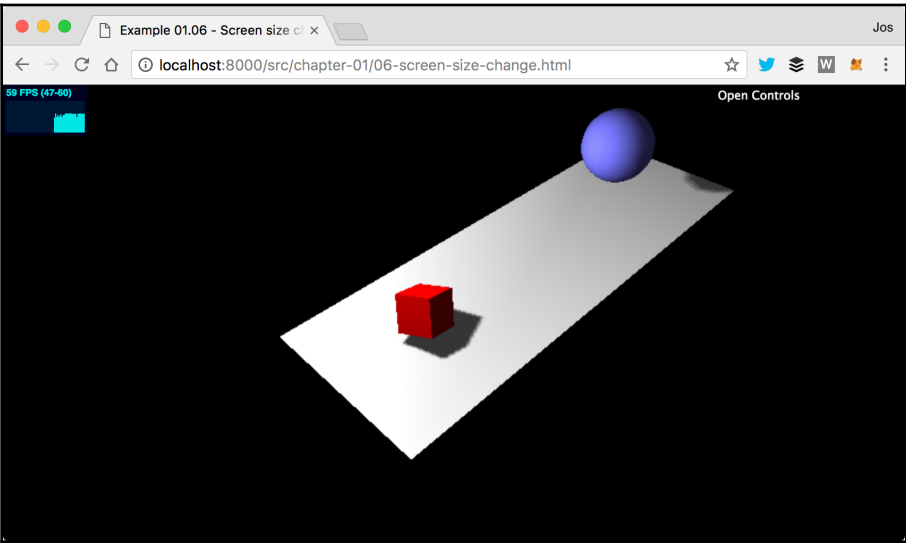
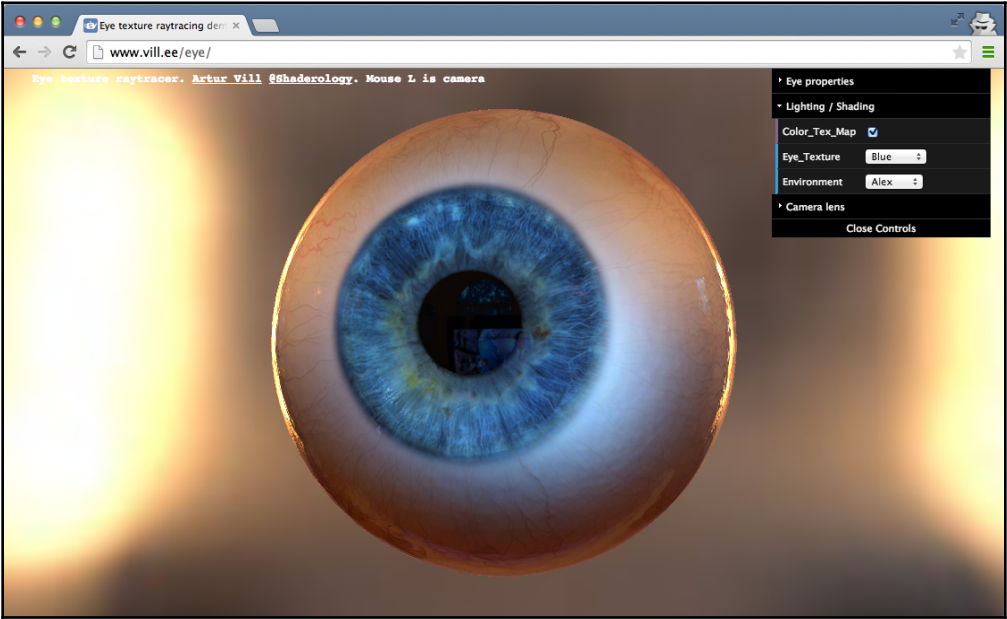
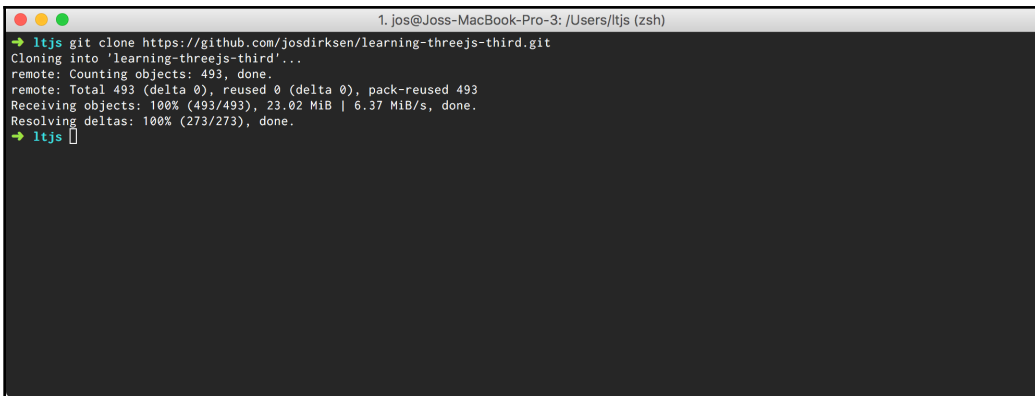
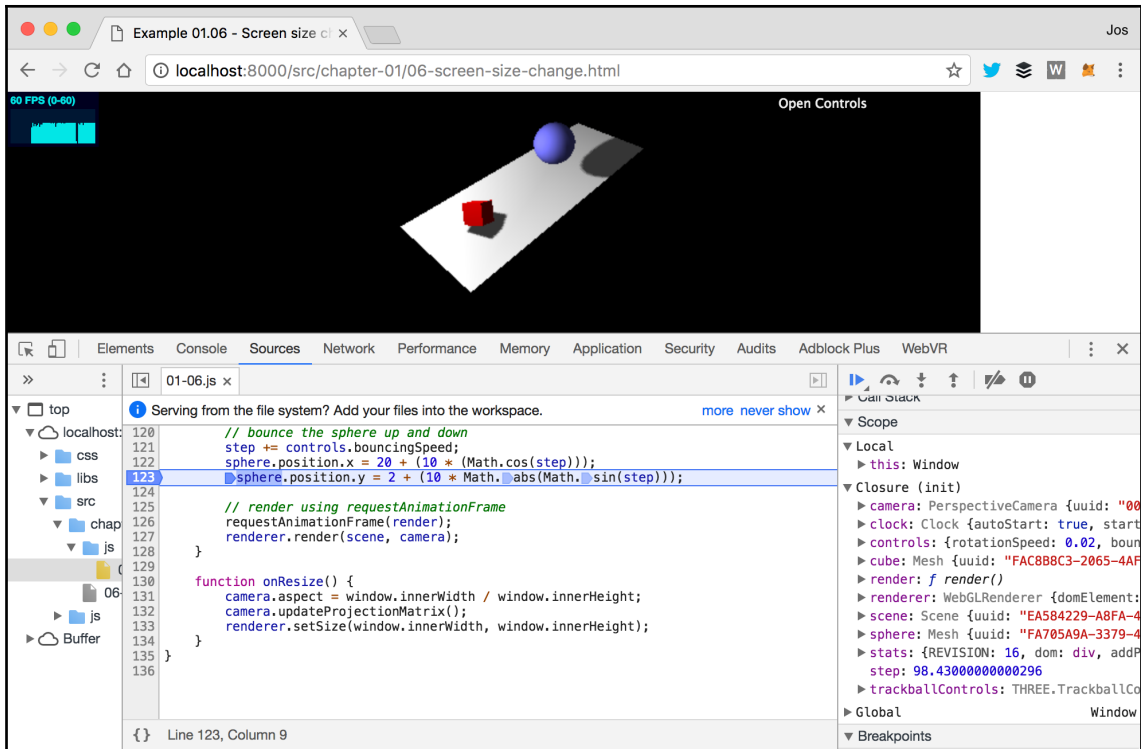
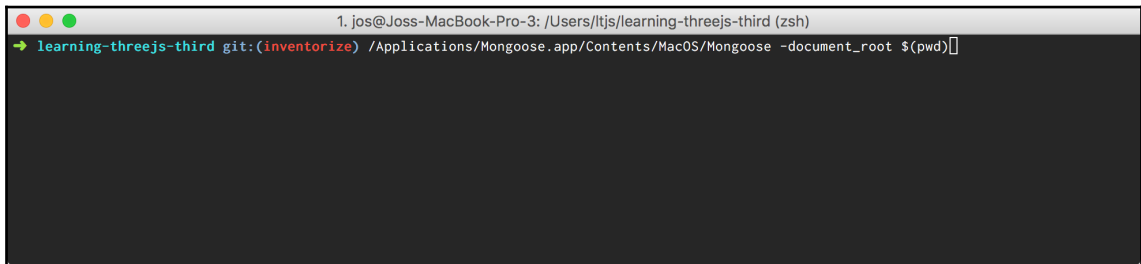
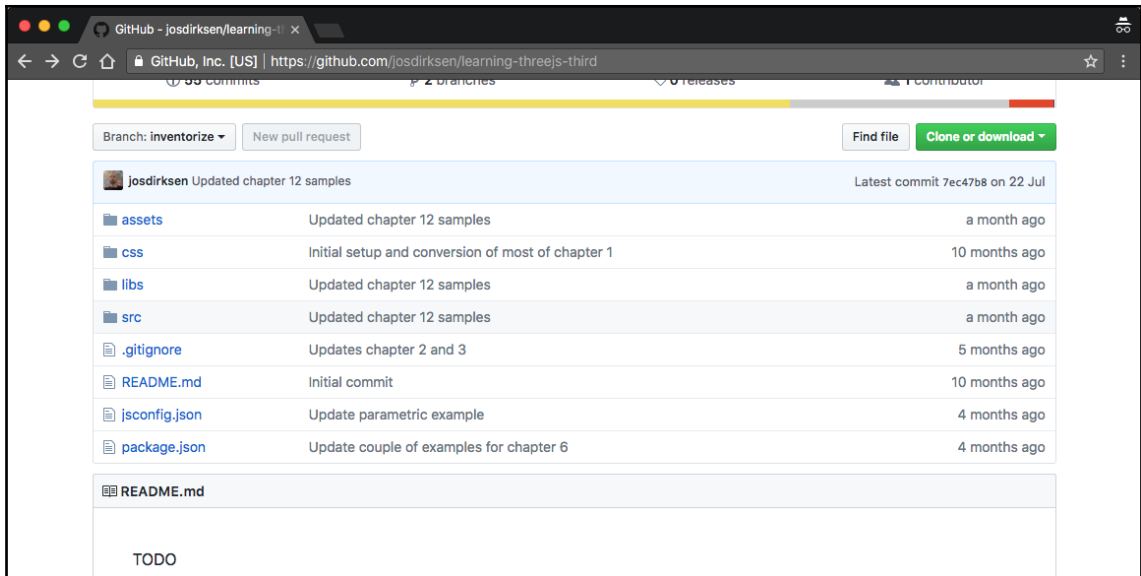
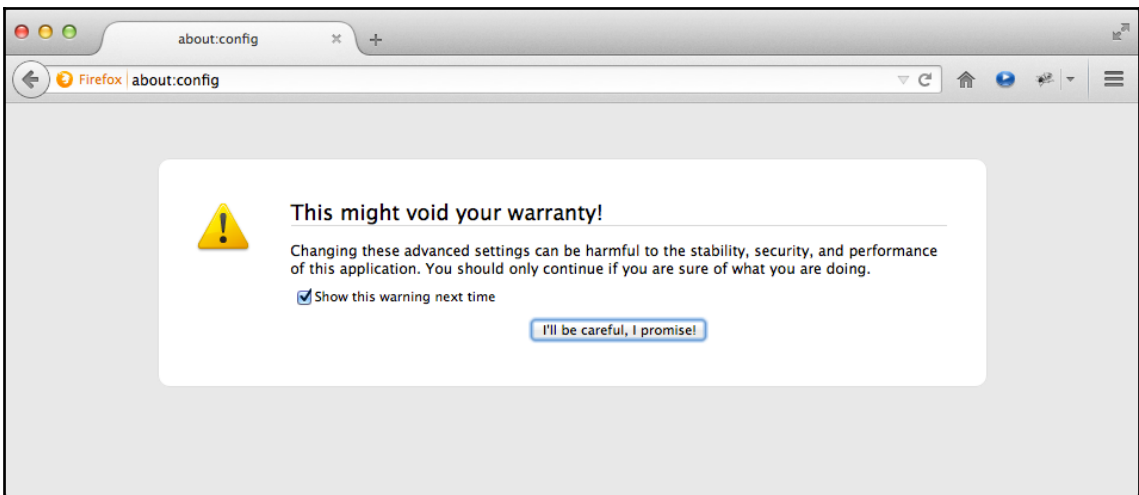
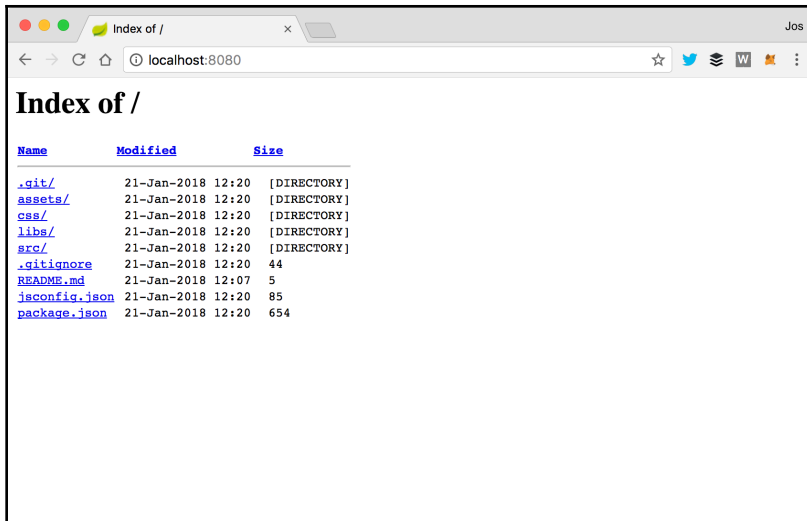


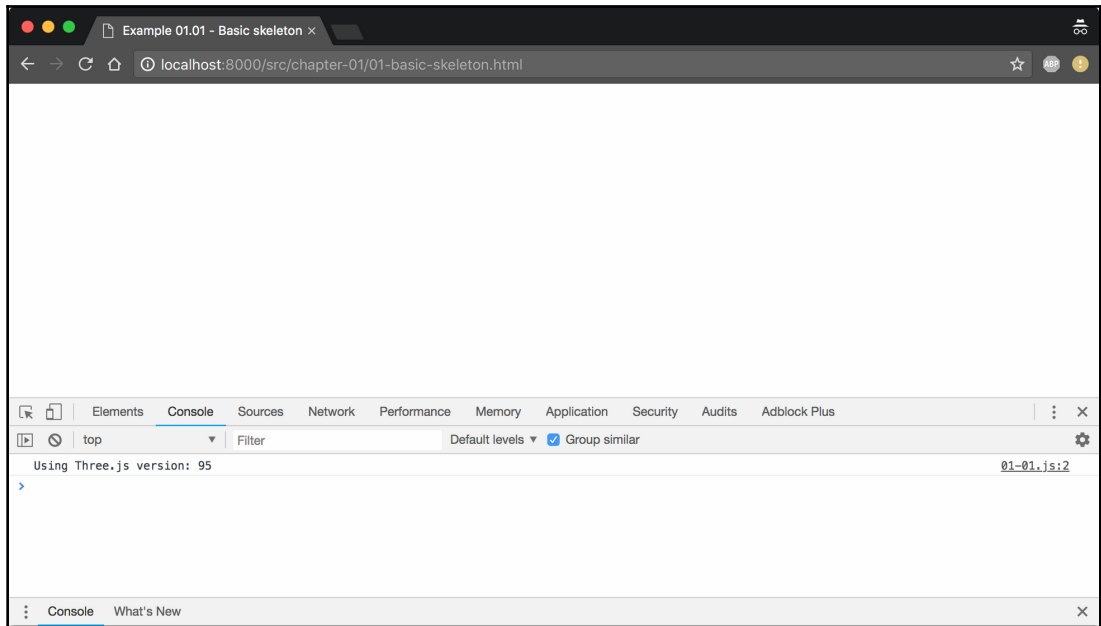
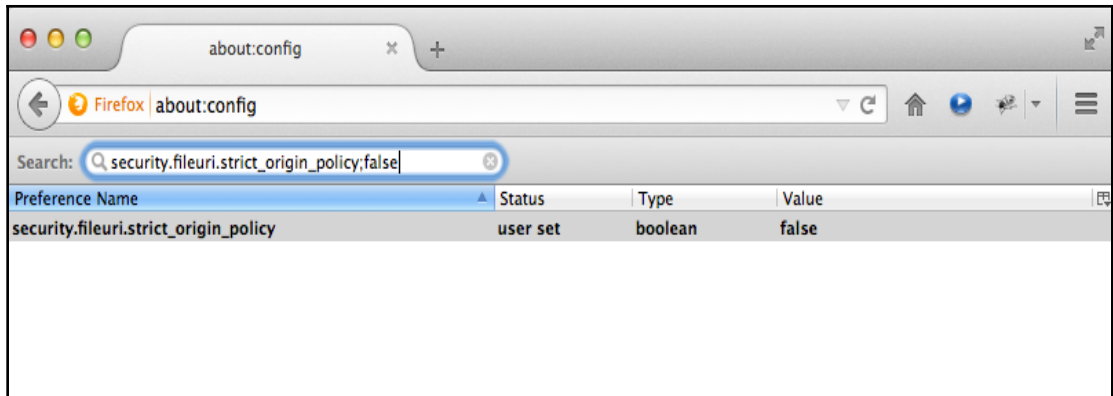
Chapter 1: Creating Your First 3D Scene with Three.js

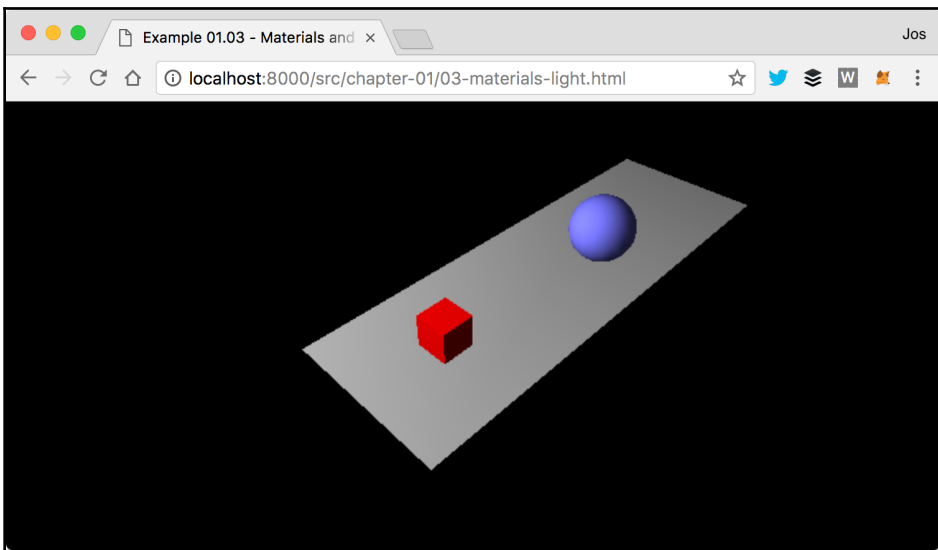
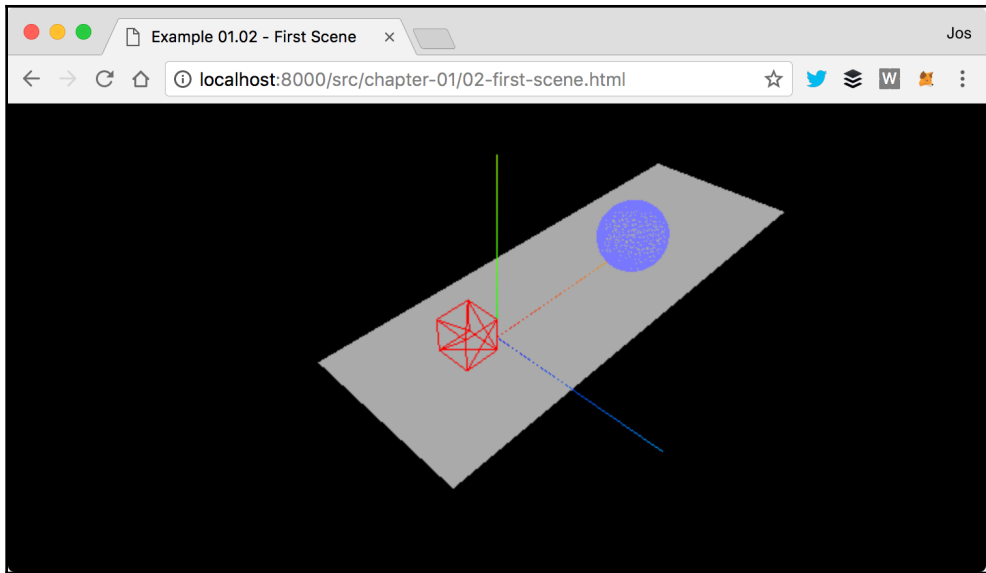


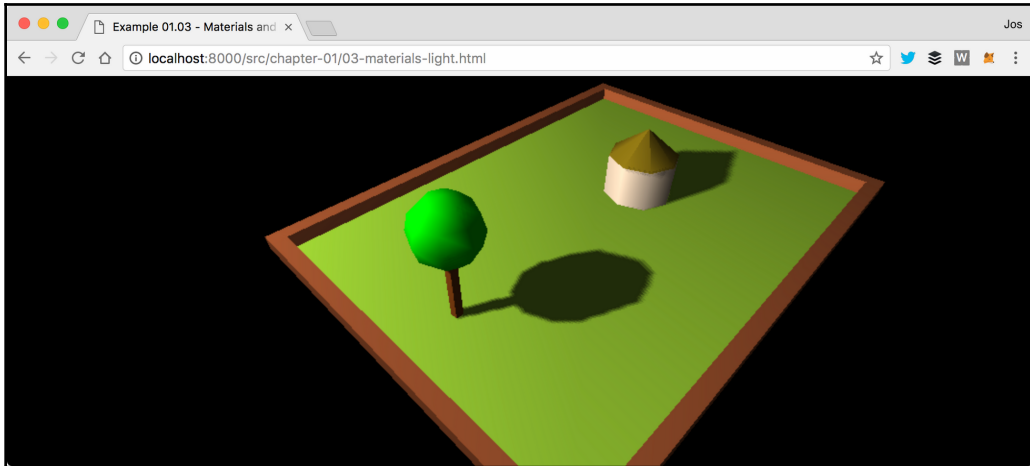
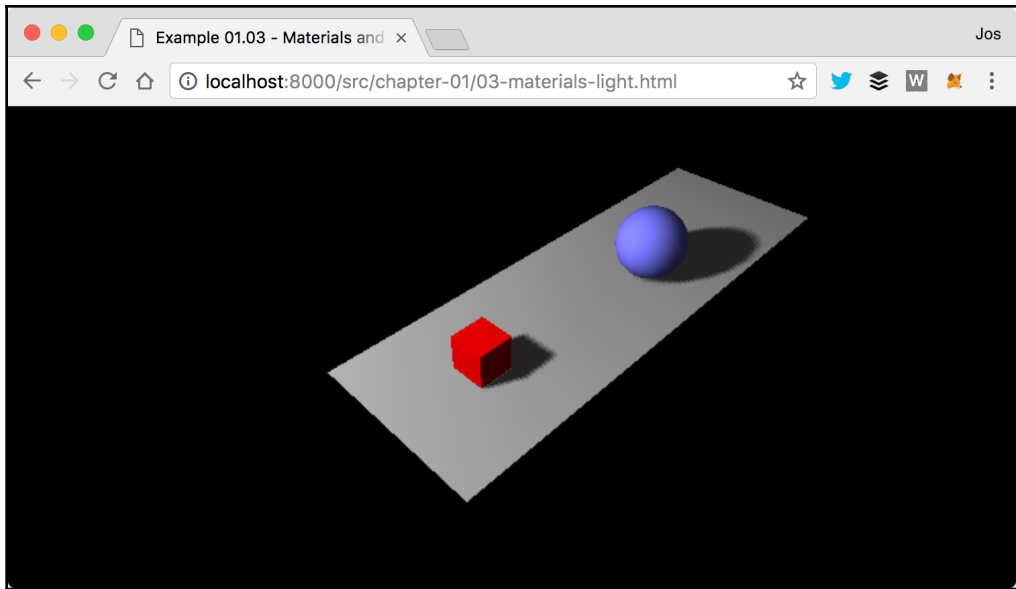


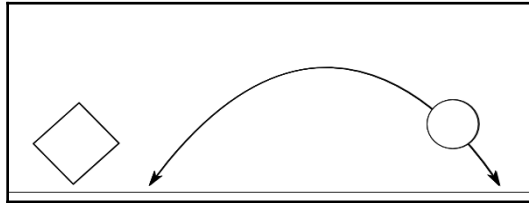
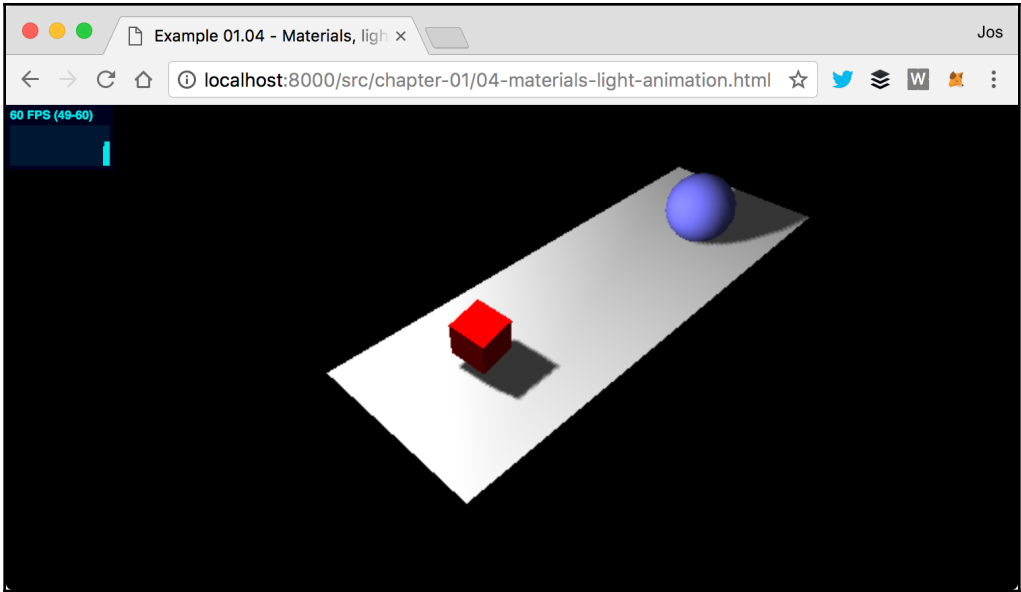


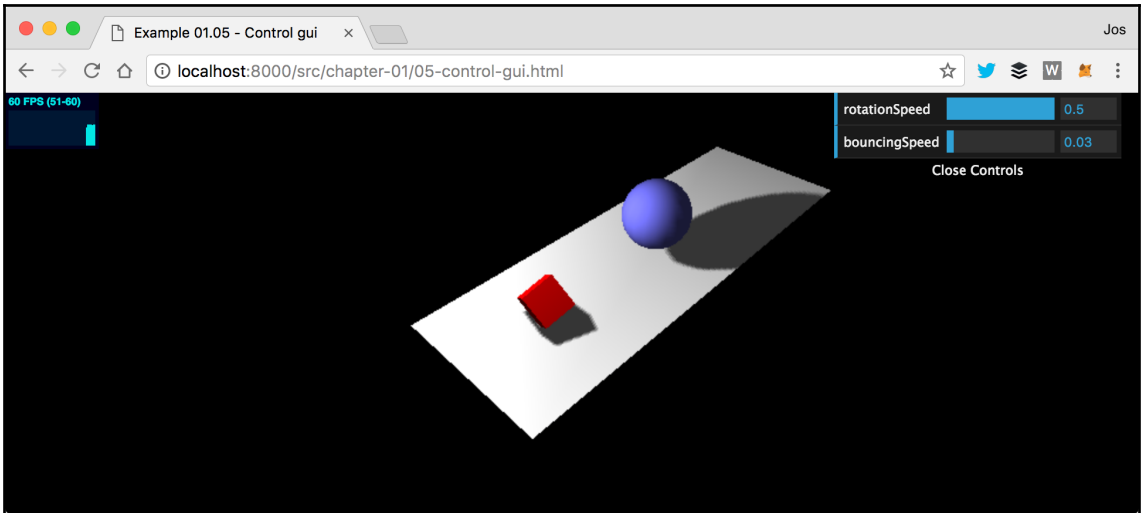
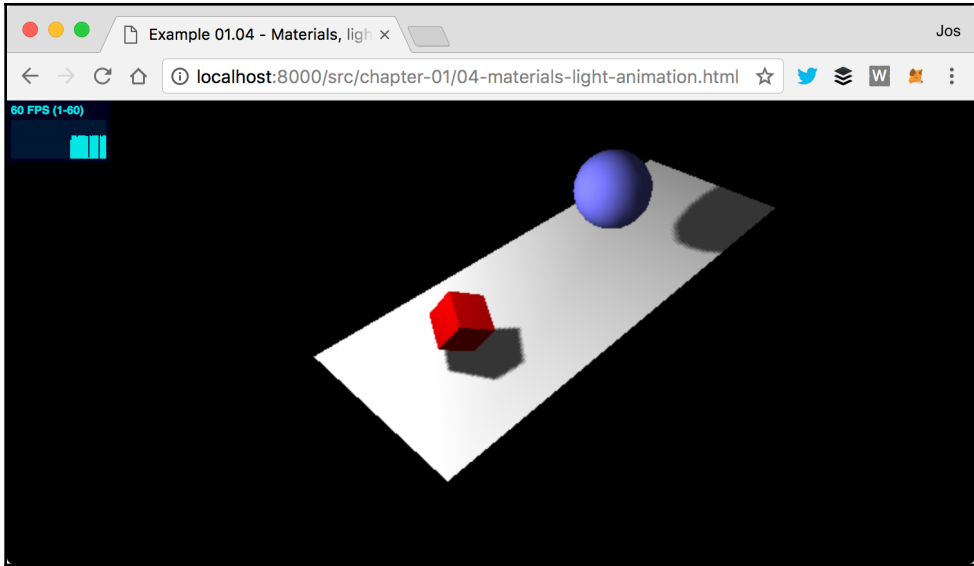


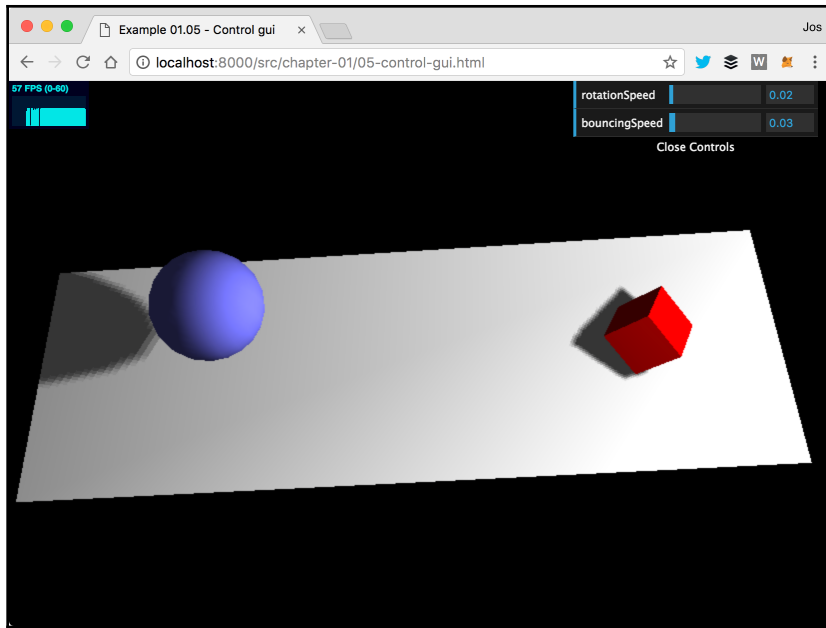




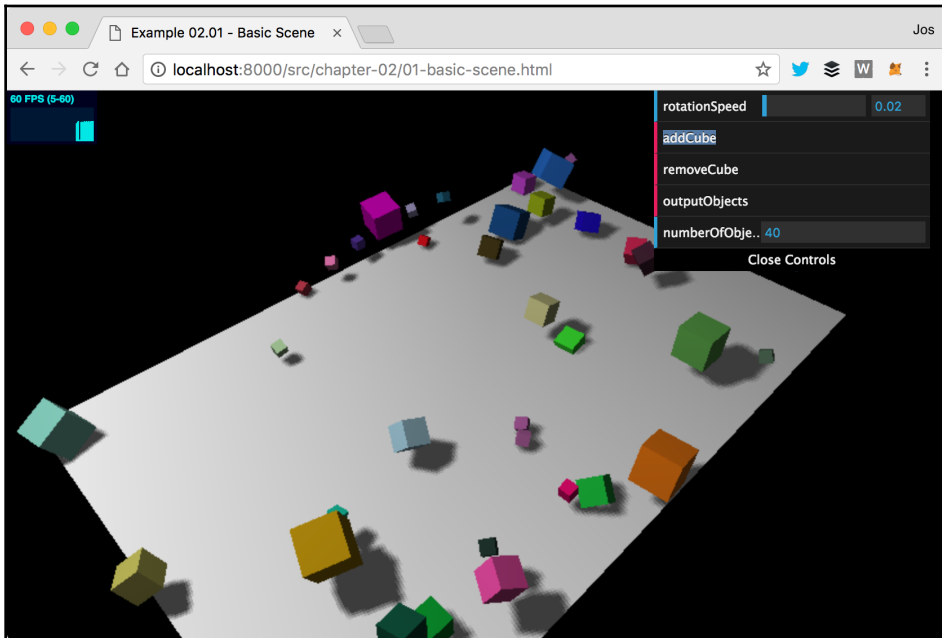
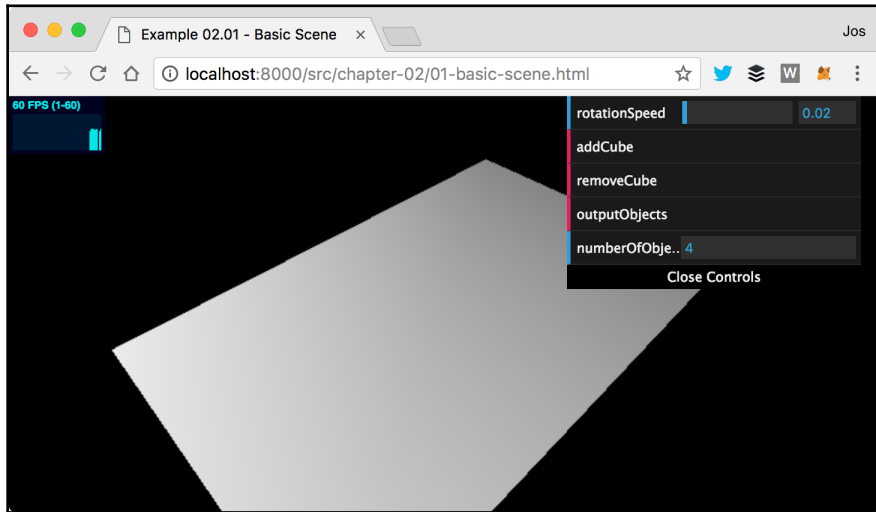


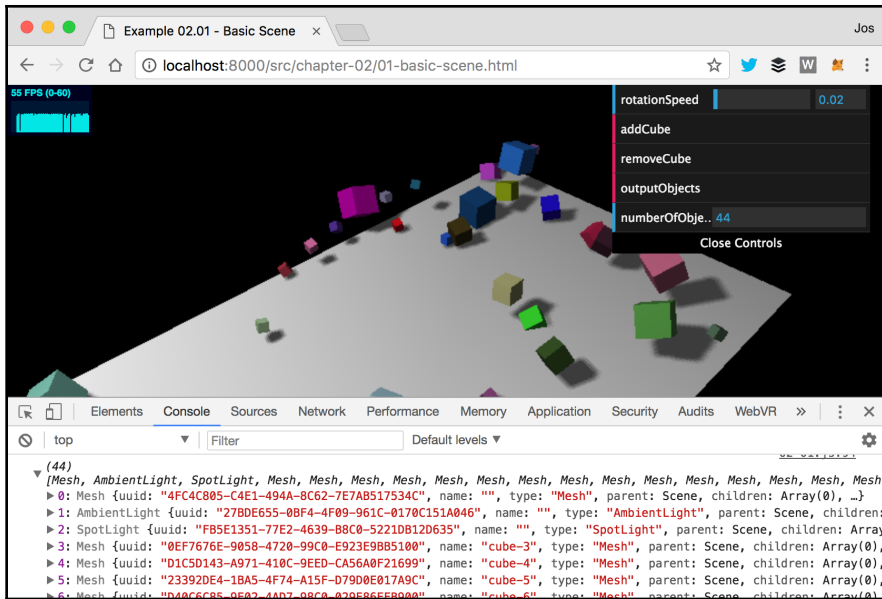






Chapter 2: The Basic Components that Make Up a Three.js Application





Example 02.01 - Basic Scene

localhost:8000/src/chapter-02/01-basic-scene.html

58 FPS (0-60)

rotationSpeed 0.02

addCube

removeCube

outputObjects

numberOfObjie .44

Close Controls

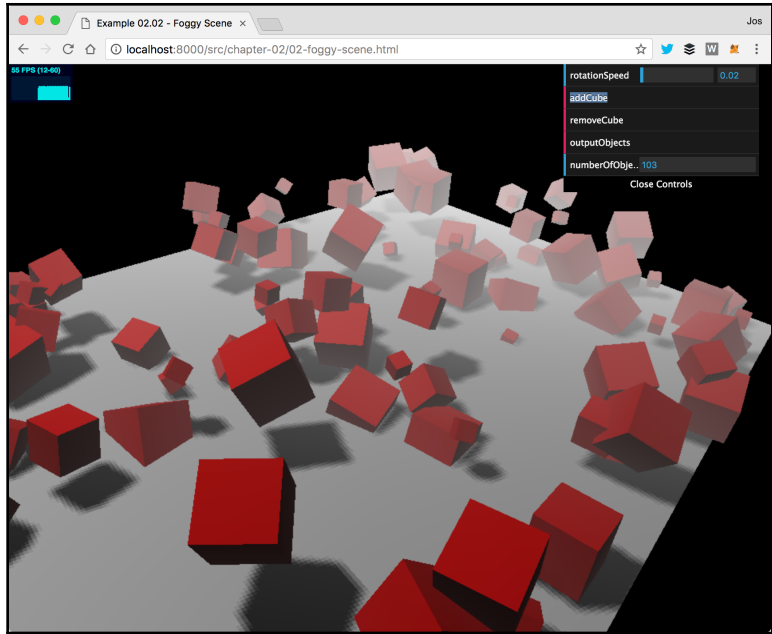
Elements Console Sources Network Performance Memory Application Security Audits WebVR Adblock Plus

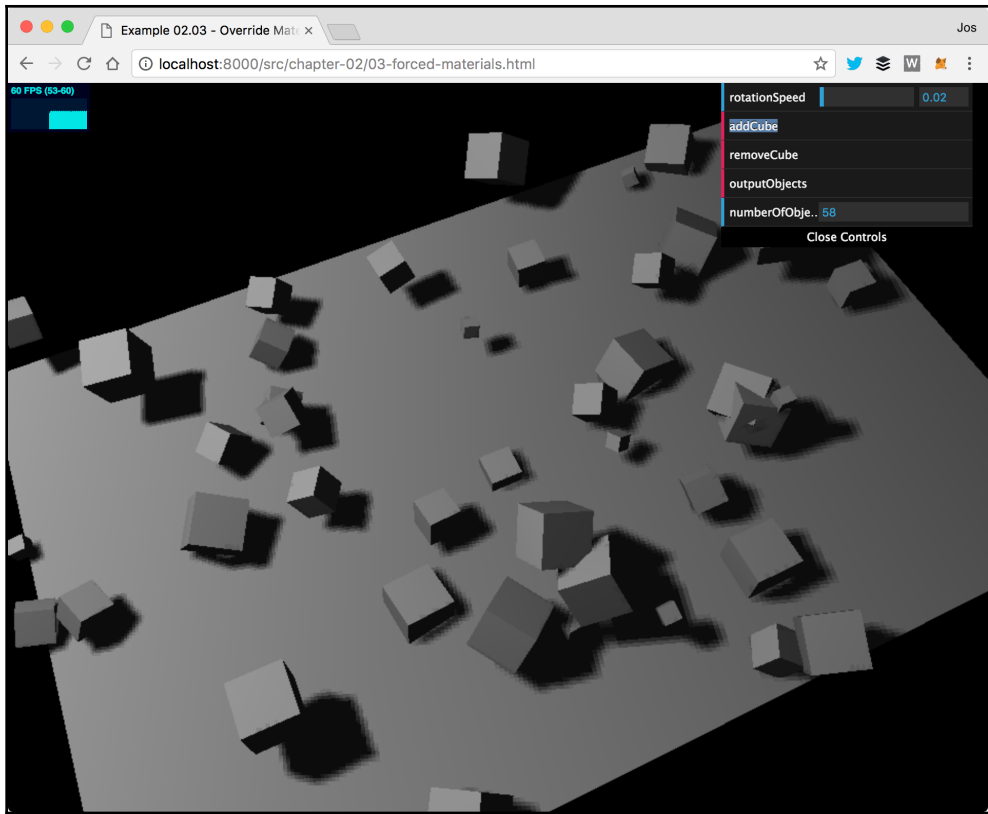
top Filter Default levels

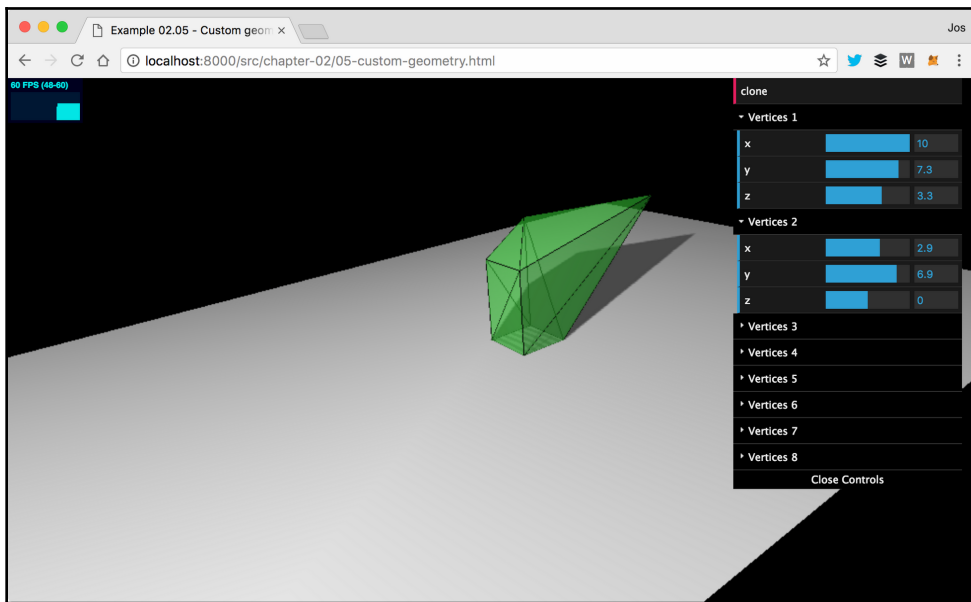
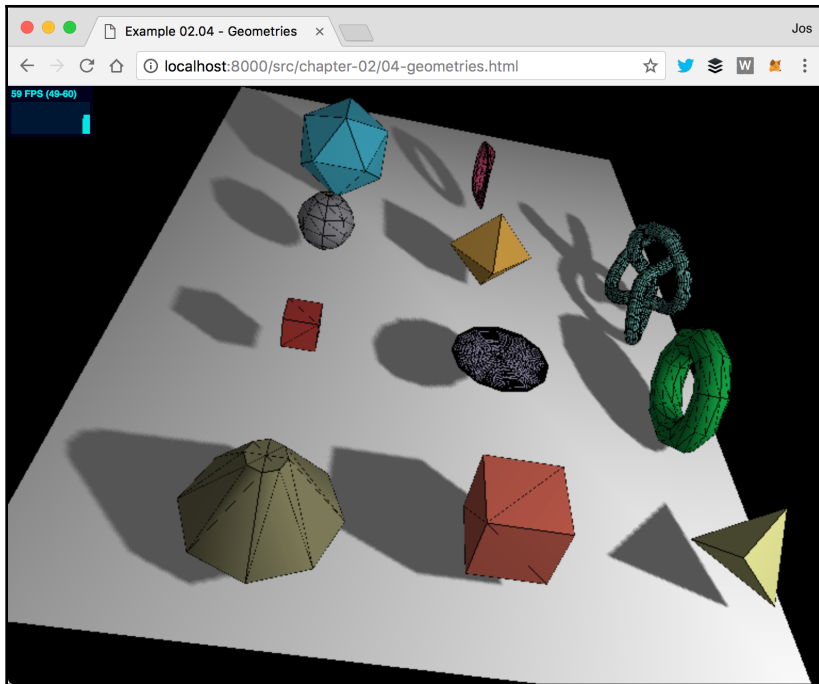
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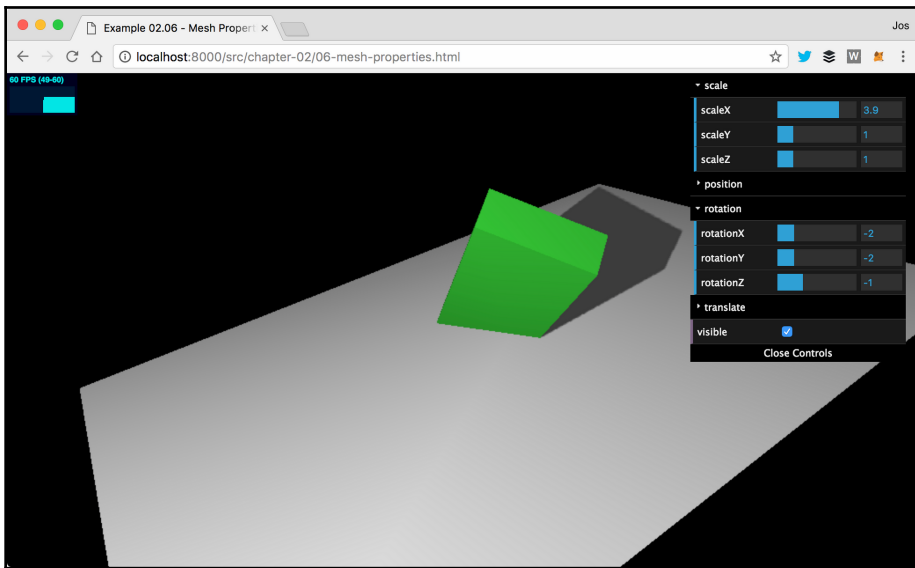
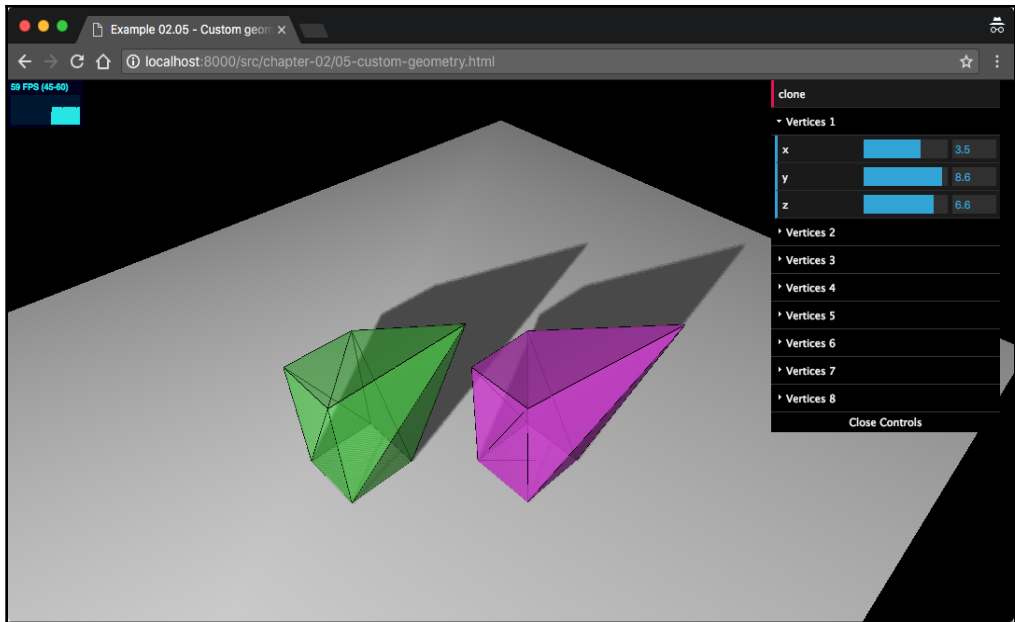
▼ 17: Mesh
  castShadow: true
  children: []
  drawMode: 0
  frustumCulled: true
  geometry: BoxGeometry {uuid: "CF94D783-86AE-46FC-83FB-3EFA26141310", name: "", type: "BoxGeometry", vertices: Array(8), colors: Array(0)}
  layers: Layers {mask: 1}
  material: MeshLambertMaterial {uuid: "43483A9E-DFCA-4AC3-97F0-AE70AAAC7378", name: "", type: "MeshLambertMaterial", fog: true, lights: f}
  matrix: Matrix4 {elements: Array(16)}
  matrixAutoUpdate: true
  matrixWorld: Matrix4 {elements: Array(16)}
  matrixWorldNeedsUpdate: false
  name: "cube-17"
  parent: Scene {uuid: "54F71269-BD7A-4B1C-9CFA-6243F92E60A2", name: "", type: "Scene", parent: null, children: Array(44), ...}
  position: Vector3 {x: 30, y: 3, z: 14}
  quaternion: Quaternion {_x: 0.2887167597091595, _y: 0.17216213378282652, _z: 0.2887167597091595, _w: 0.8964627516062399, onChangeCallback: f}
  receiveShadow: false
  renderOrder: 0
  rotation: Euler {_x: 88.45999999999954, _y: 88.45999999999954, _z: 88.45999999999954, _order: "XYZ", onChangeCallback: f}
  scale: Vector3 {x: 1, y: 1, z: 1}
  type: "Mesh"
  up: Vector3 {x: 0, y: 1, z: 0}
  userData: {}
  uuid: "276A8AFF-A83A-4C2C-9D8A-A8633DC7CF53"
  visible: true
  eulerOrder: (...)
  id: 27
  modelViewMatrix: Matrix4 {elements: Array(16)}
  normalMatrix: Matrix3 {elements: Array(9)}
  useQuaternion: (...)
  __proto__: Object3D
  ▶ 18: Mesh {uuid: "8B9C5C7E-BDD6-418D-840B-0FE1417ED6DA", name: "cube-18", type: "Mesh", parent: Scene, children: Array(0), ...}

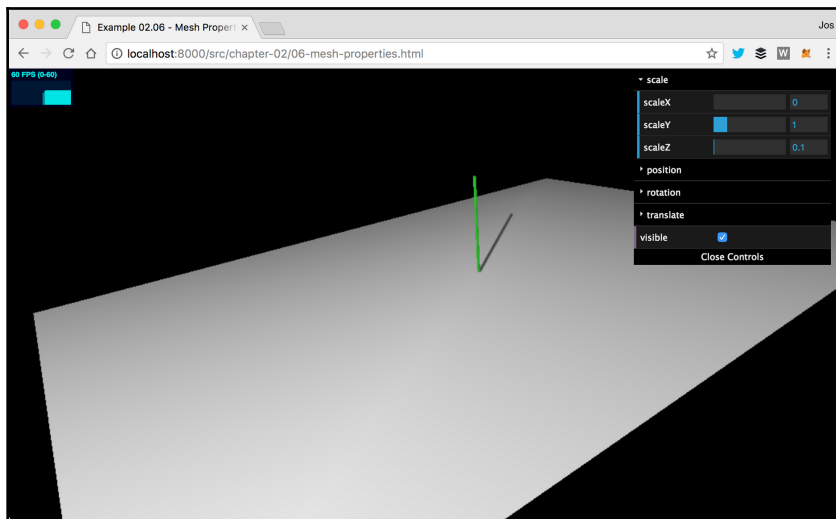
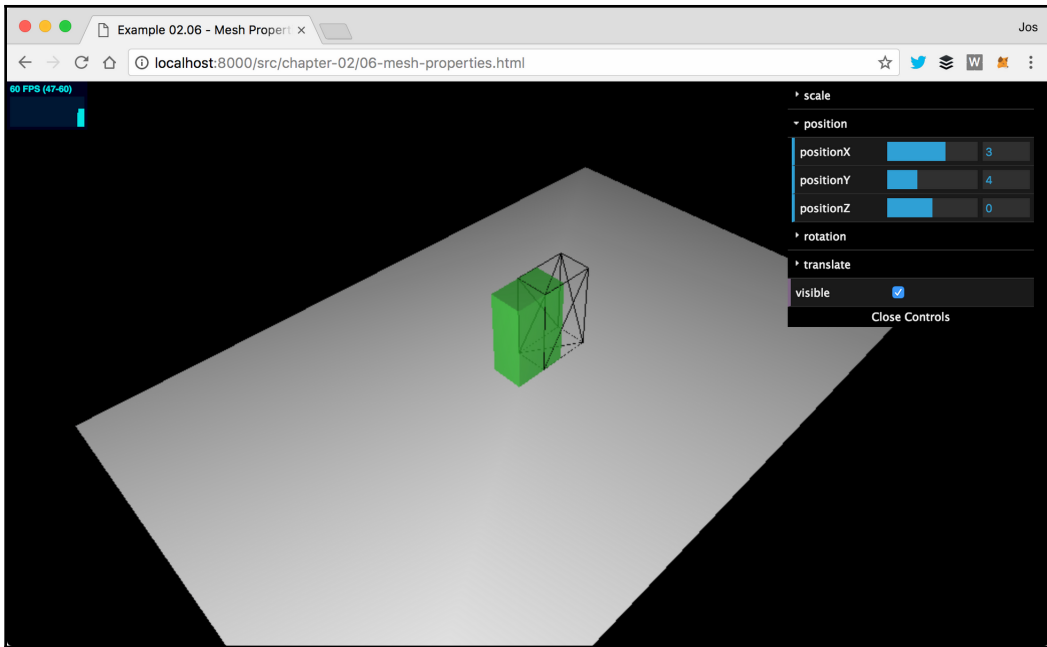
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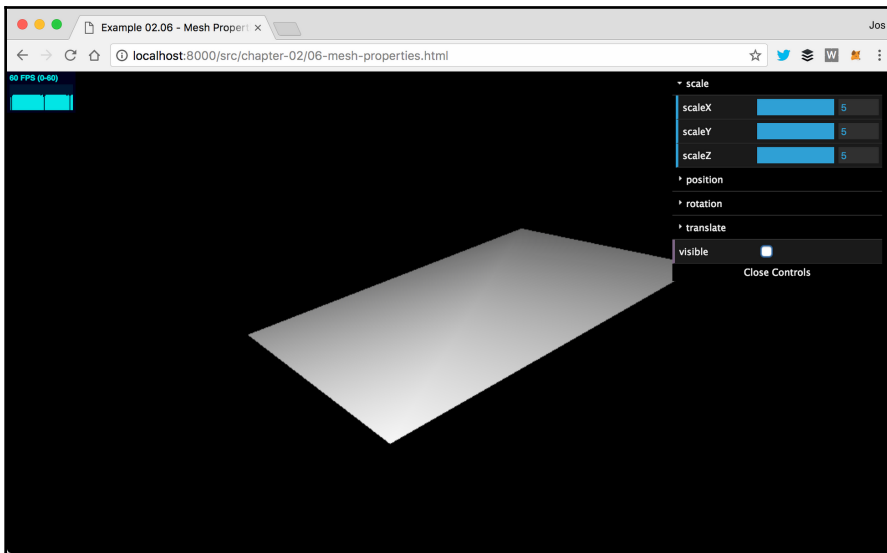
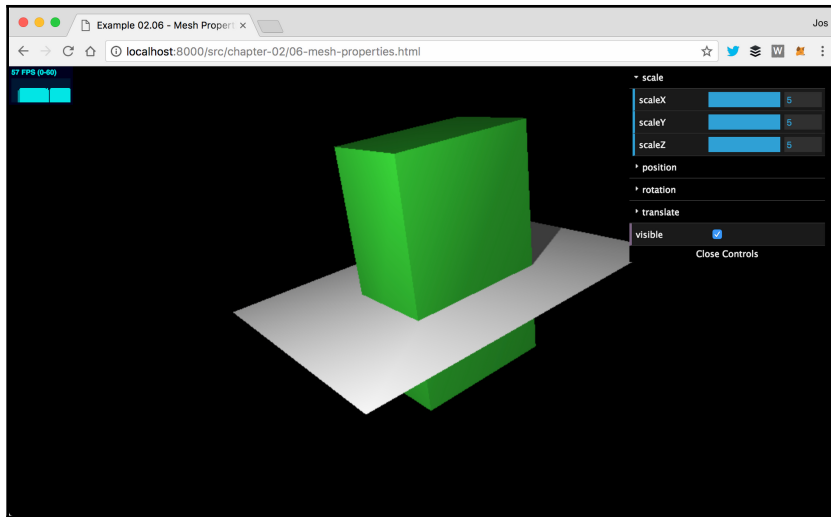


