
100     return [point[0] - (terrainSize / 2), (terrainSize / 2) - point[1]];
101 }
102
103 </script>
104 </body>
105 </html>
```