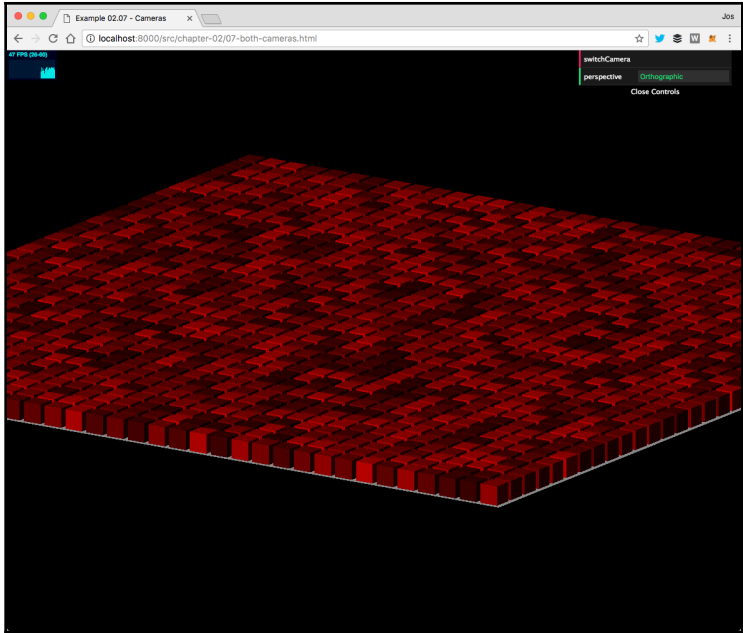


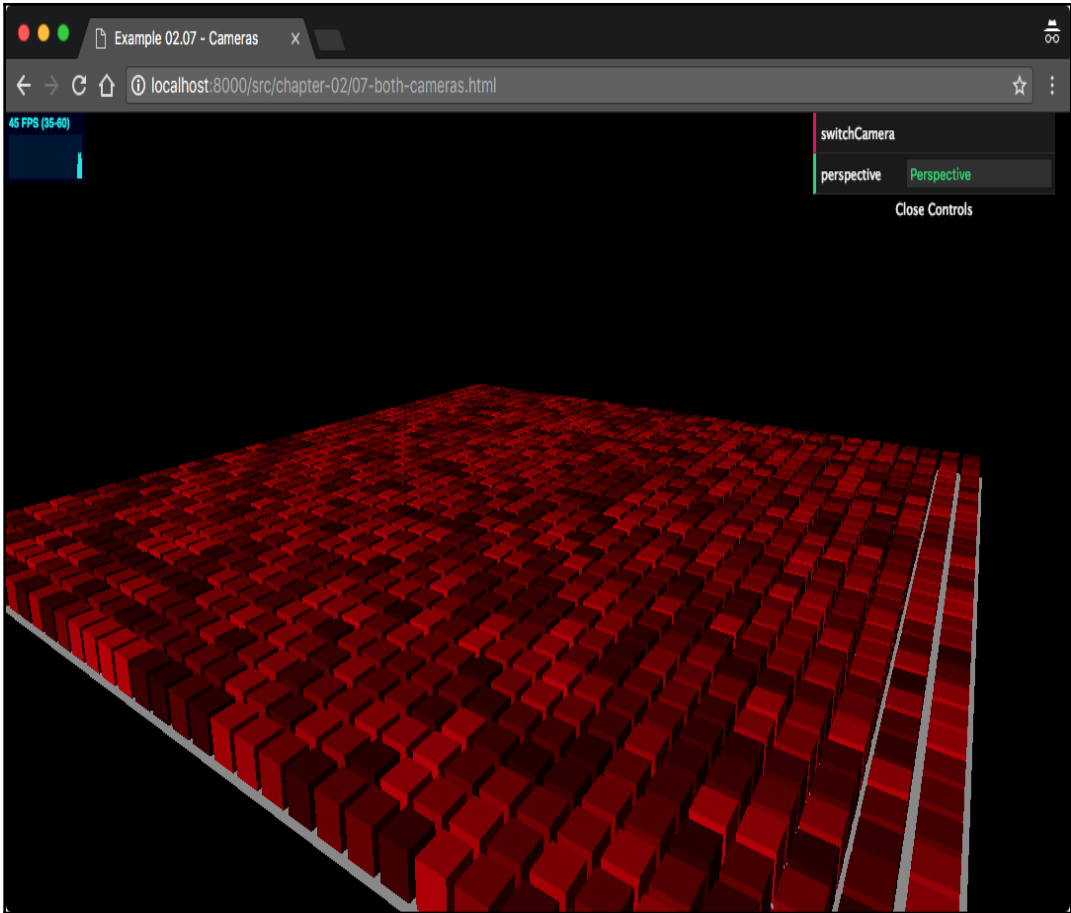


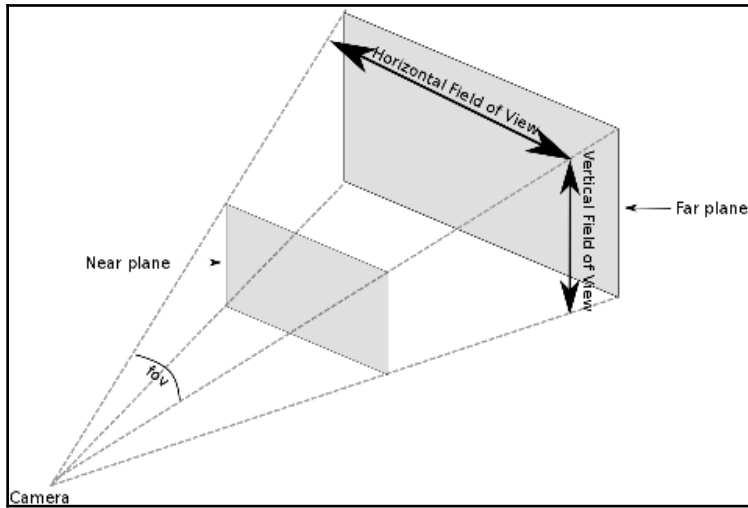


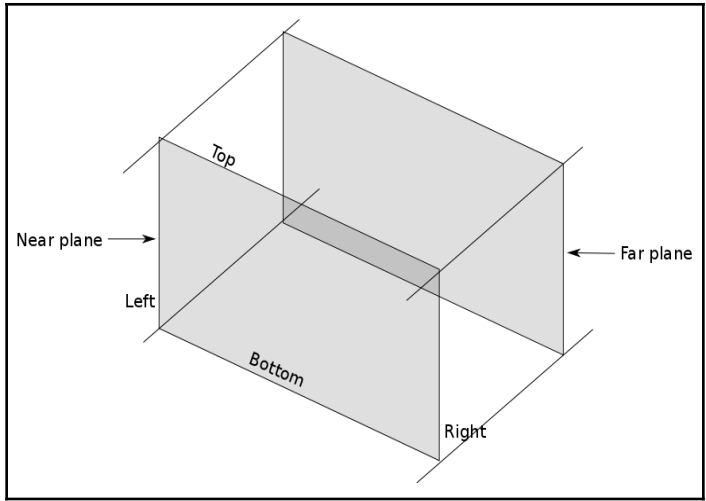


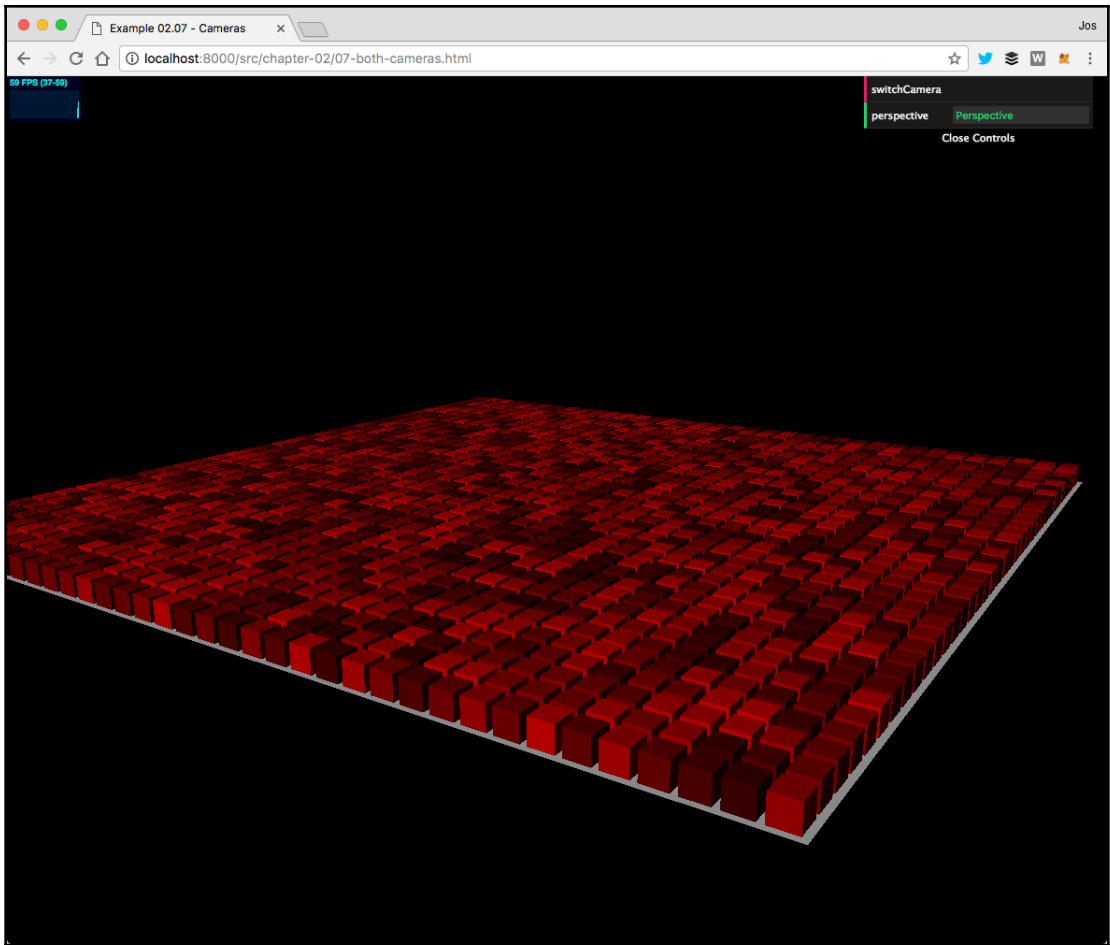


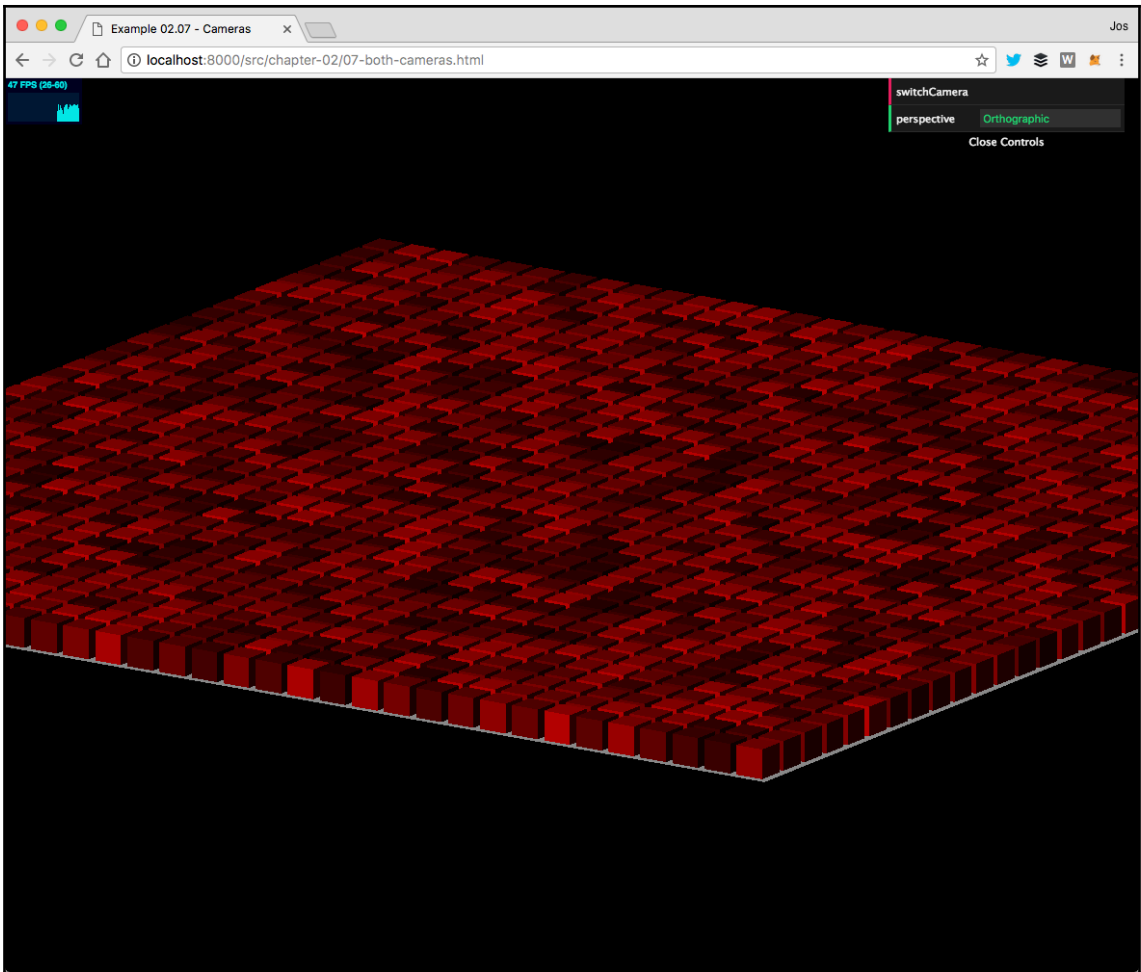






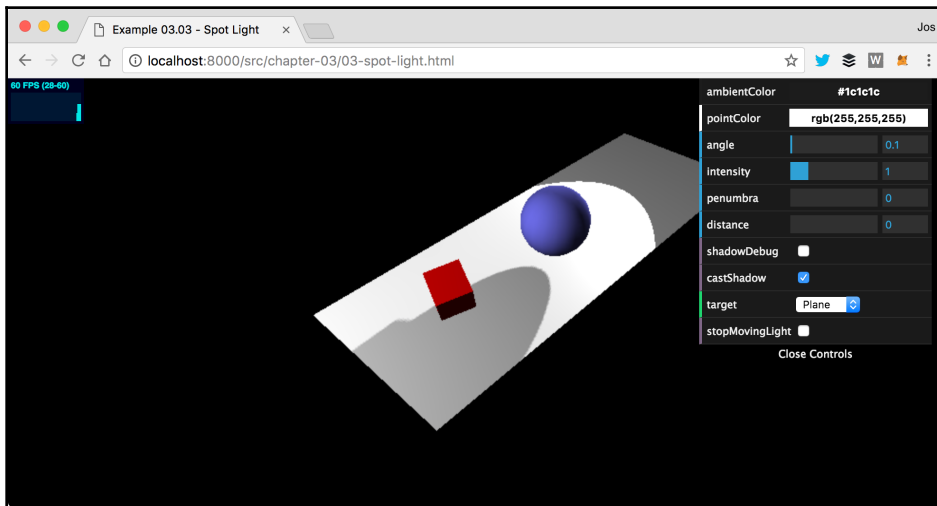
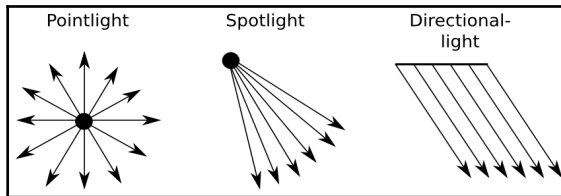
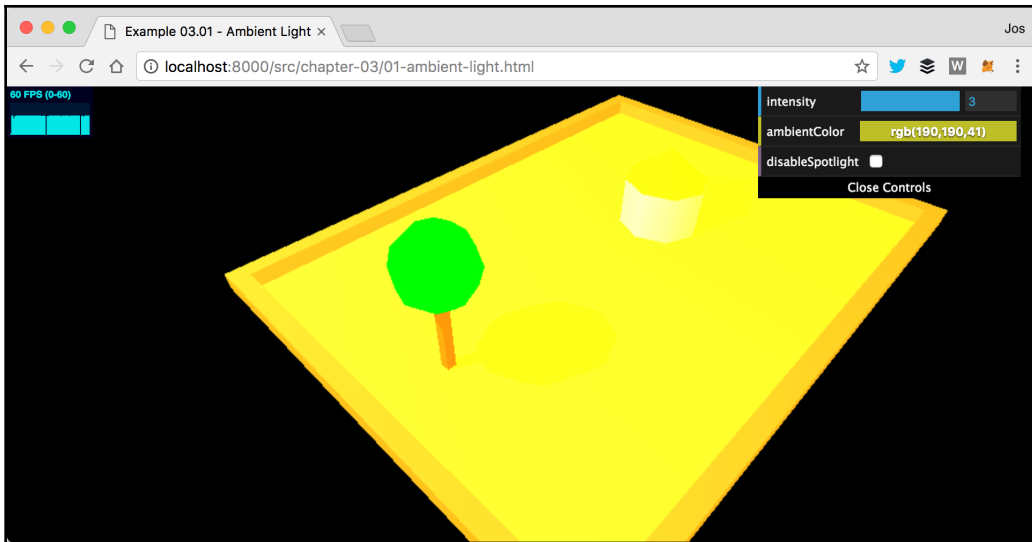


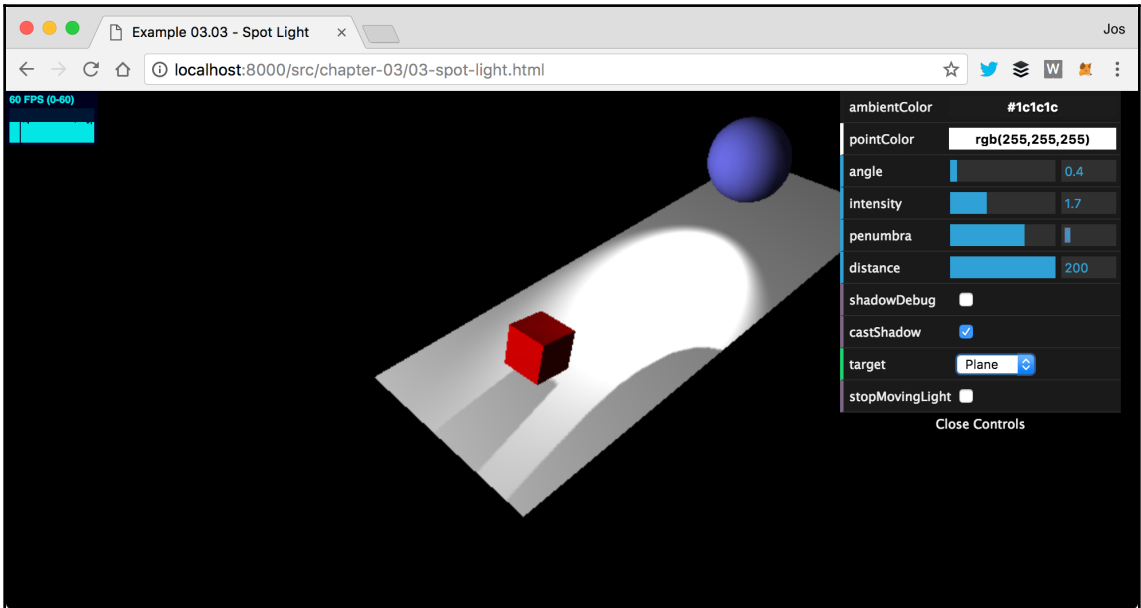
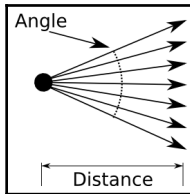
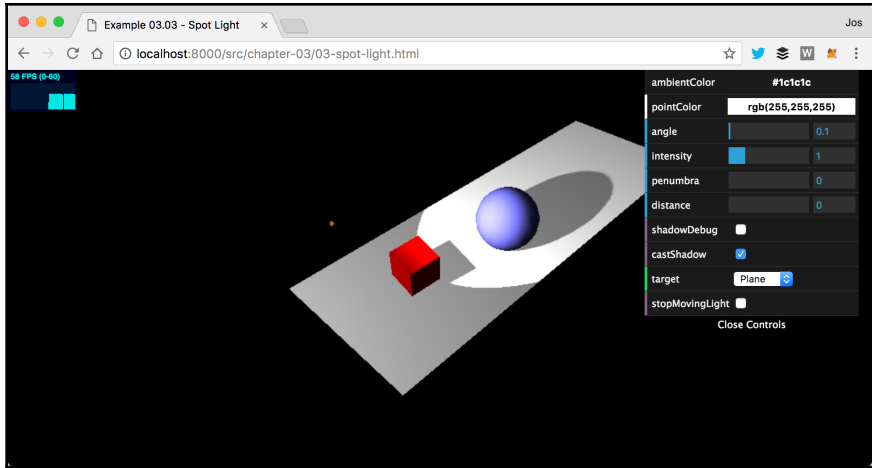


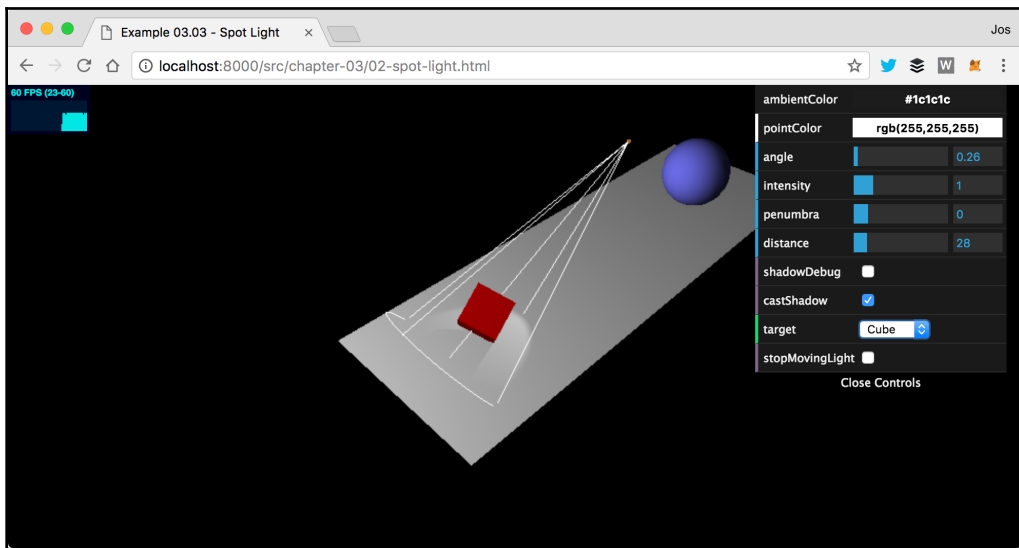
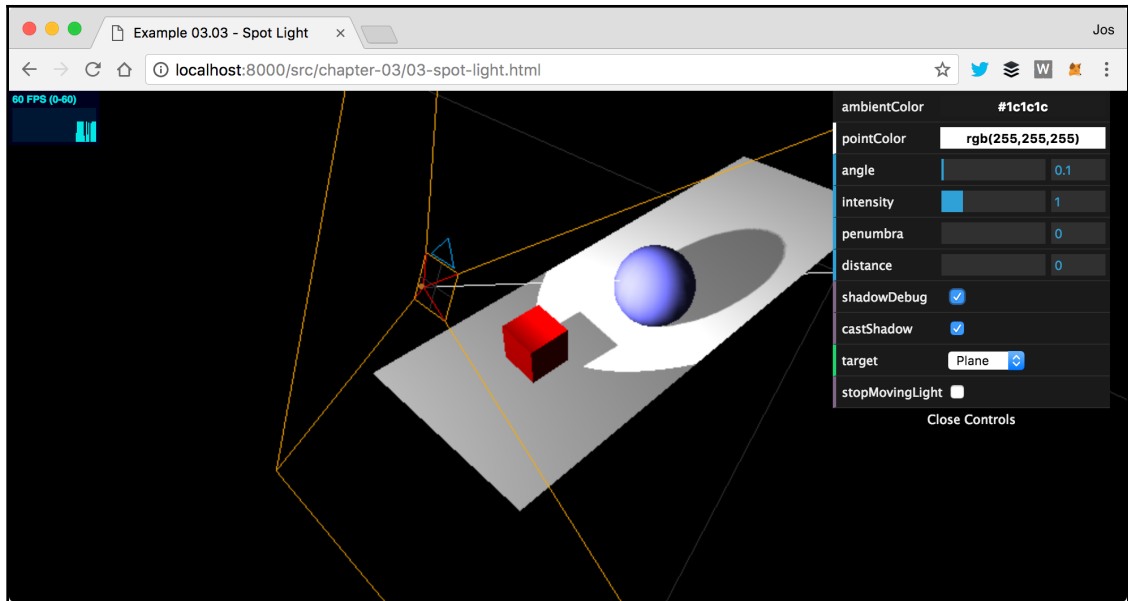


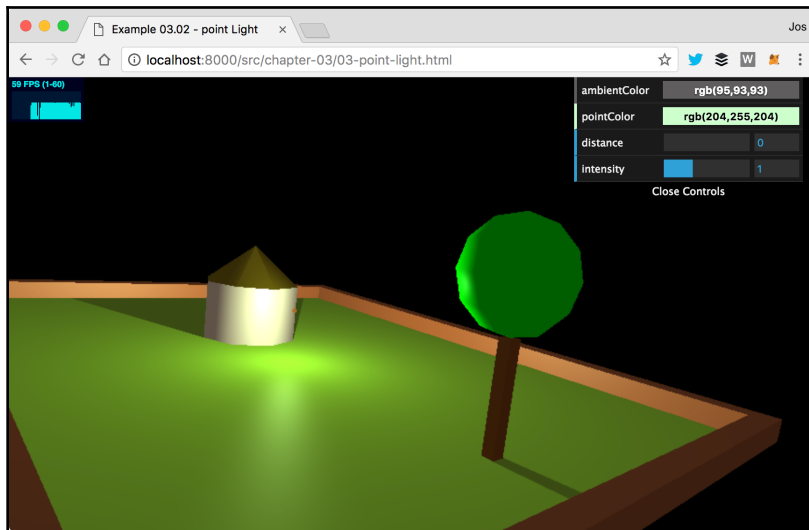
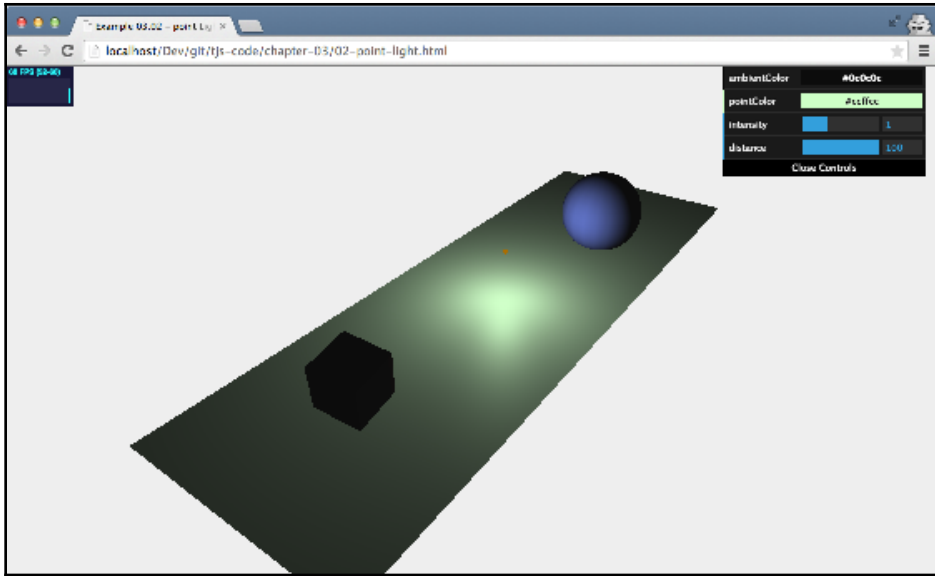
Chapter 3: Working with Light Sources in Three.js

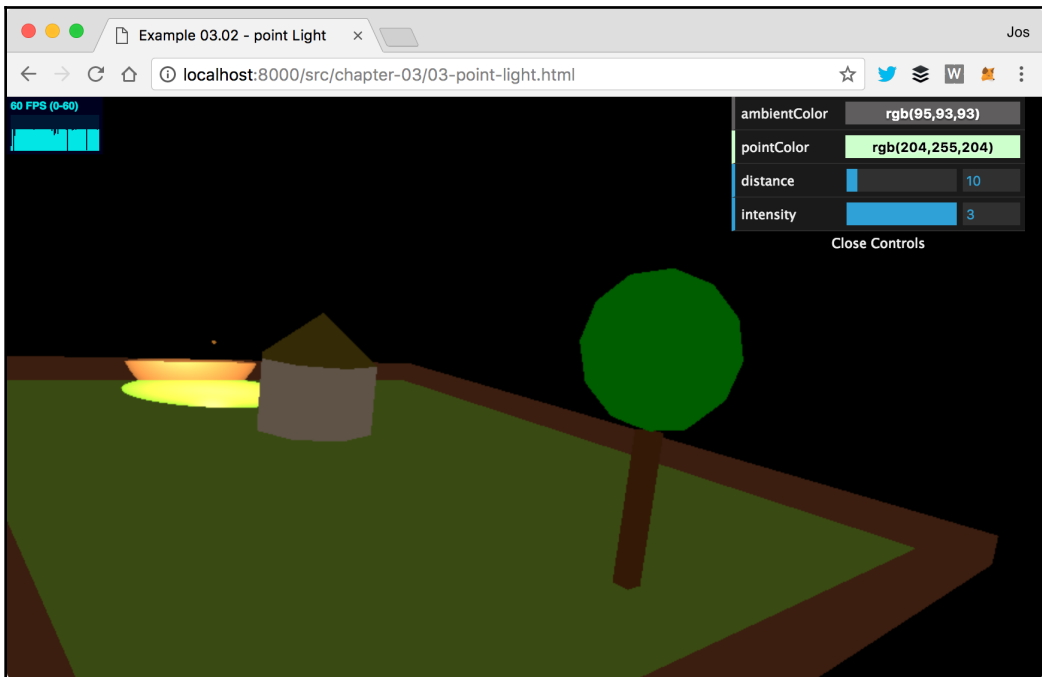
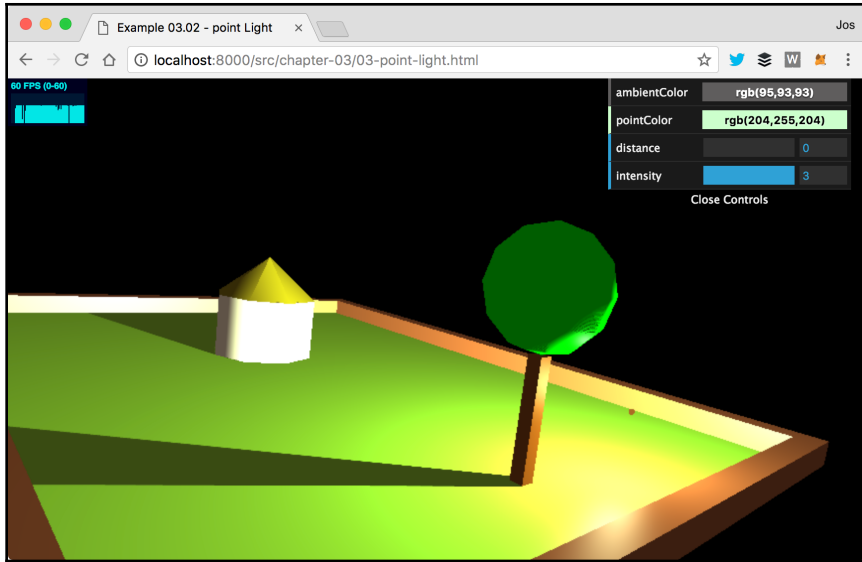


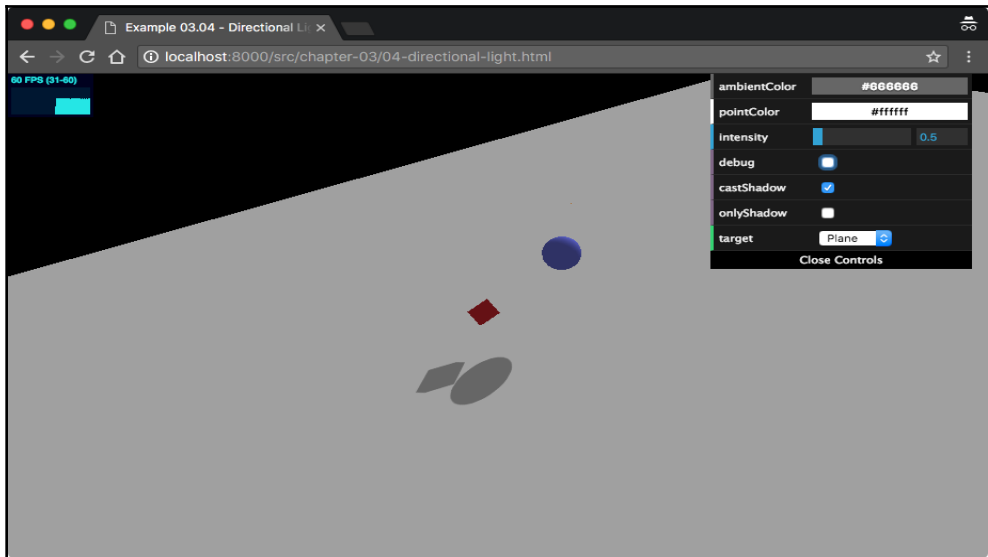
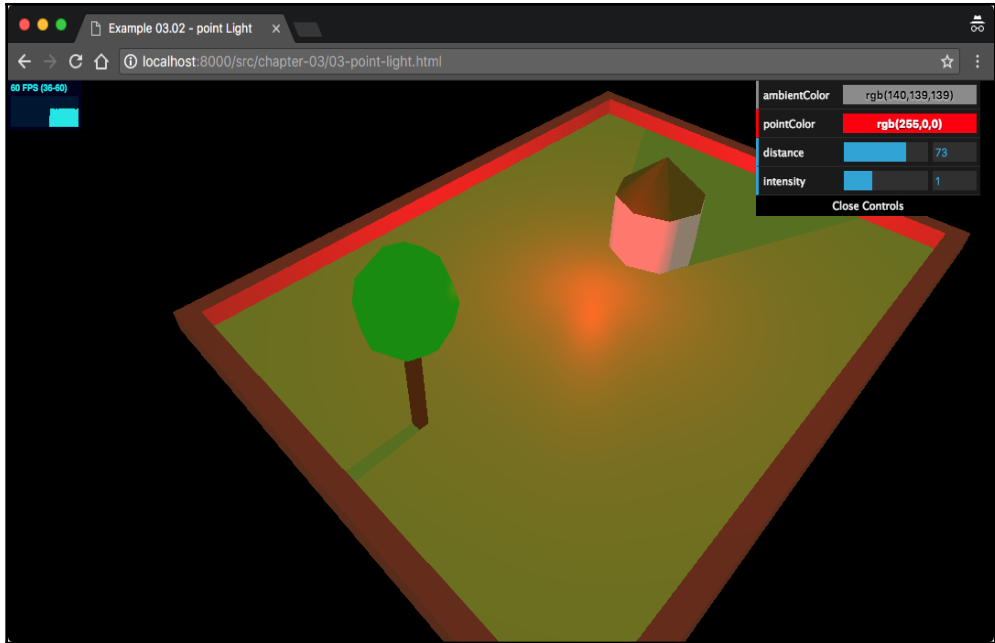


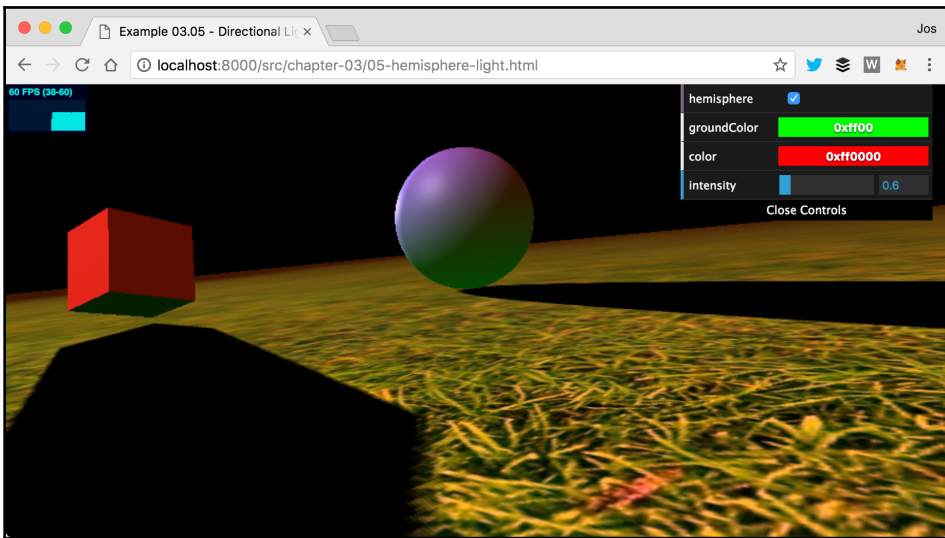
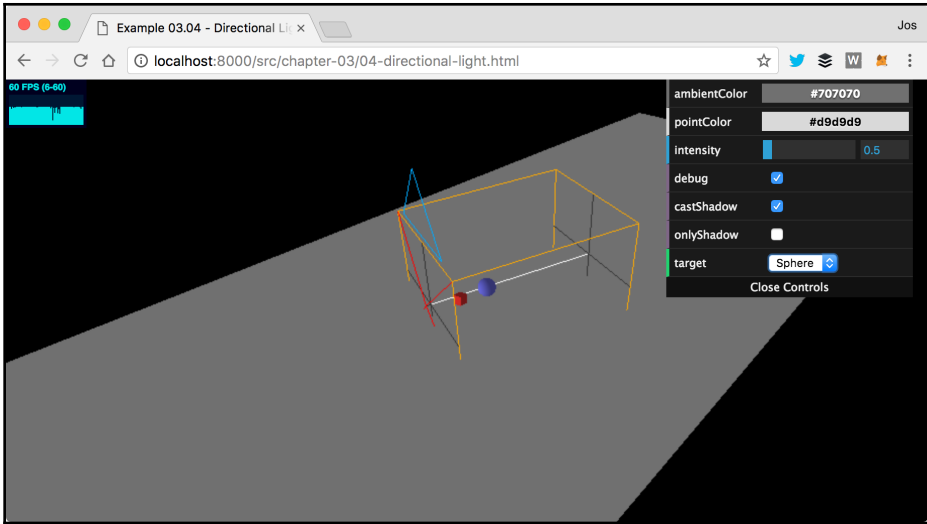


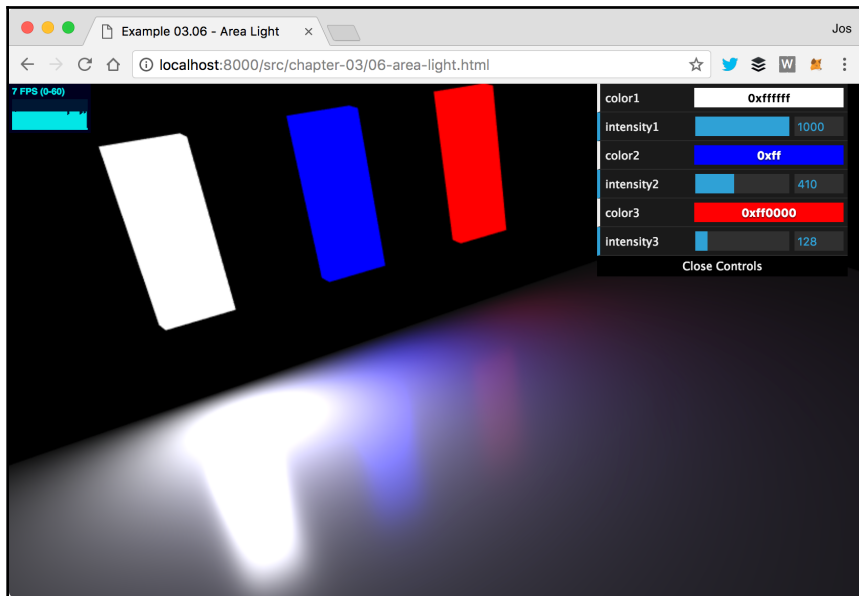
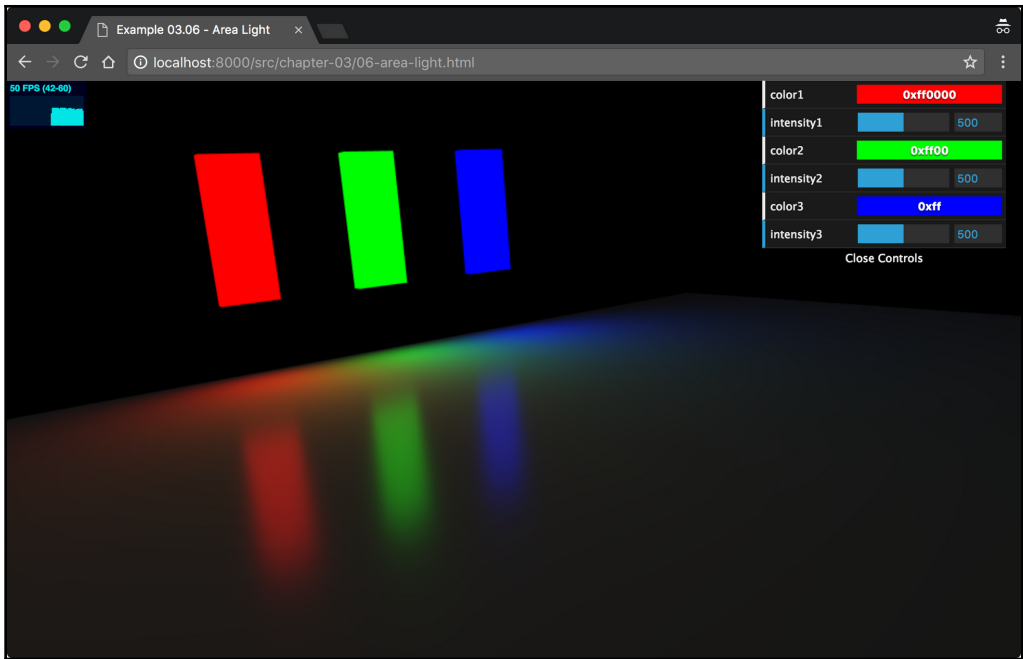


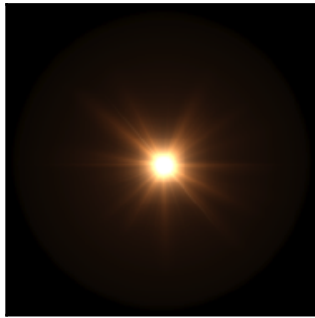
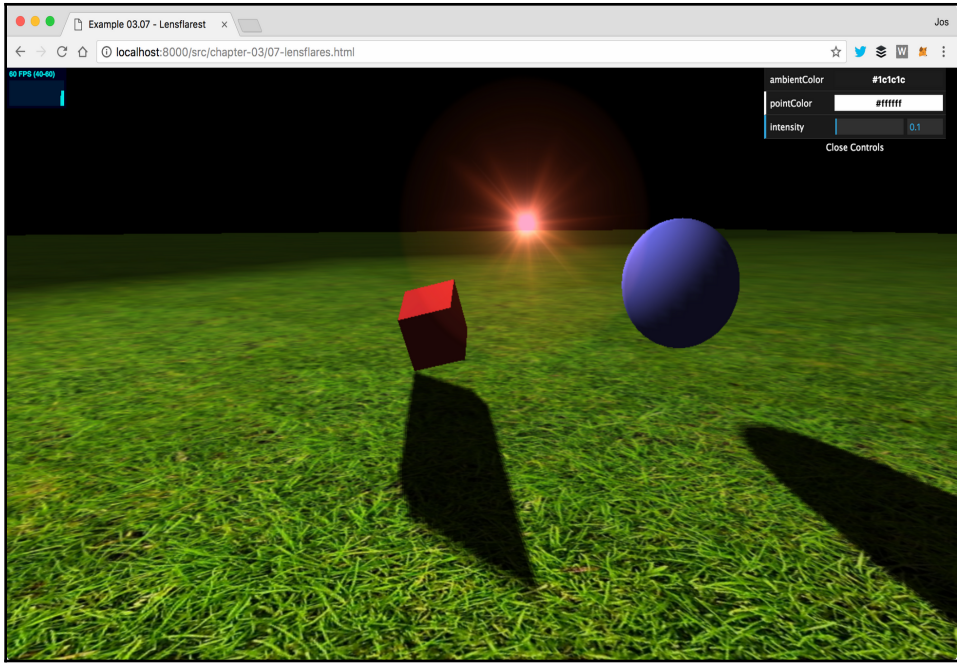


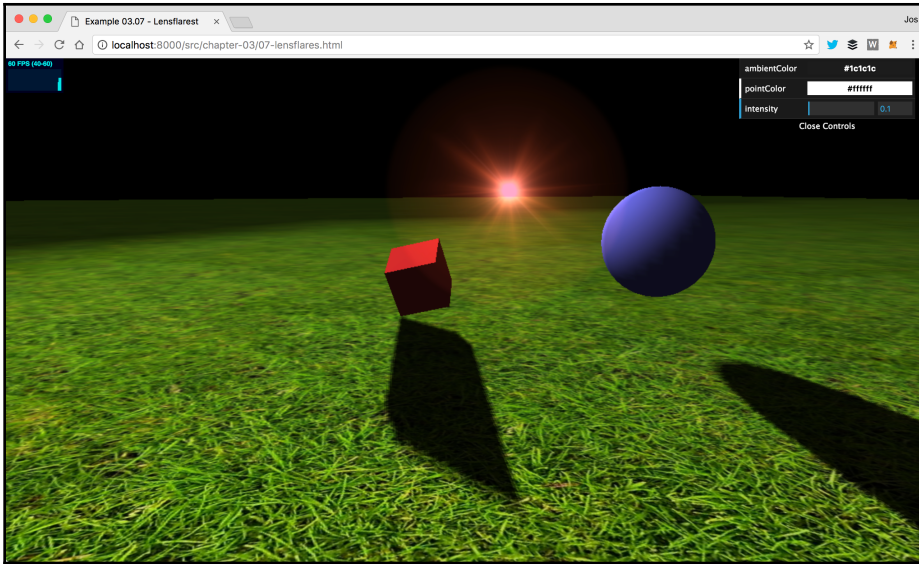




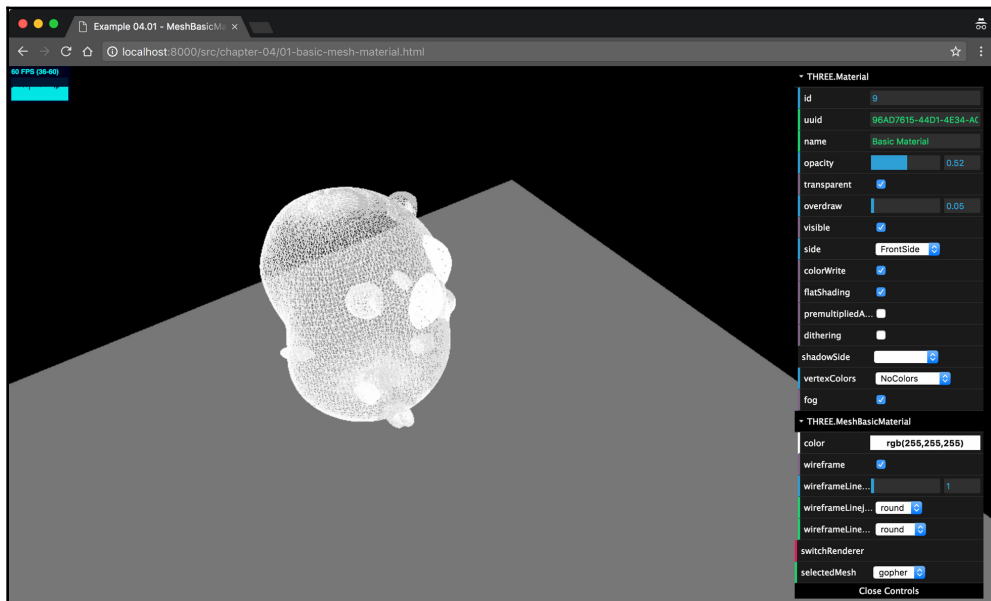
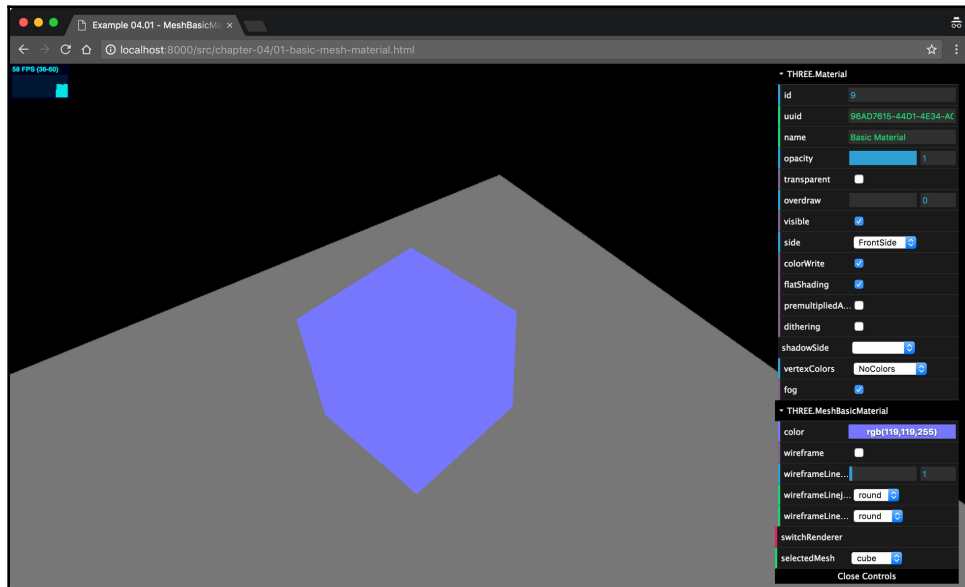


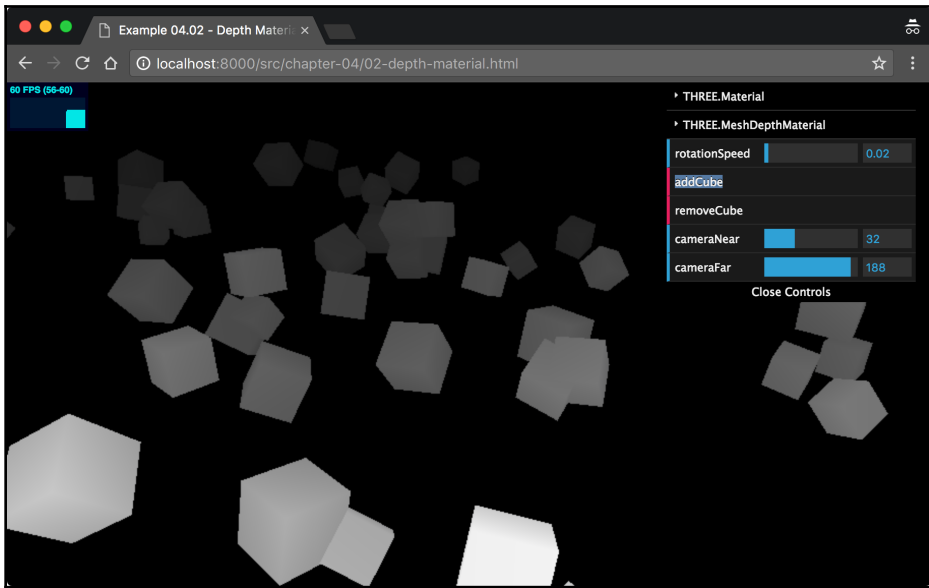
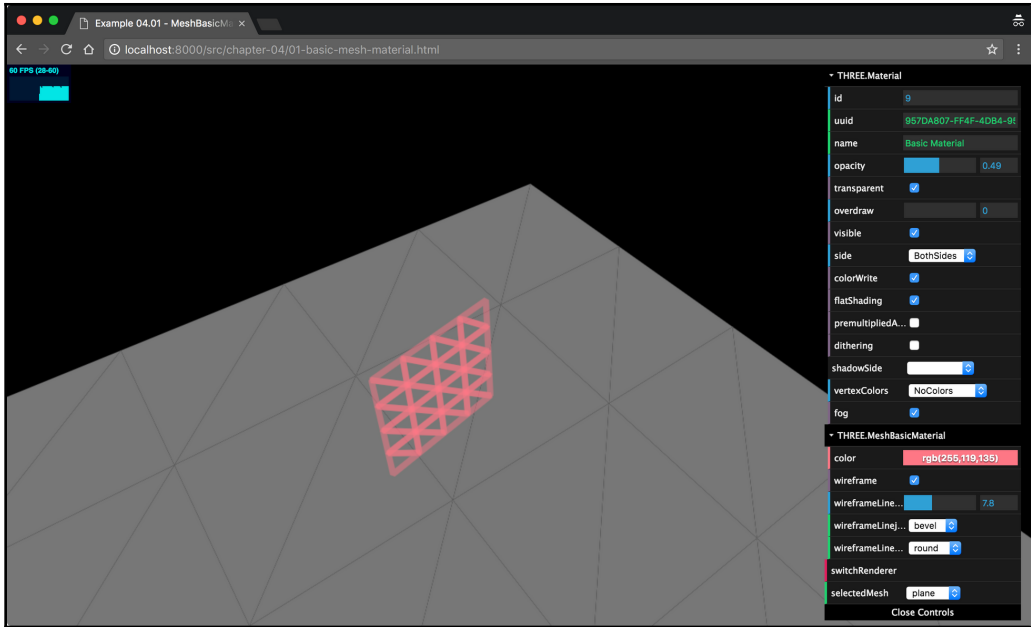


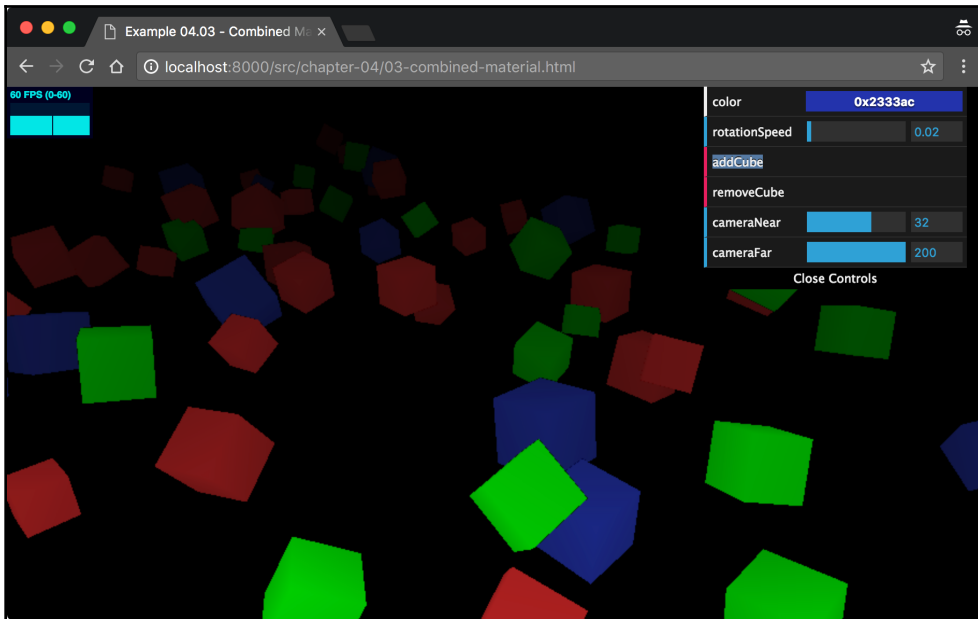
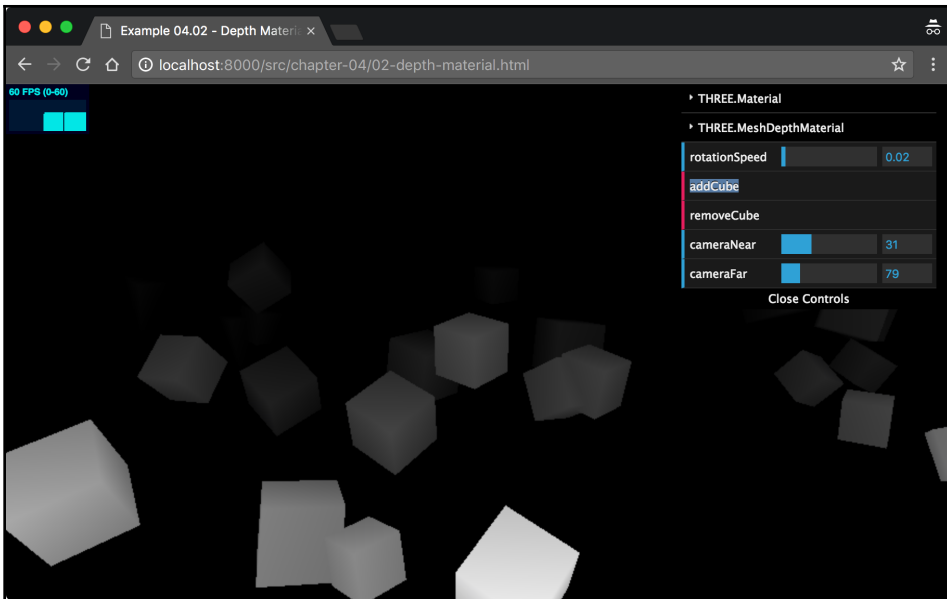


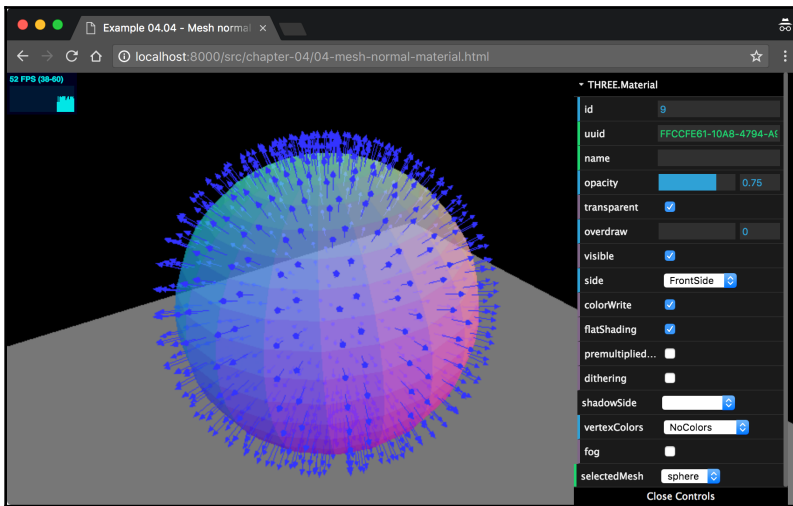
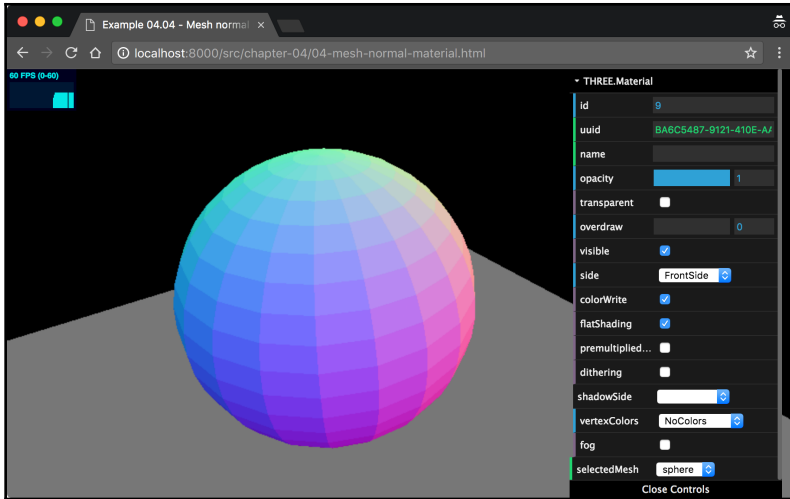


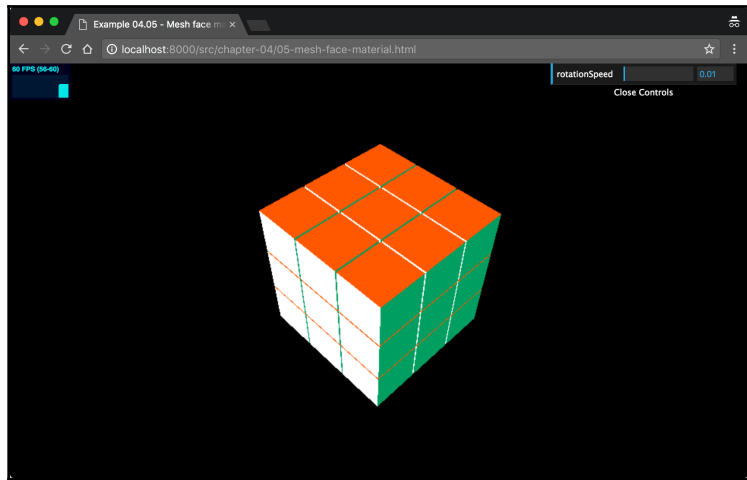
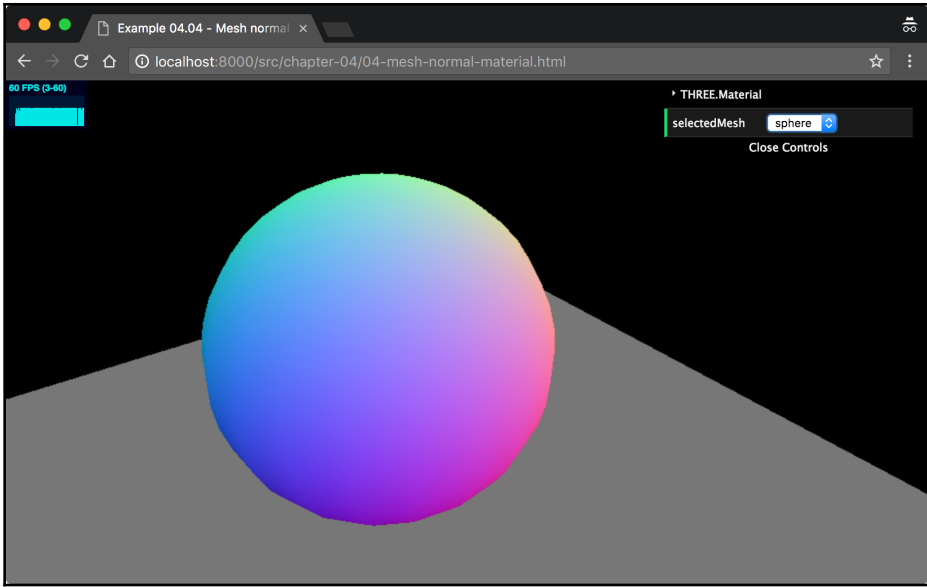
Chapter 4: Working with Three.js Materials

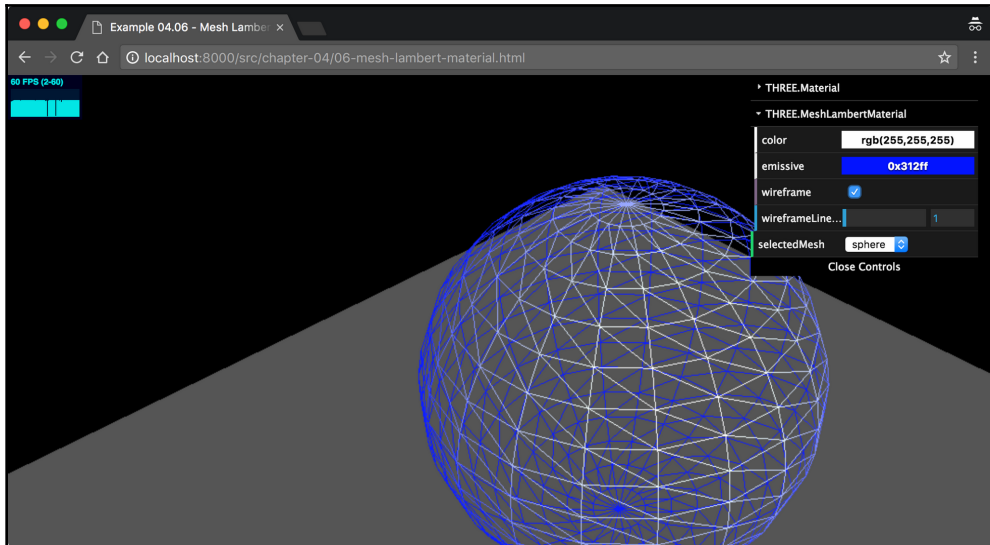
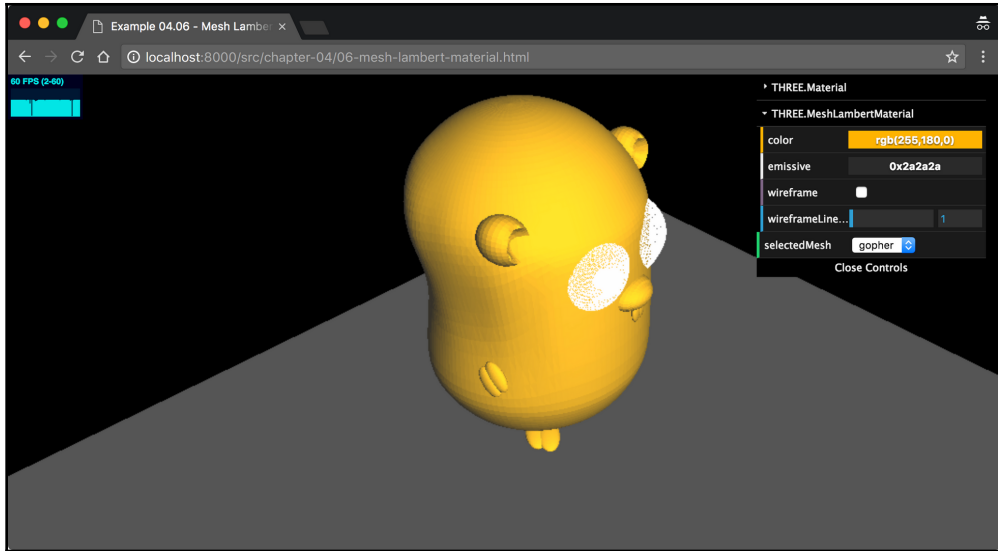


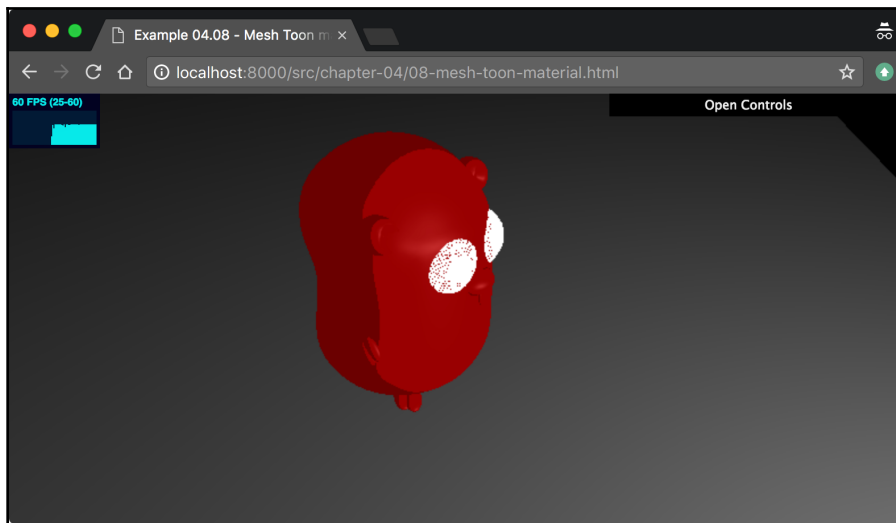
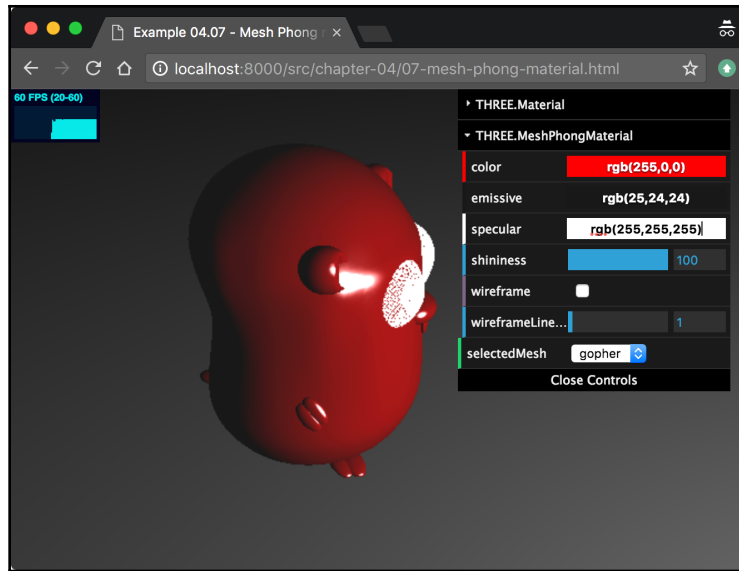


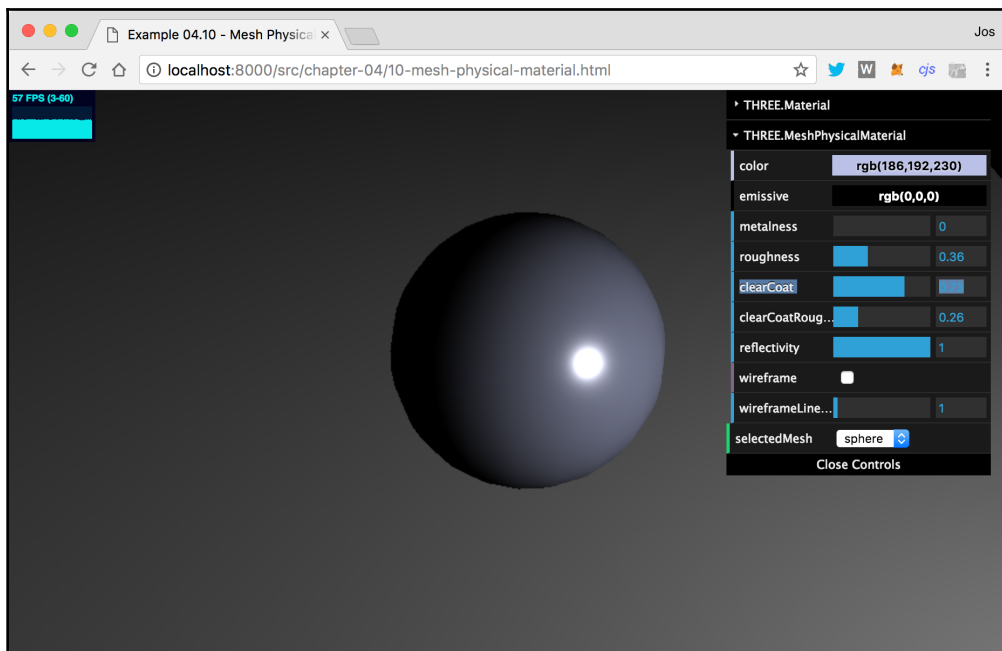
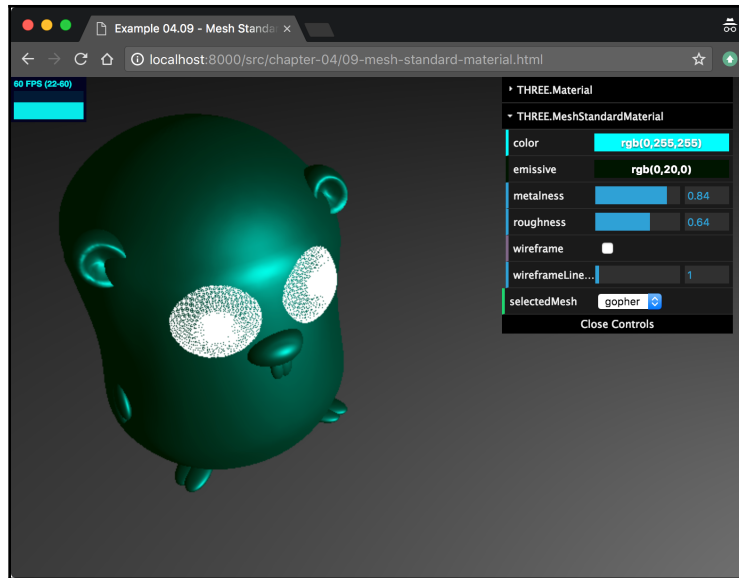


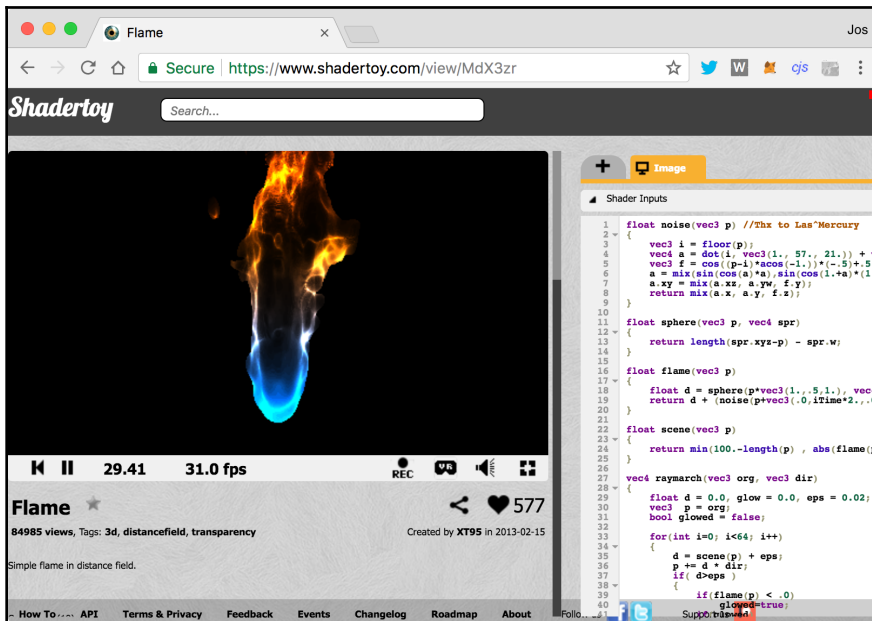
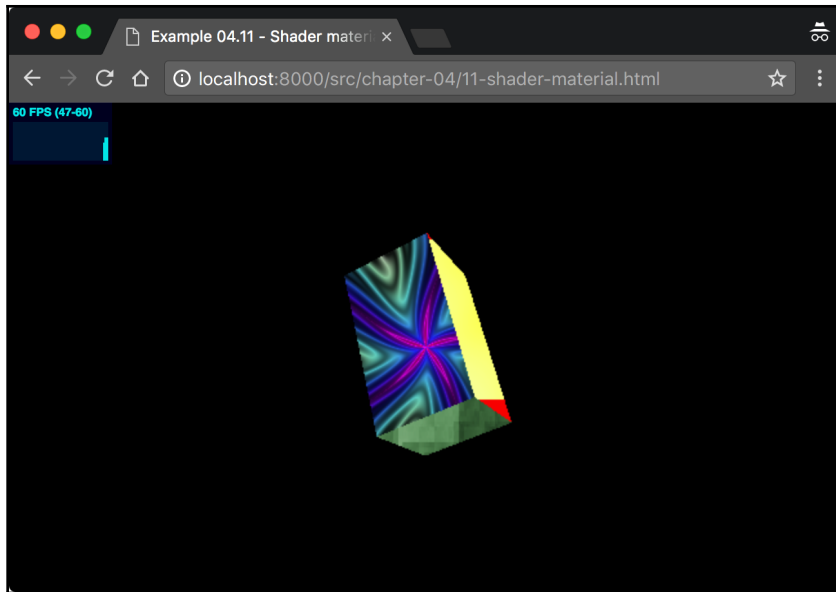


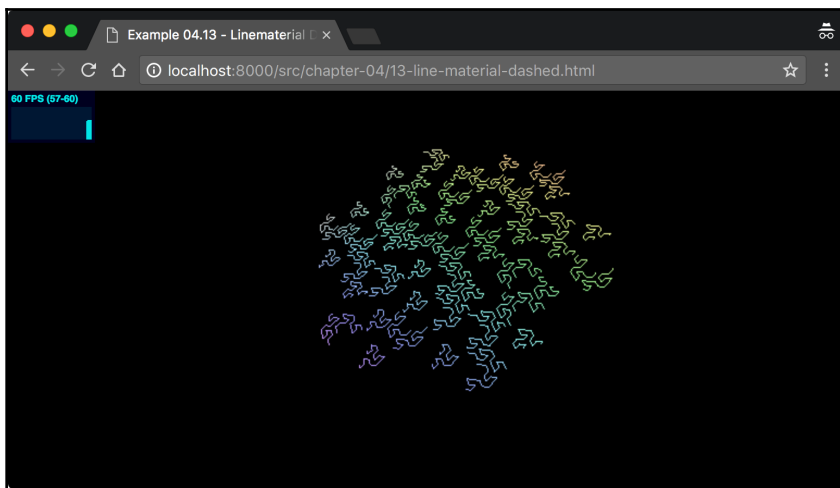
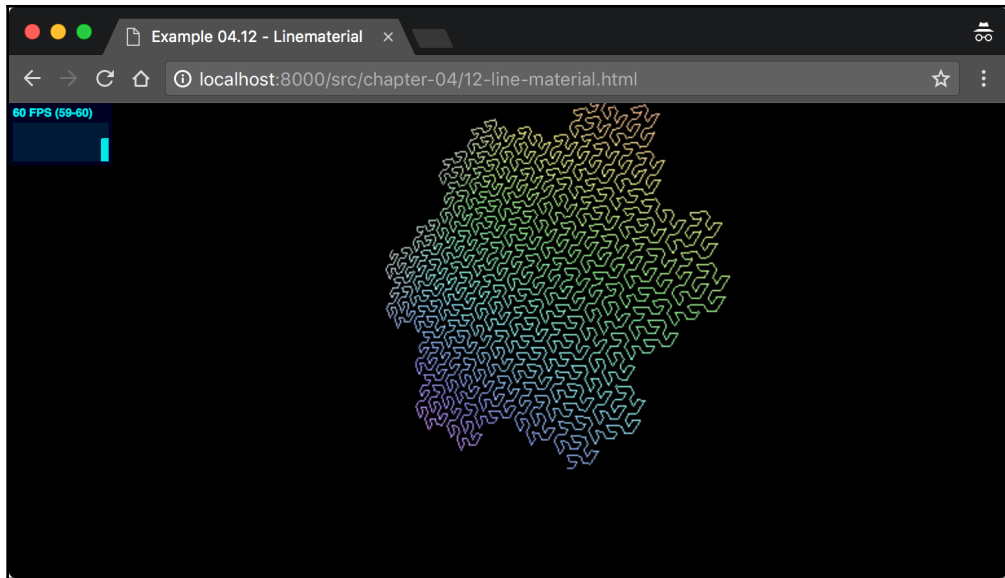




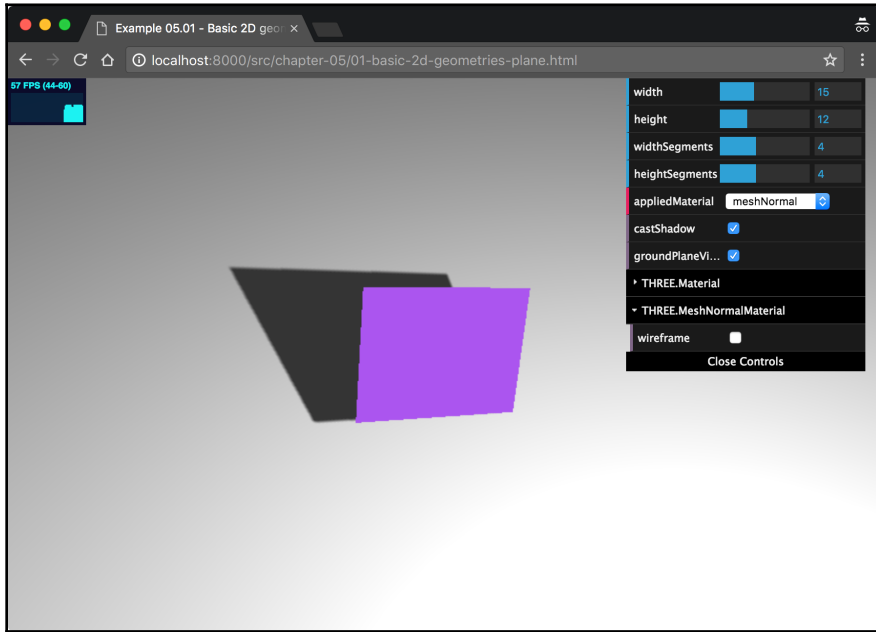


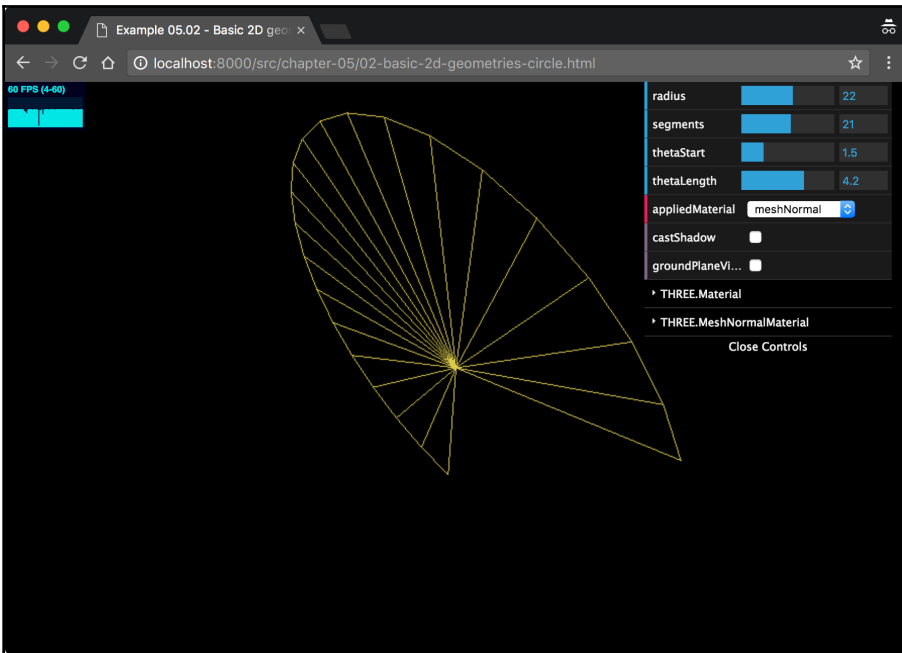
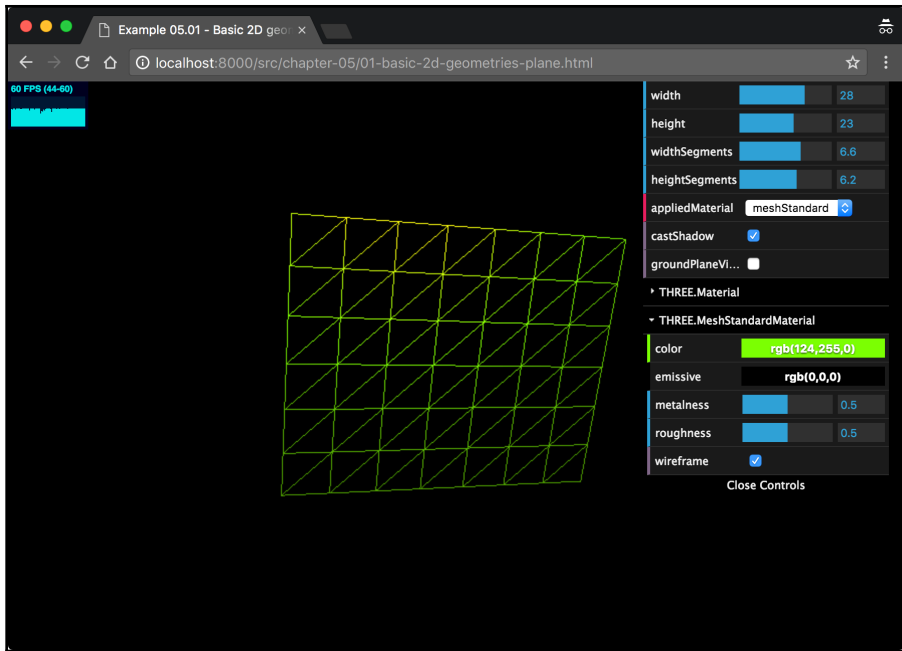


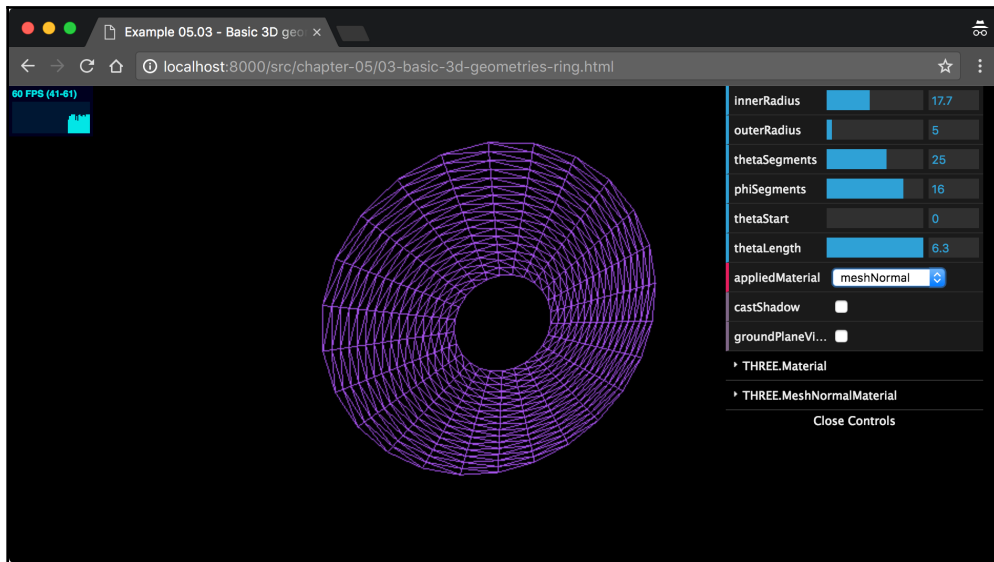
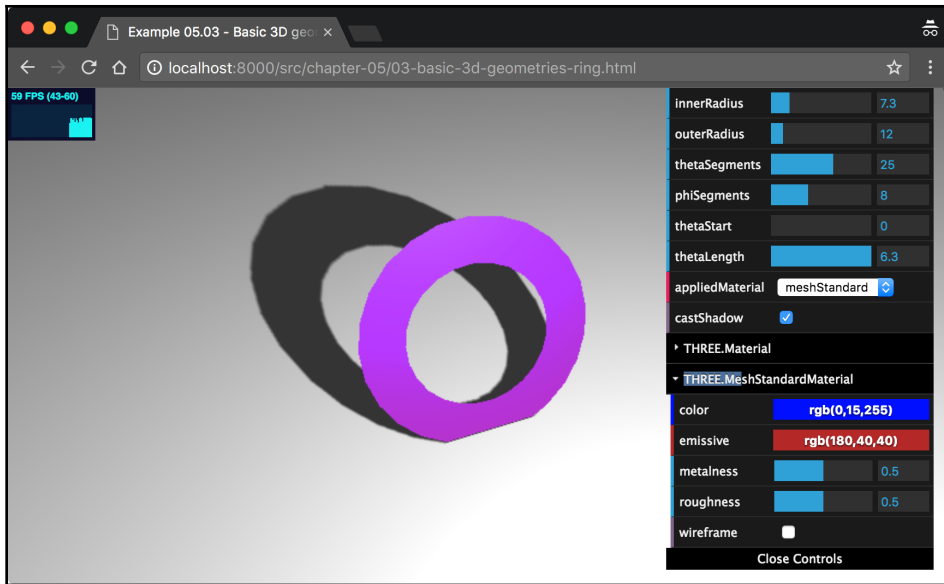


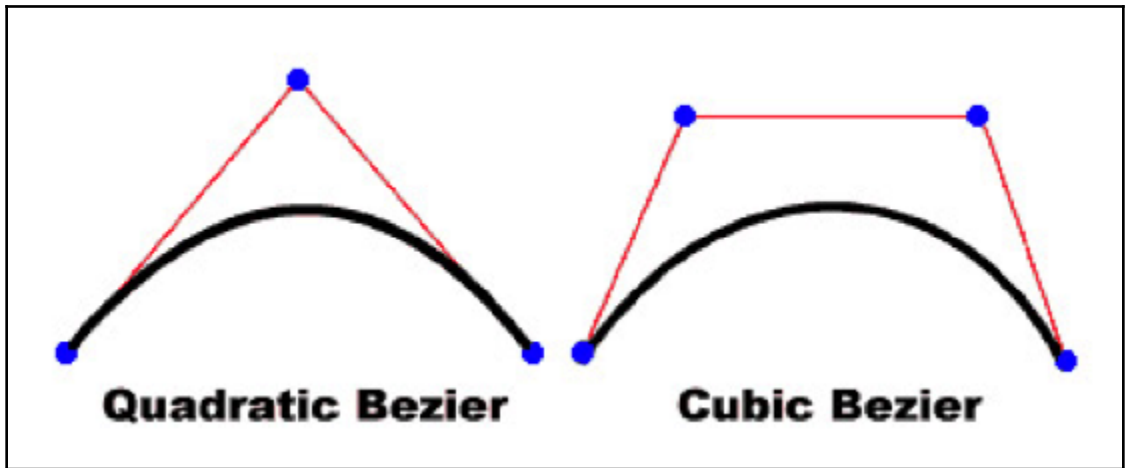
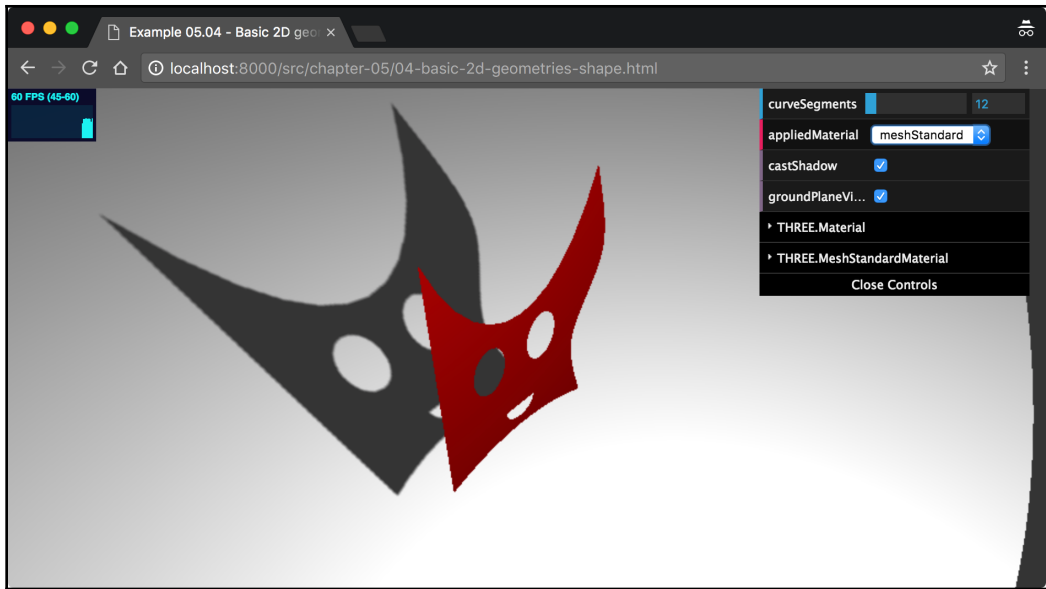


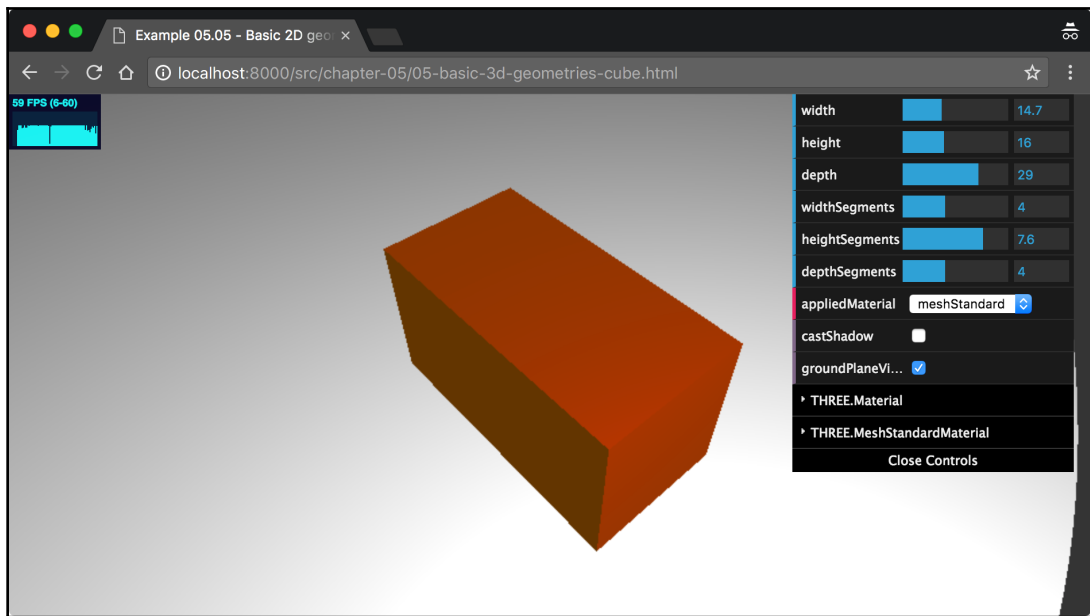
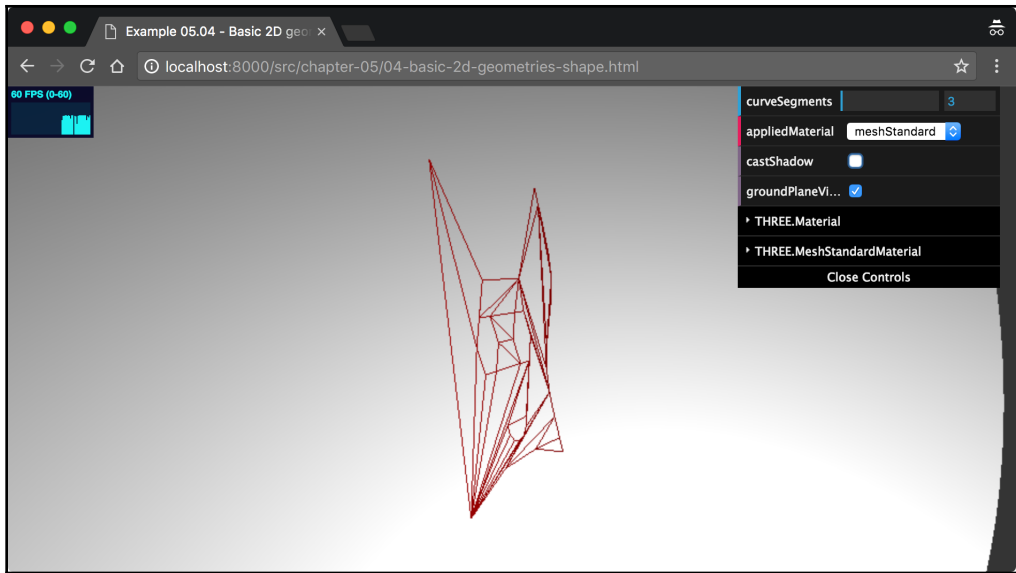
Chapter 5: Learning to Work with Geometries

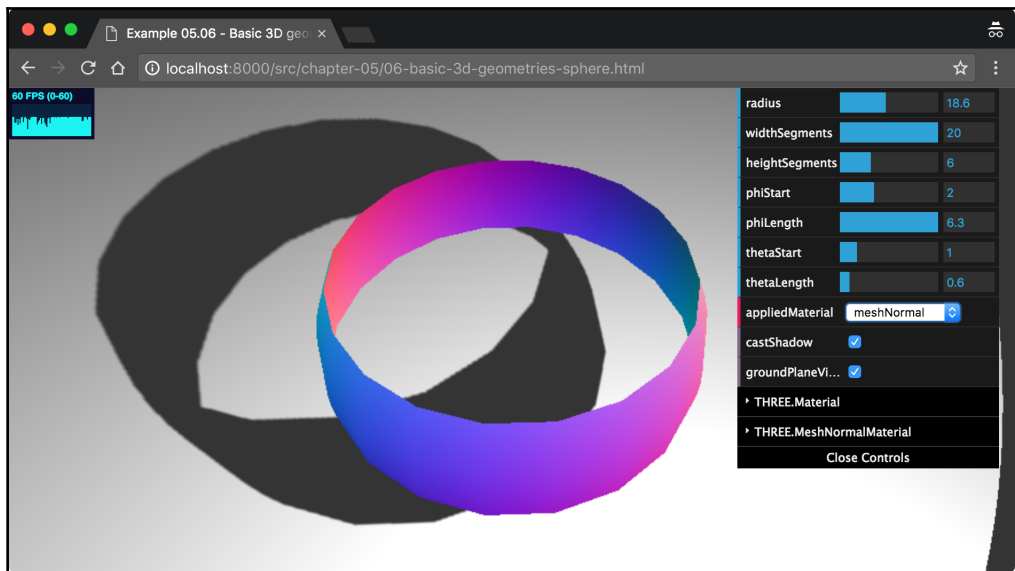
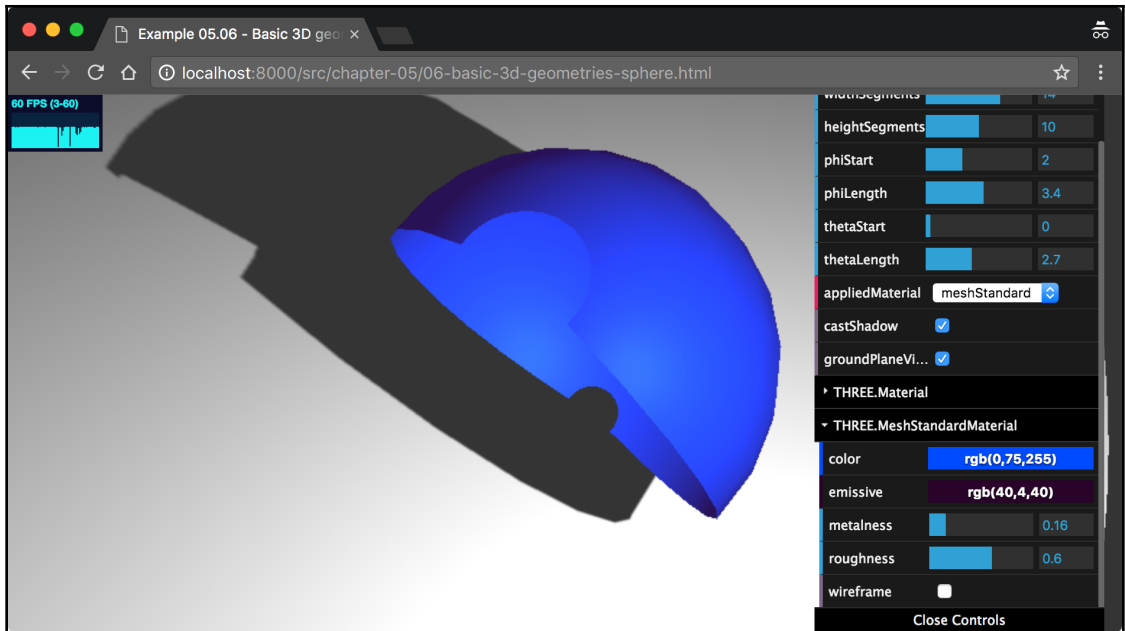


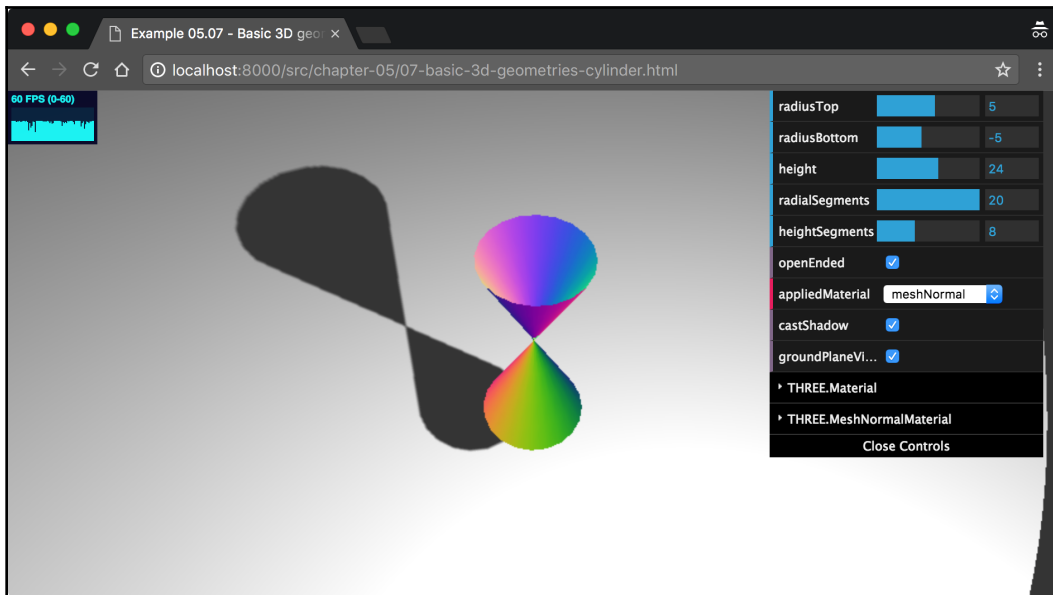
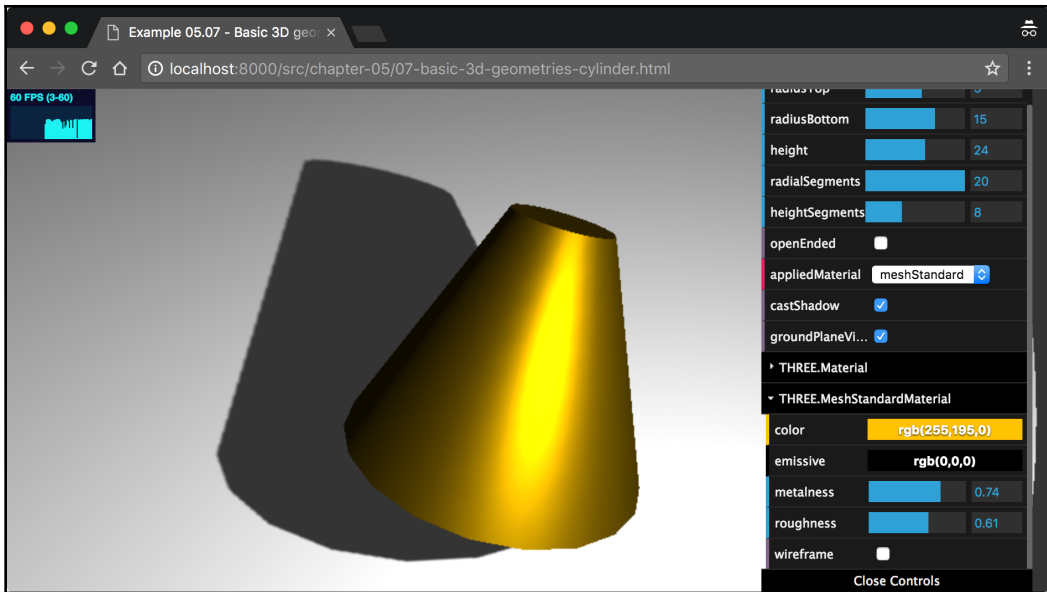


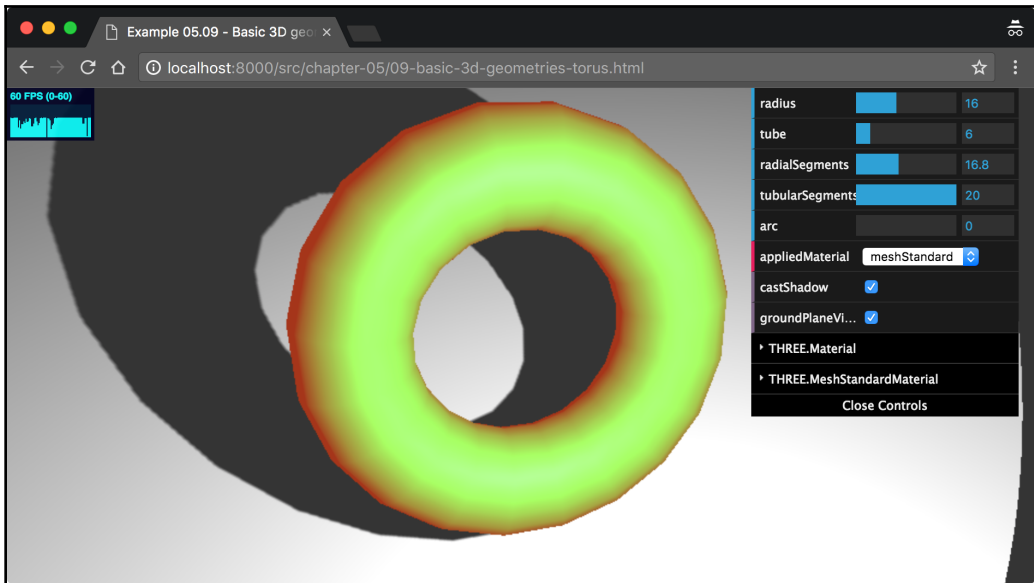
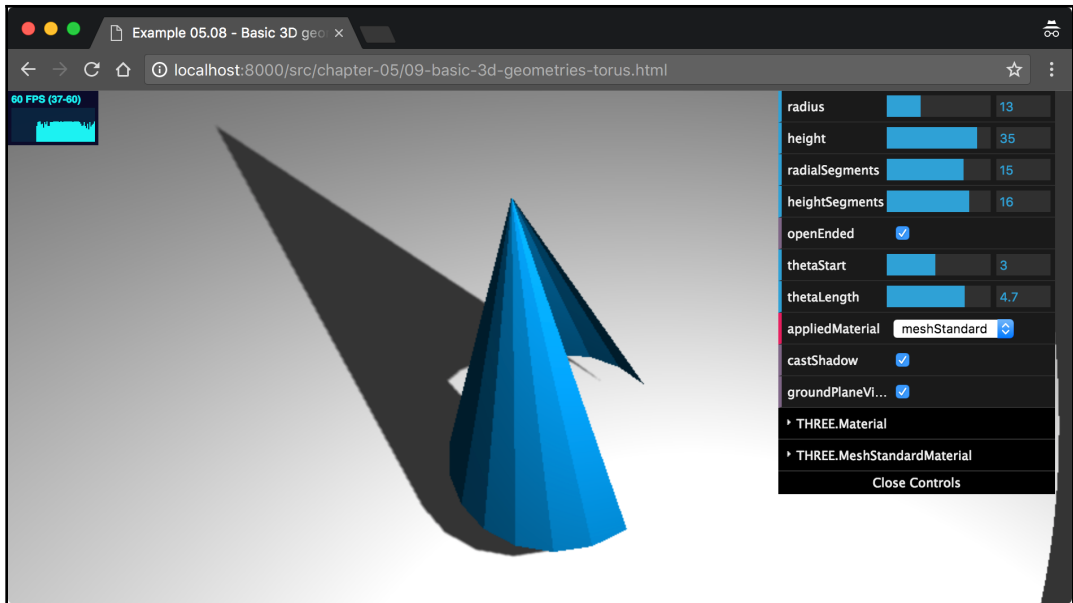


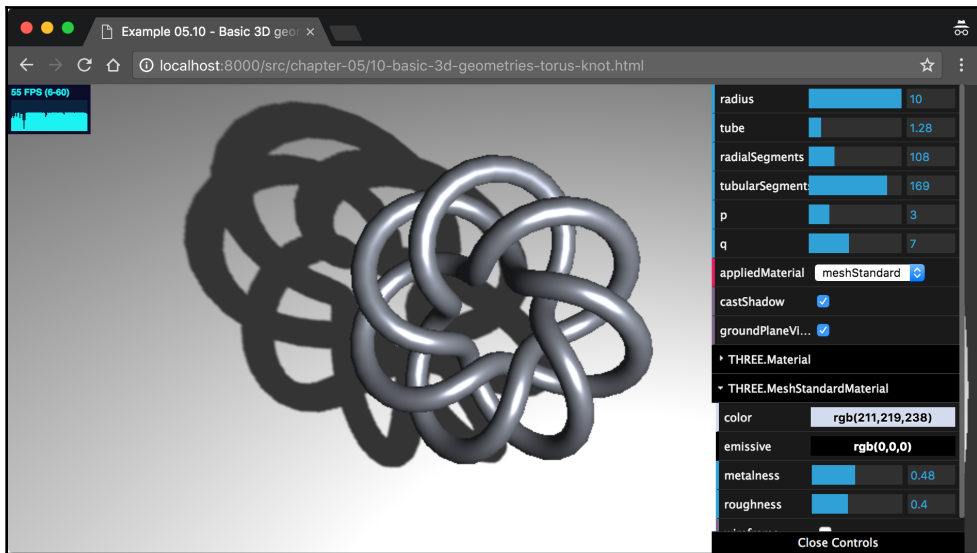
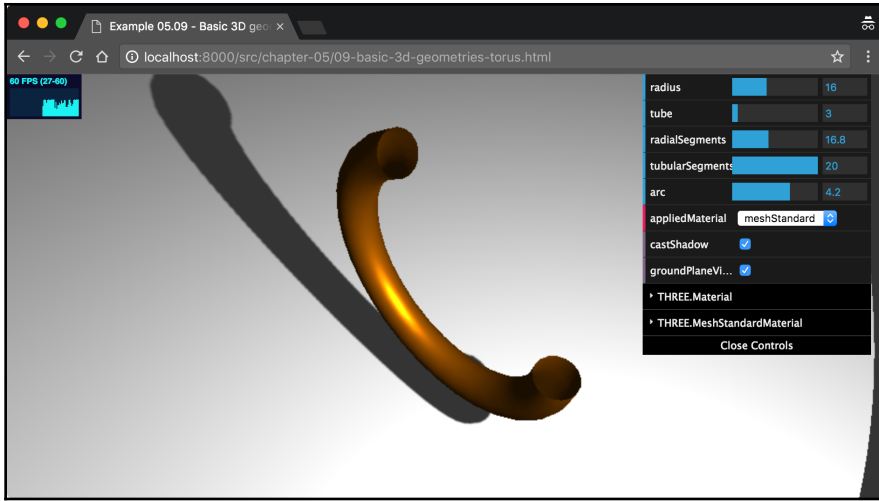


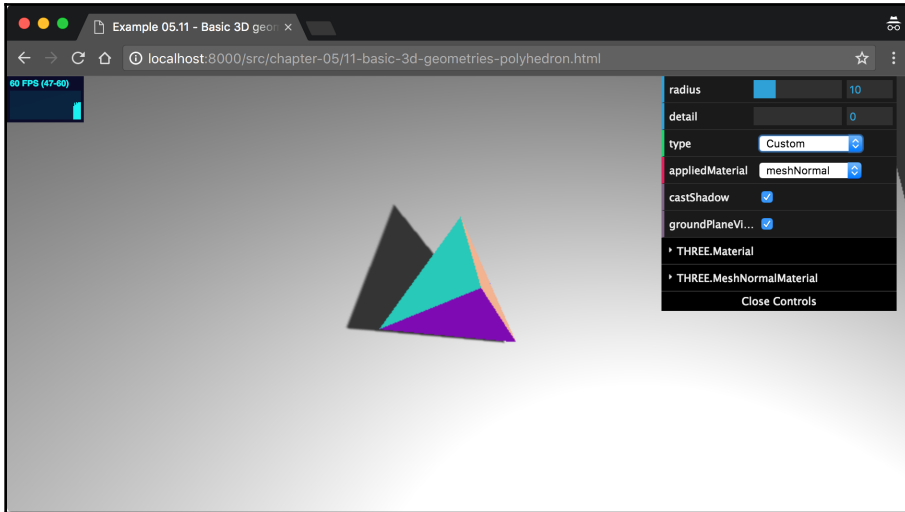
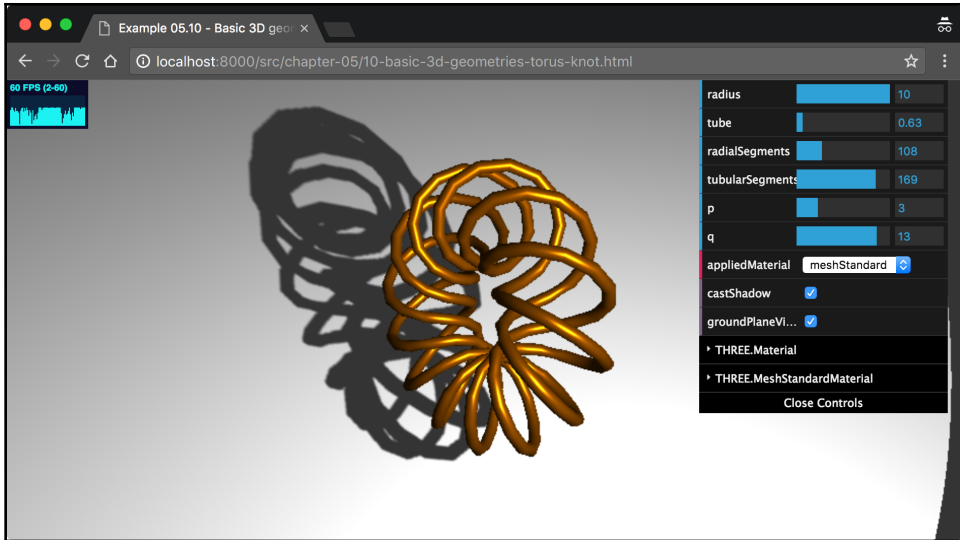


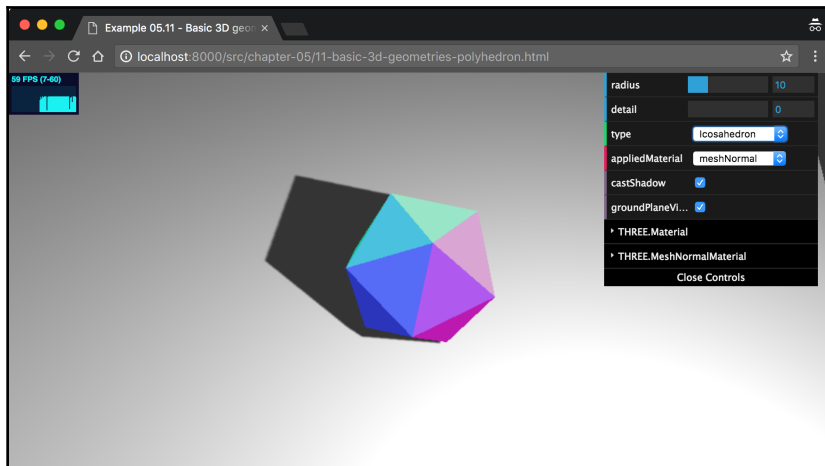
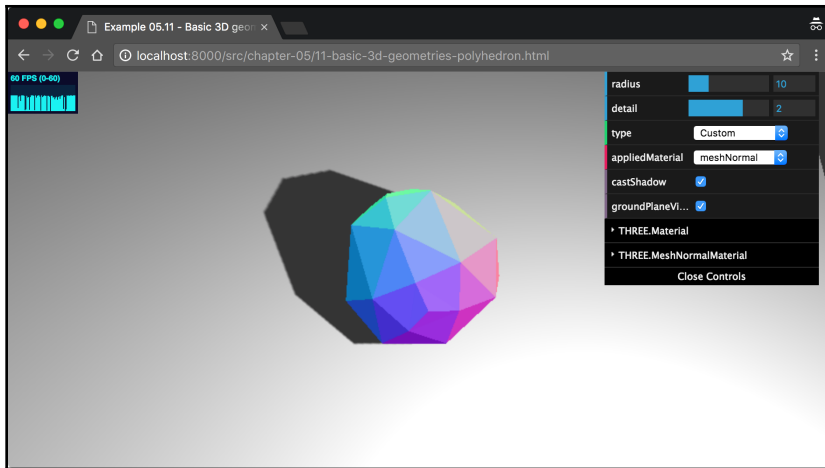


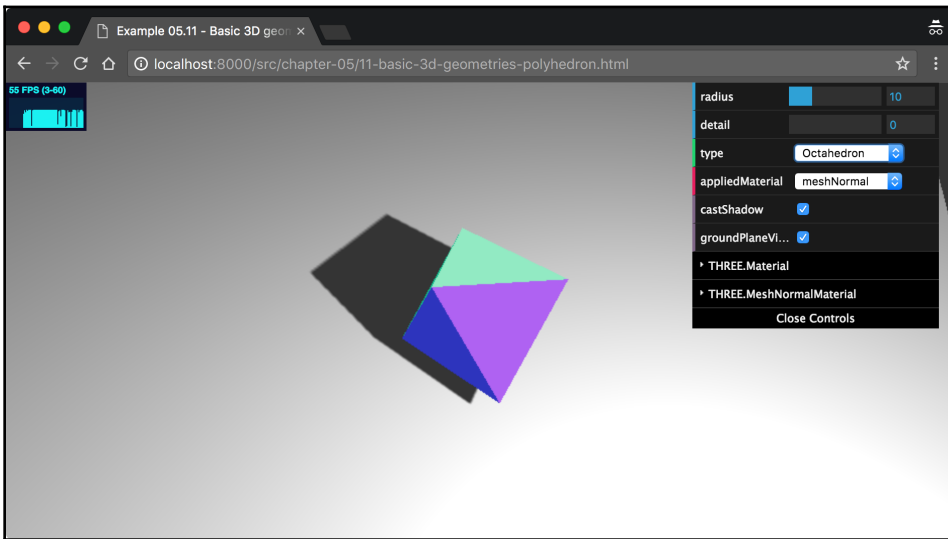
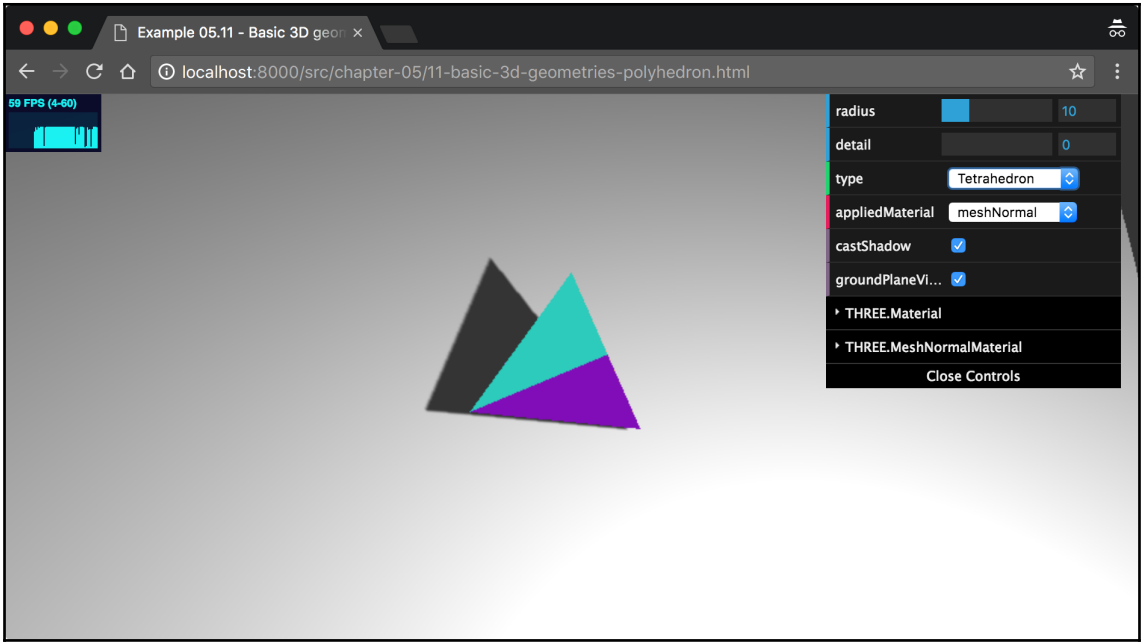


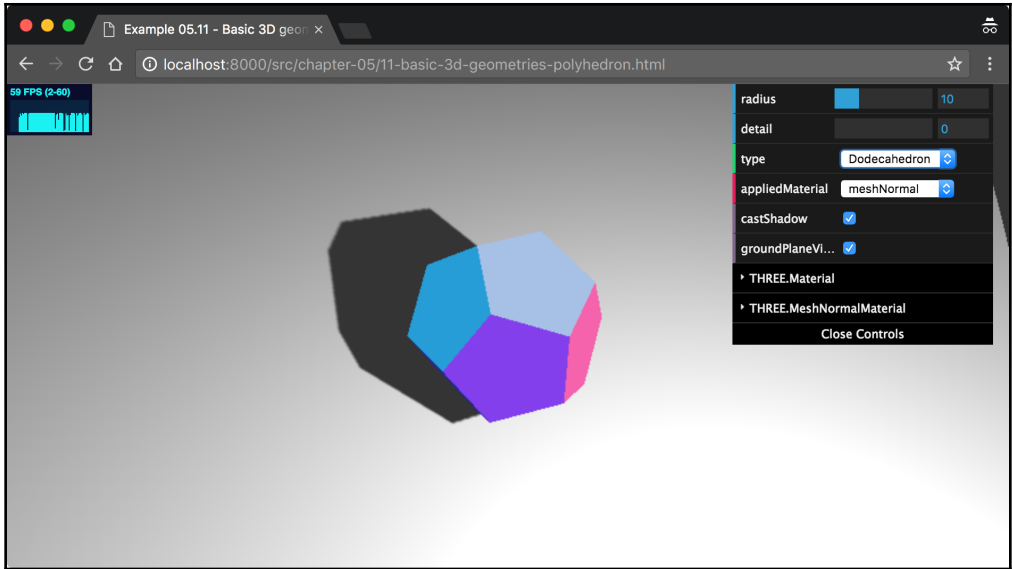




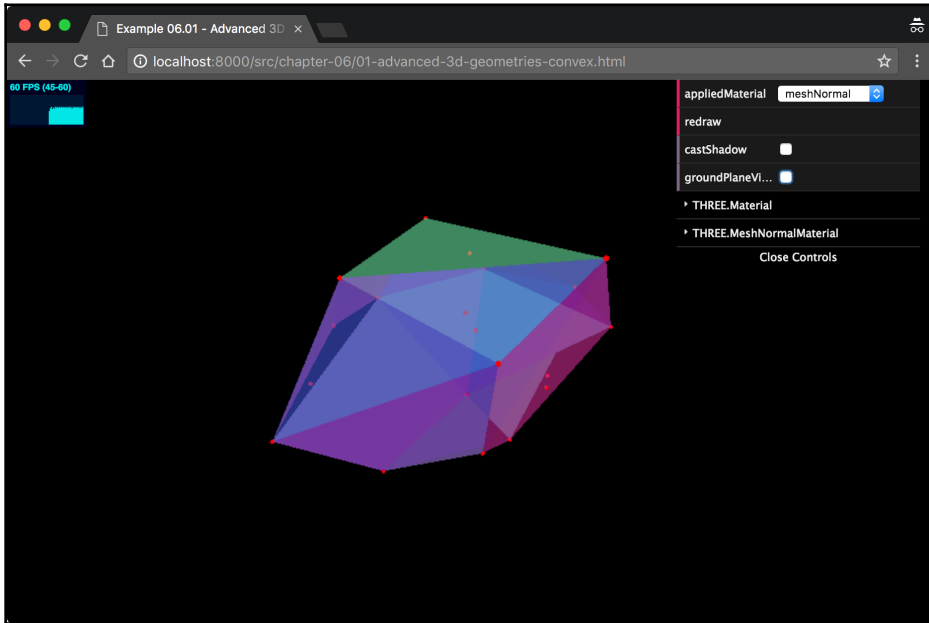


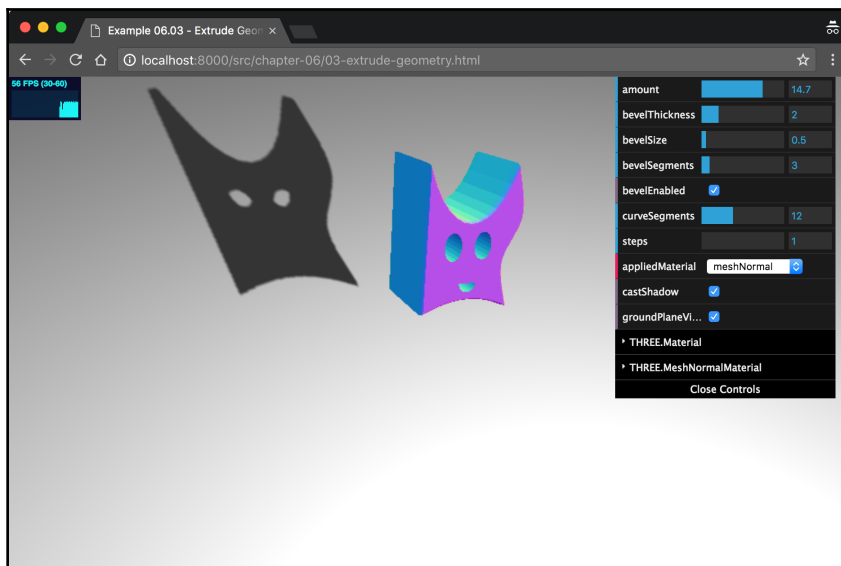
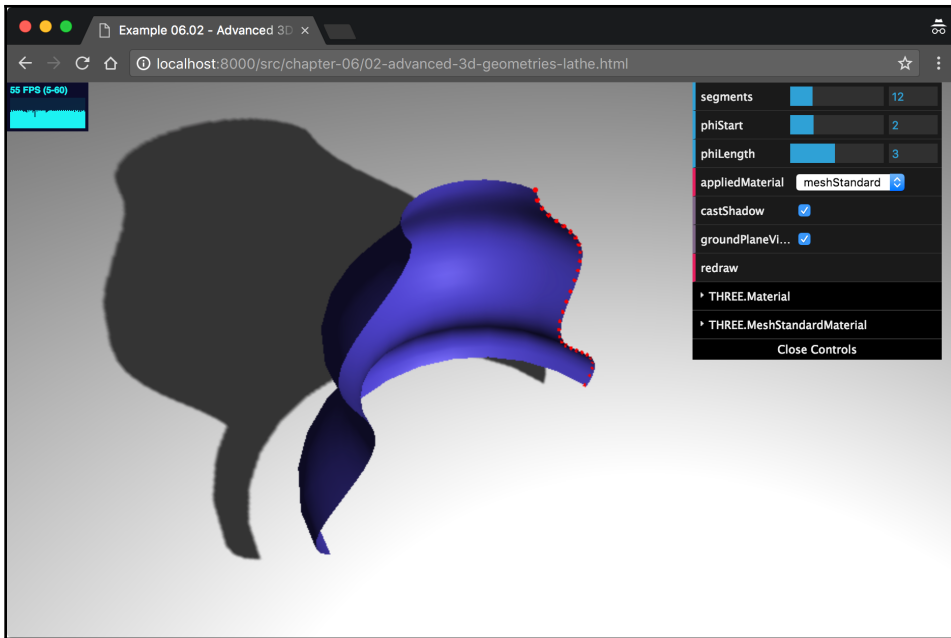


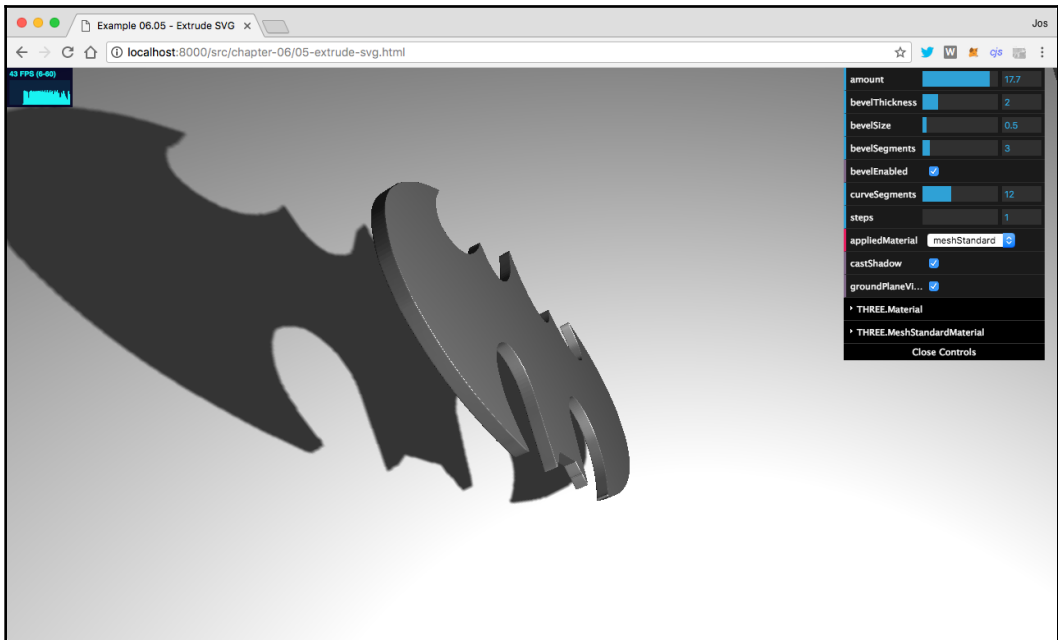
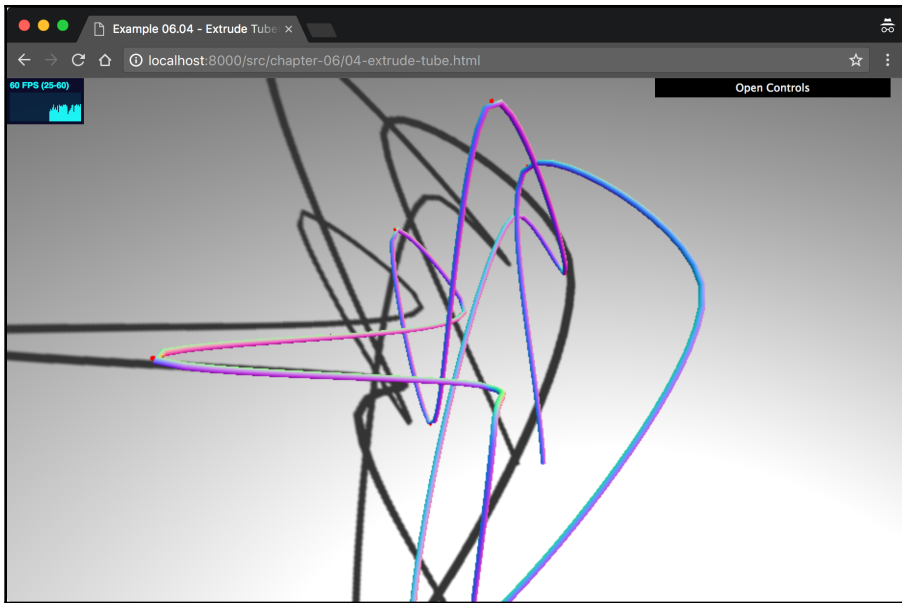


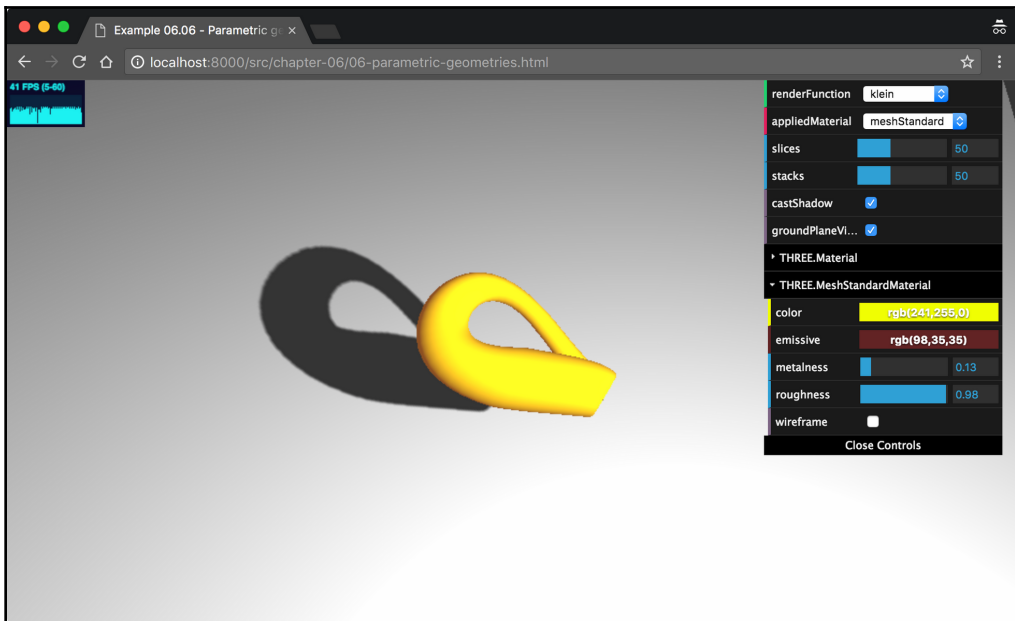
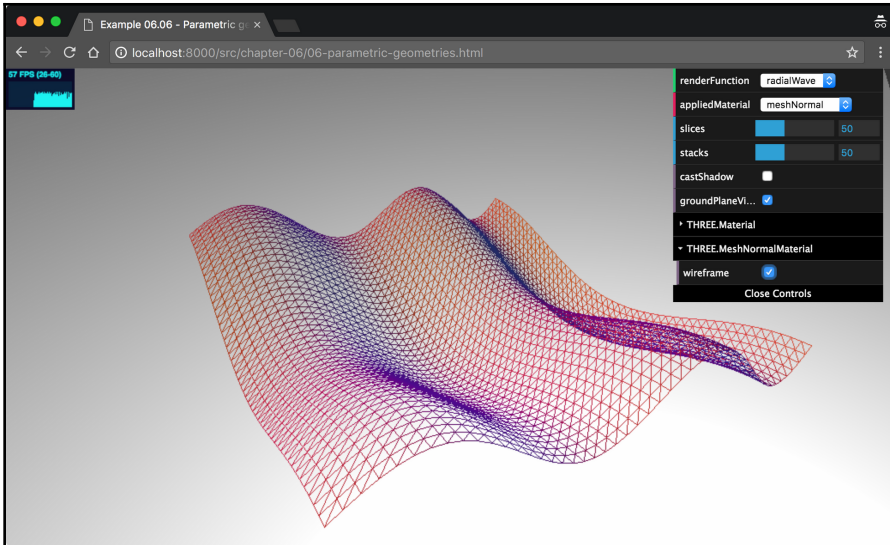


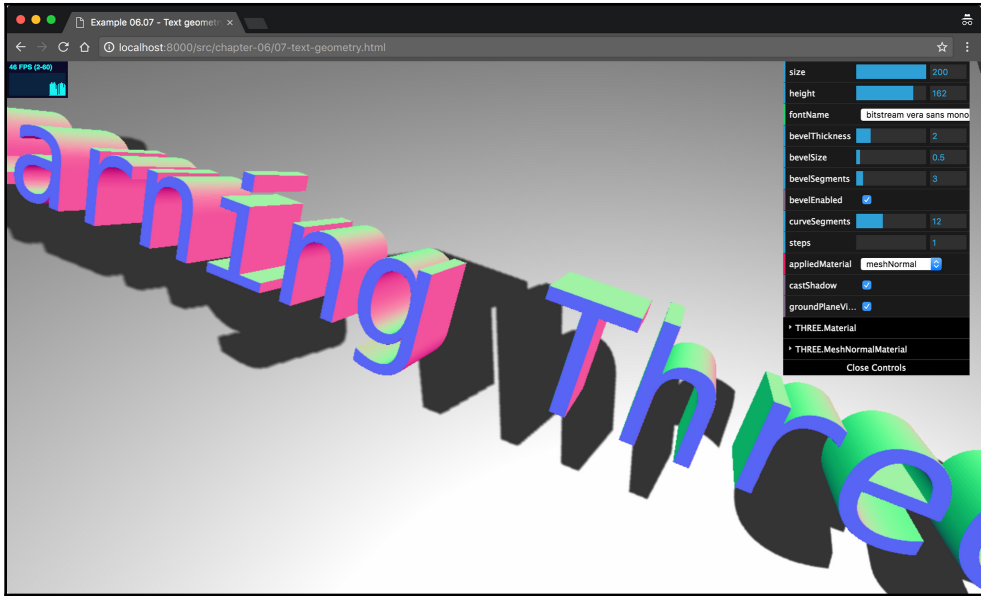
Chapter 6: Advanced Geometries and Binary Operations

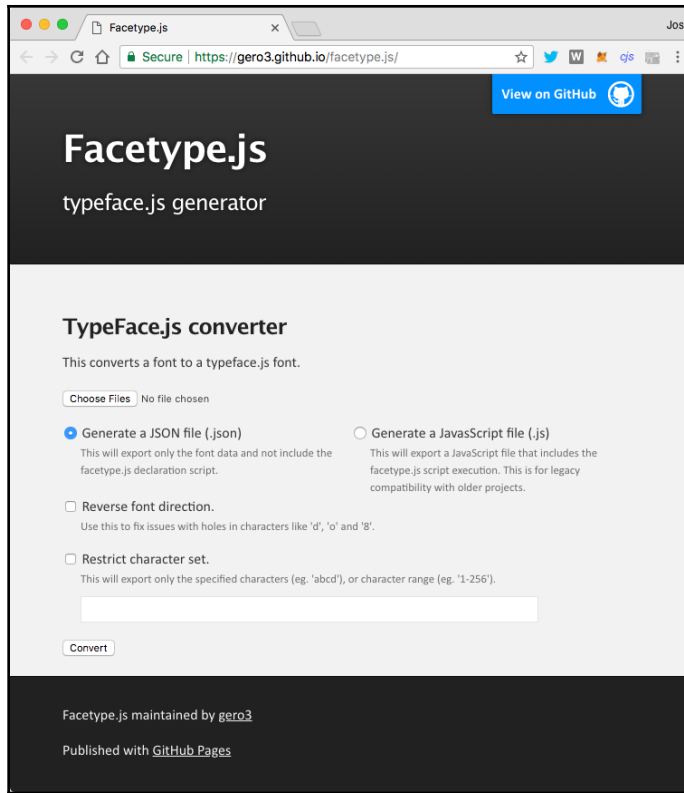


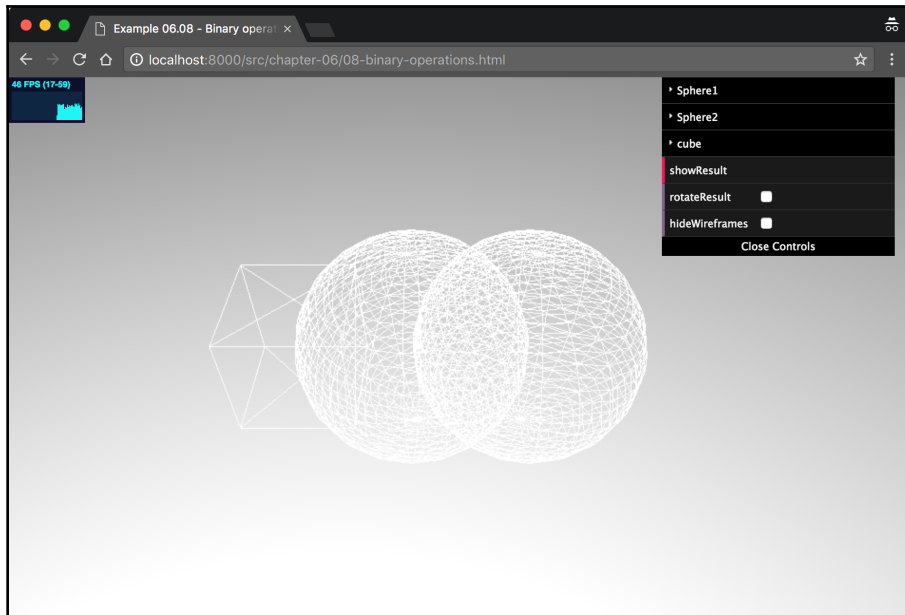
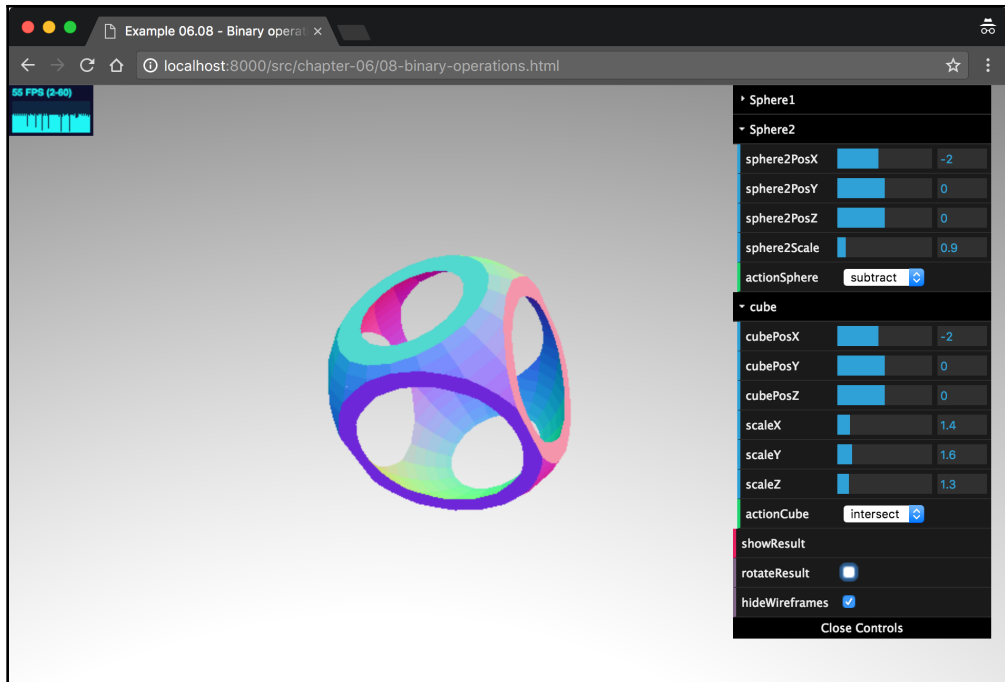


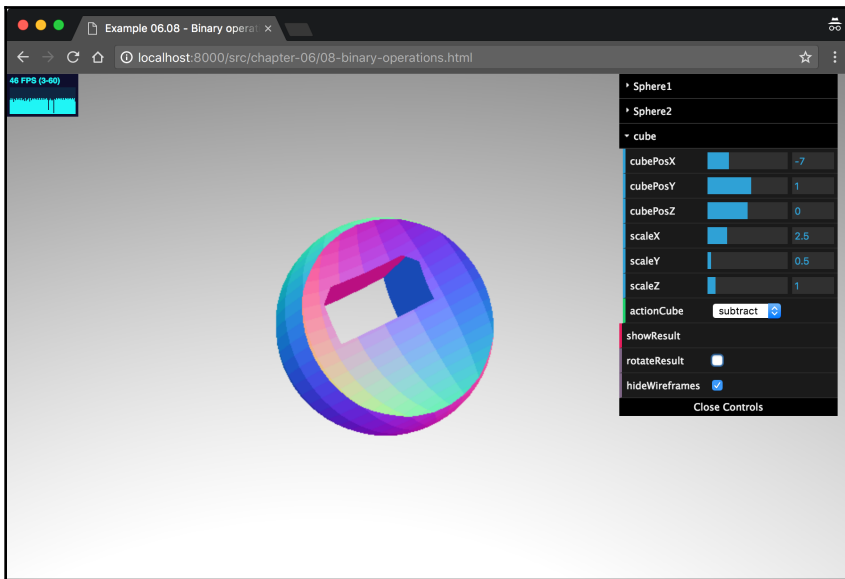
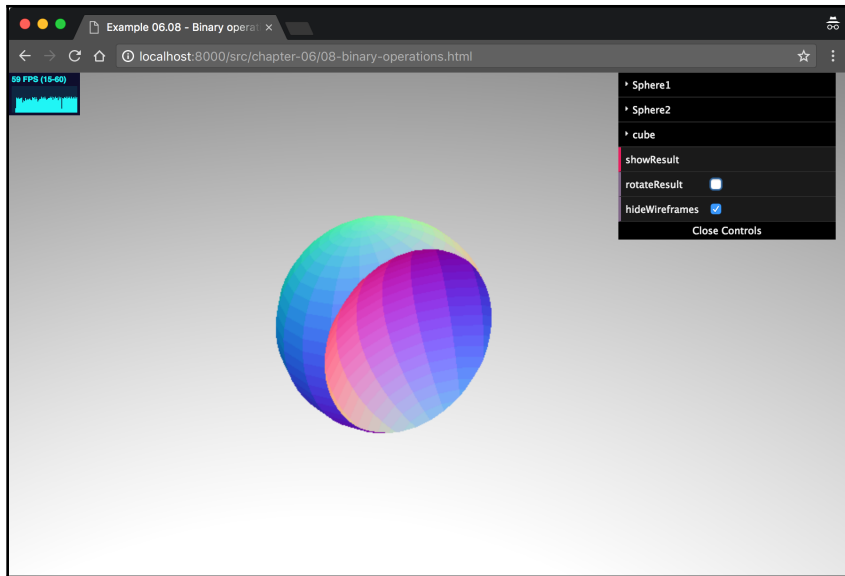


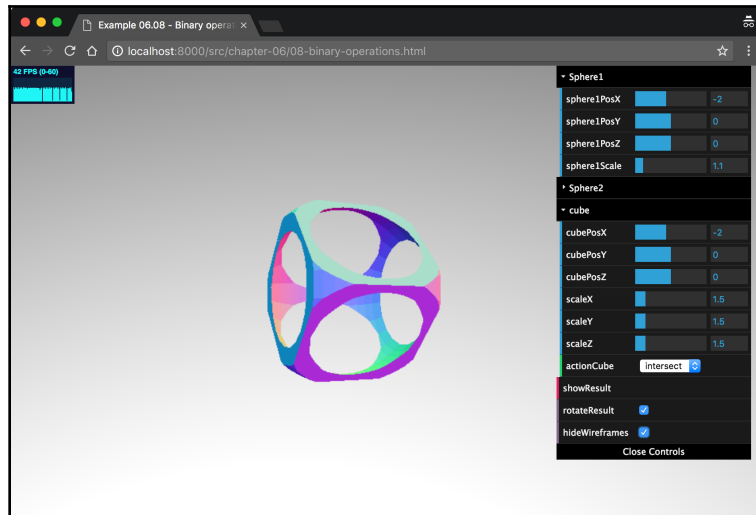
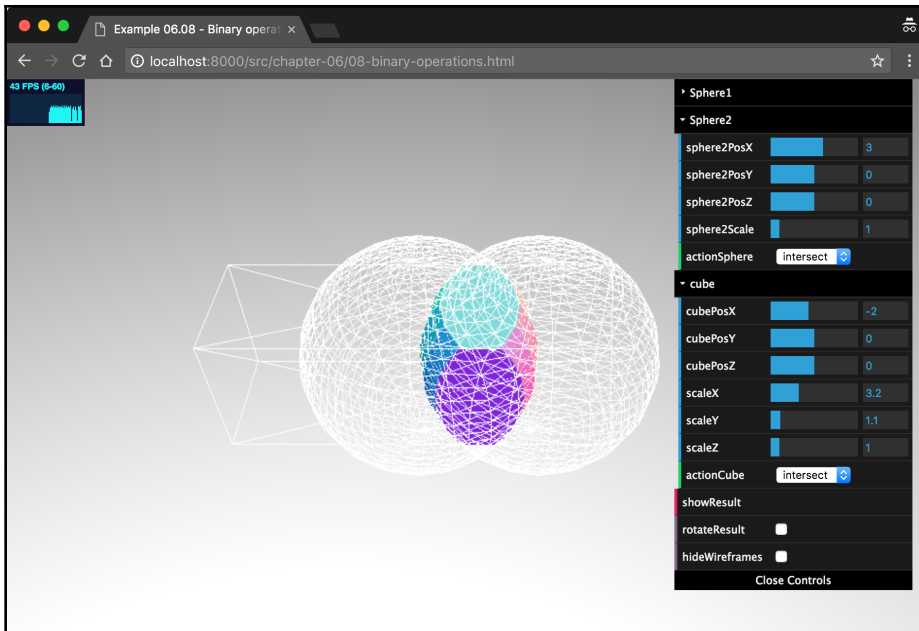


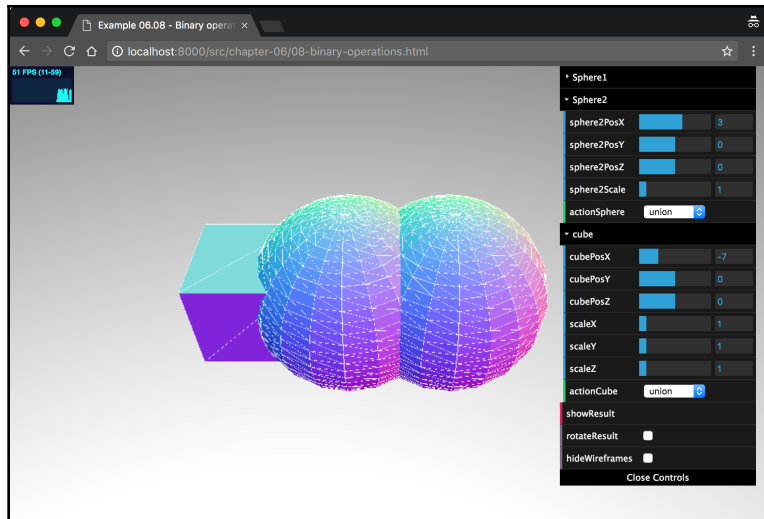




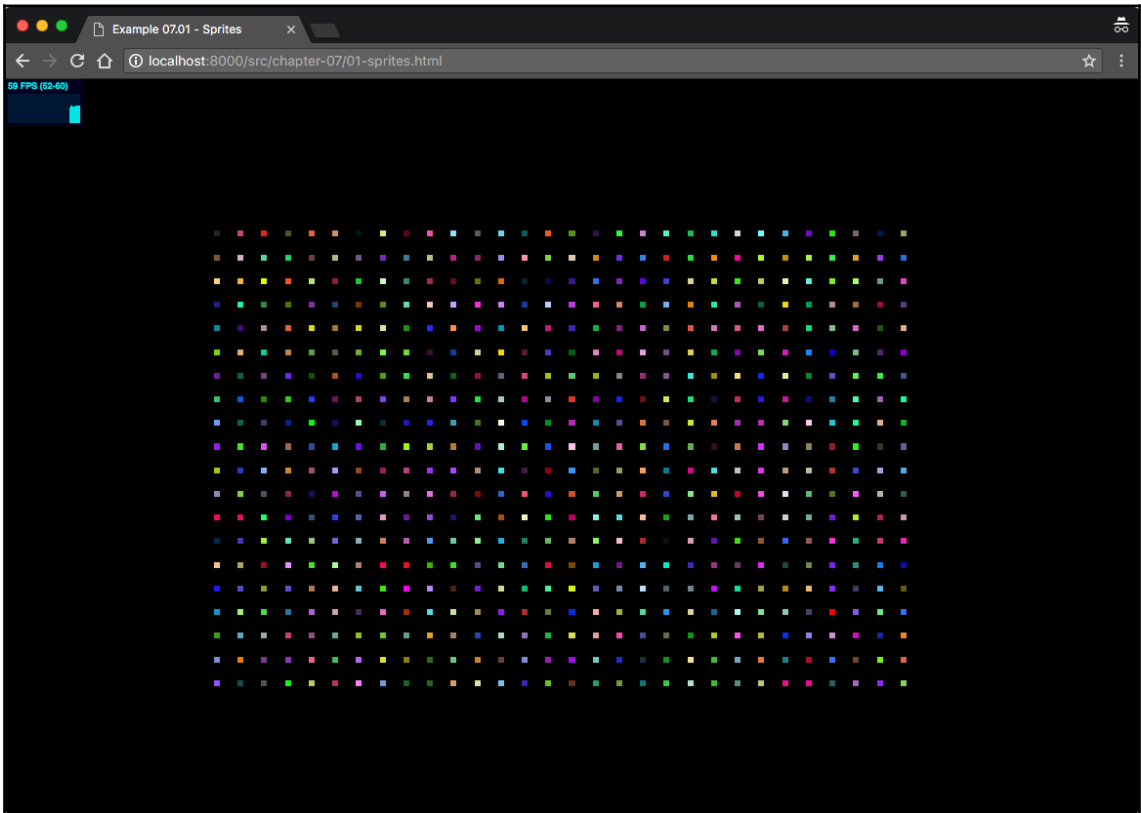


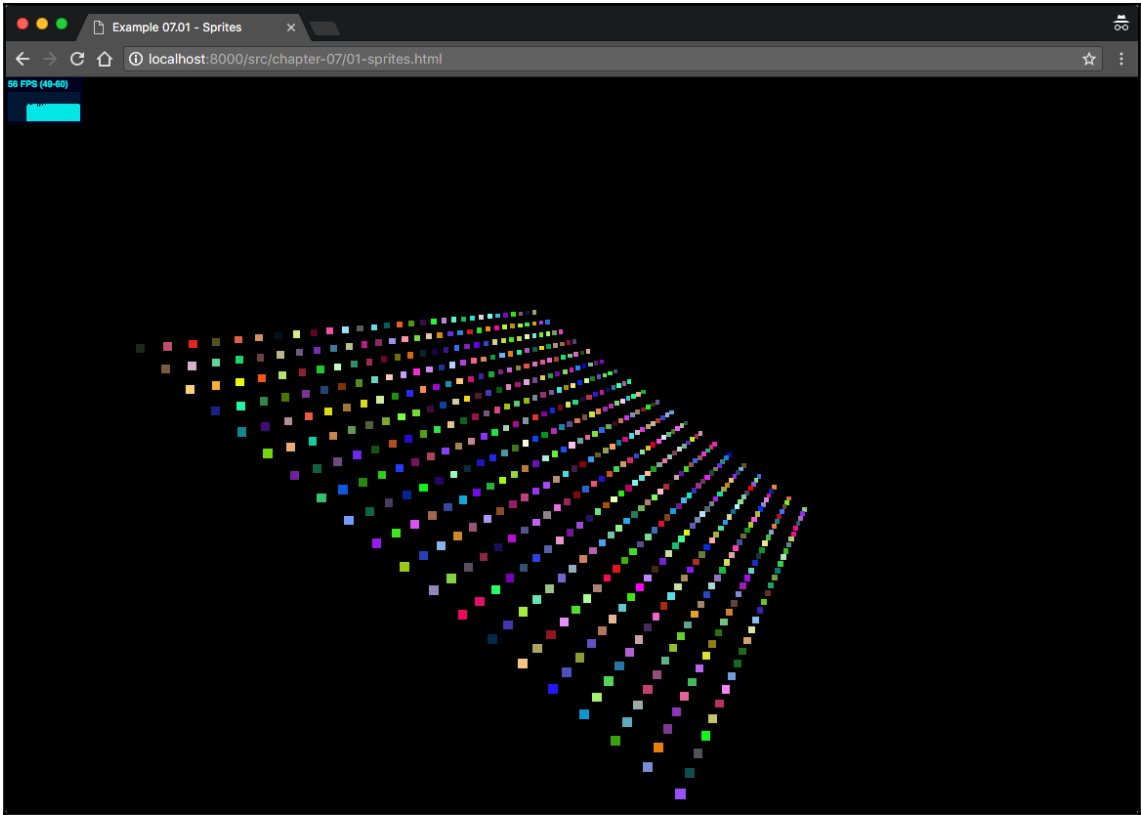


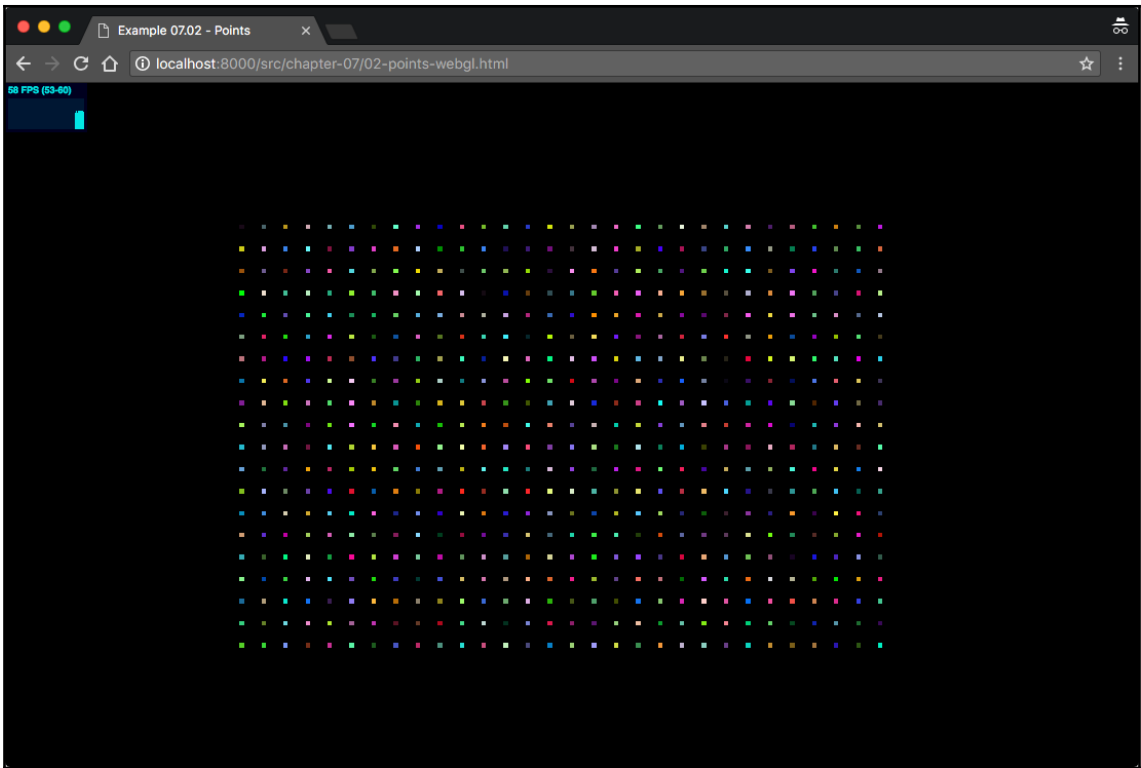


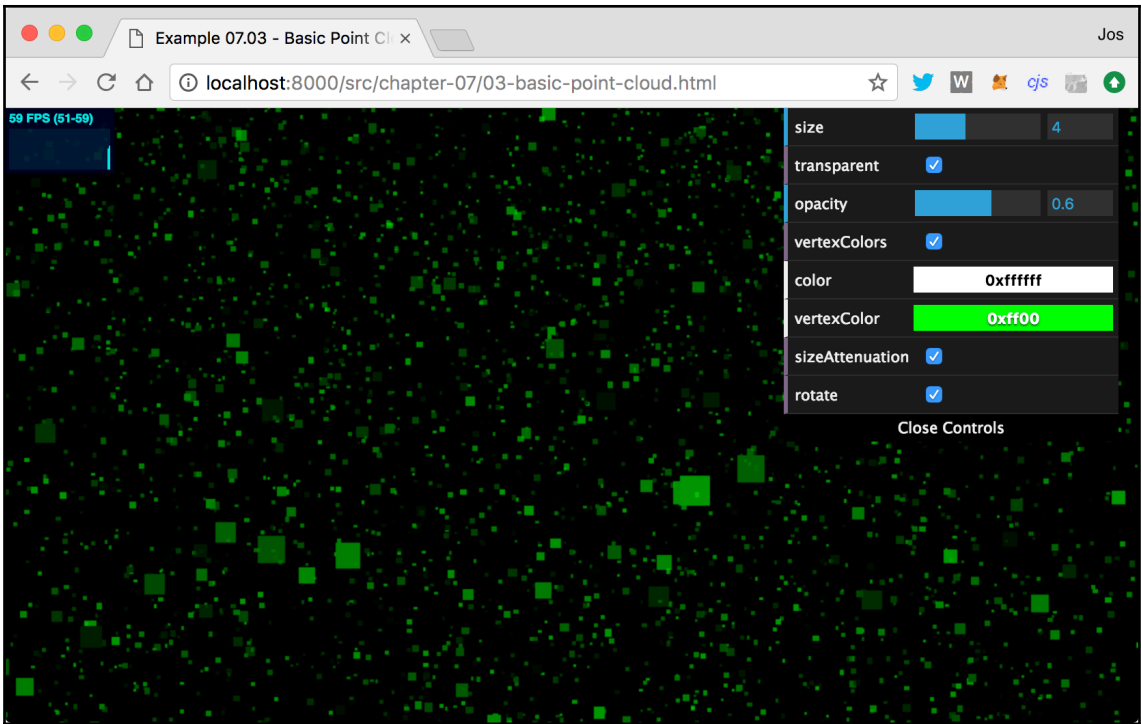


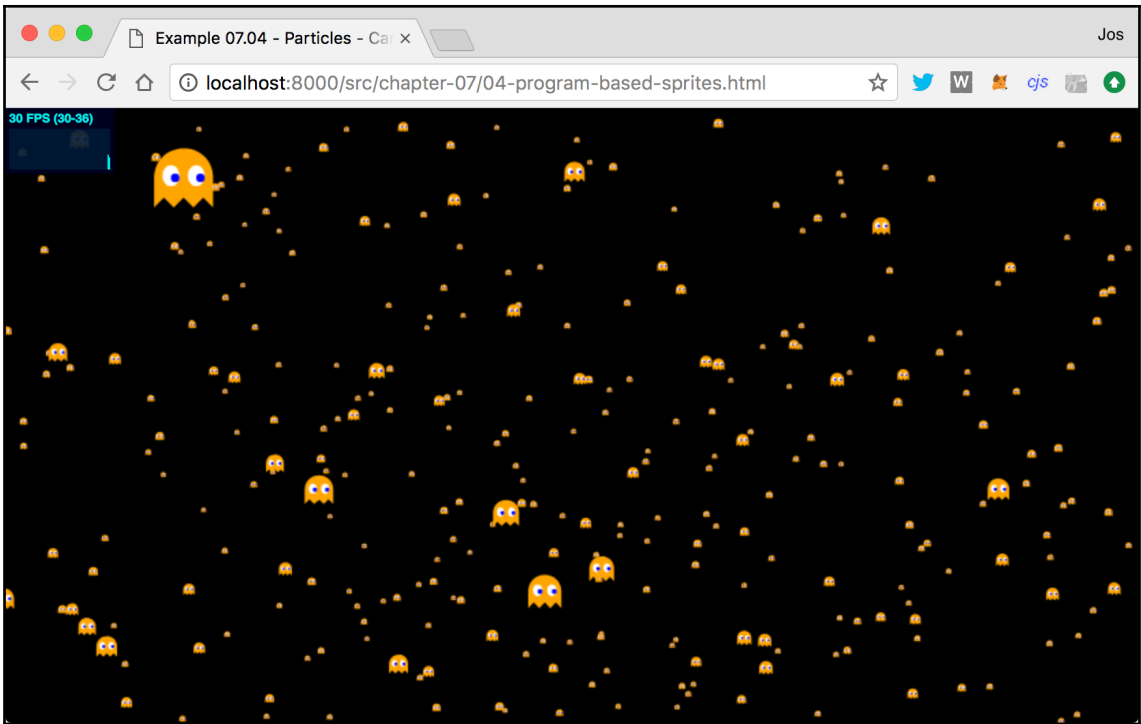
Chapter 7: Points and Sprites

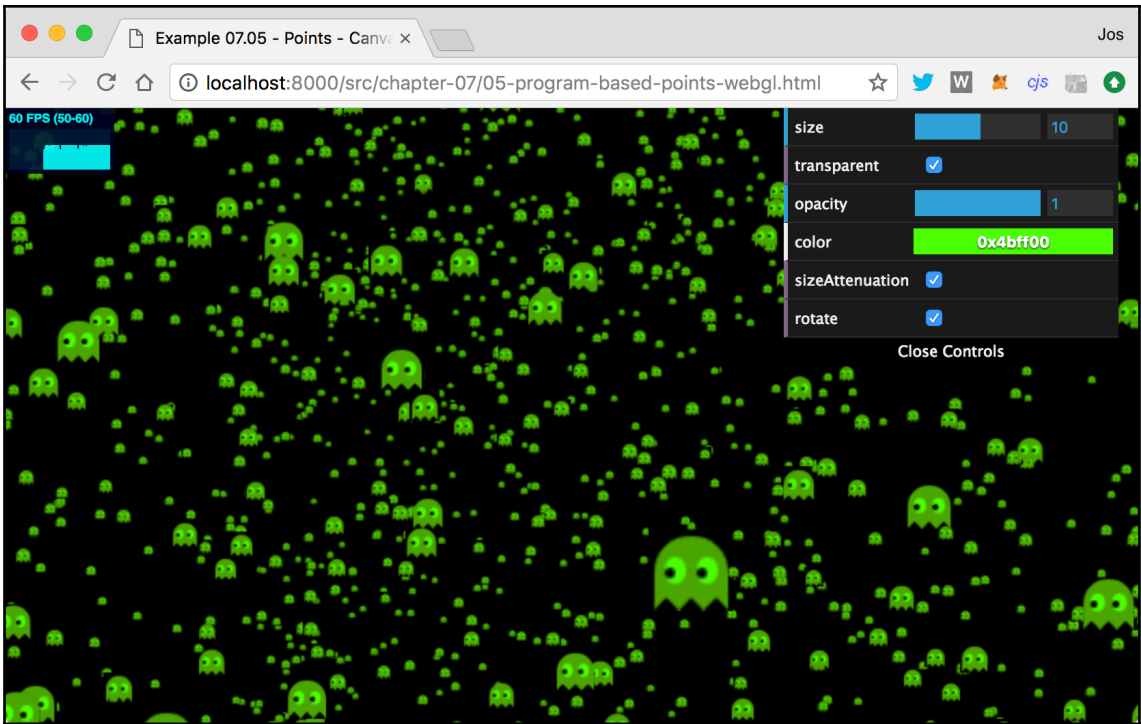


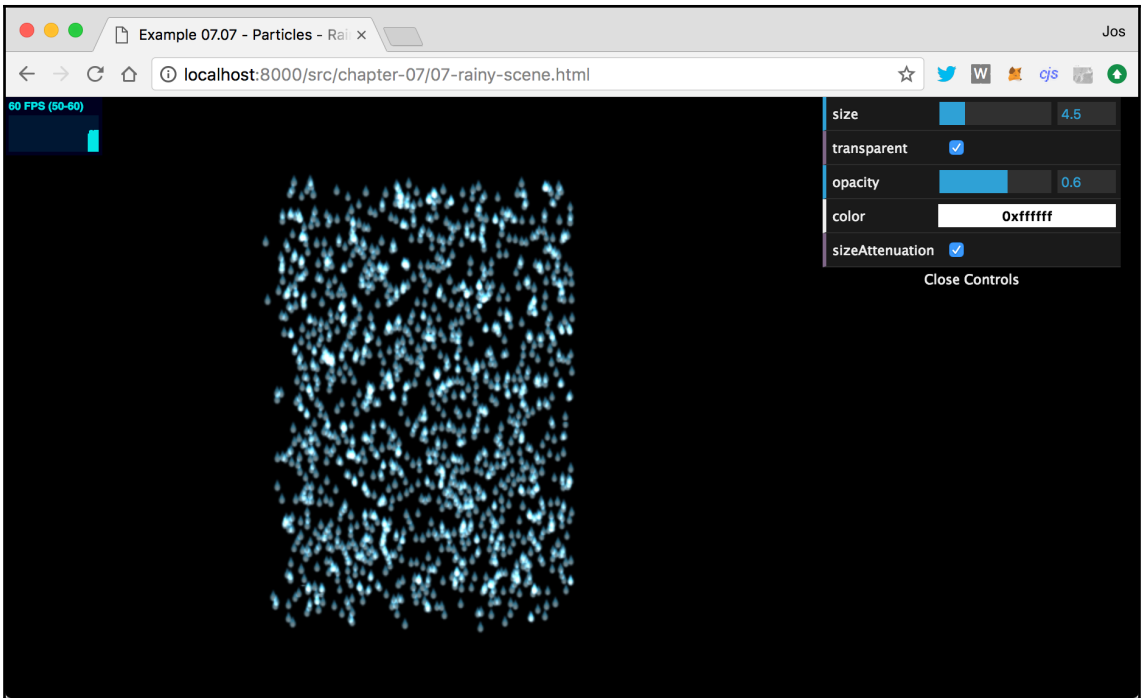


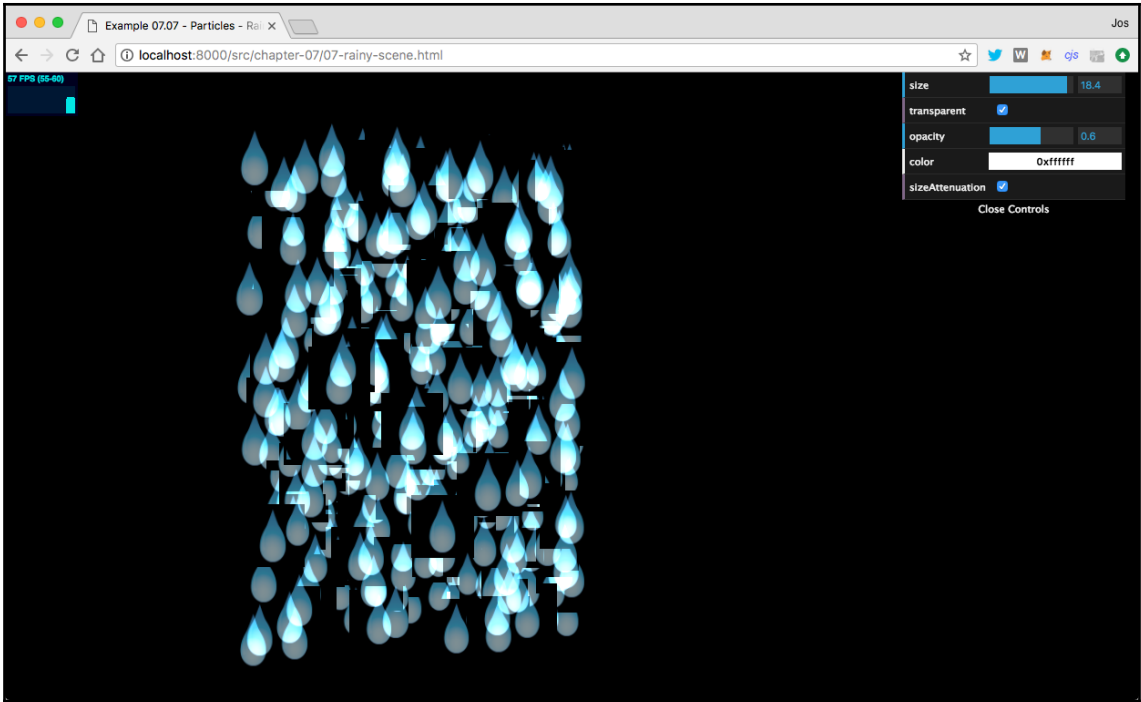


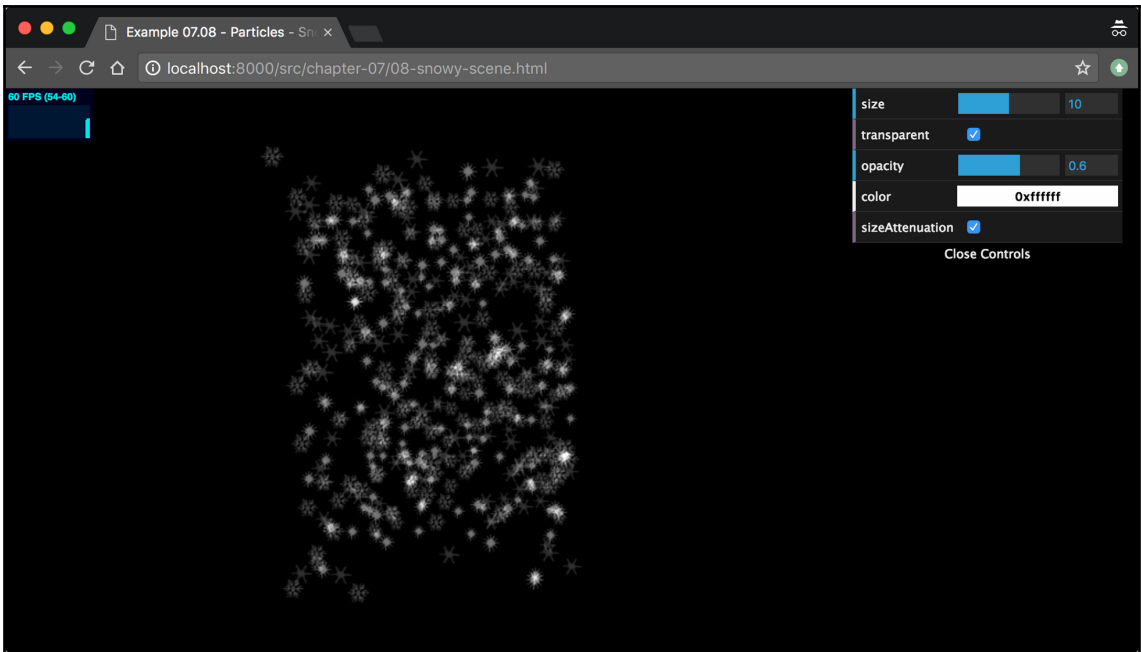
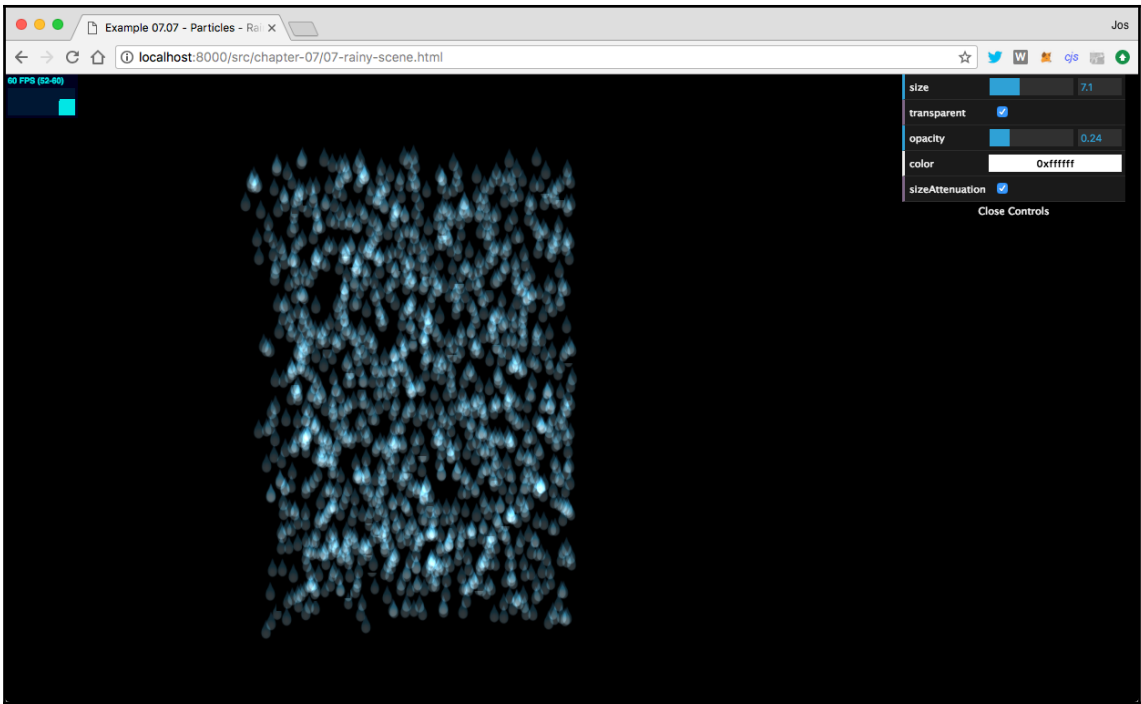


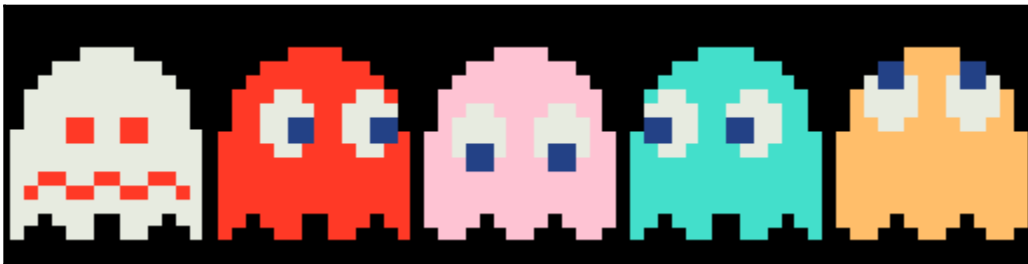
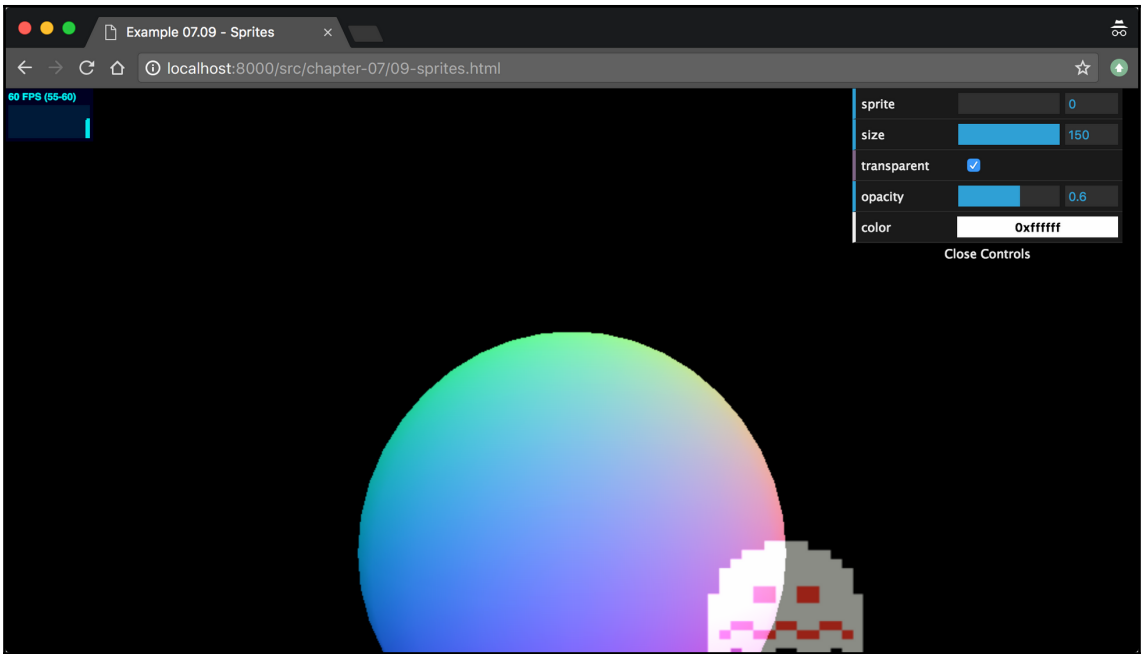


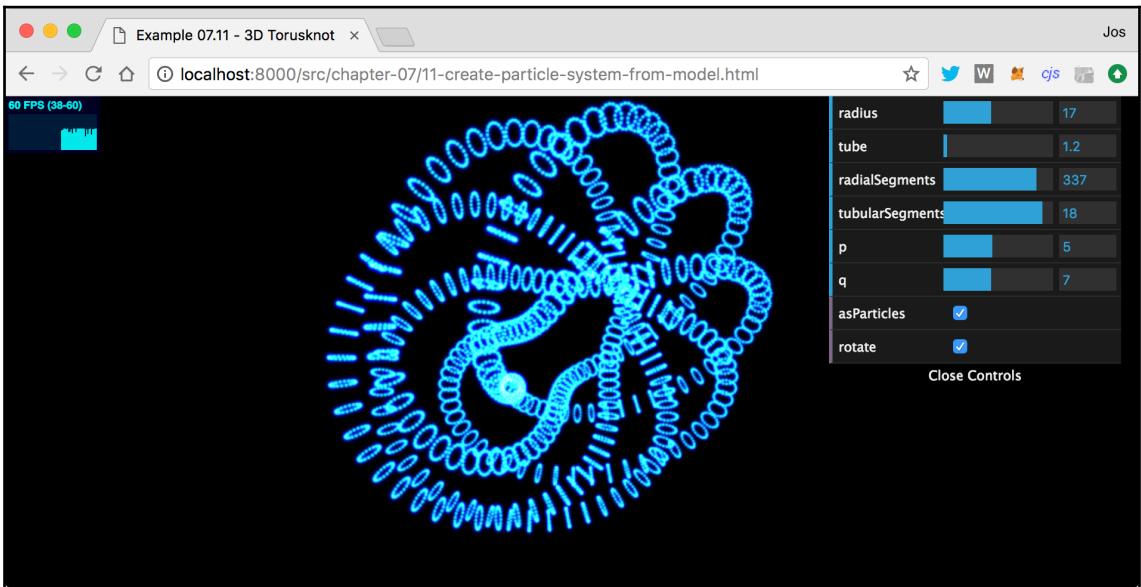
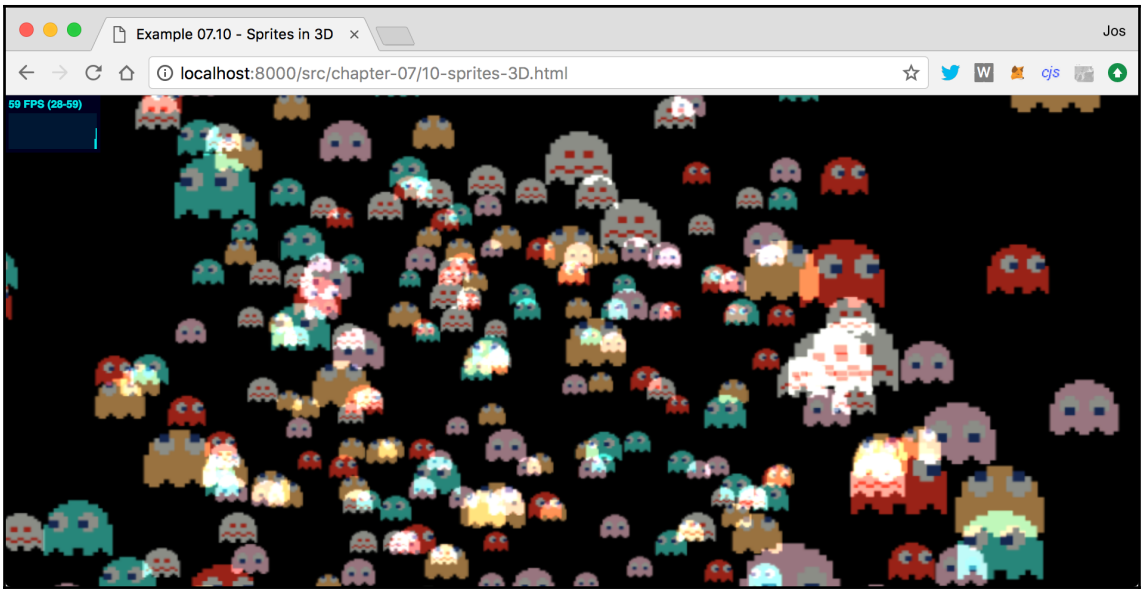


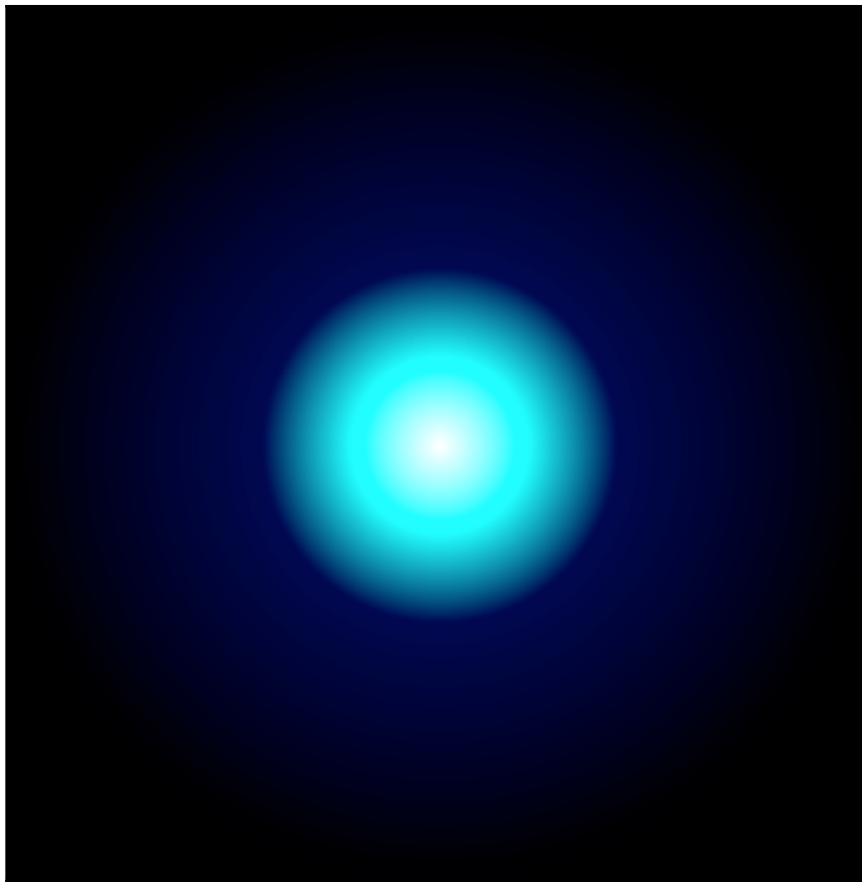




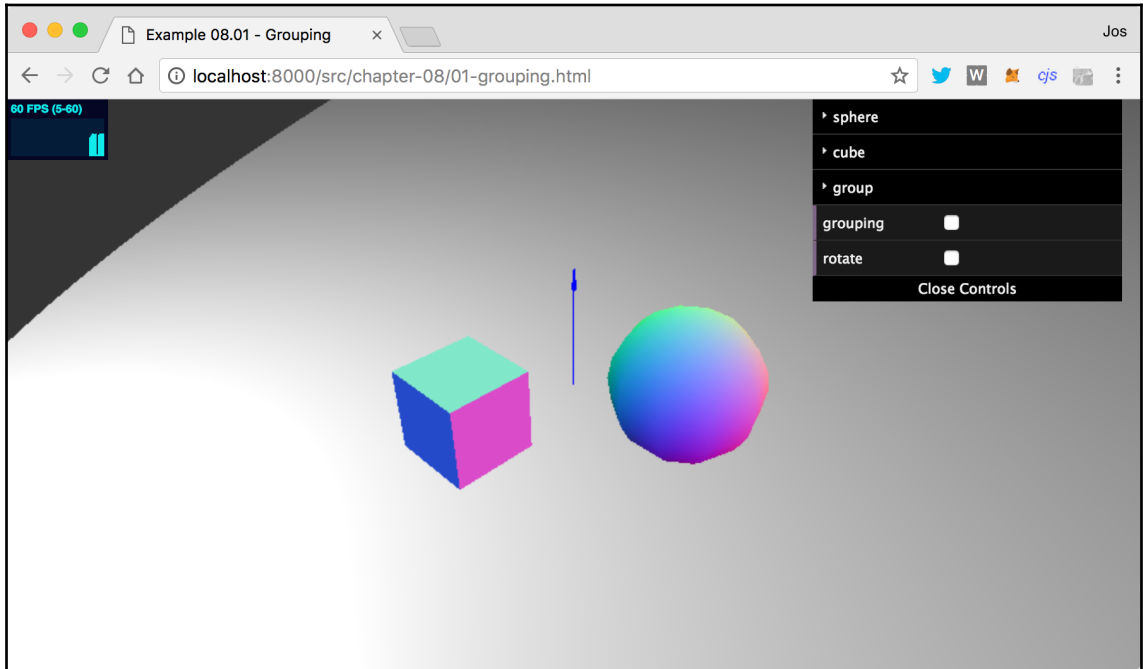


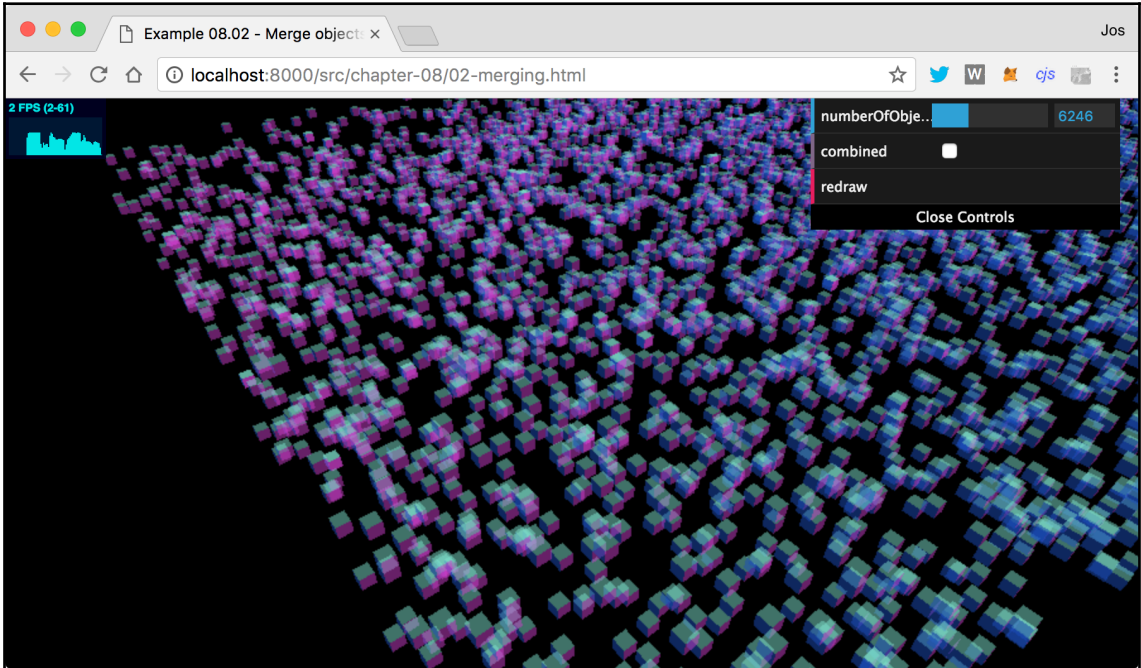
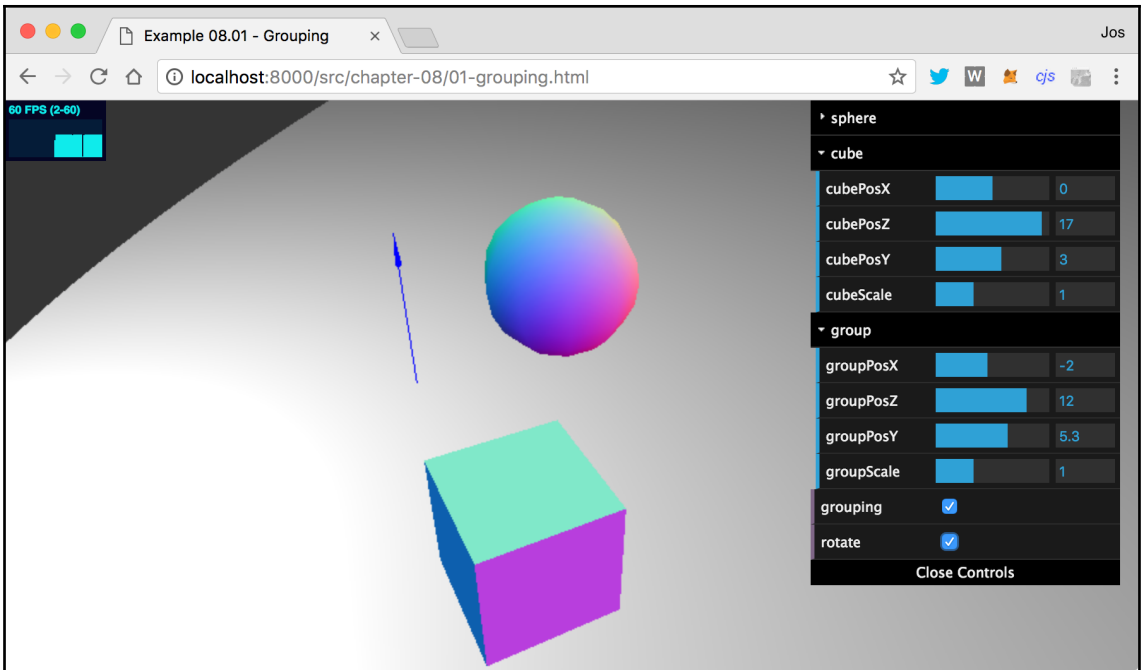


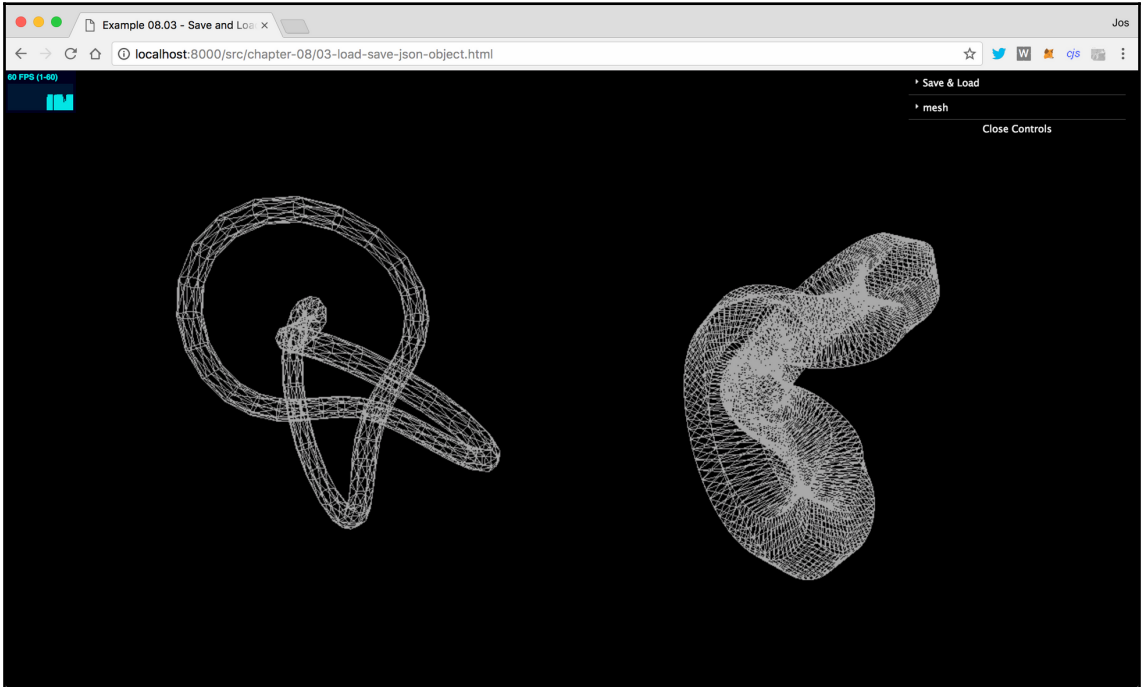
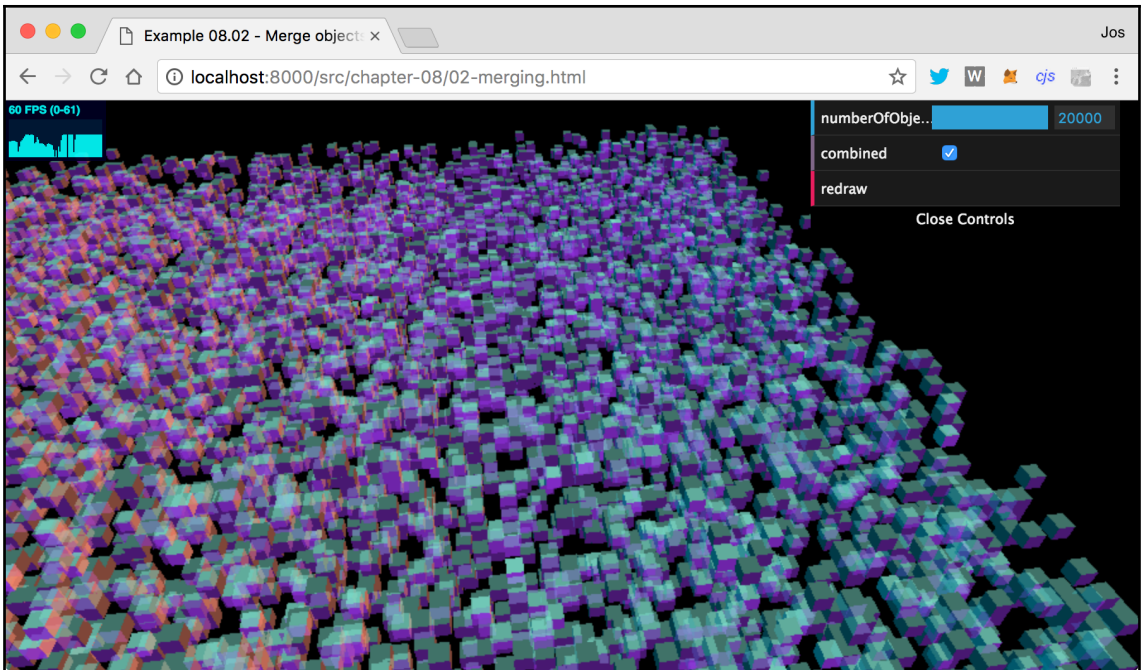


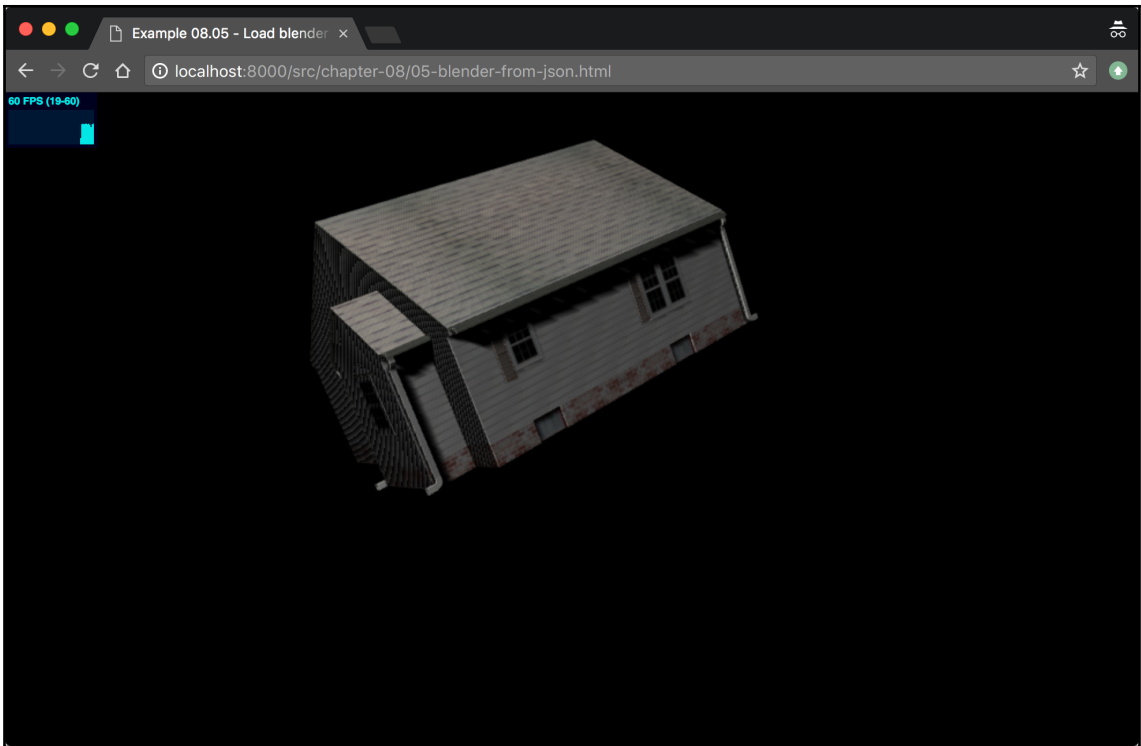
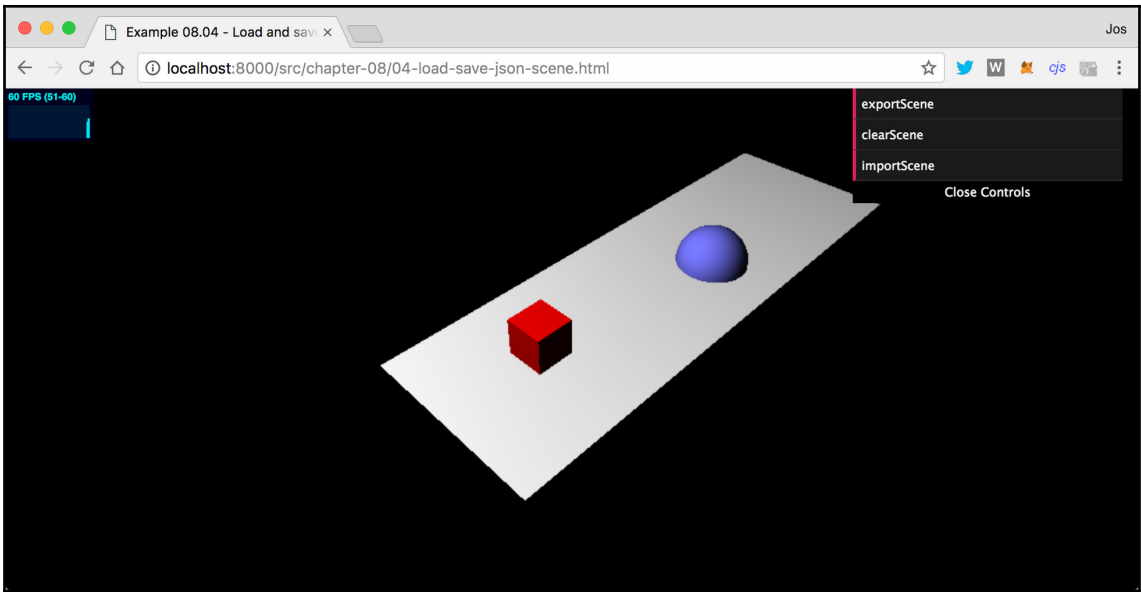


Chapter 8: Creating and Loading Advanced Meshes and Geometries

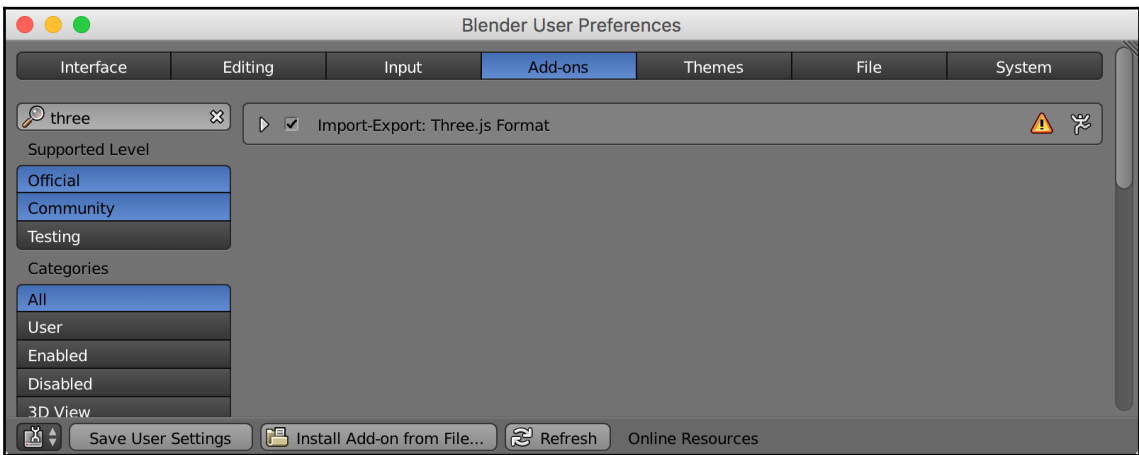


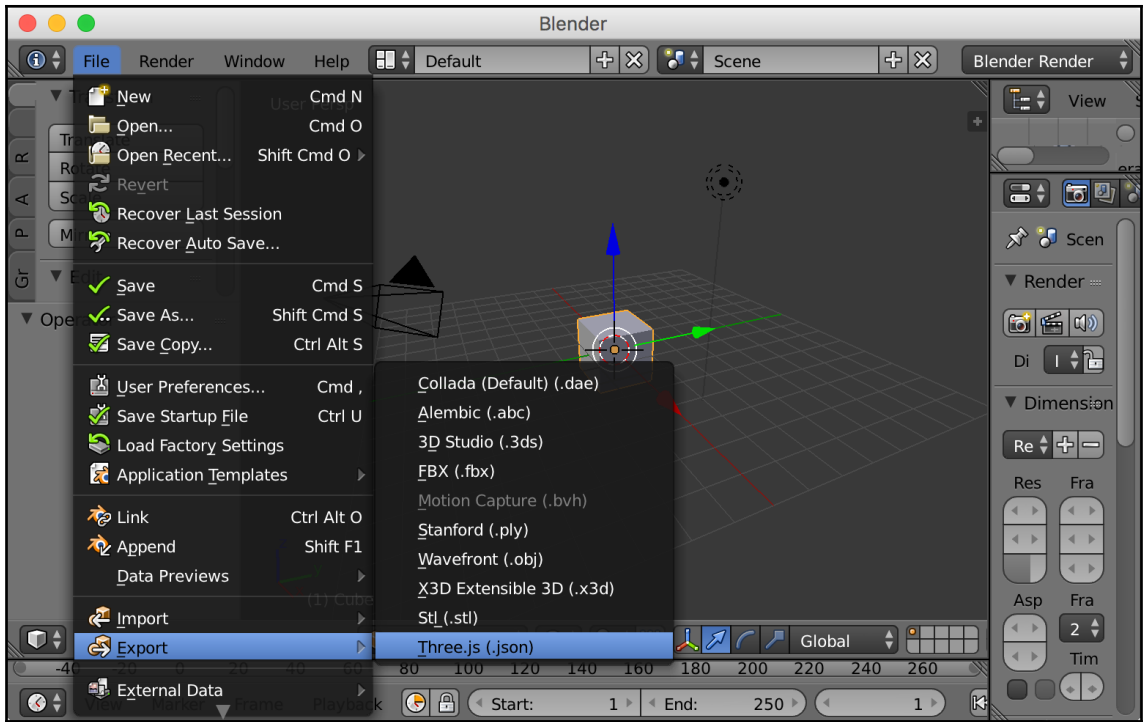


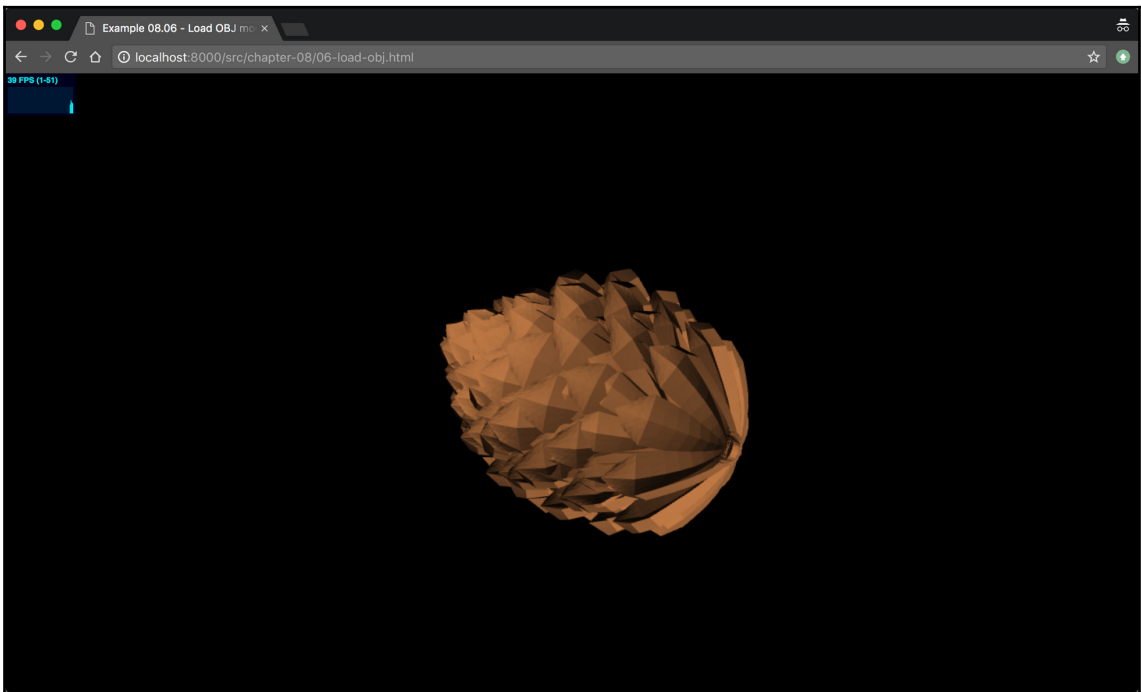
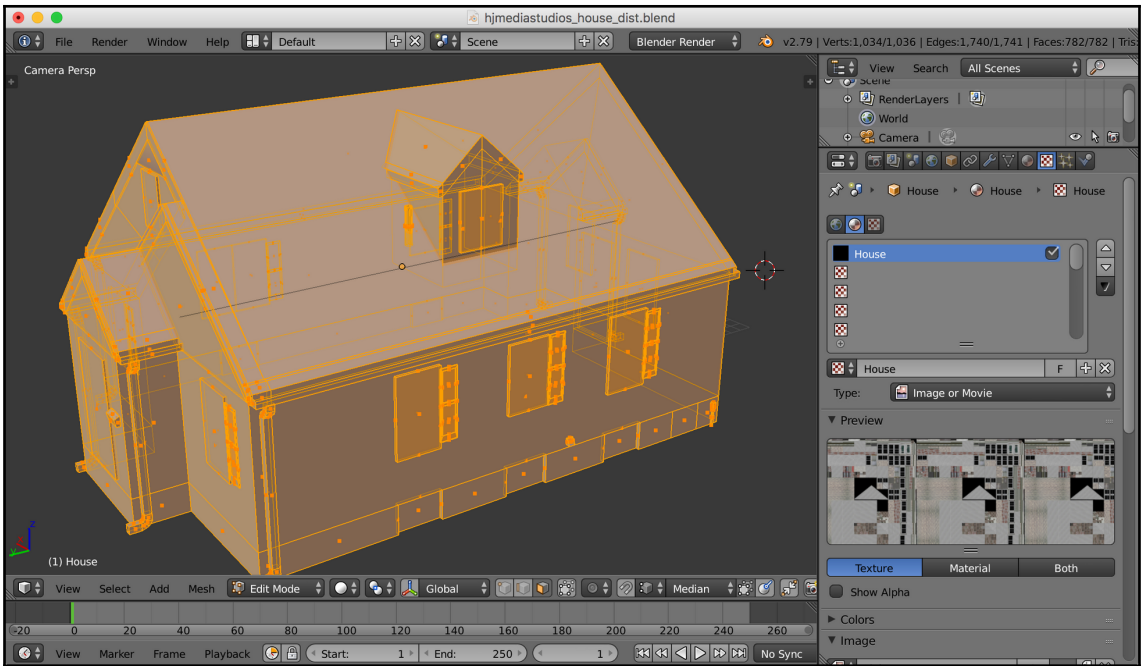


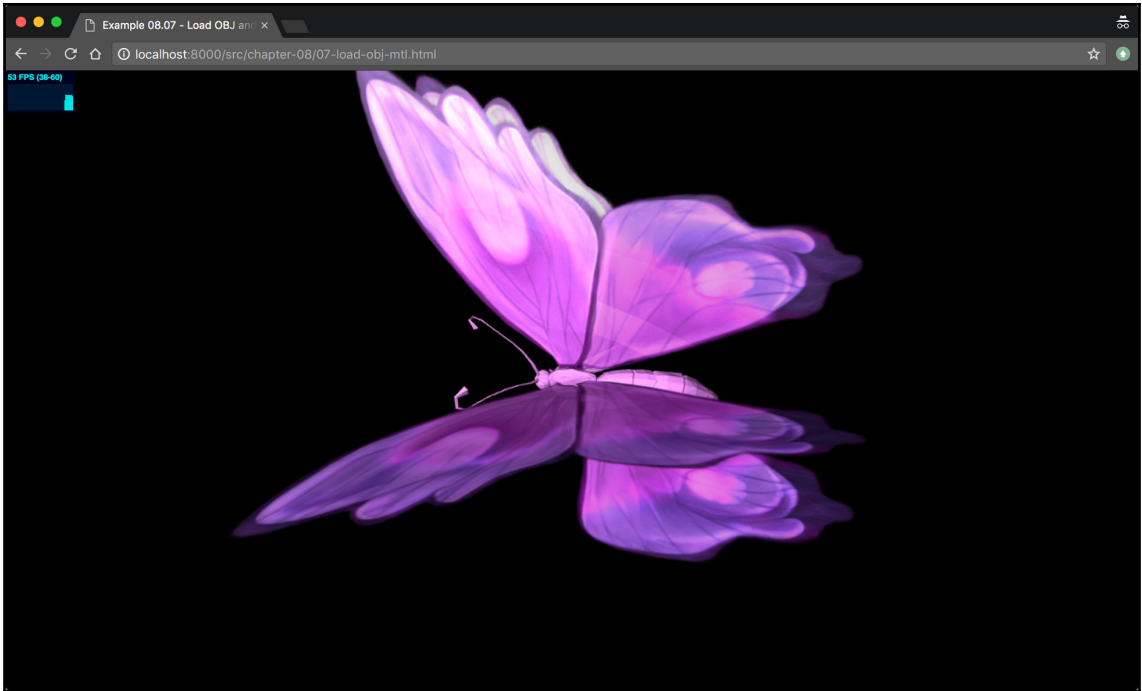


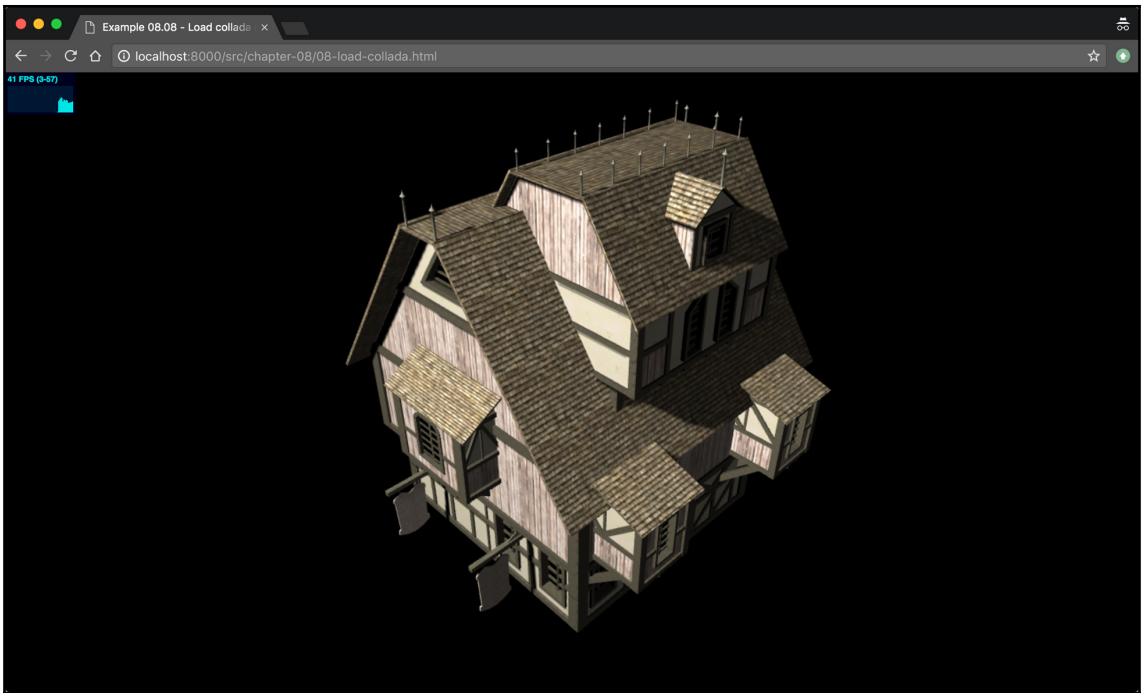
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→ addons ls -l | head
total 4176
drwxr-xr-x@ 20 jos  staff    680 Sep 11  2017 add_advanced_objects_menu
drwxr-xr-x@ 10 jos  staff    340 Sep 11  2017 add_advanced_objects_panels
drwxr-xr-x@ 13 jos  staff    442 Sep 11  2017 add_curve_extra_objects
-rw-r--r--@ 1 jos  staff  26581 Aug 18  2017 add_curve_ivygen.py
drwxr-xr-x@ 5 jos  staff    170 Sep 11  2017 add_curve_sapling
drwxr-xr-x@ 5 jos  staff    170 Sep 11  2017 add_mesh_BoltFactory
drwxr-xr-x@ 26 jos  staff    884 Sep 11  2017 add_mesh_extra_objects
-rw-r--r--@ 1 jos  staff  13097 Aug 18  2017 animation_add_corrective_shape_key.py
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→ addons
```

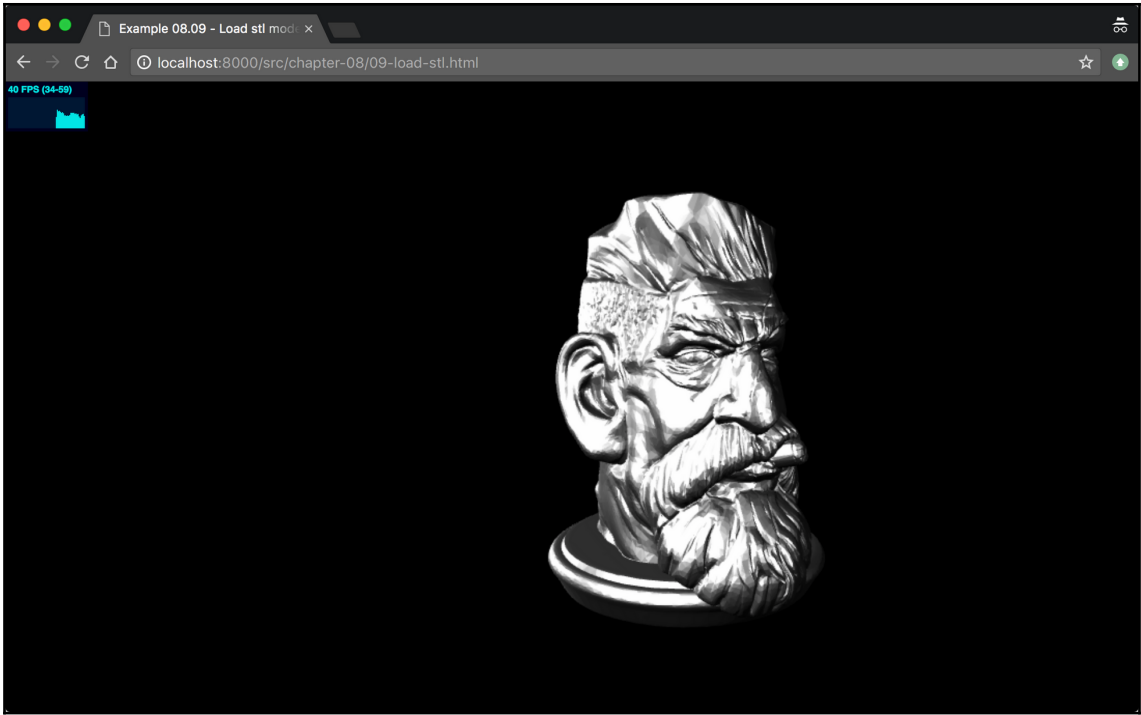


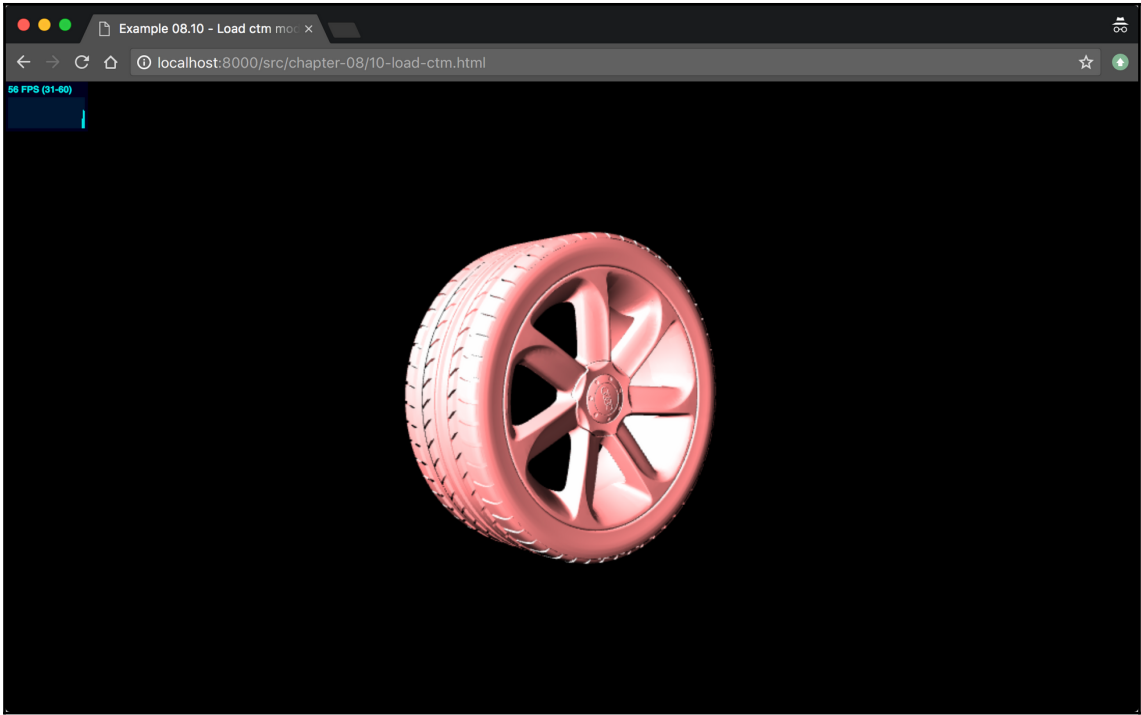


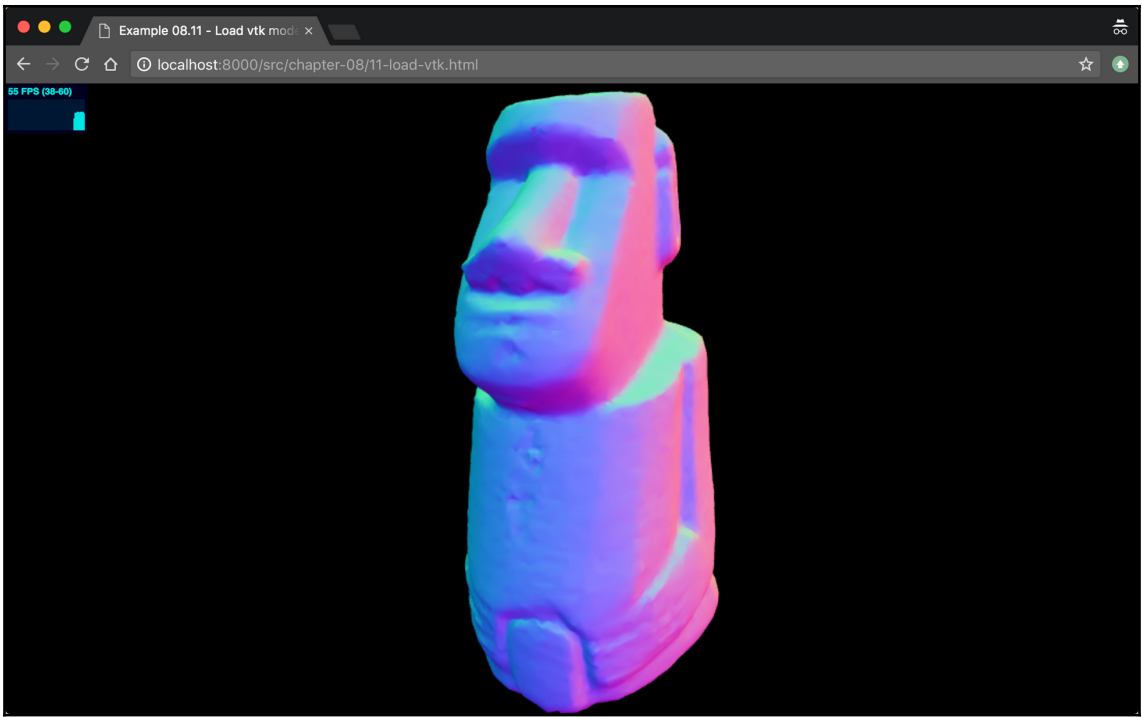


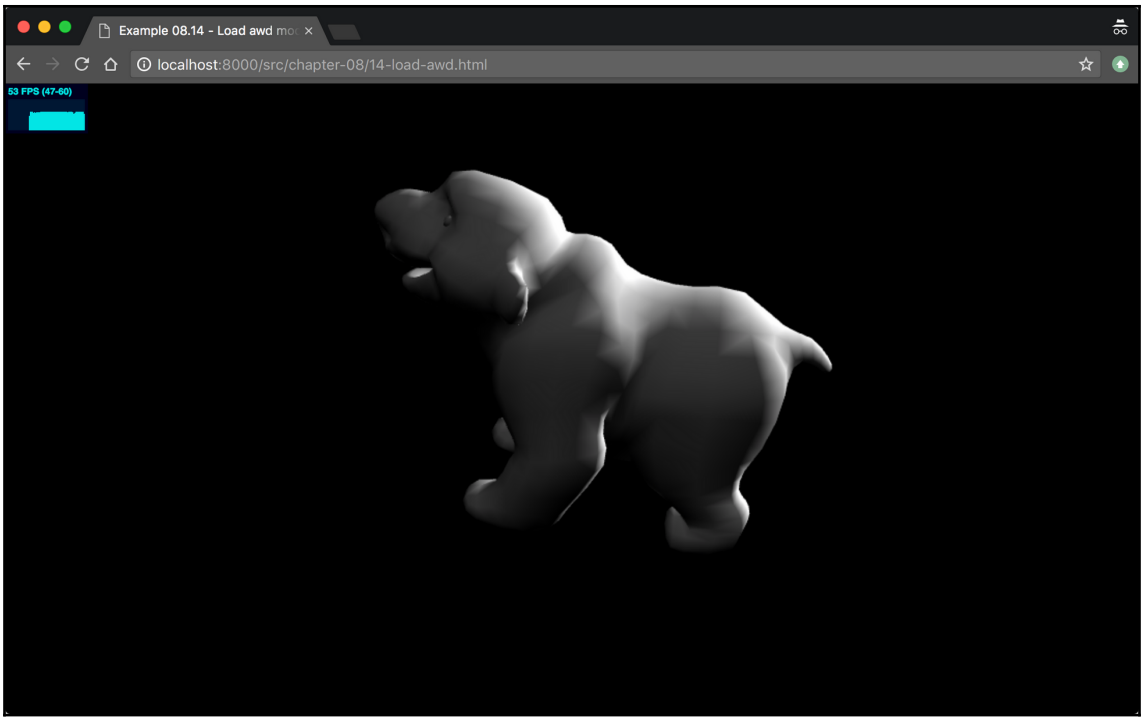


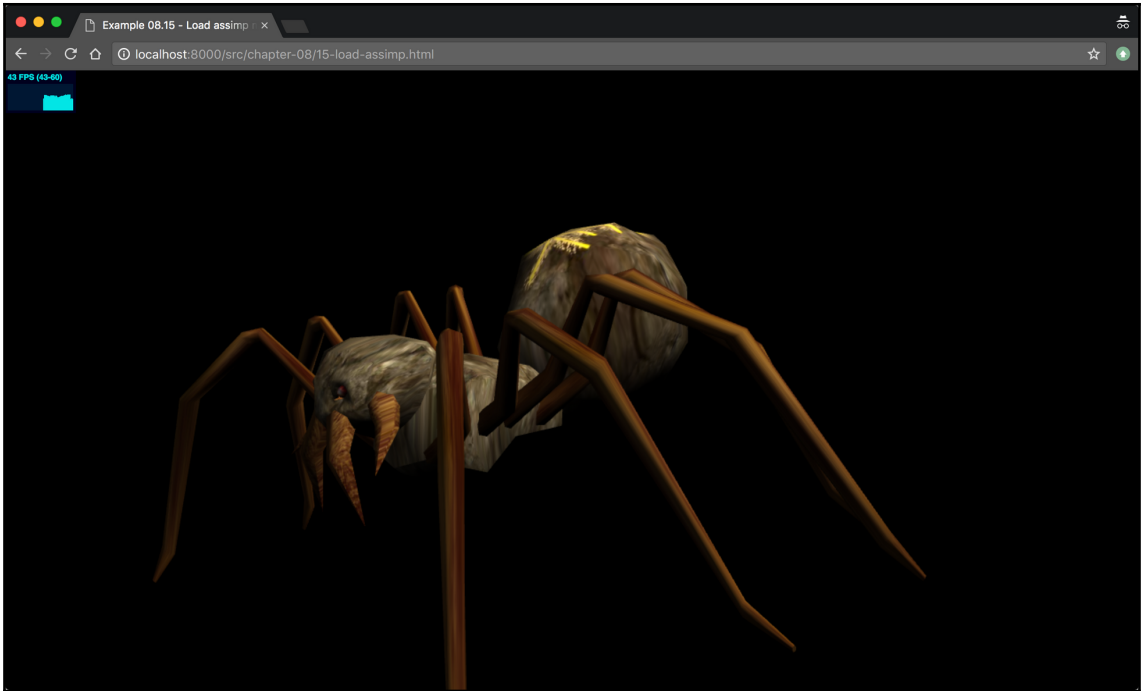


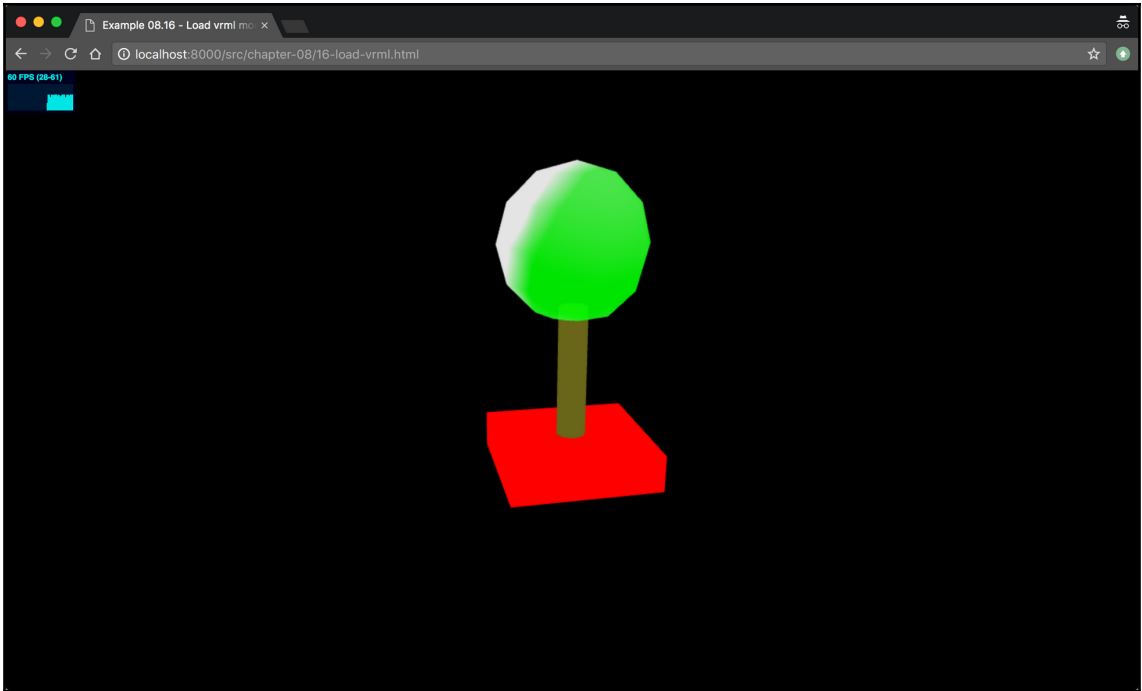


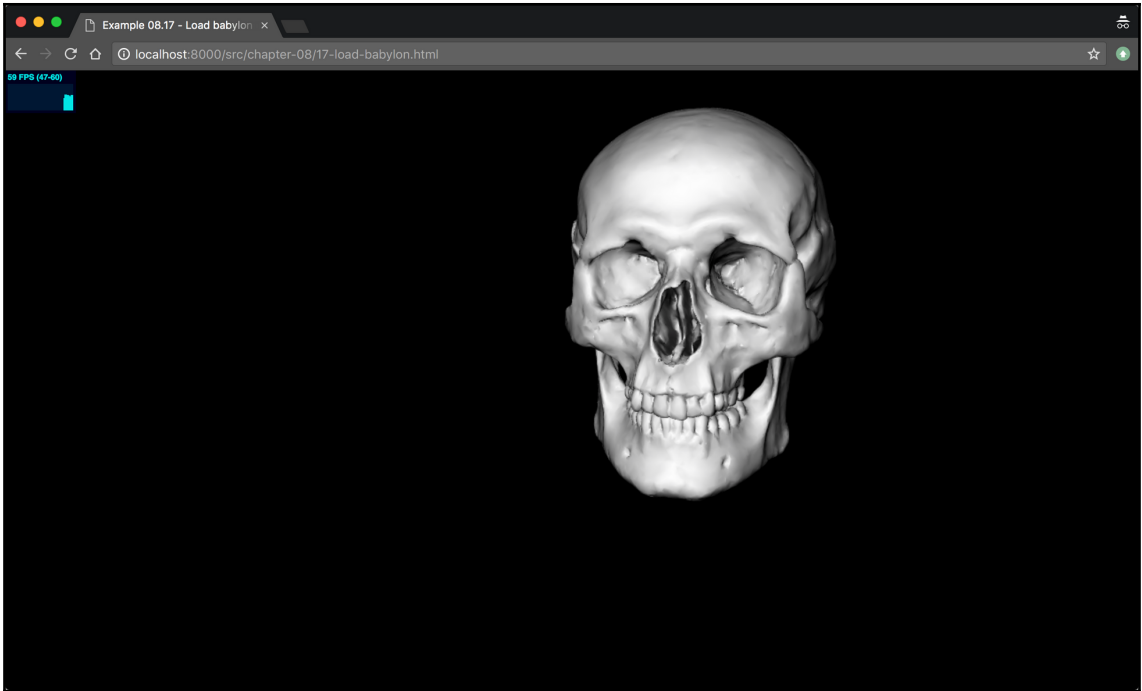


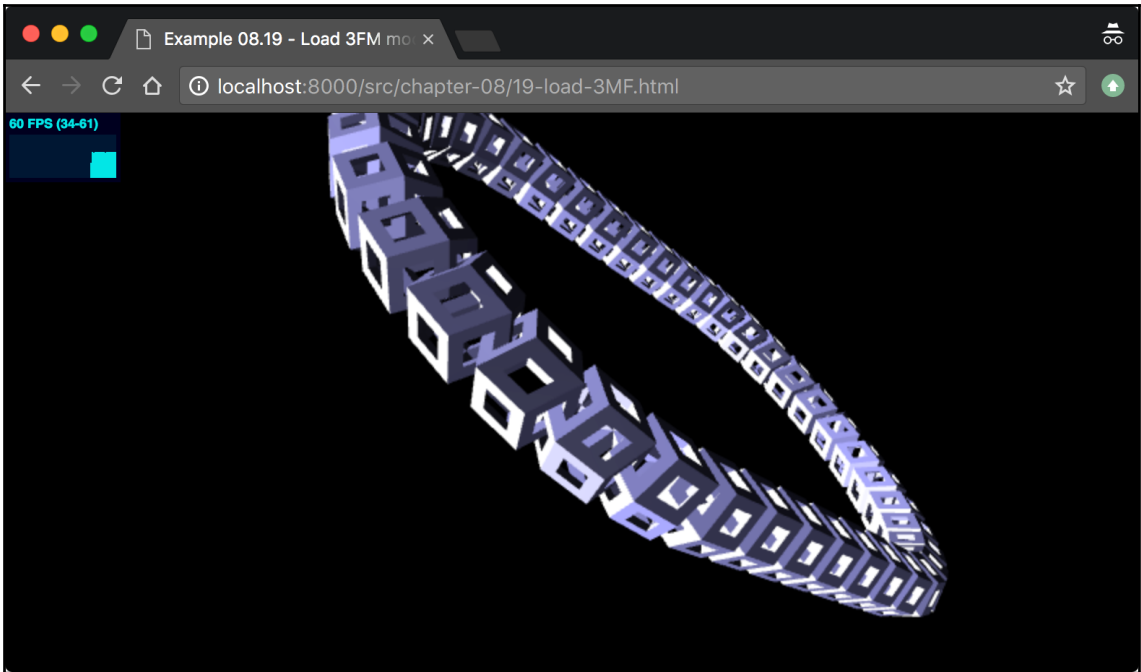
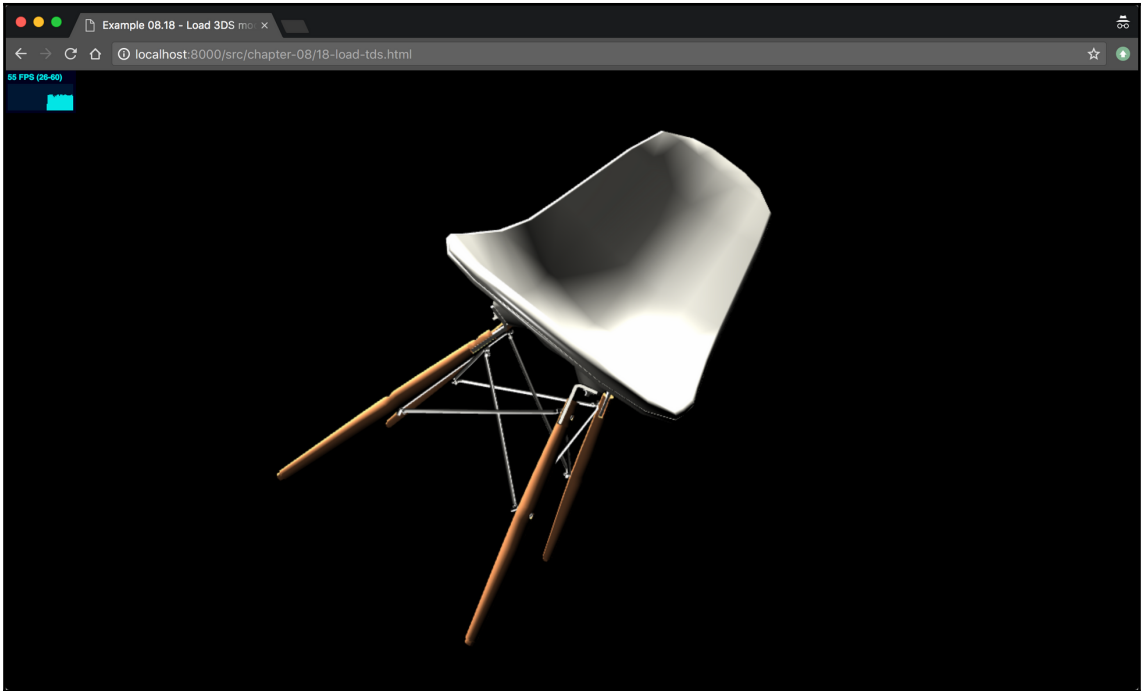


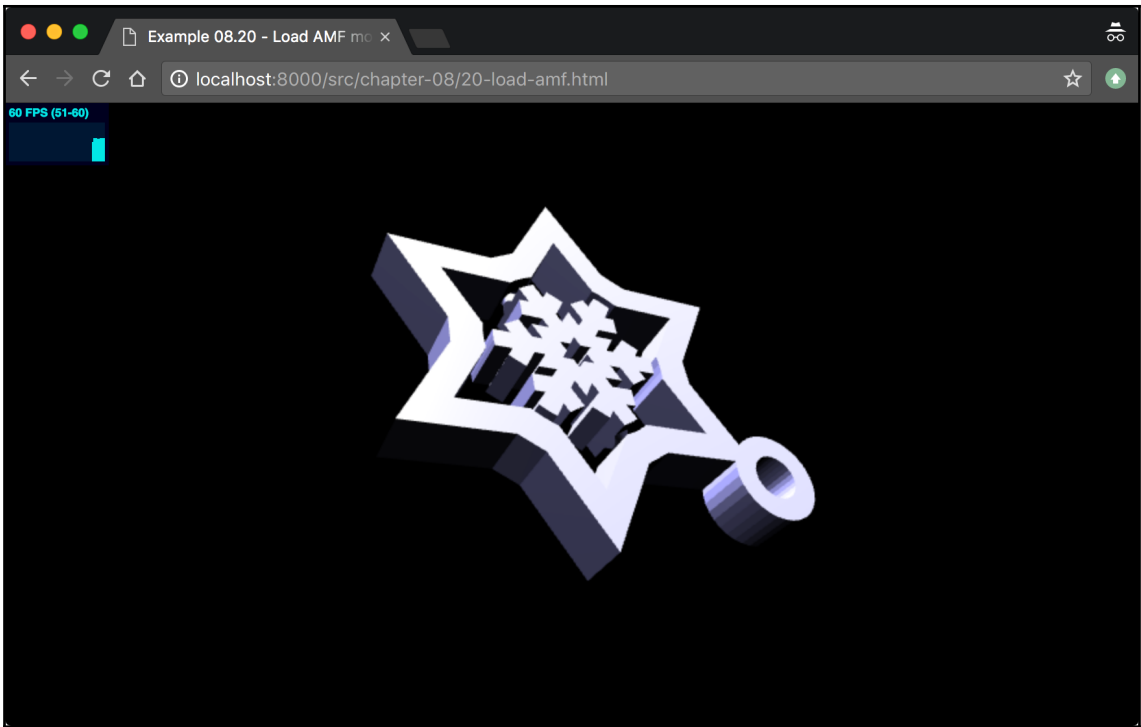


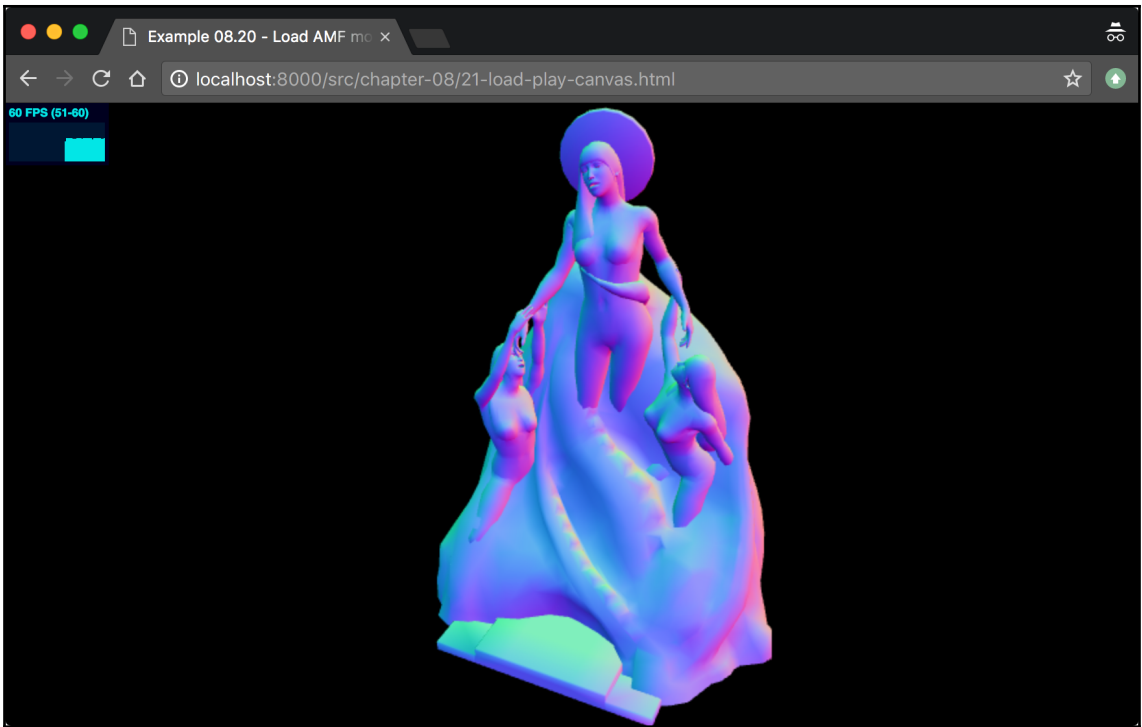


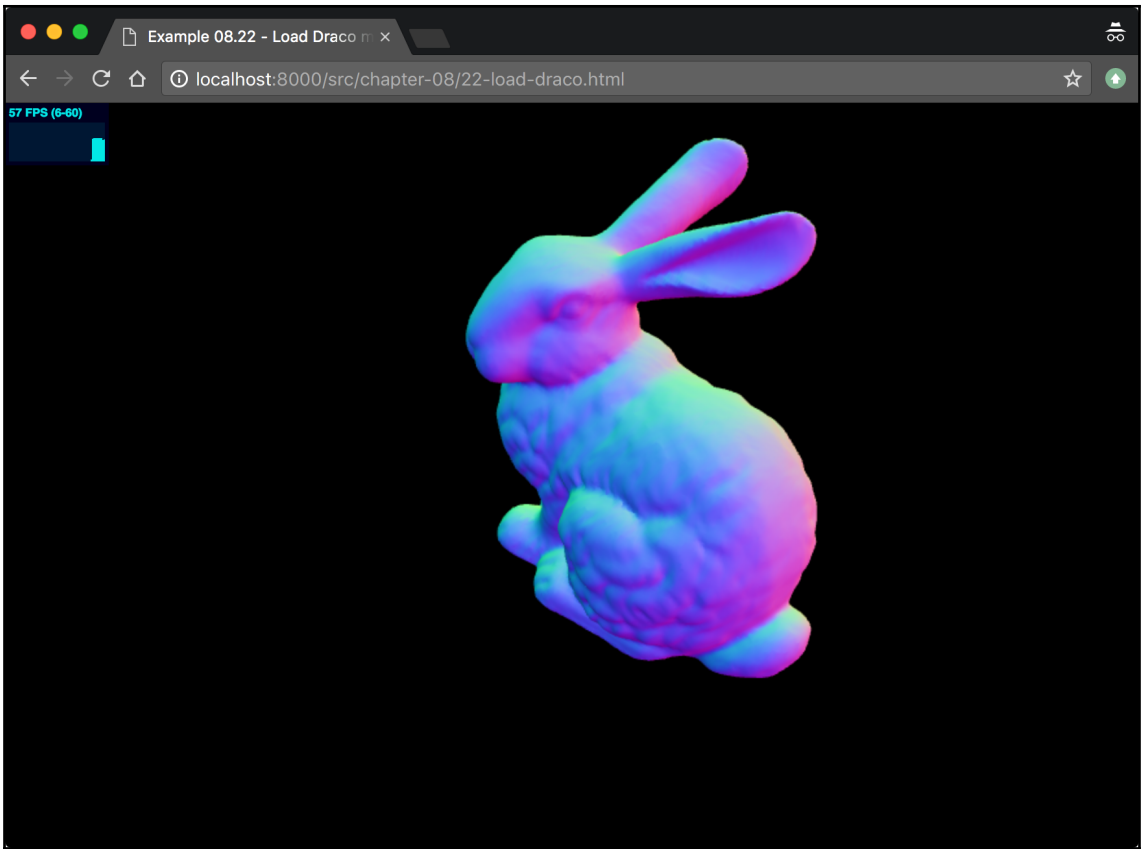


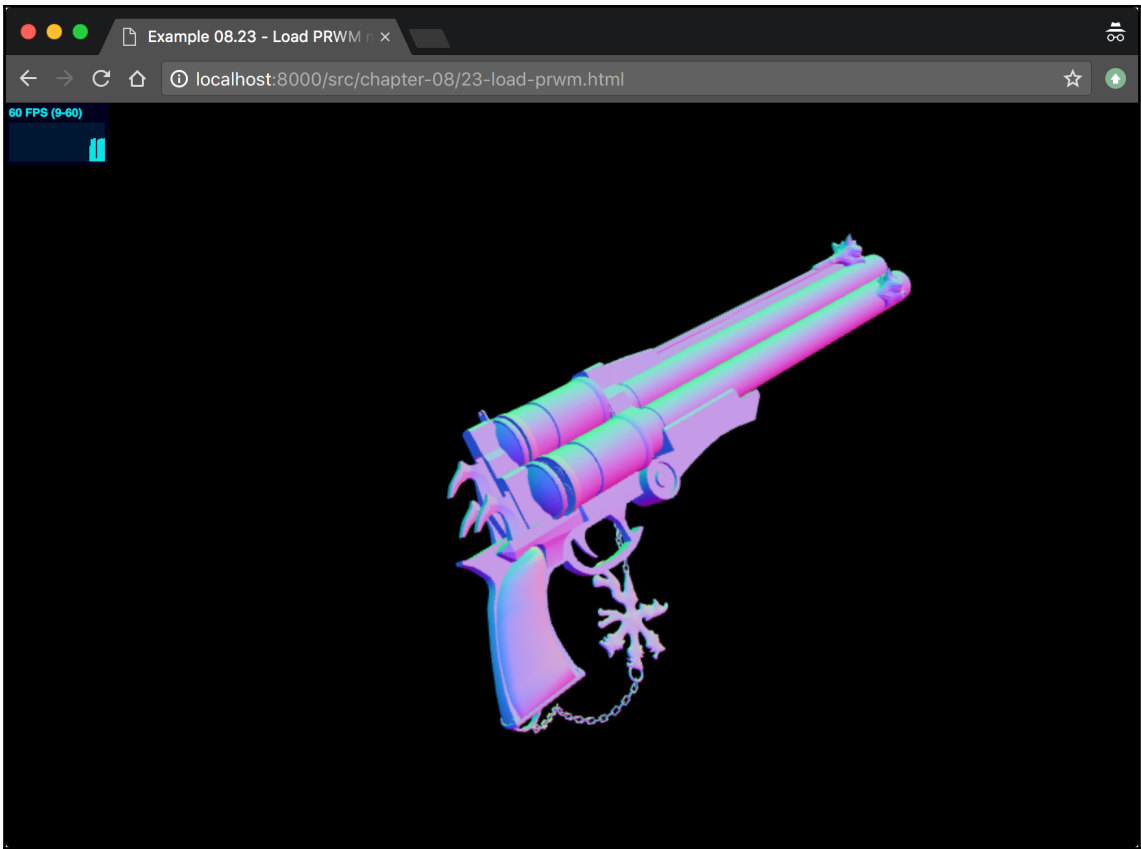


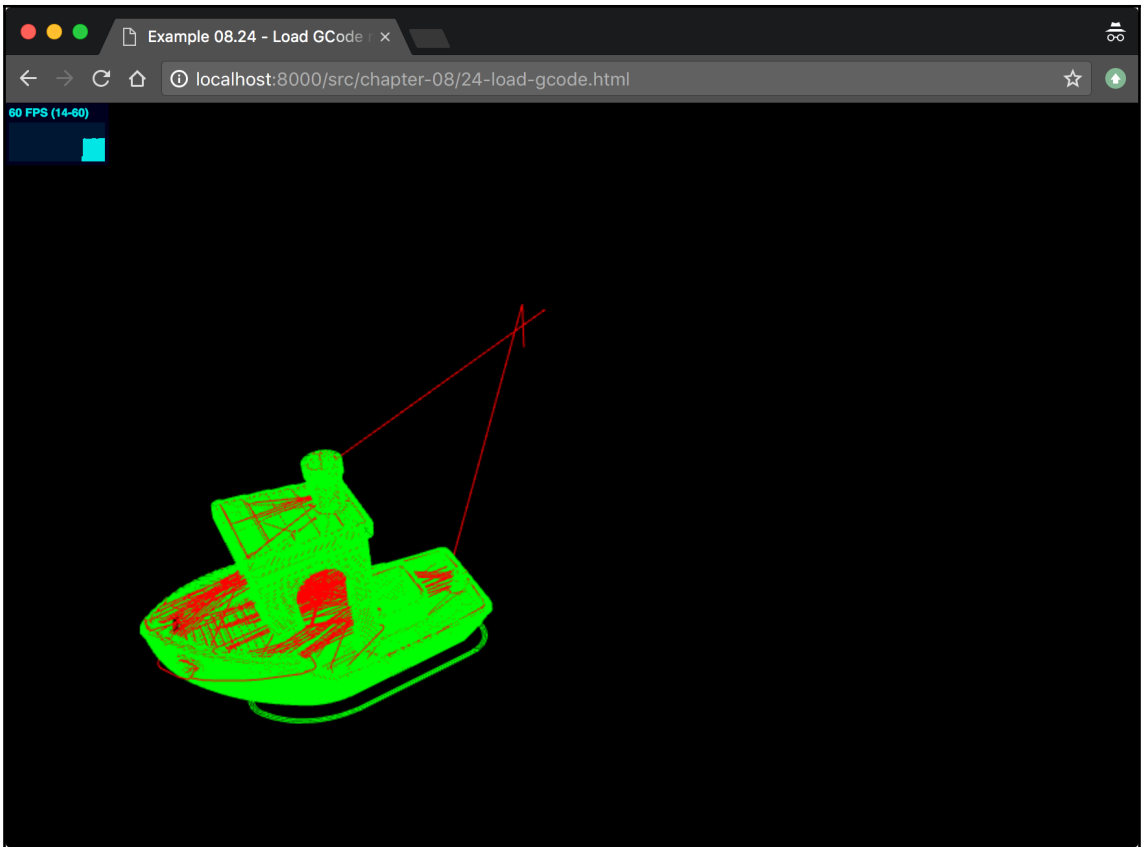


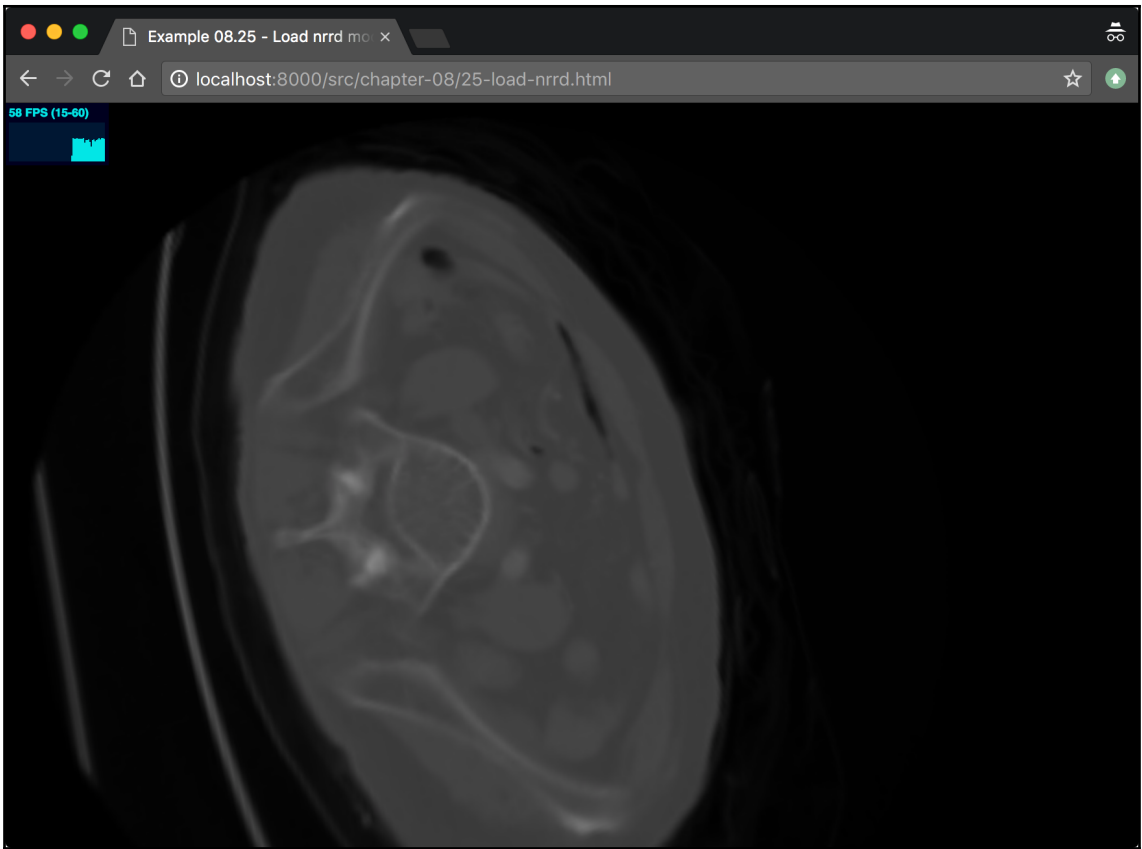


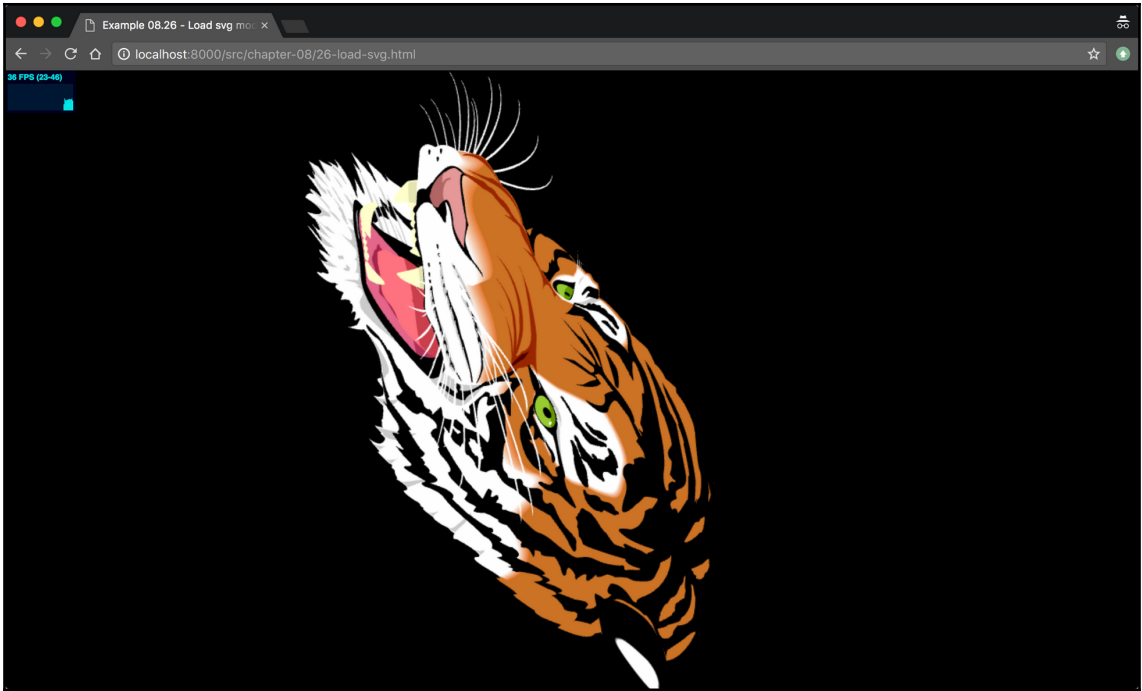


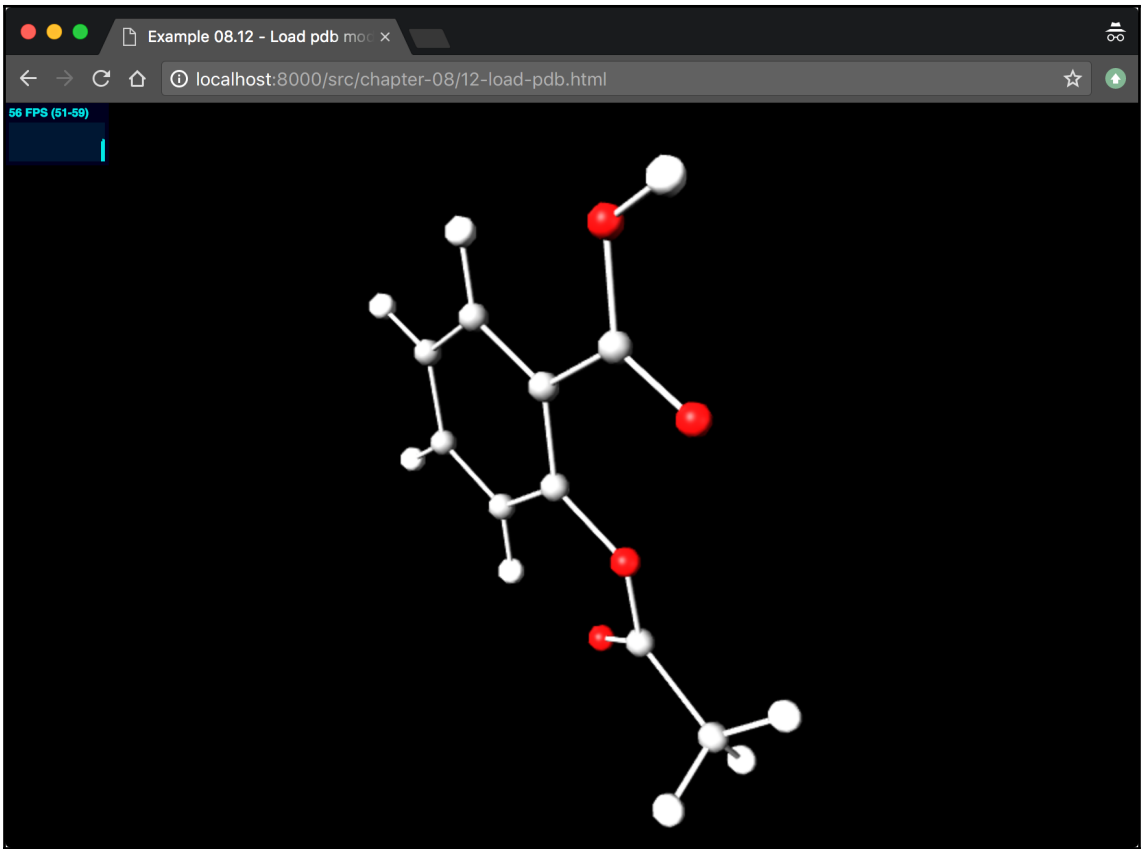


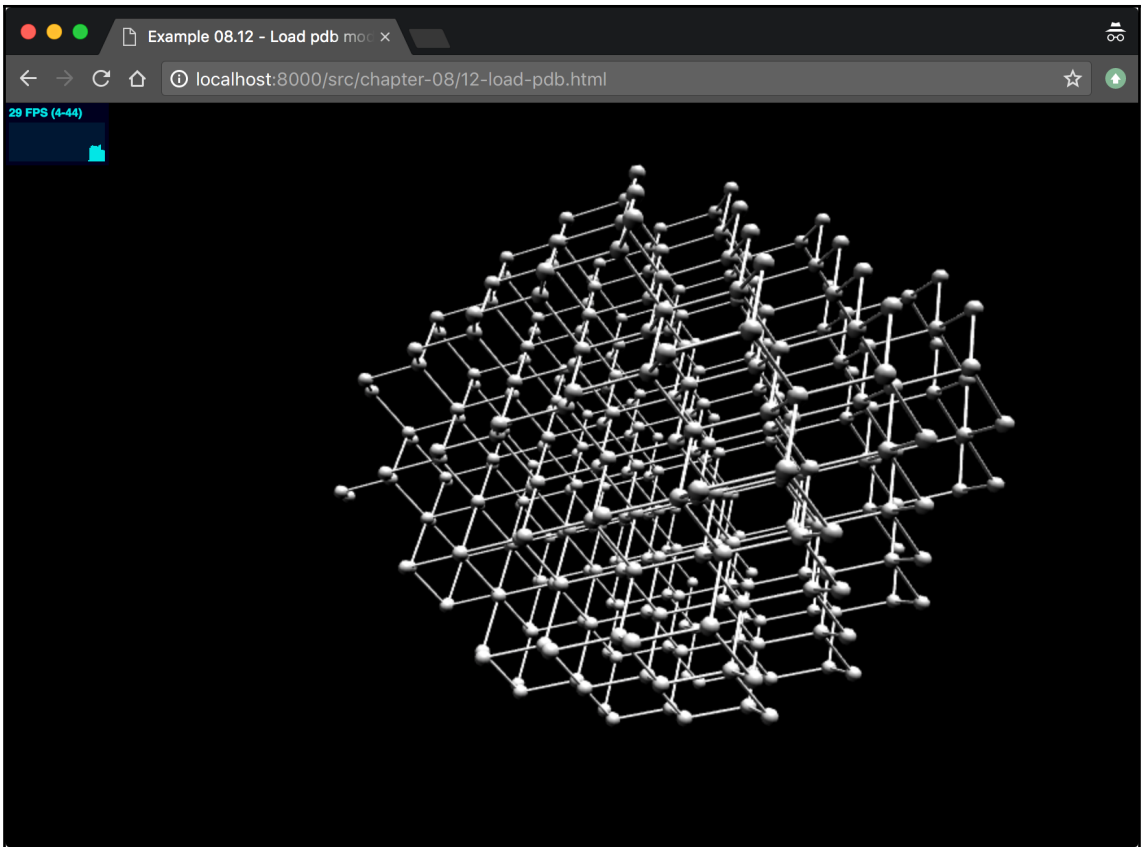


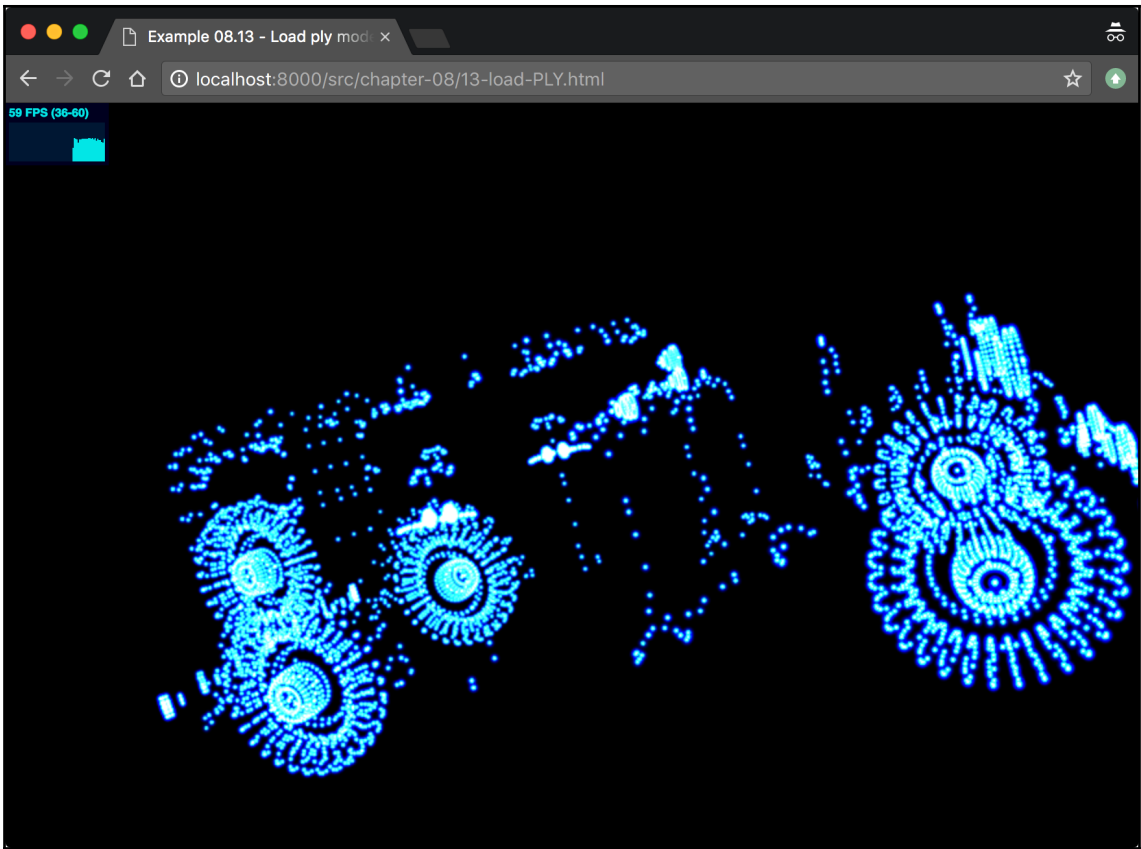




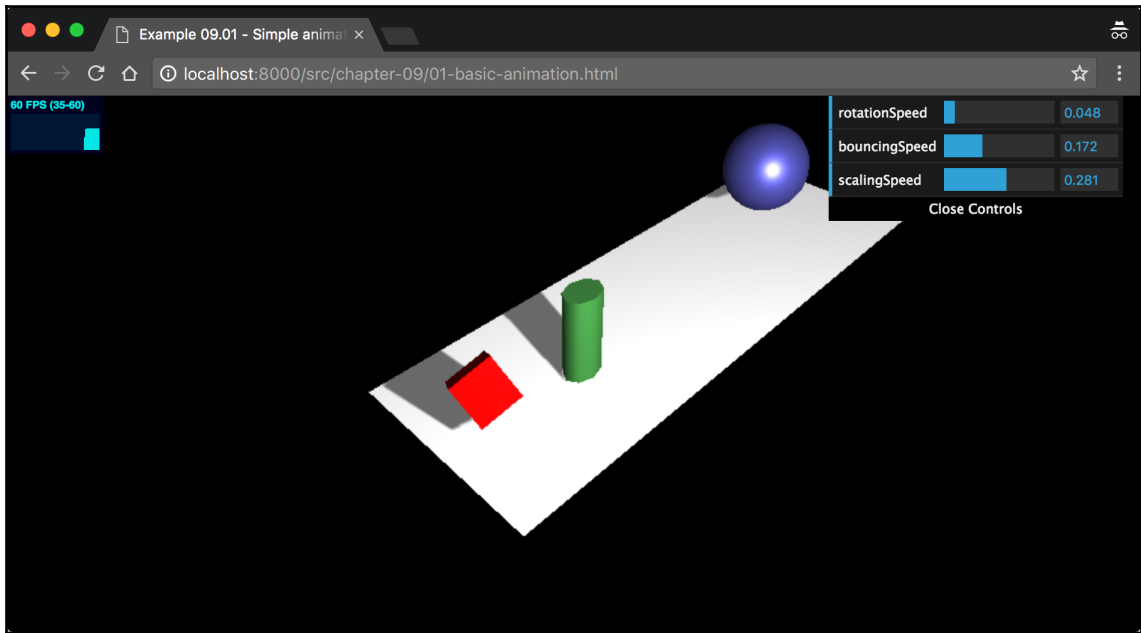




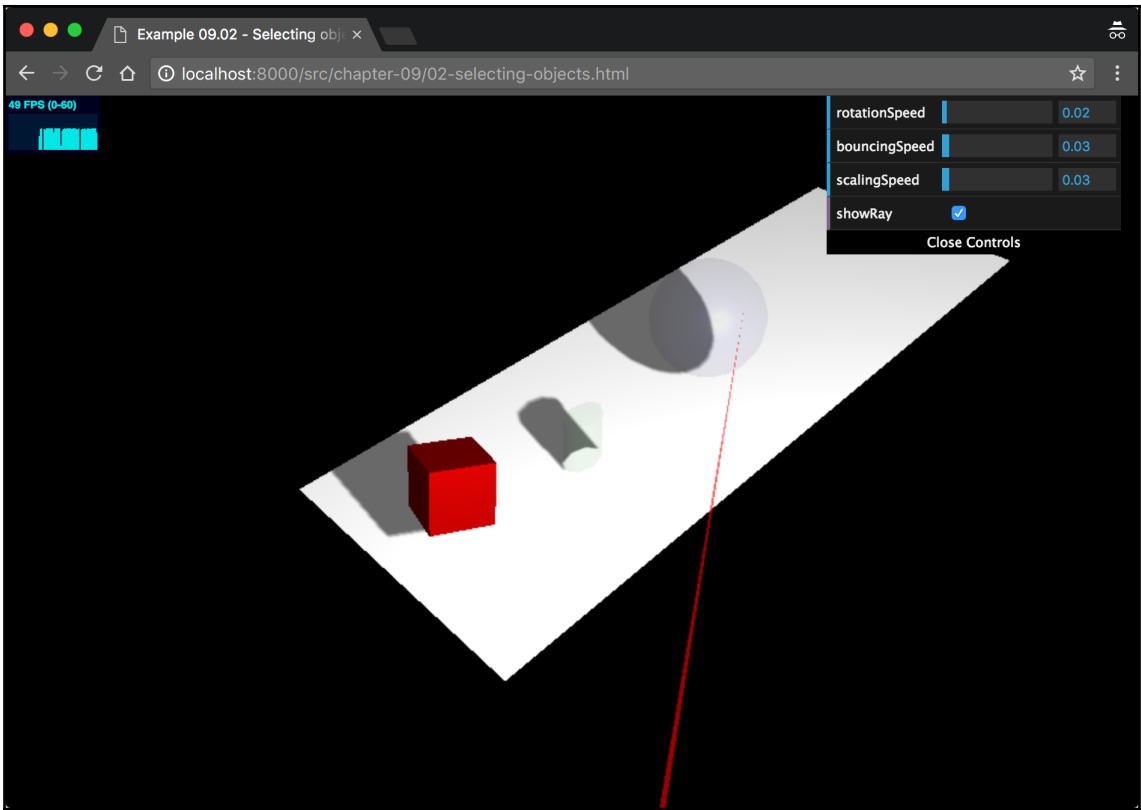




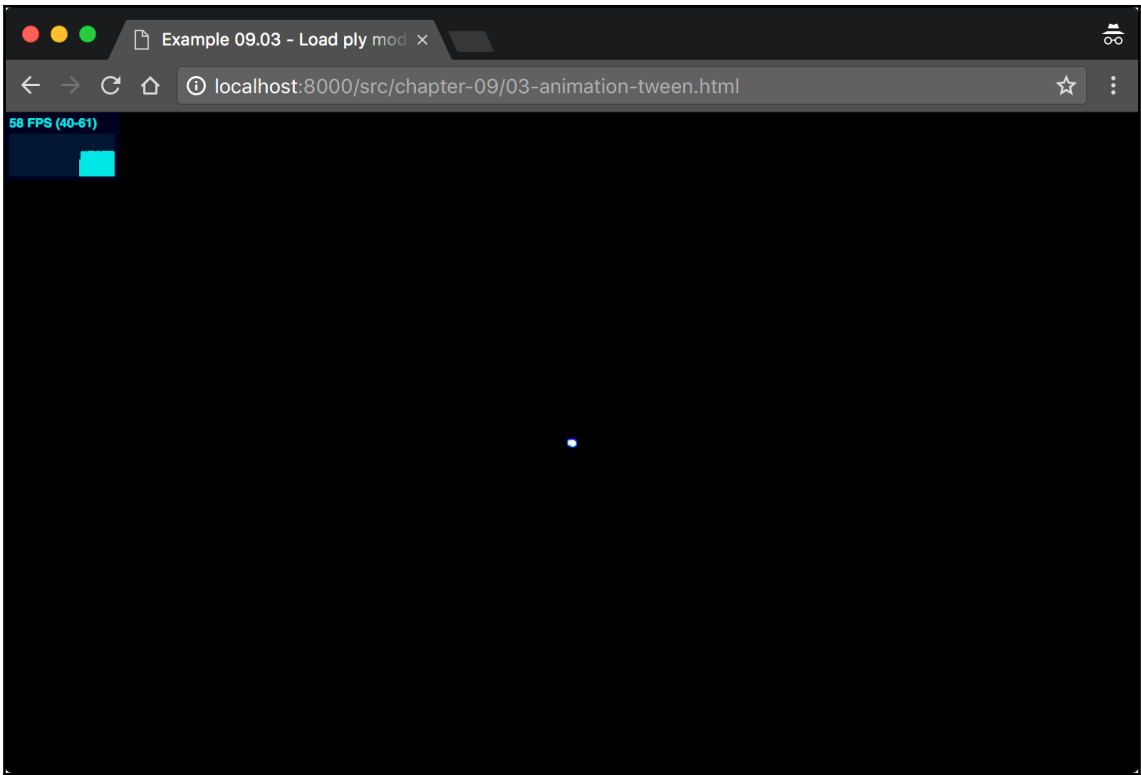
Chapter 9: Animations and Moving the Camera

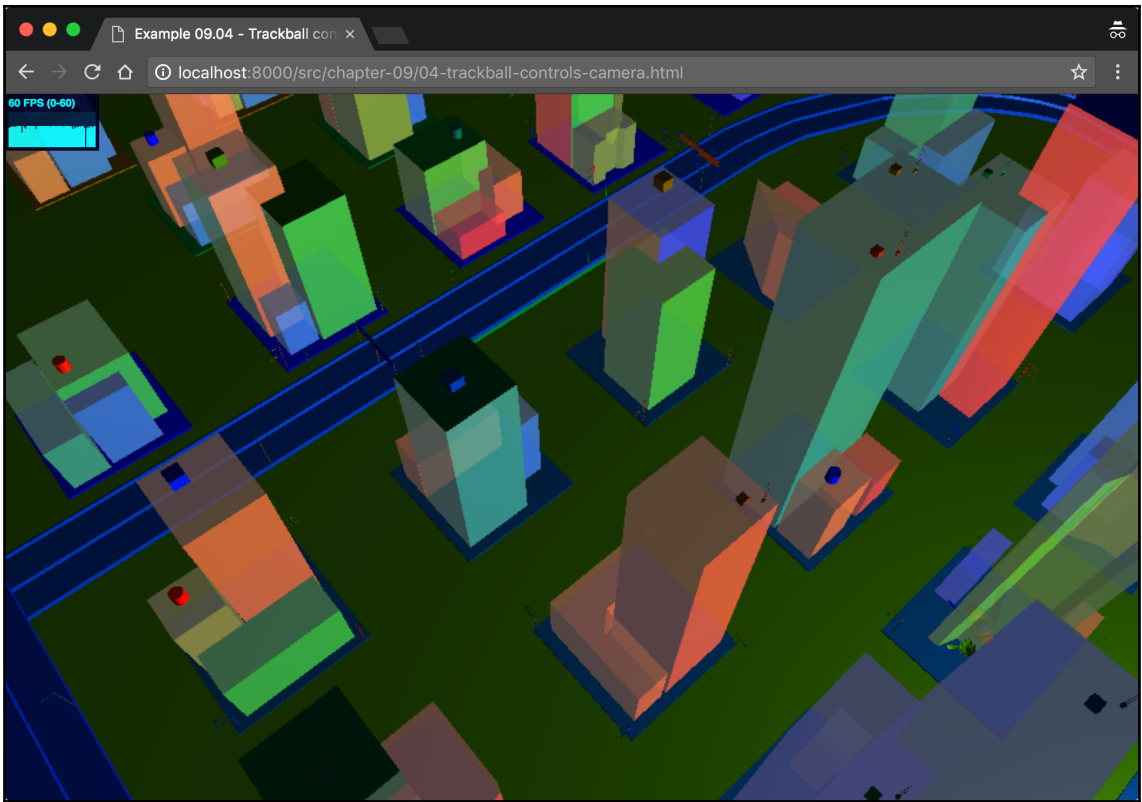


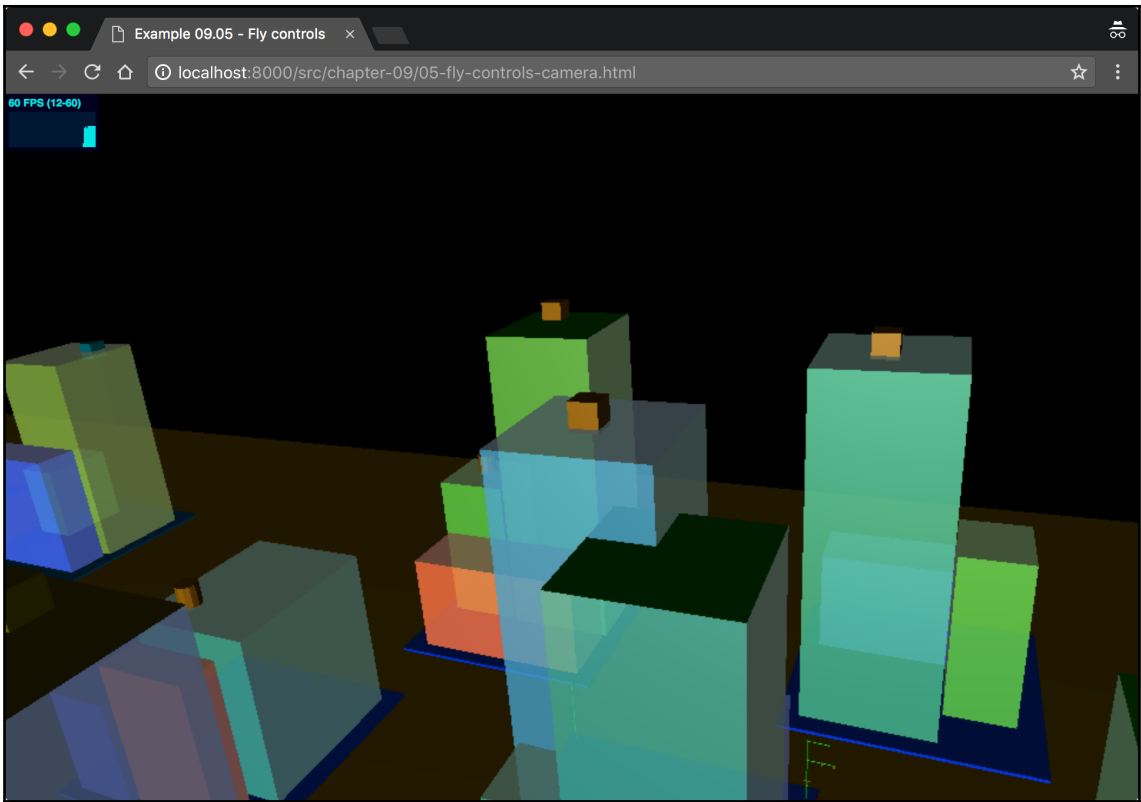
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09-02.js:123
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  ▶ object: Mesh {uuid: "19E6C6A6-5DA3-436C-B42E-63A87568E680", name: "", type: "Mesh", parent: Scene, children: Array(0), ...}
  ▶ point: Vector3 {x: -0.2910410329675761, y: -6.669043305314233, z: 1.8774922991090282}
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  ▶ __proto__: Object
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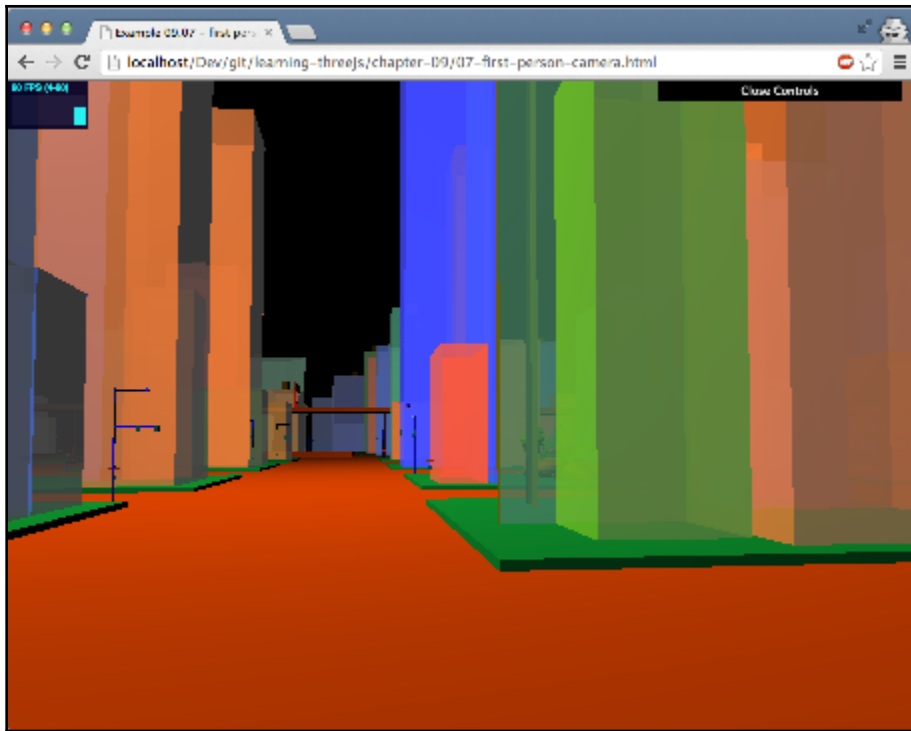


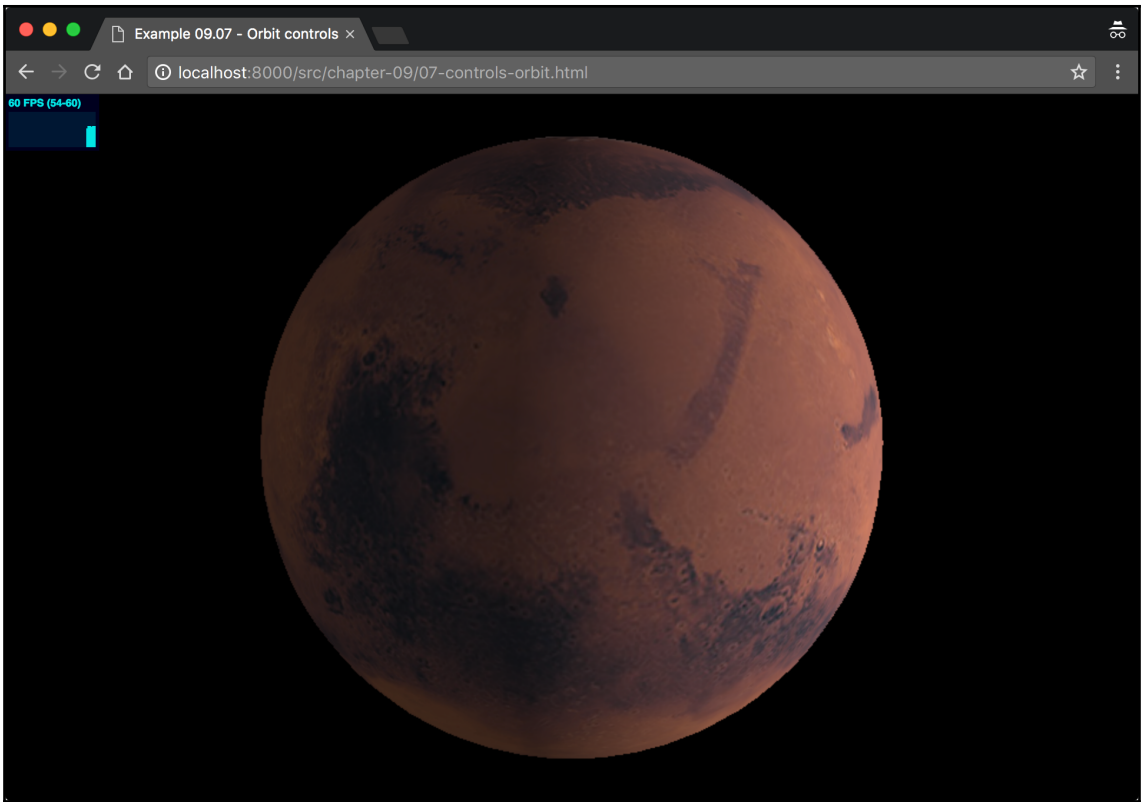


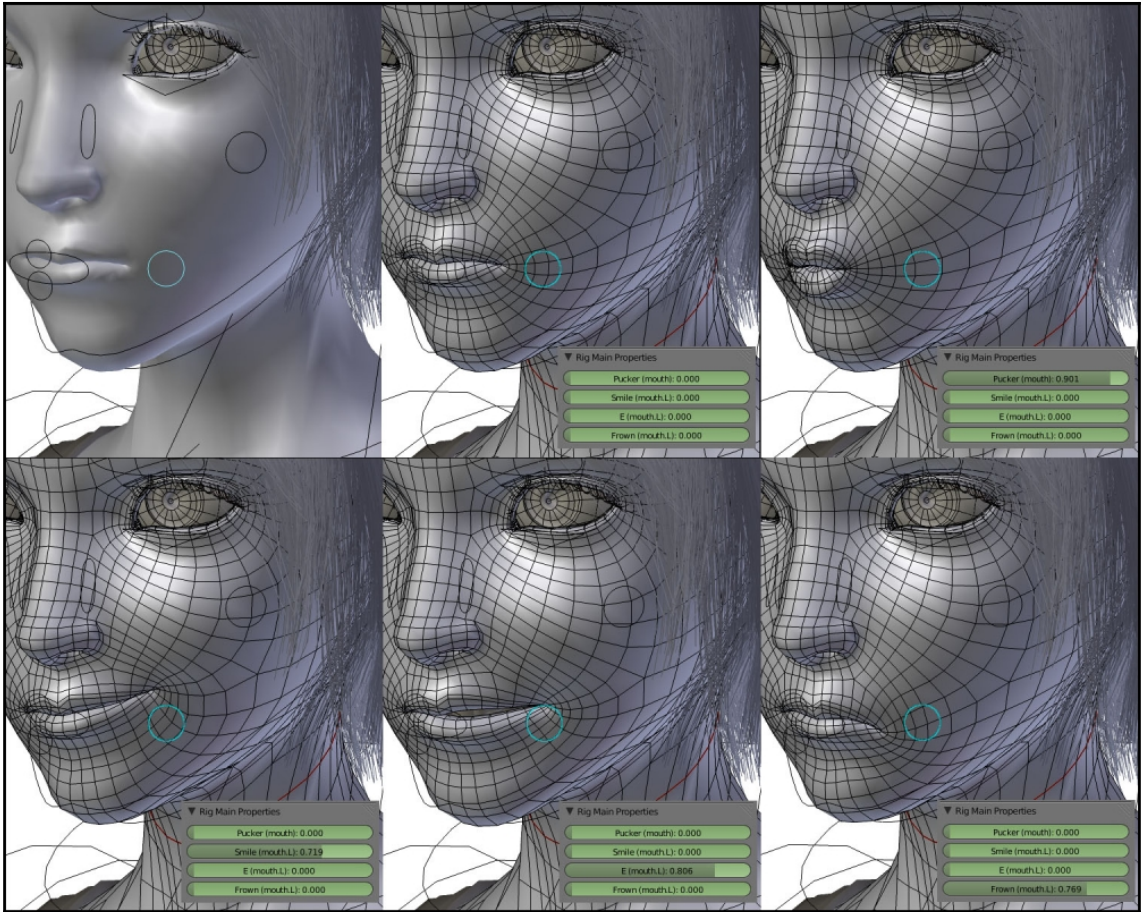


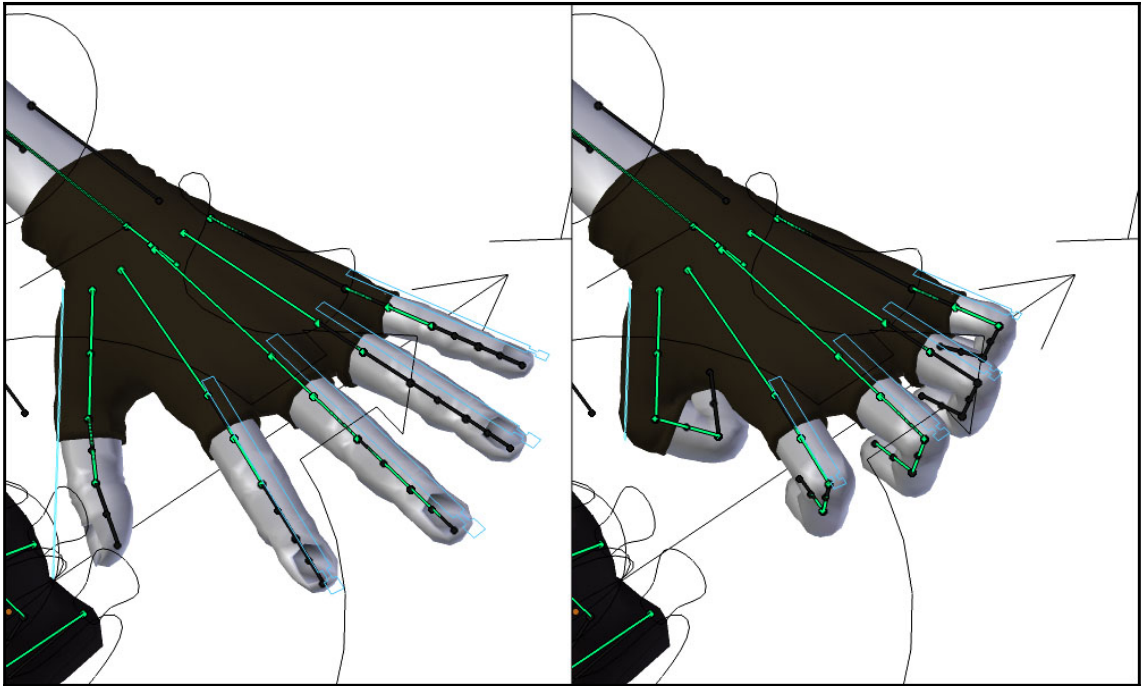


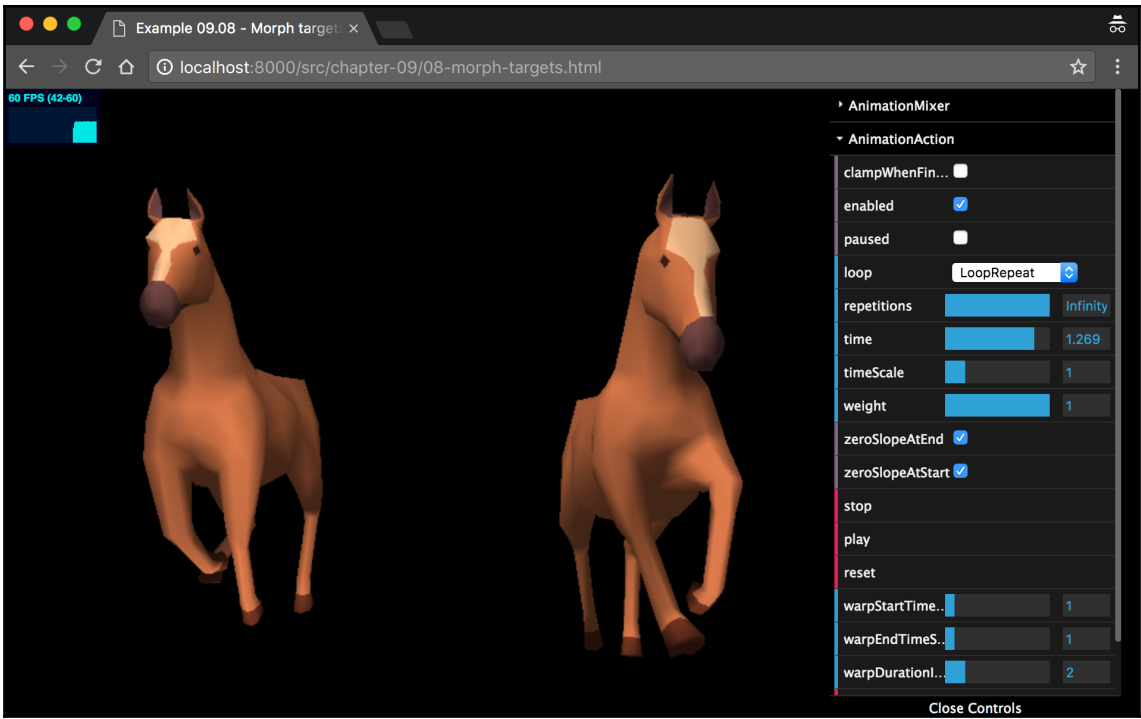


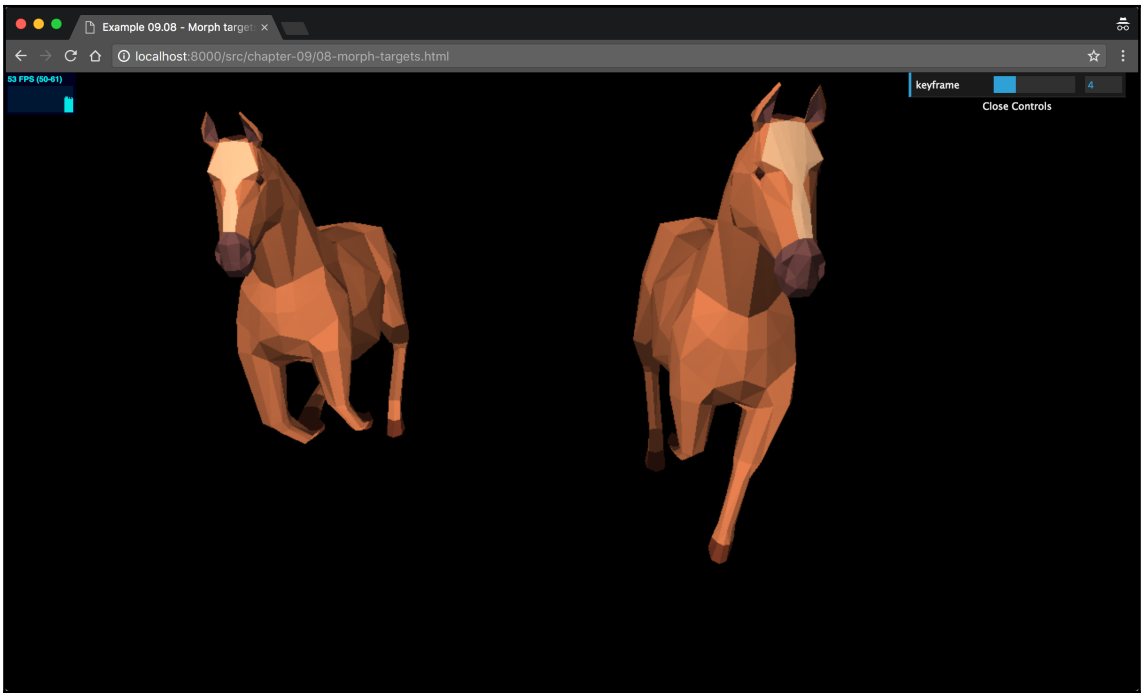


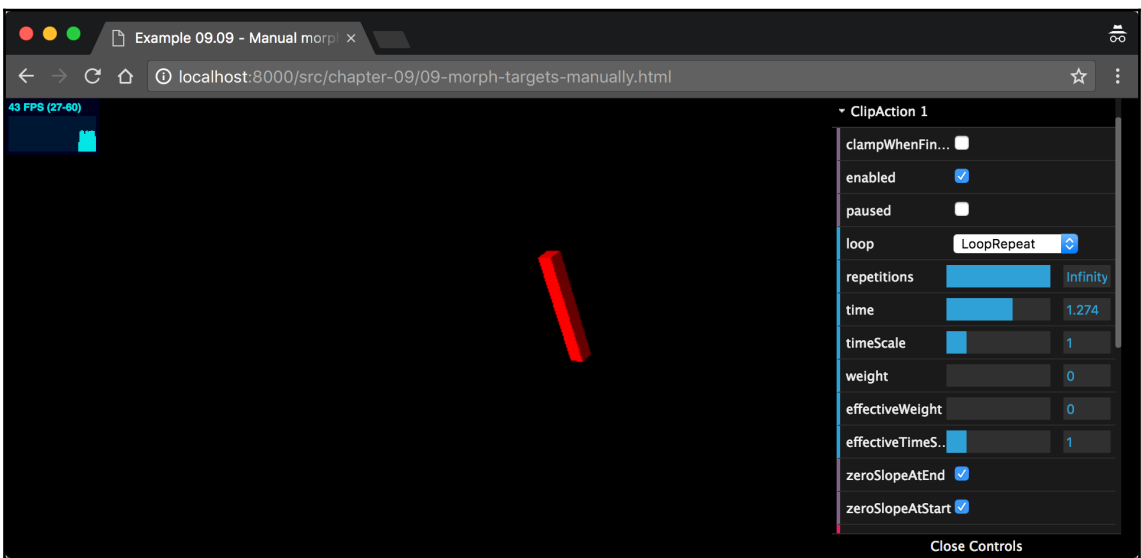
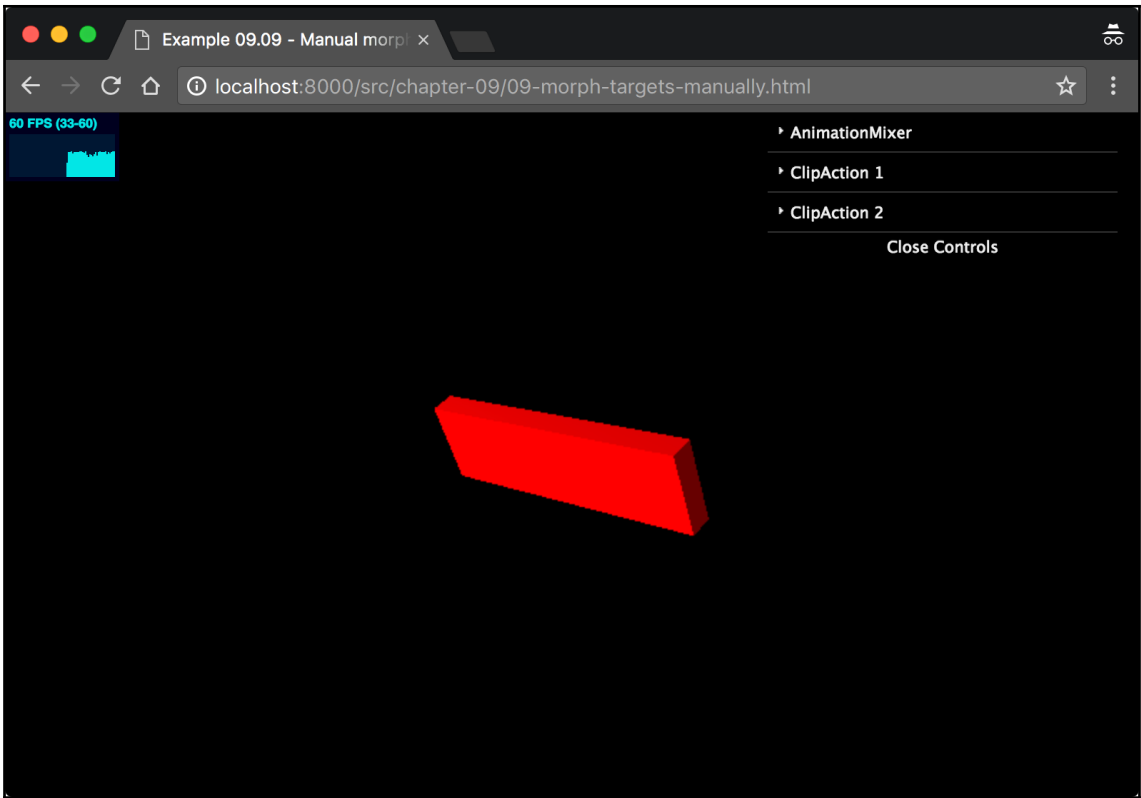


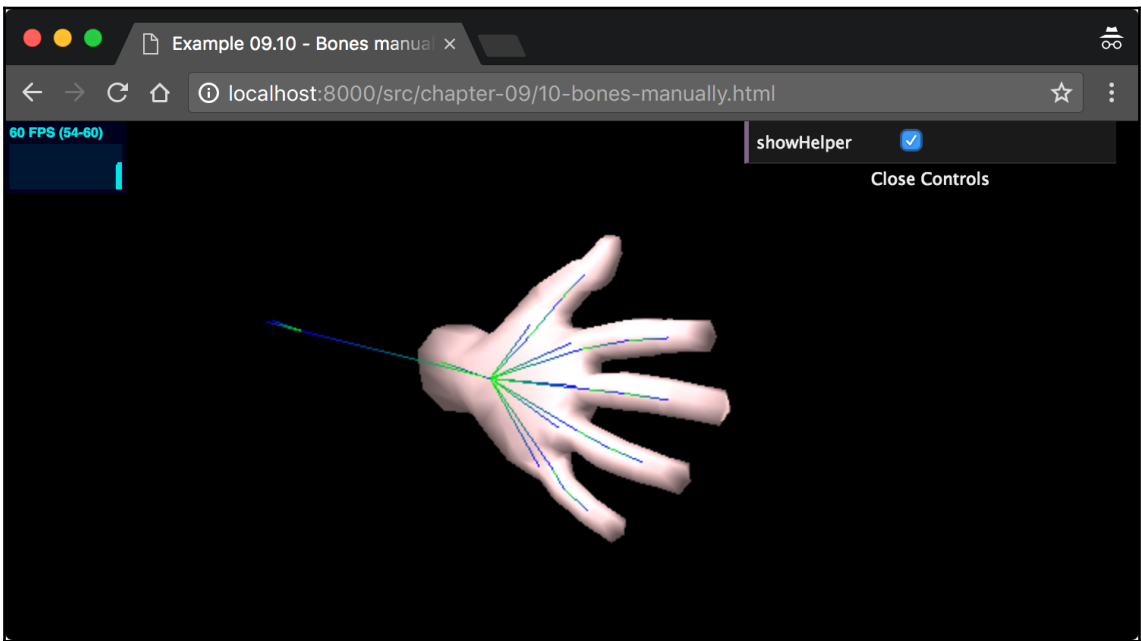
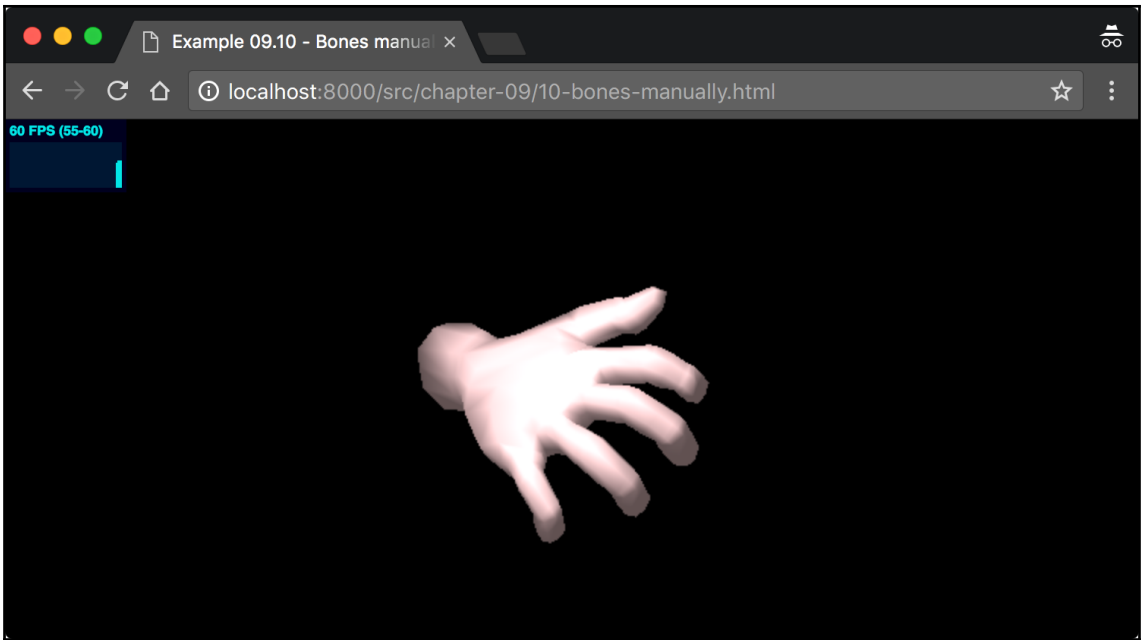




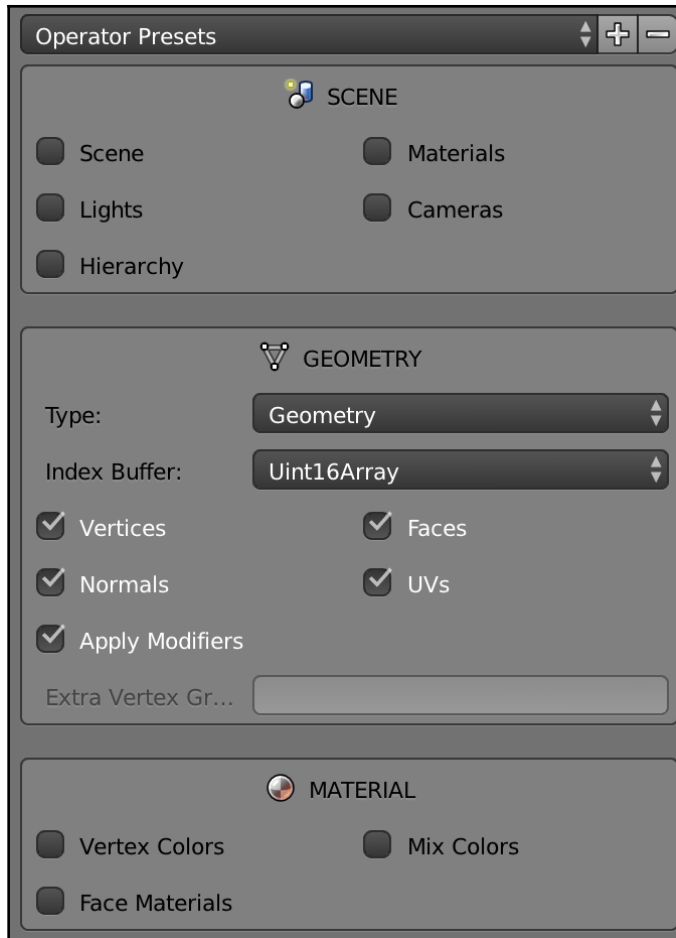














 TEXTURE


Textures Export textures

Embed textures

Texture folder:

 ARMATURE

Bones Skinning

 ANIMATION

Morph animation Blend Shape animation

Skeletal animations:

Keyframe animation

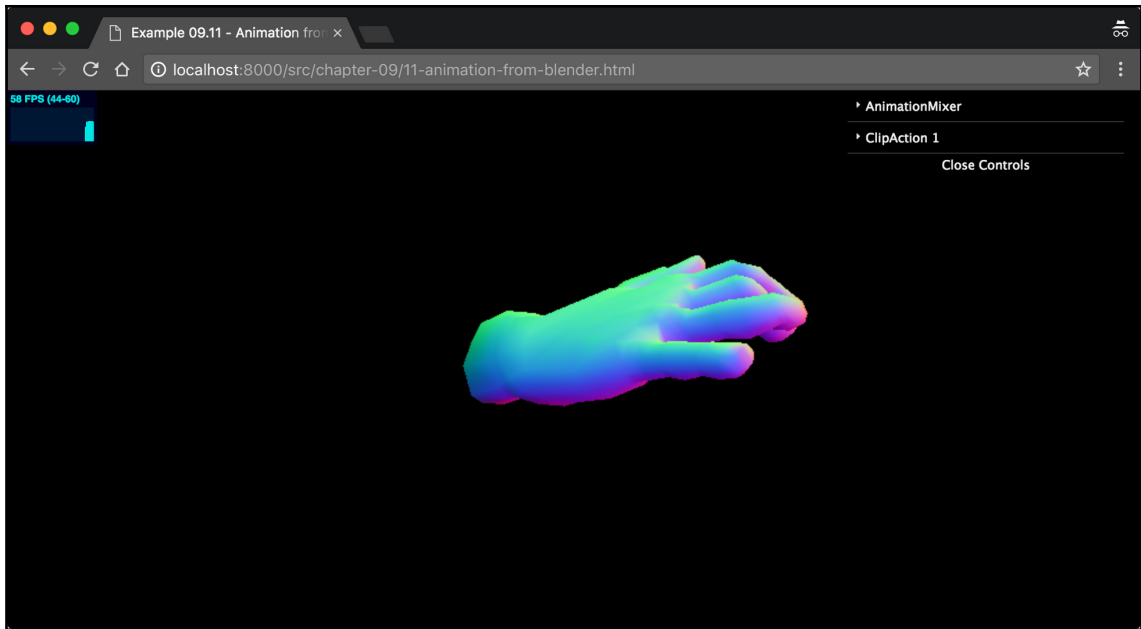
Bake keyframe animation

◀ Influences: 2 ▶

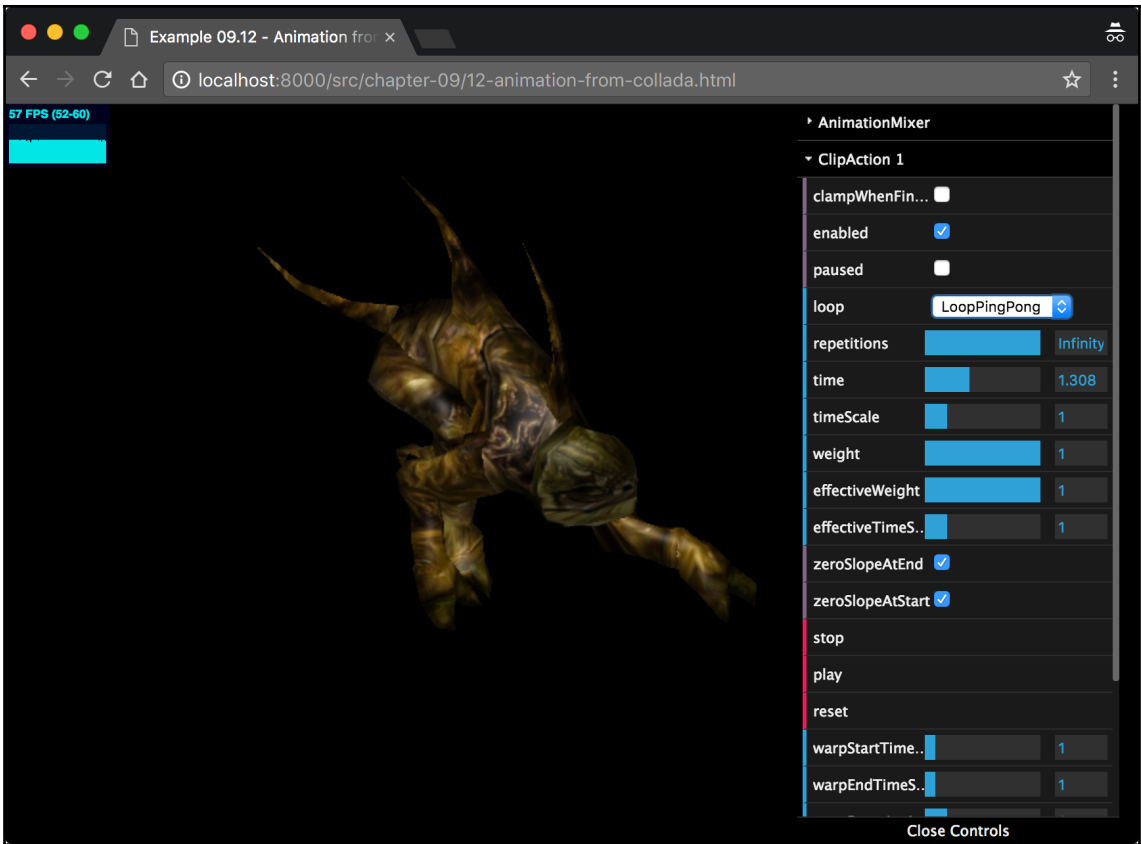
◀ Frame step: 1 ▶

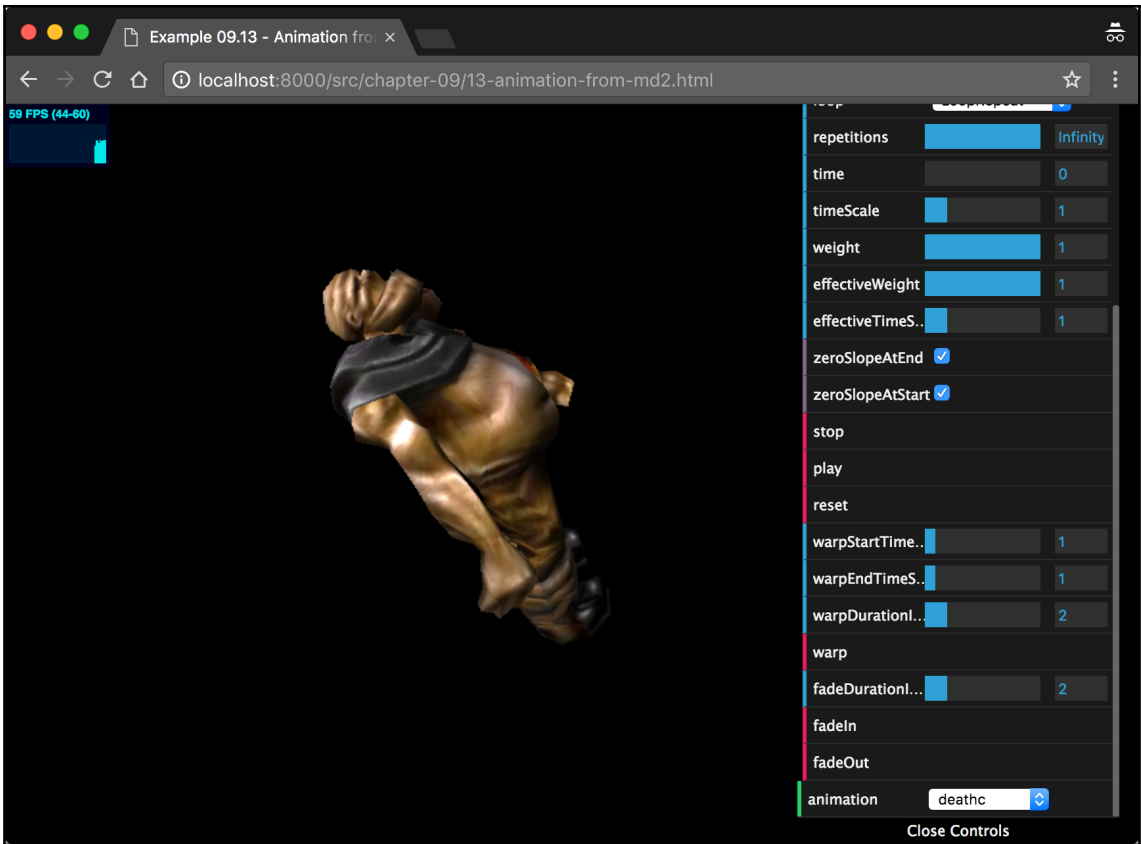
Frame index as time

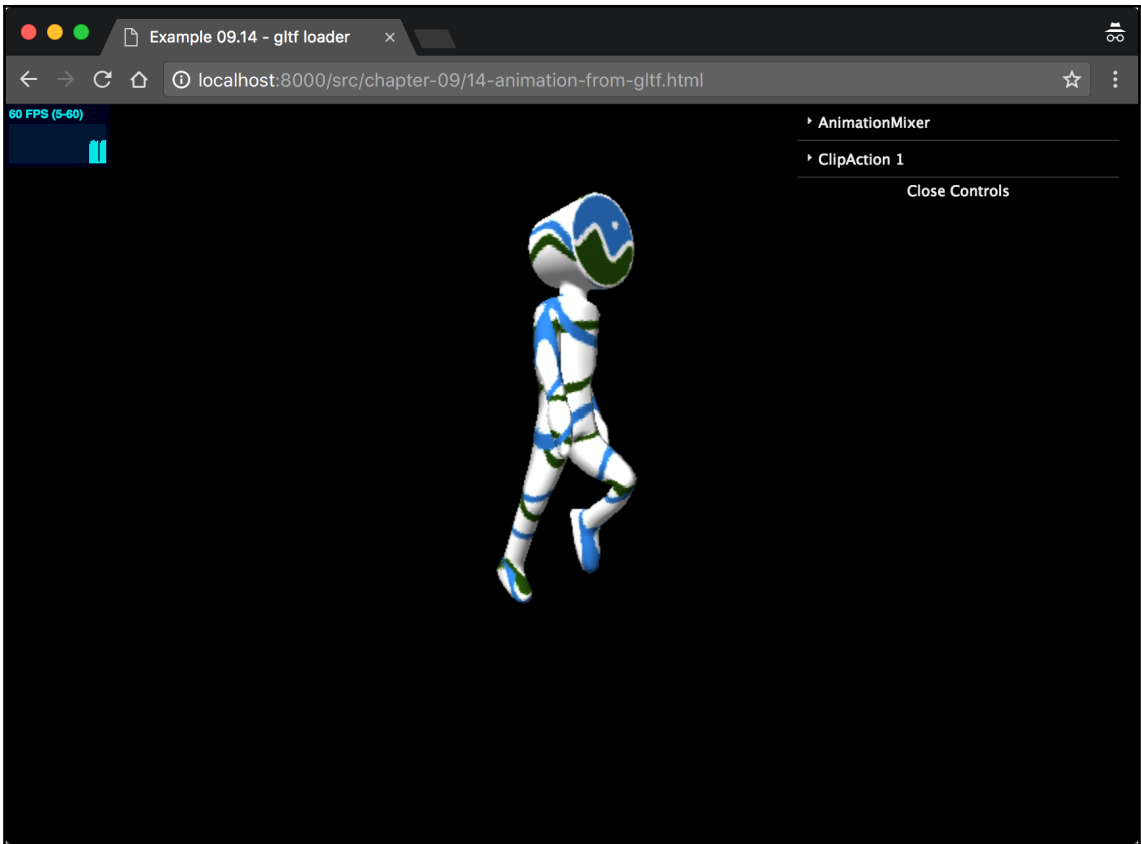
Embed animation

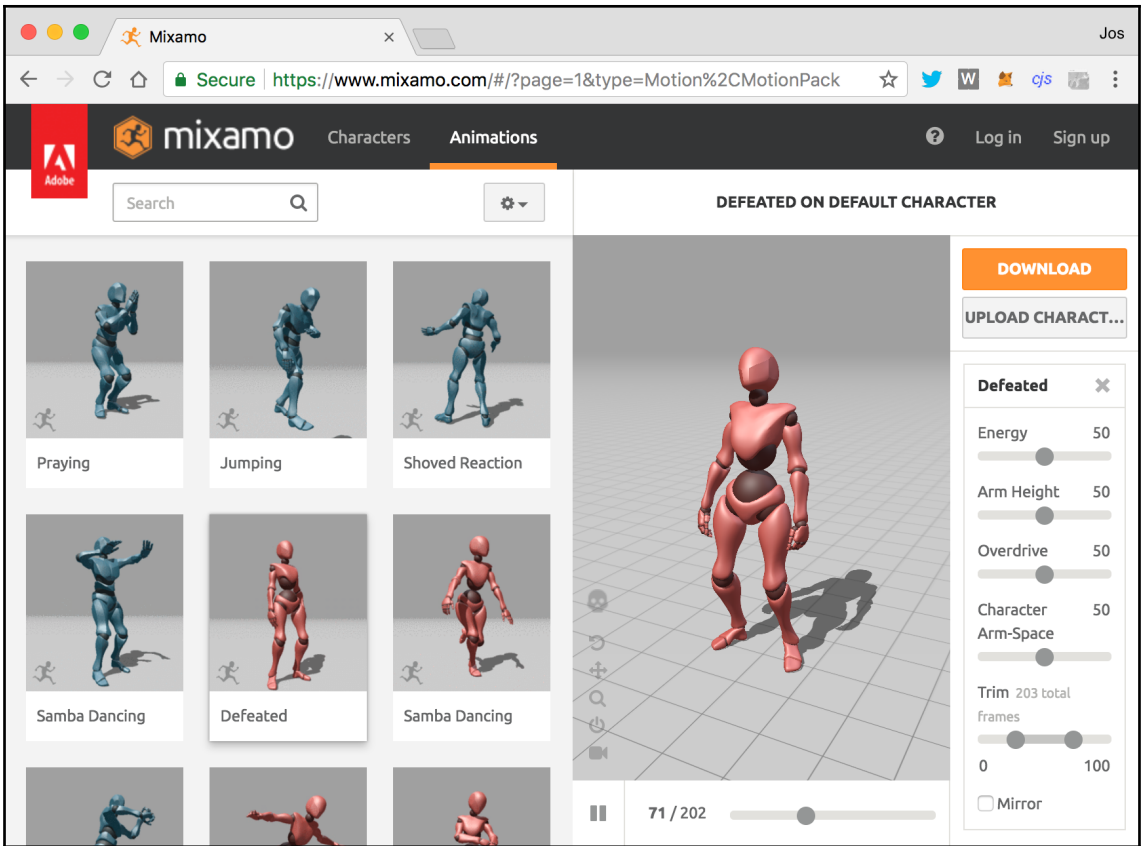


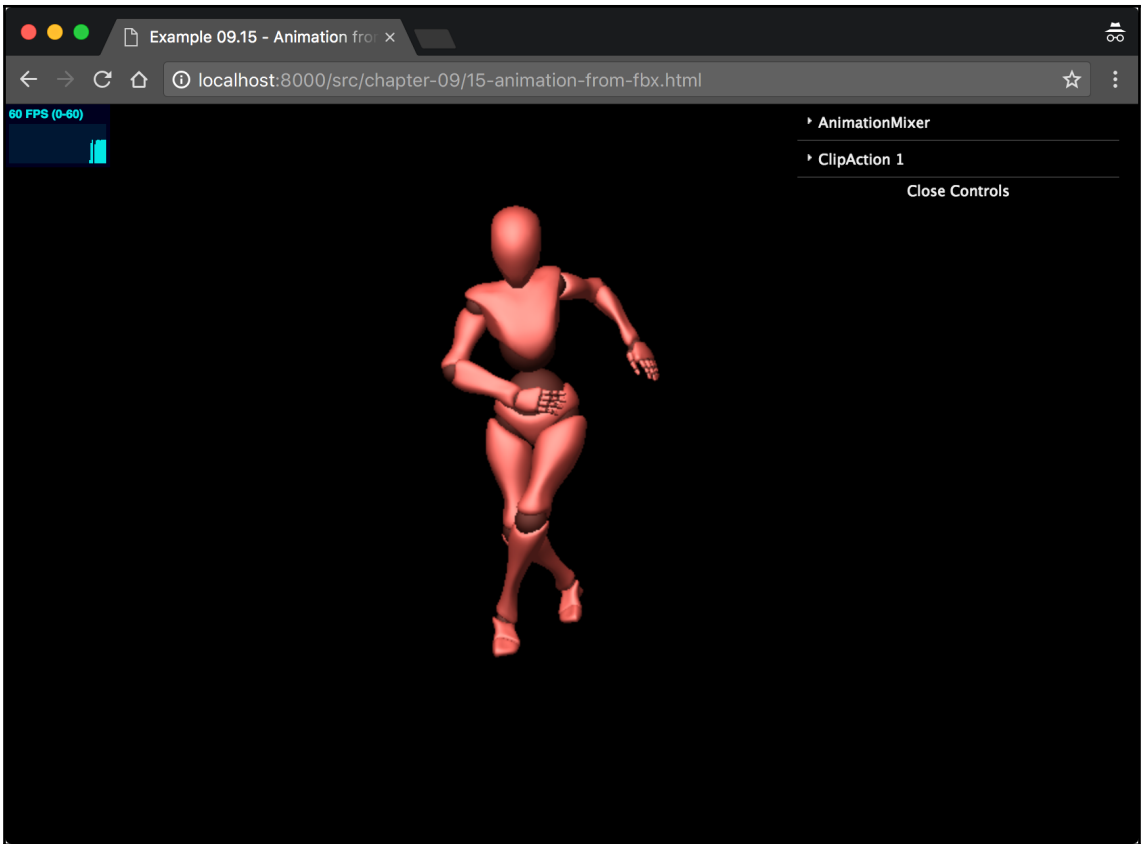
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  ► animations: [AnimationClip]  
  ► kinematics: {}  
  ► library: {animations: {...}, clips: {...}, controllers: {...}, images: {...}, effects: {...}, ...}  
  ▼ scene: Group  
    castShadow: false  
    ▼ children: Array(2)  
      ► 0: Bone {uuid: "C265DD0E-9956-46A1-8A7E-06794B2658FF", name: "Bone1", type: "Bone", parent:  
        ▼ 1: SkinnedMesh  
          ► bindMatrix: Matrix4 {elements: Array(16)}  
          ► bindMatrixInverse: Matrix4 {elements: Array(16)}  
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          castShadow: false  
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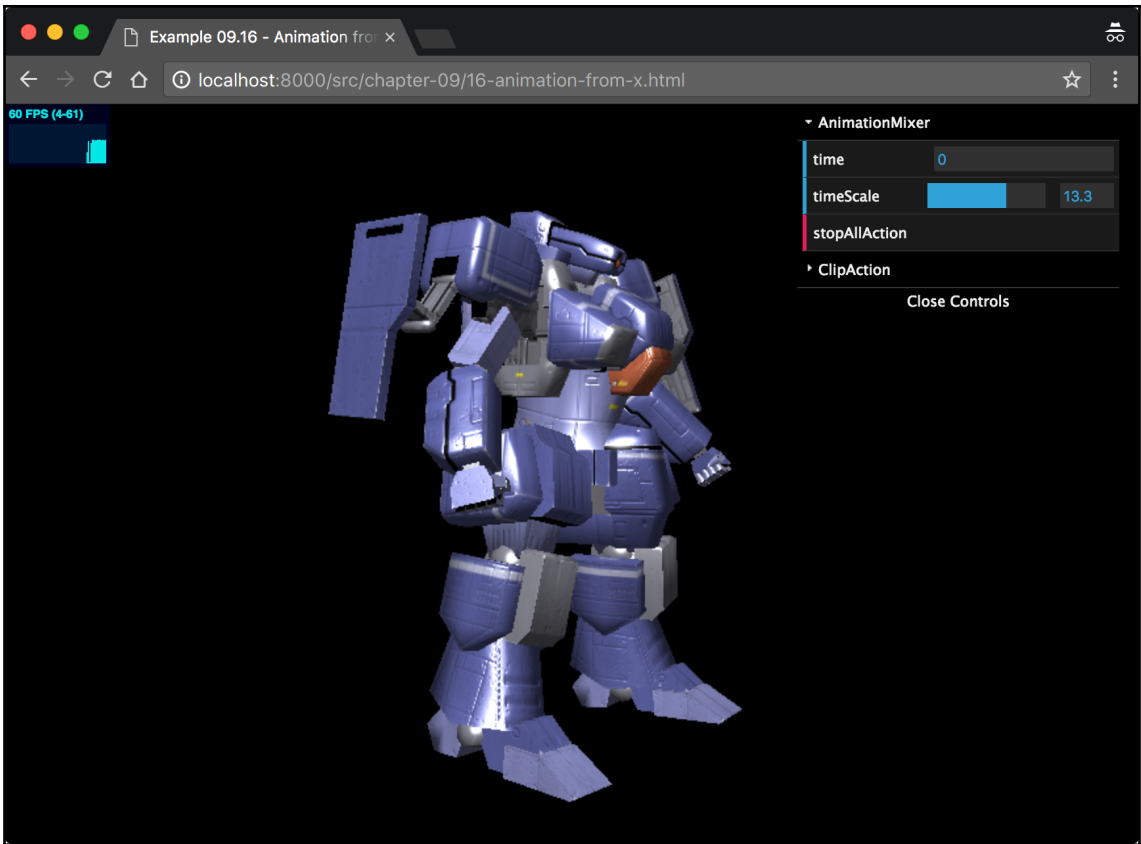


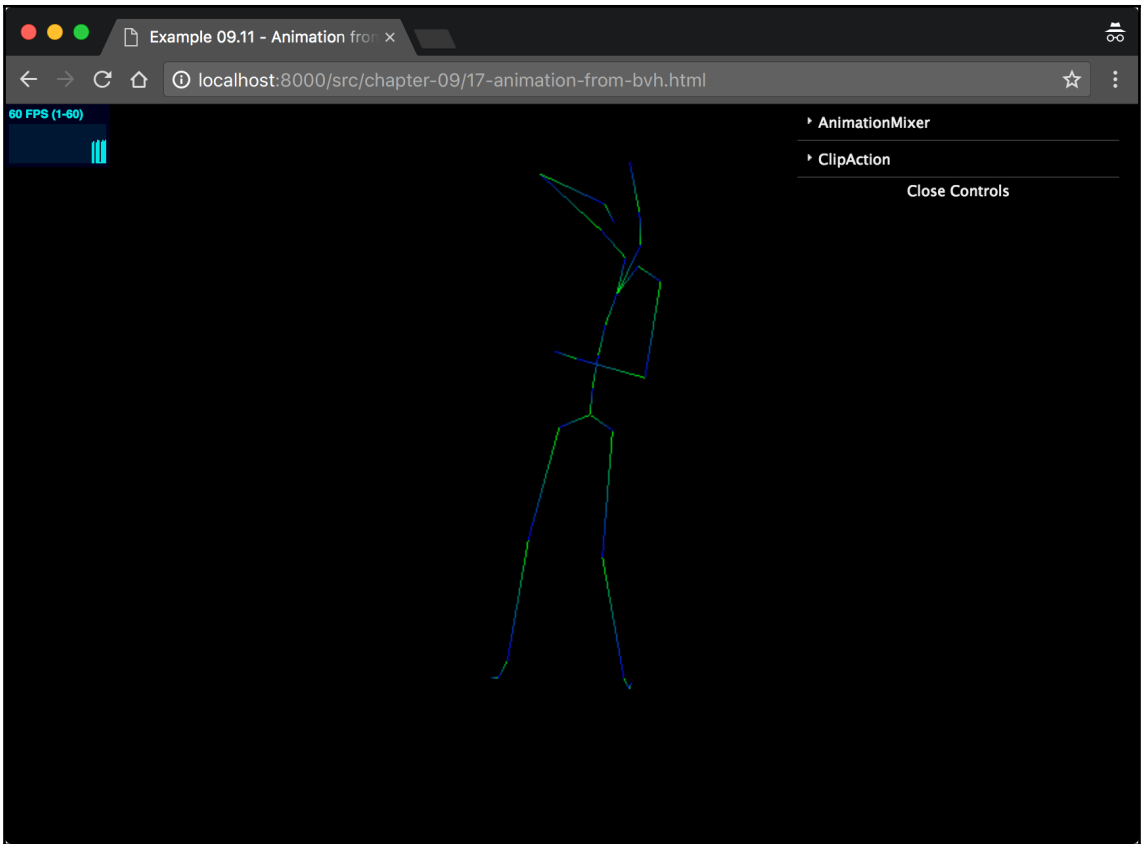


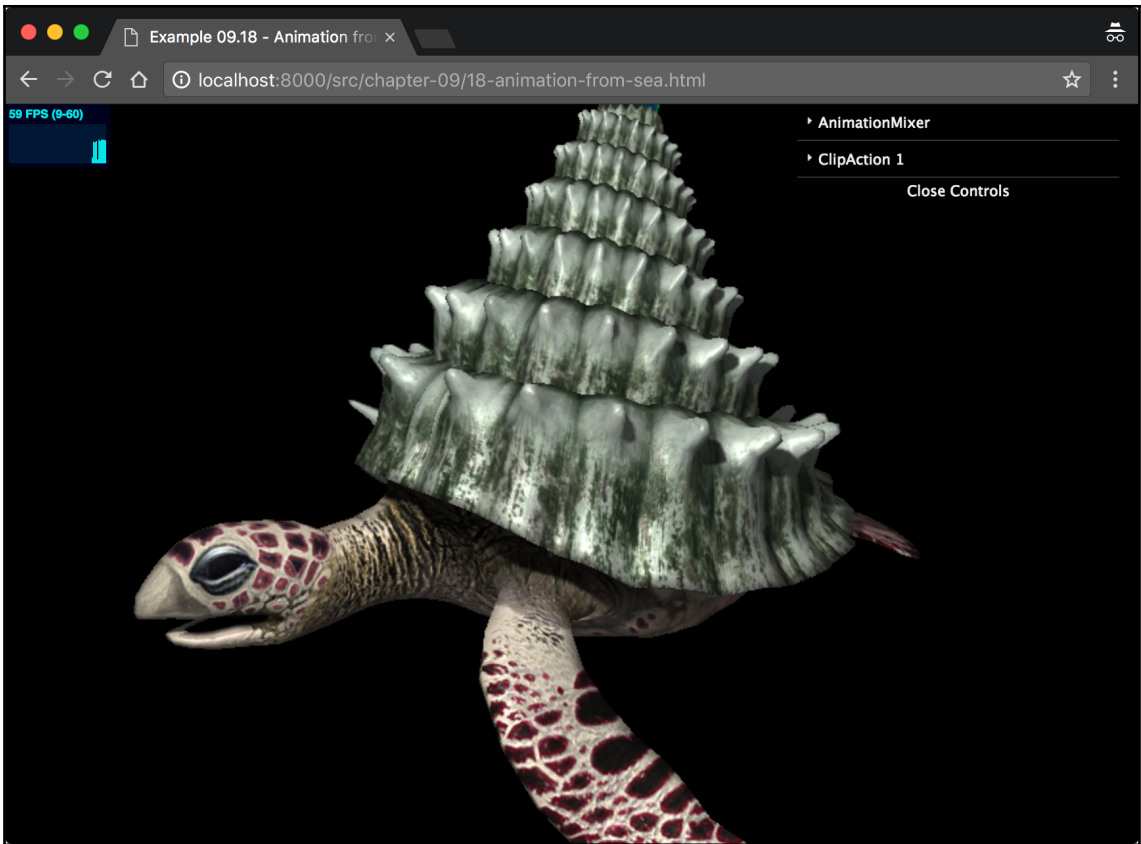




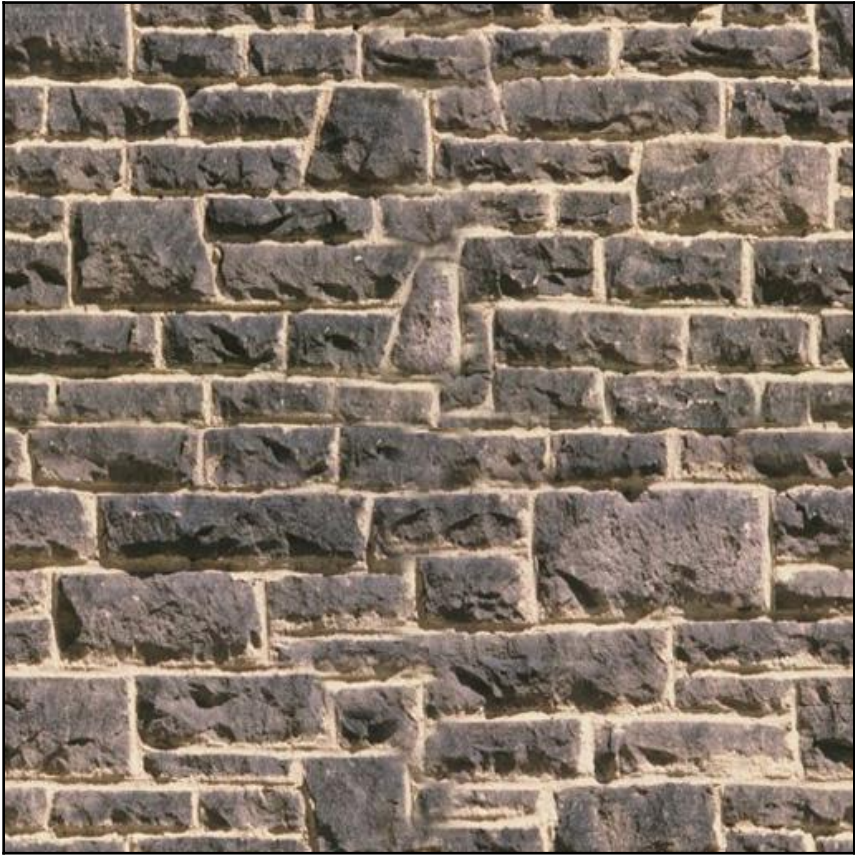


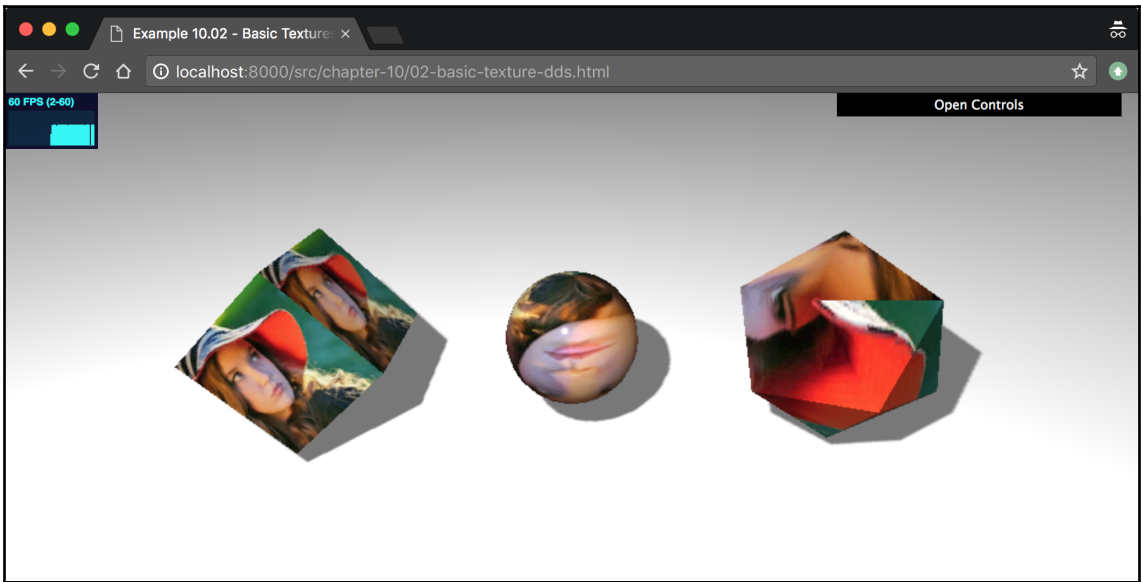
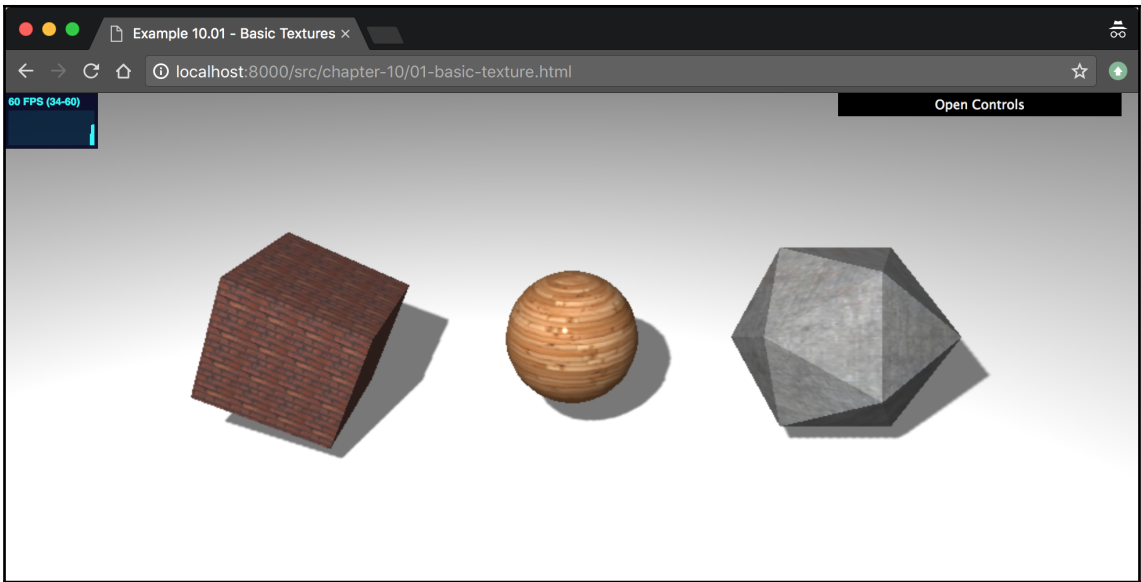


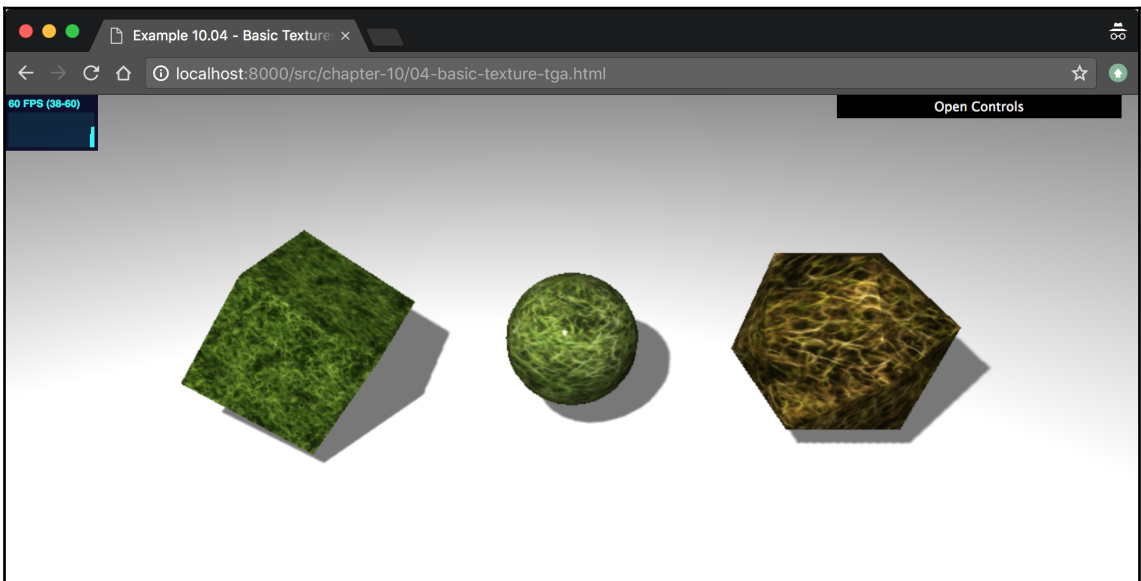
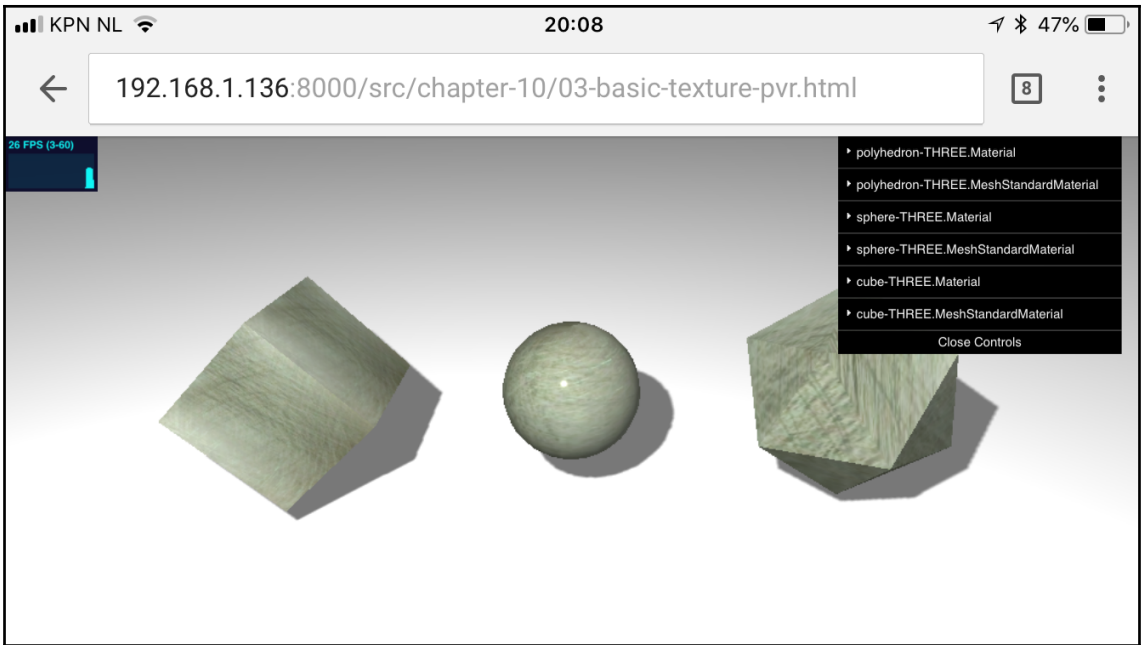


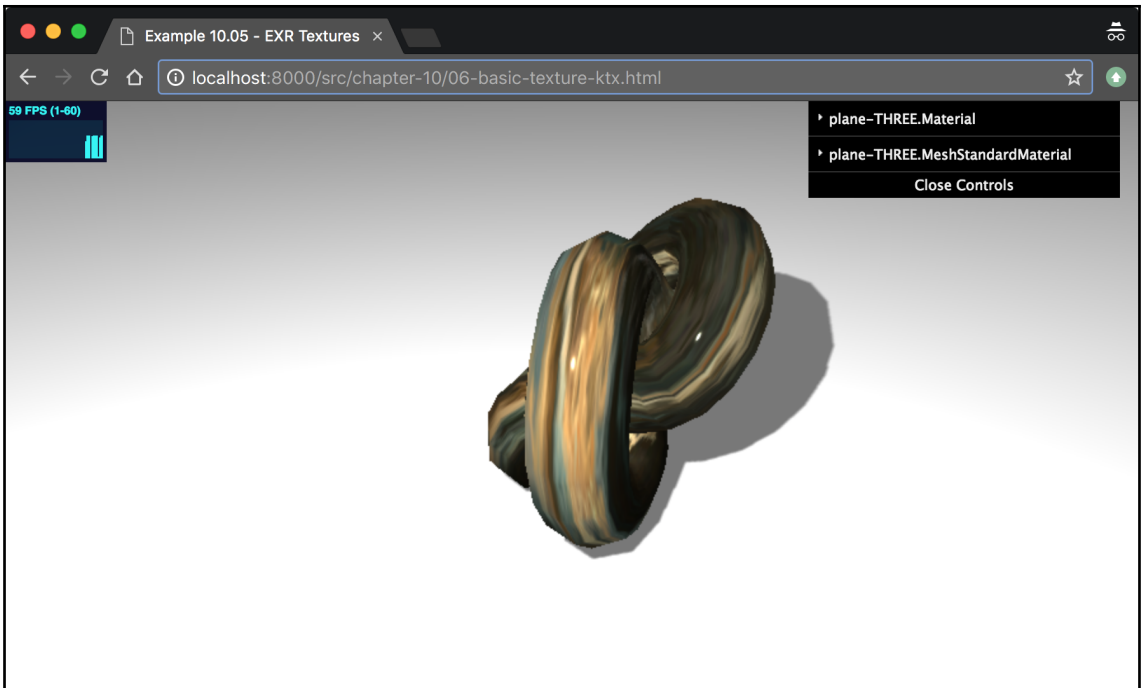


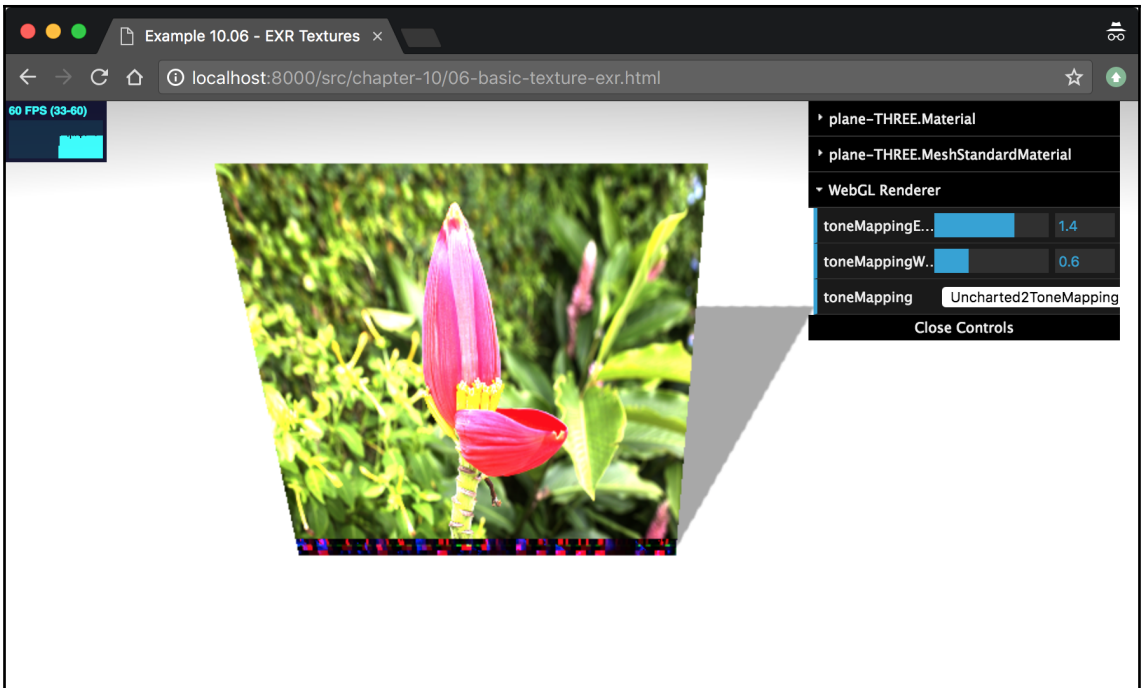
Chapter 10: Loading and Working with Textures

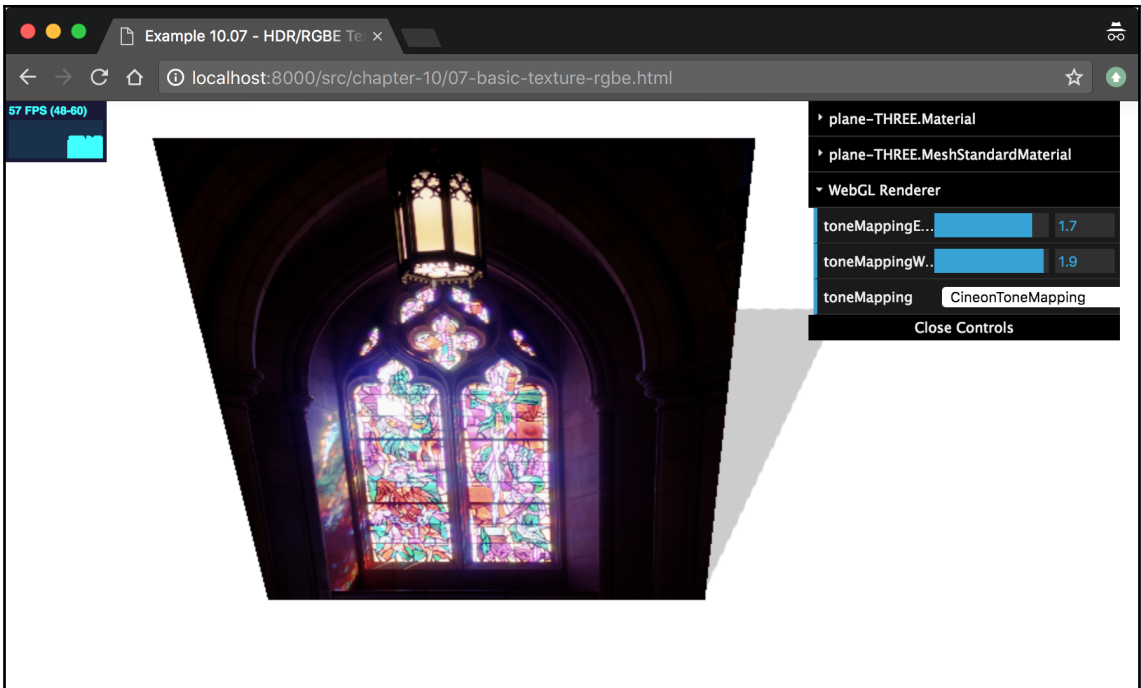


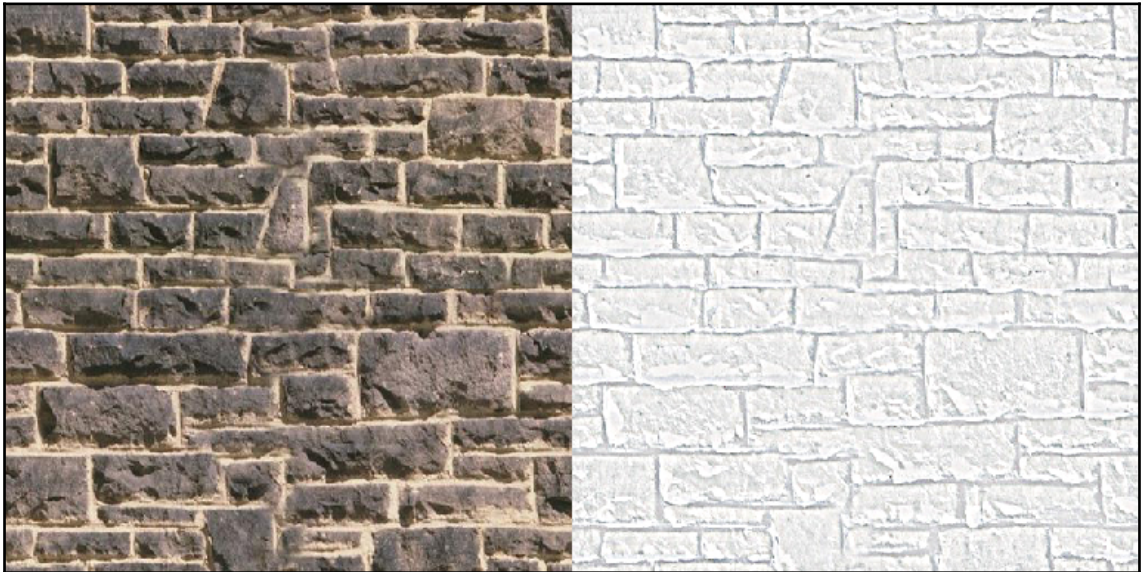
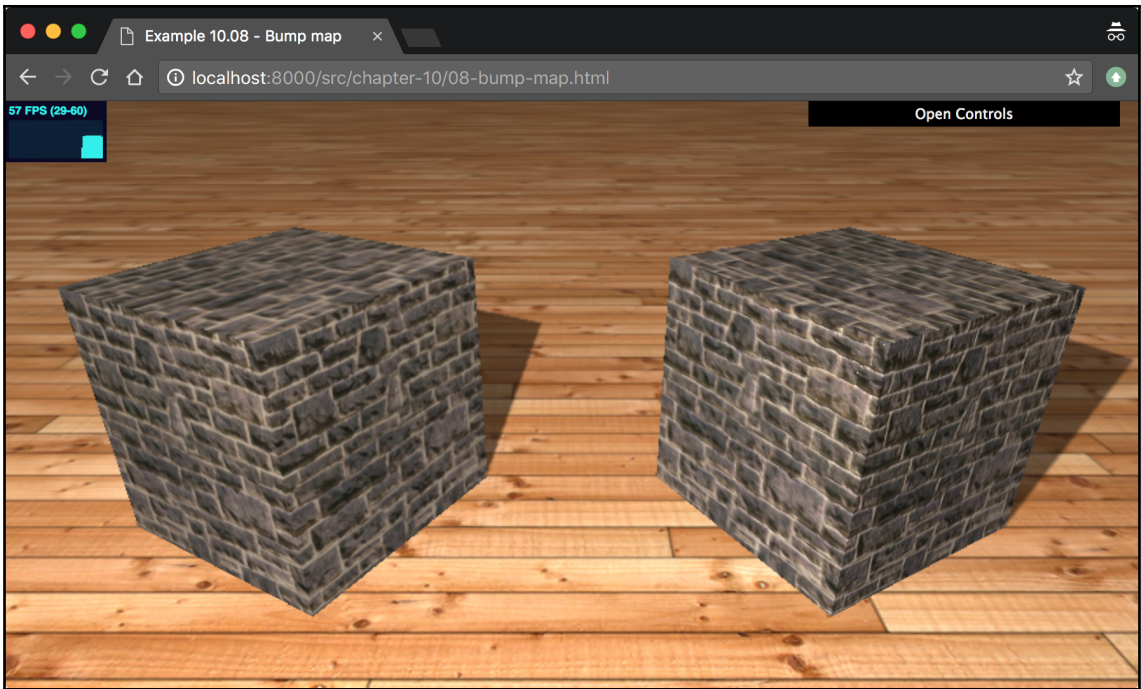


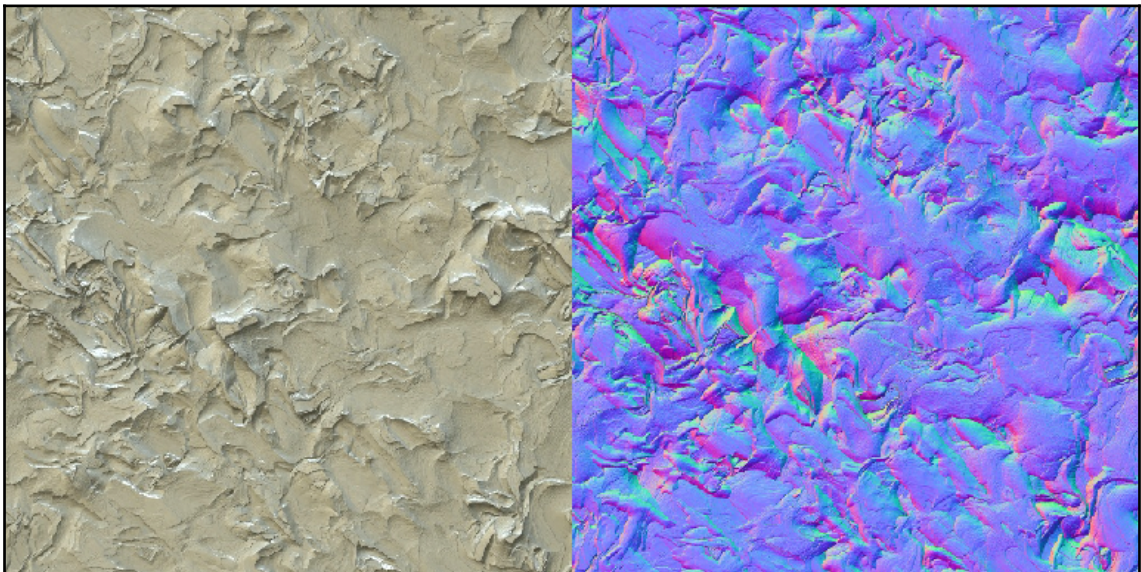
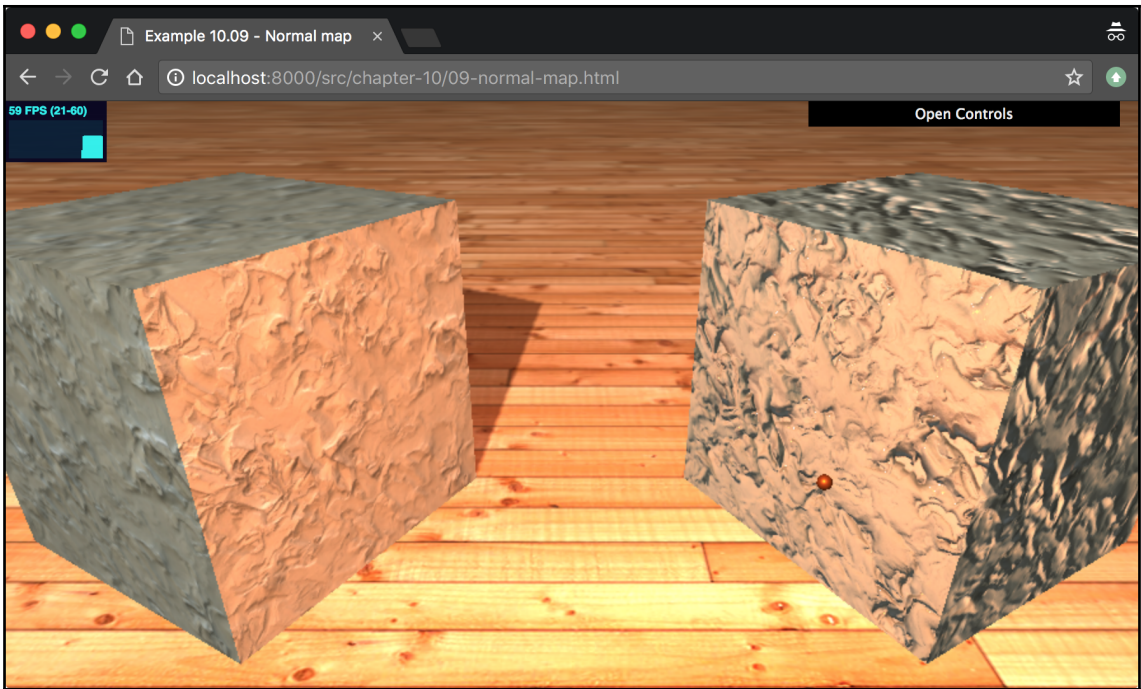


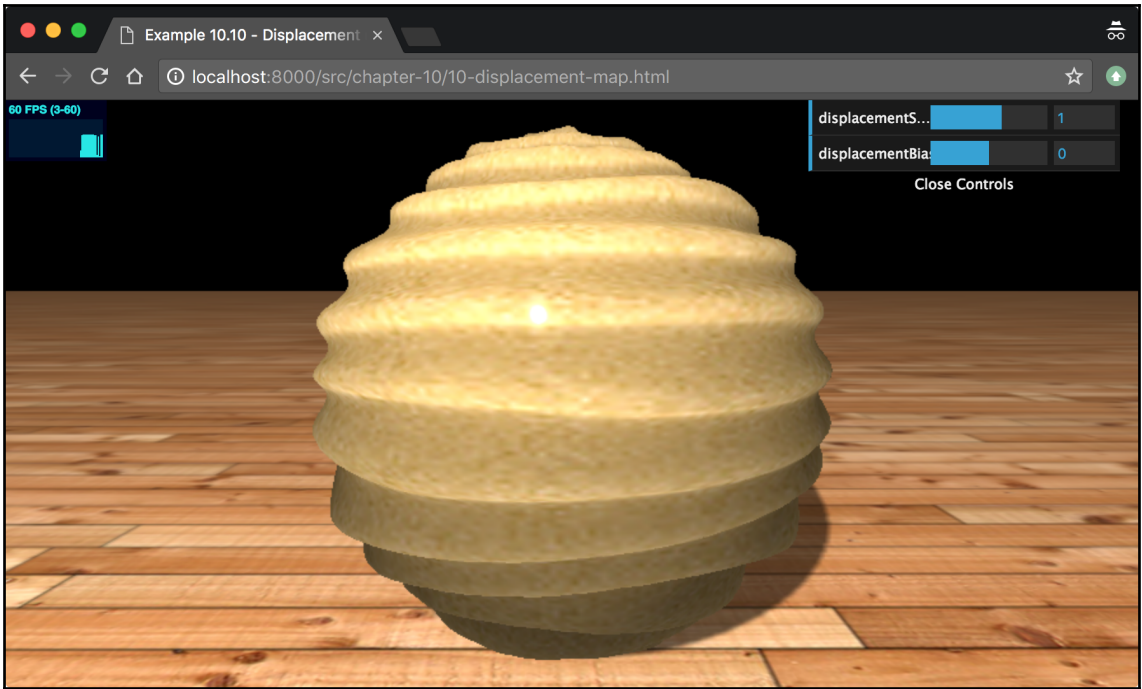
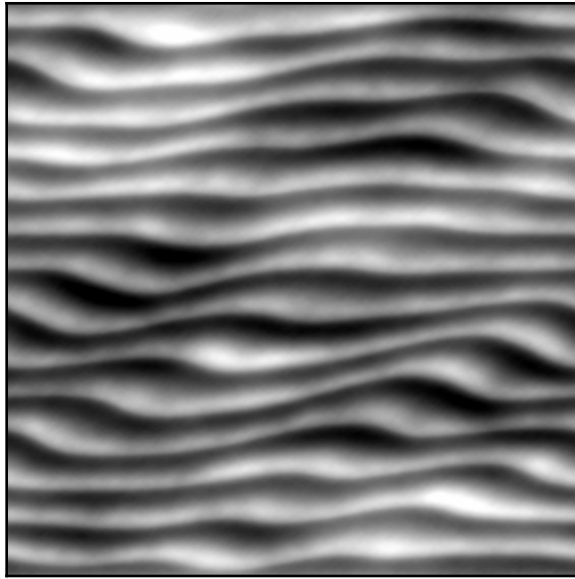


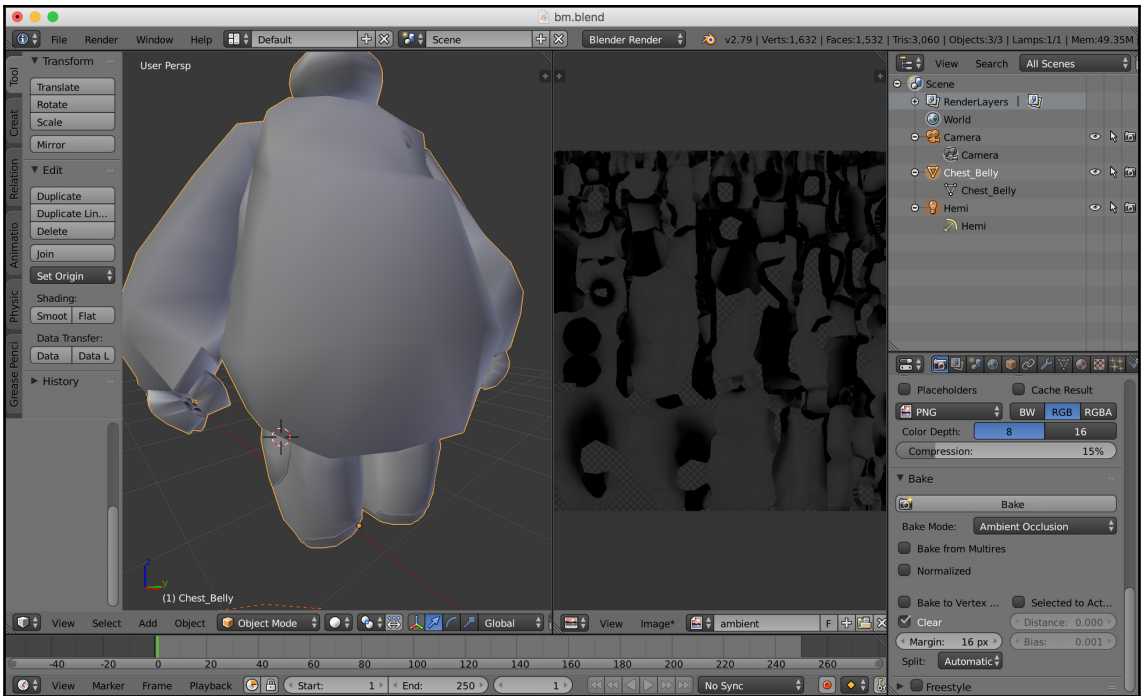


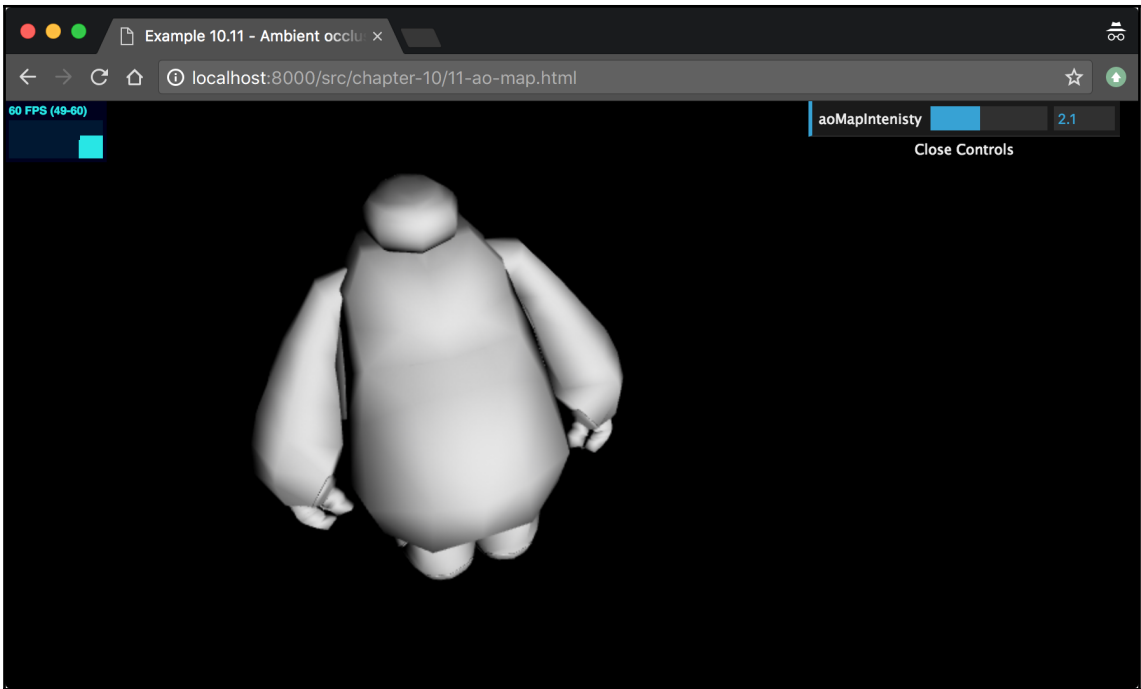


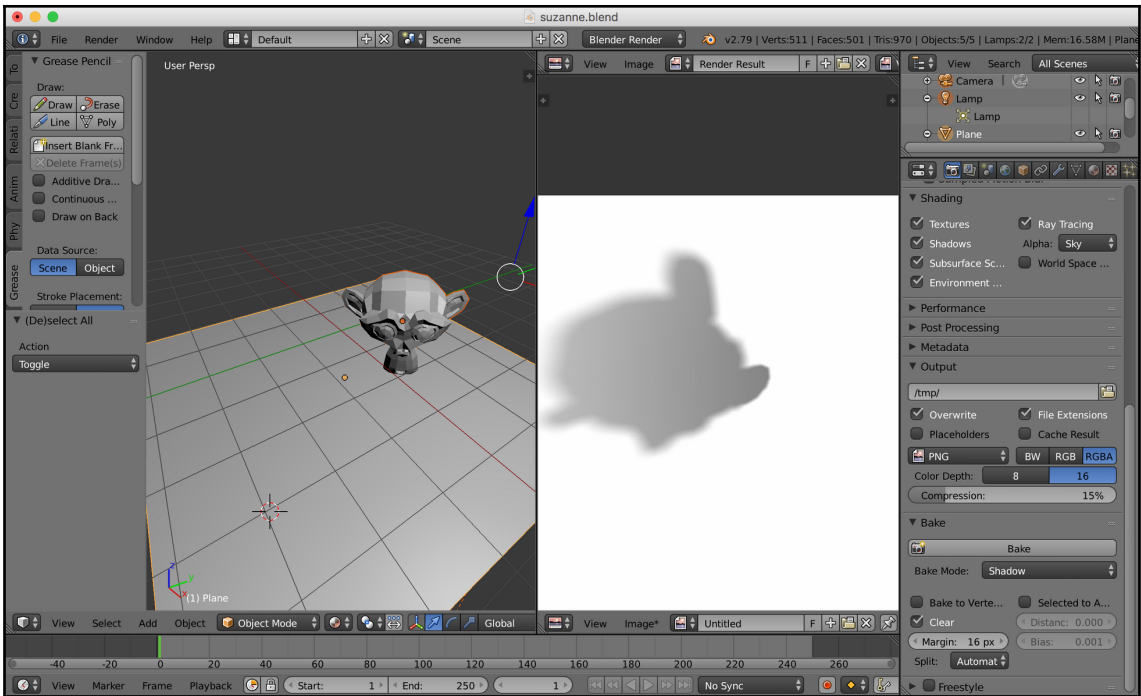


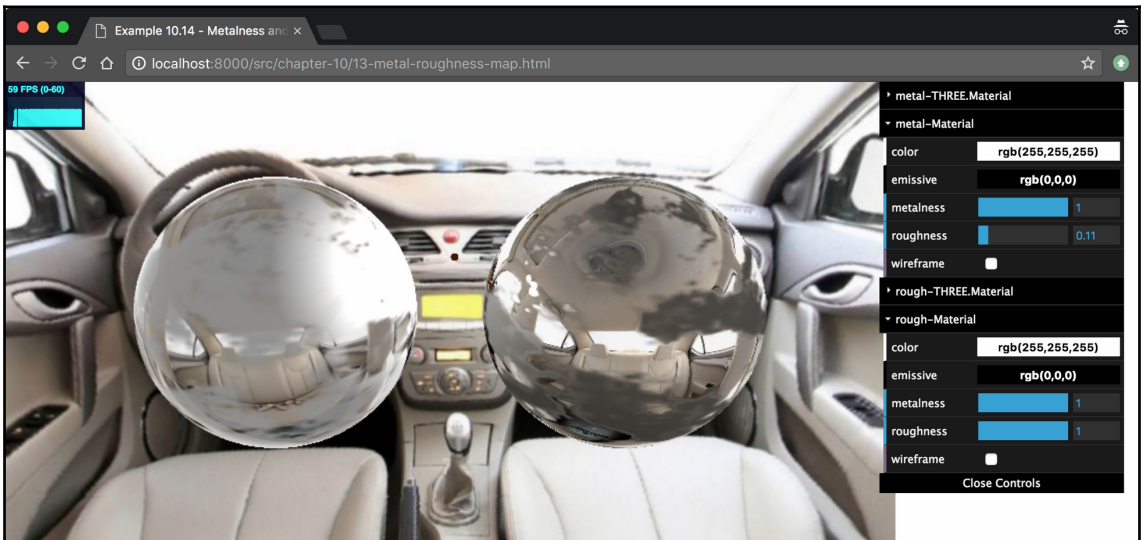
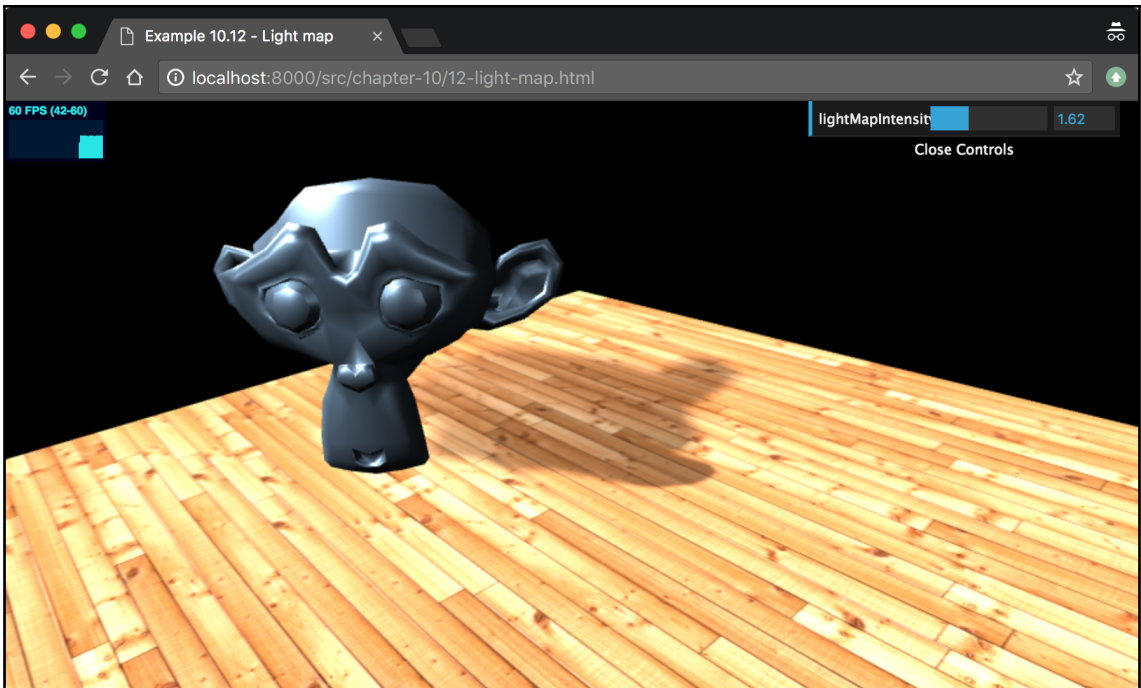


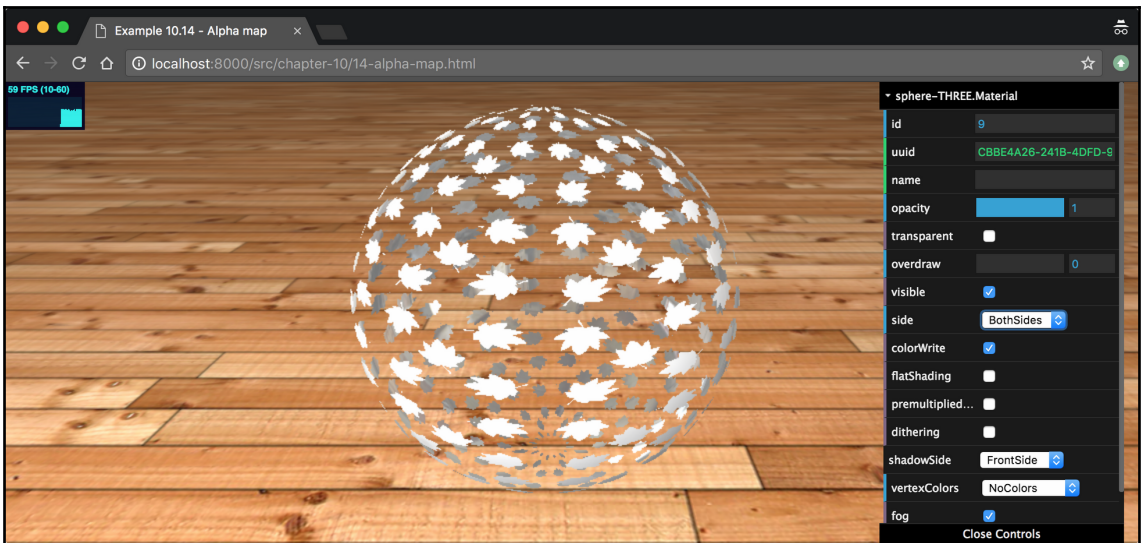
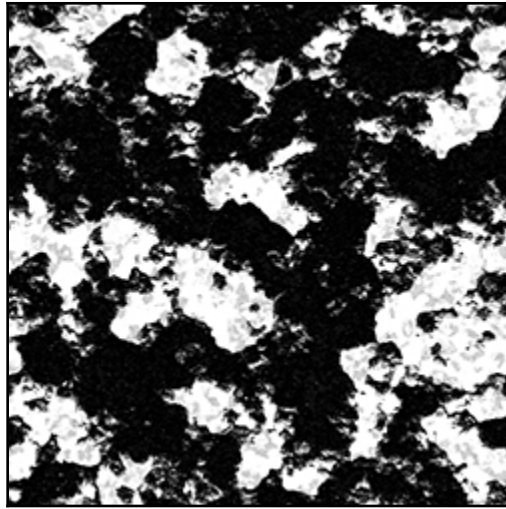


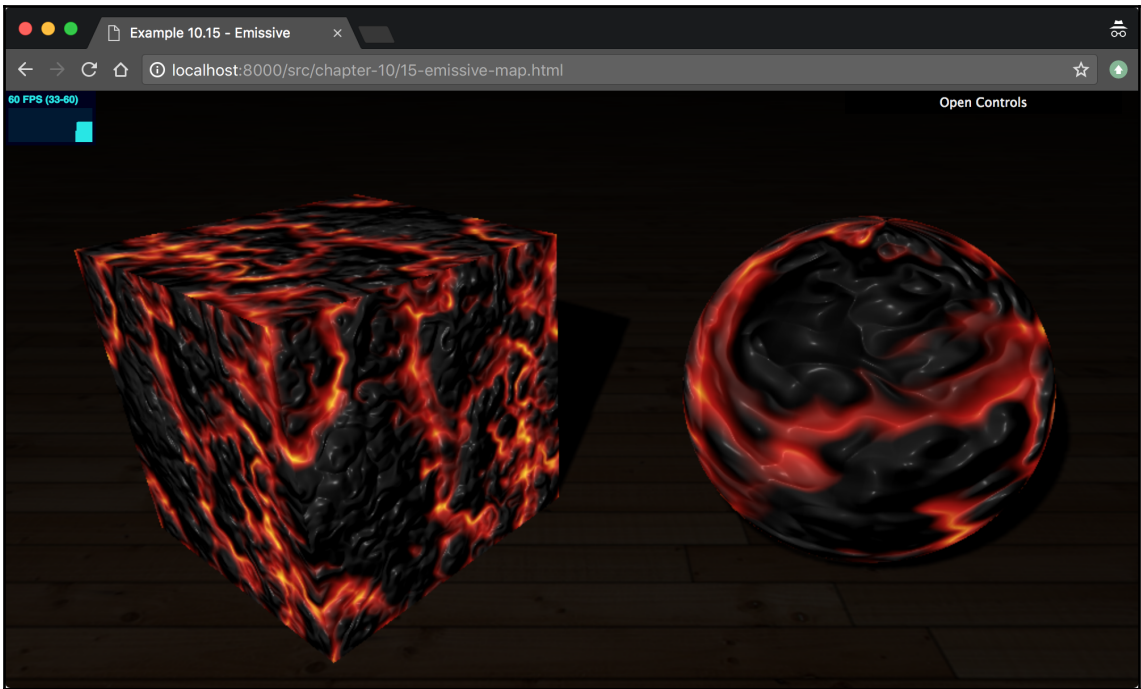
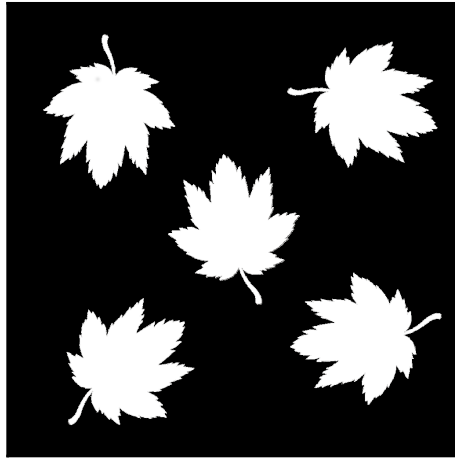


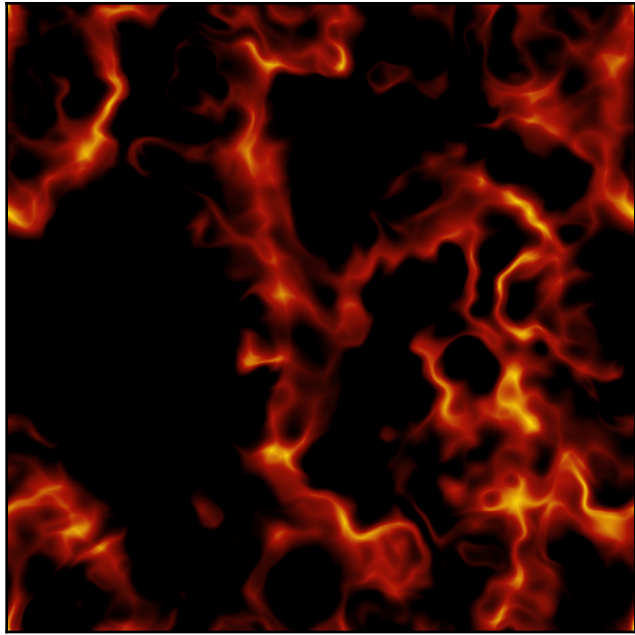


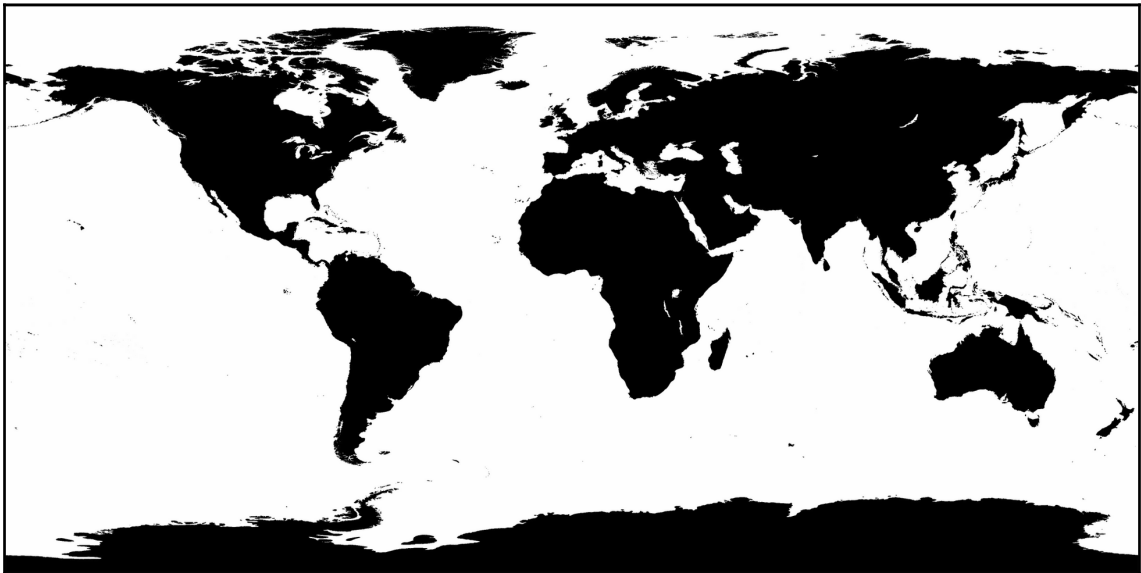
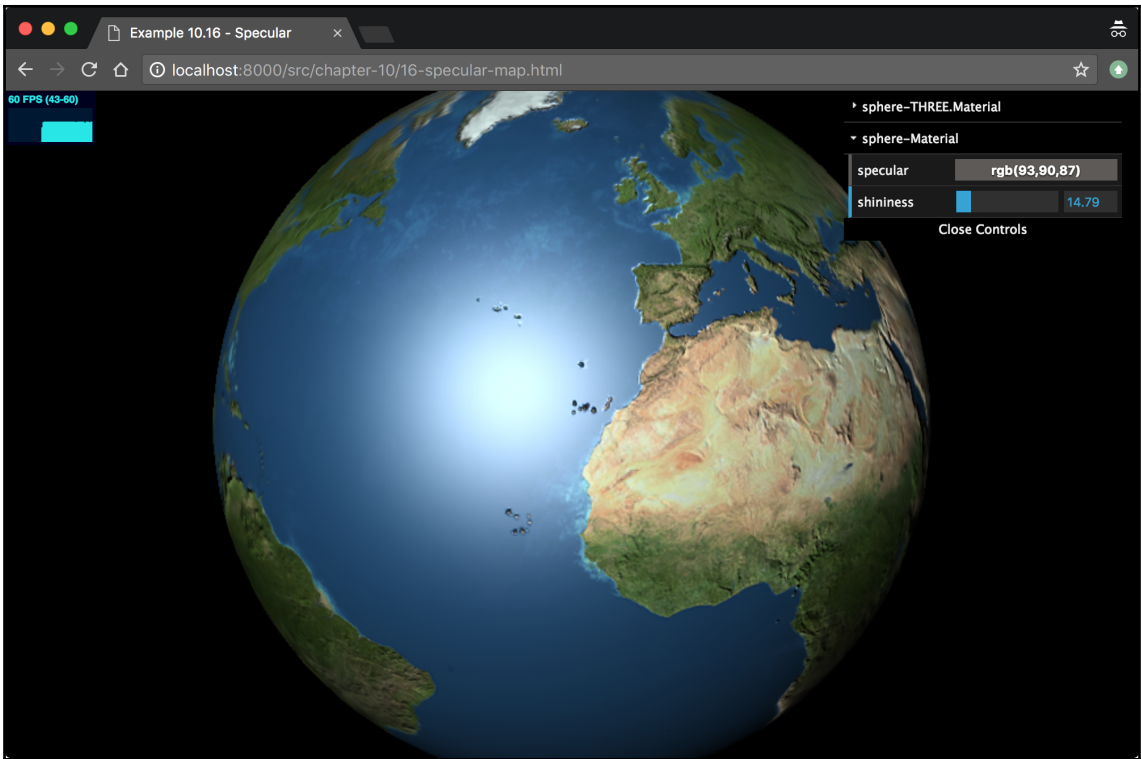


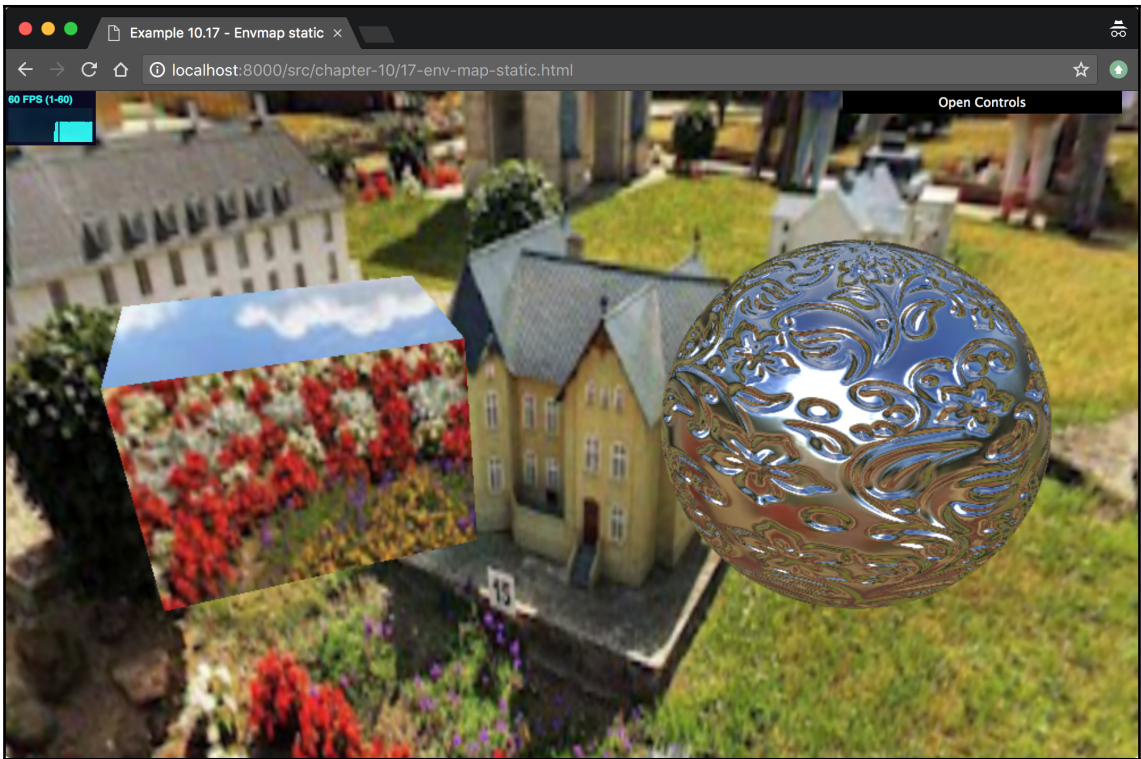


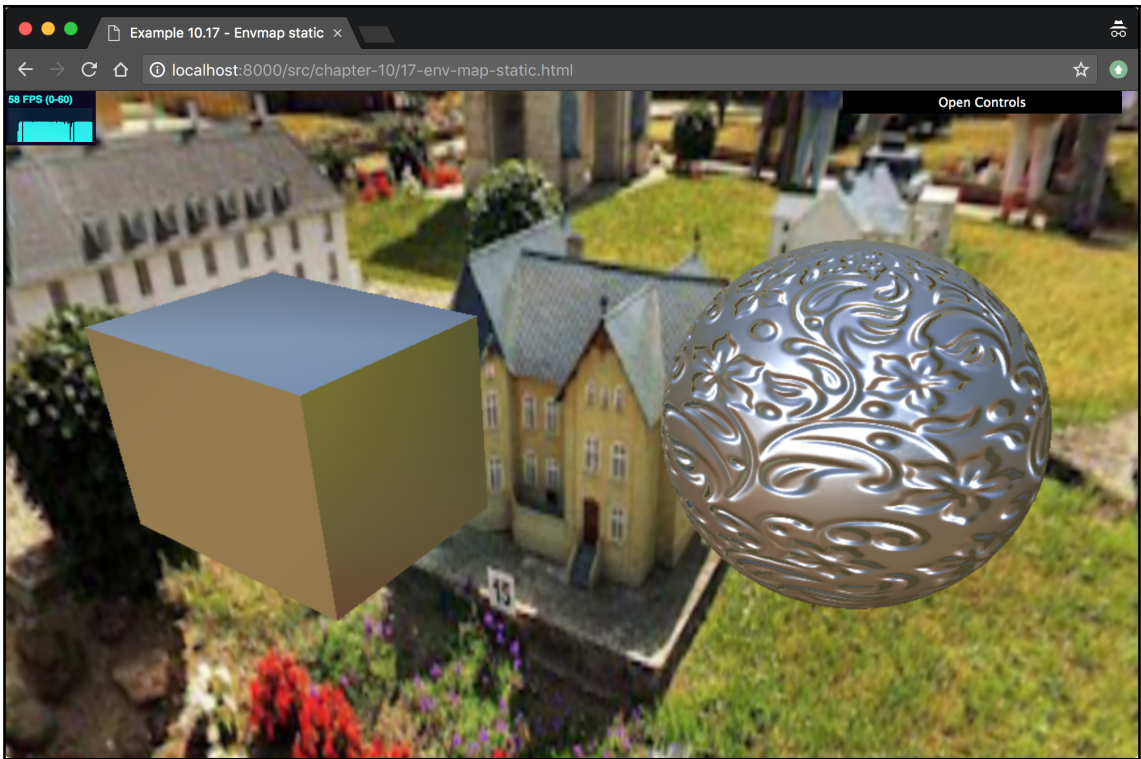


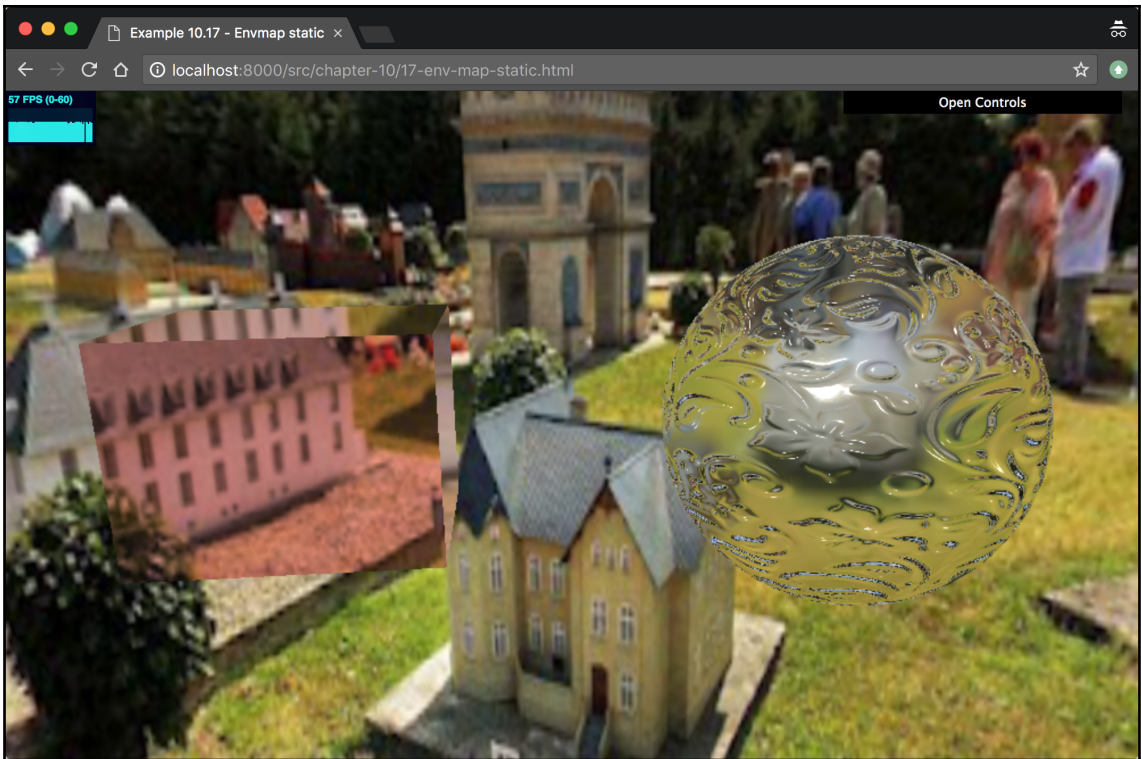


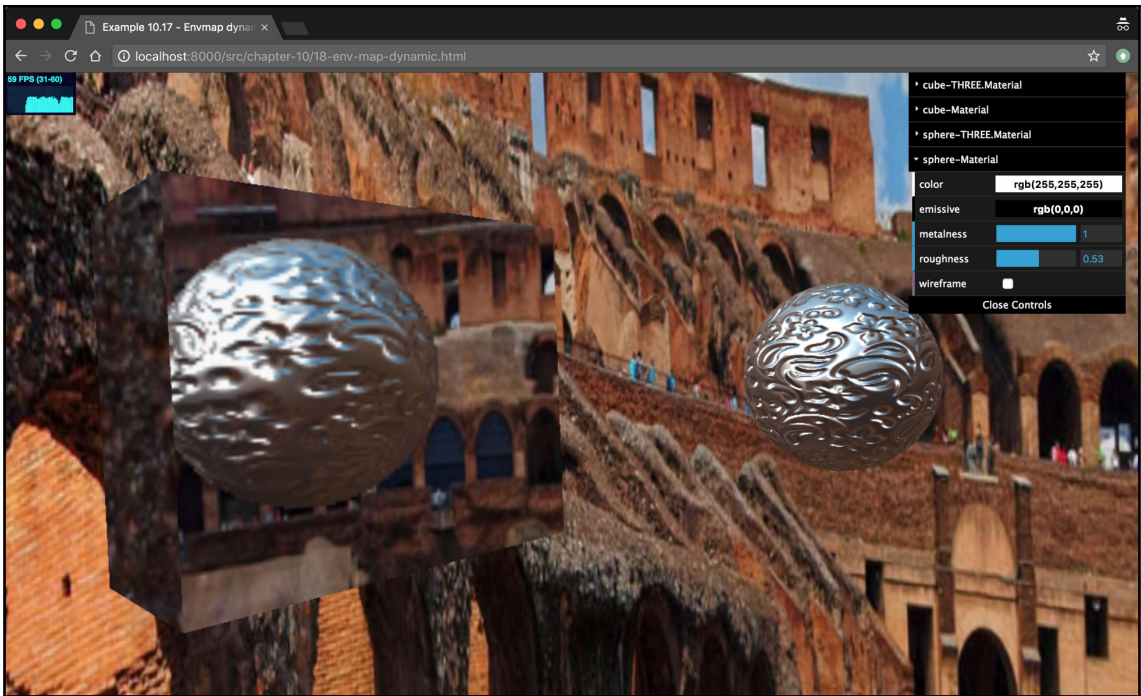


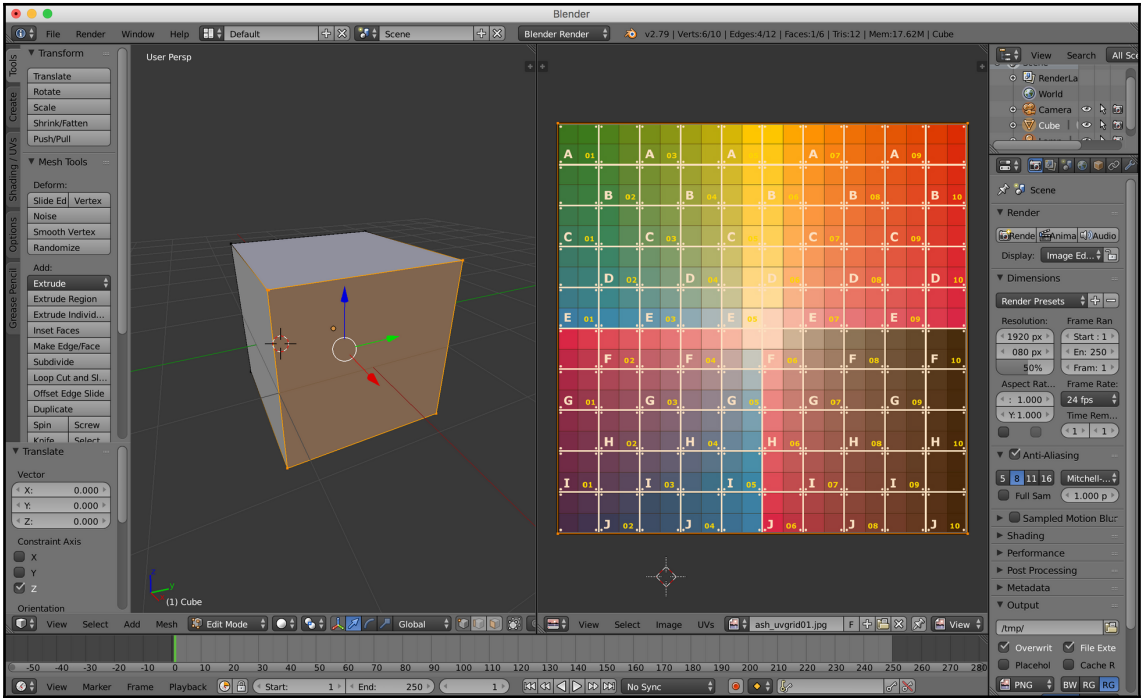


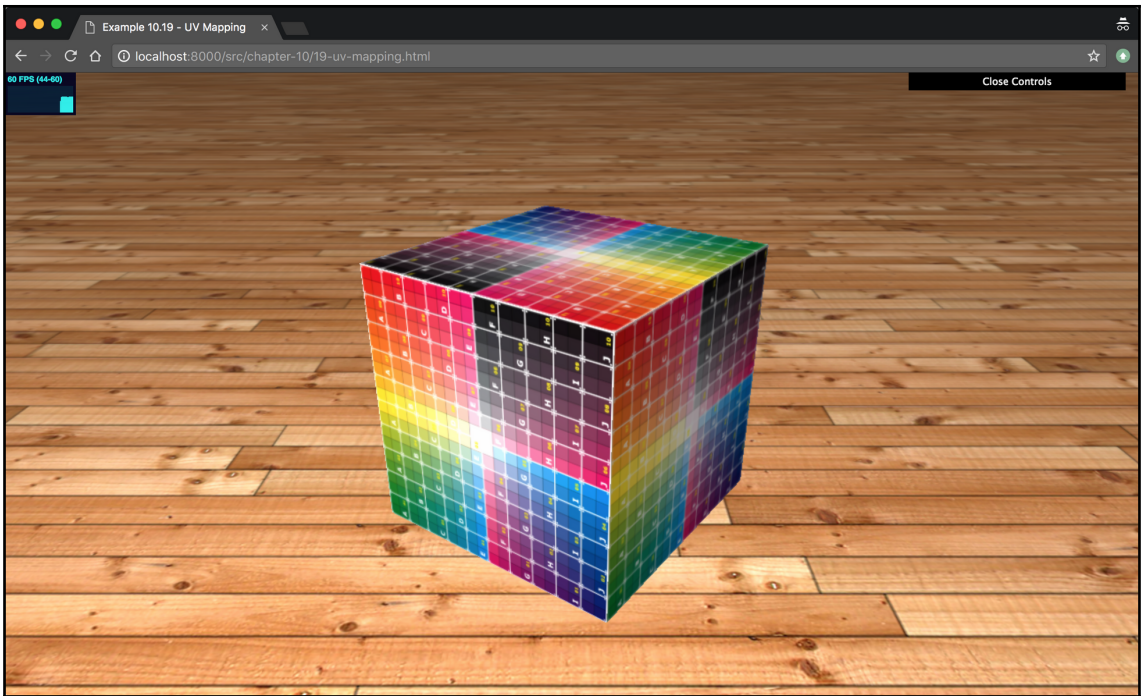


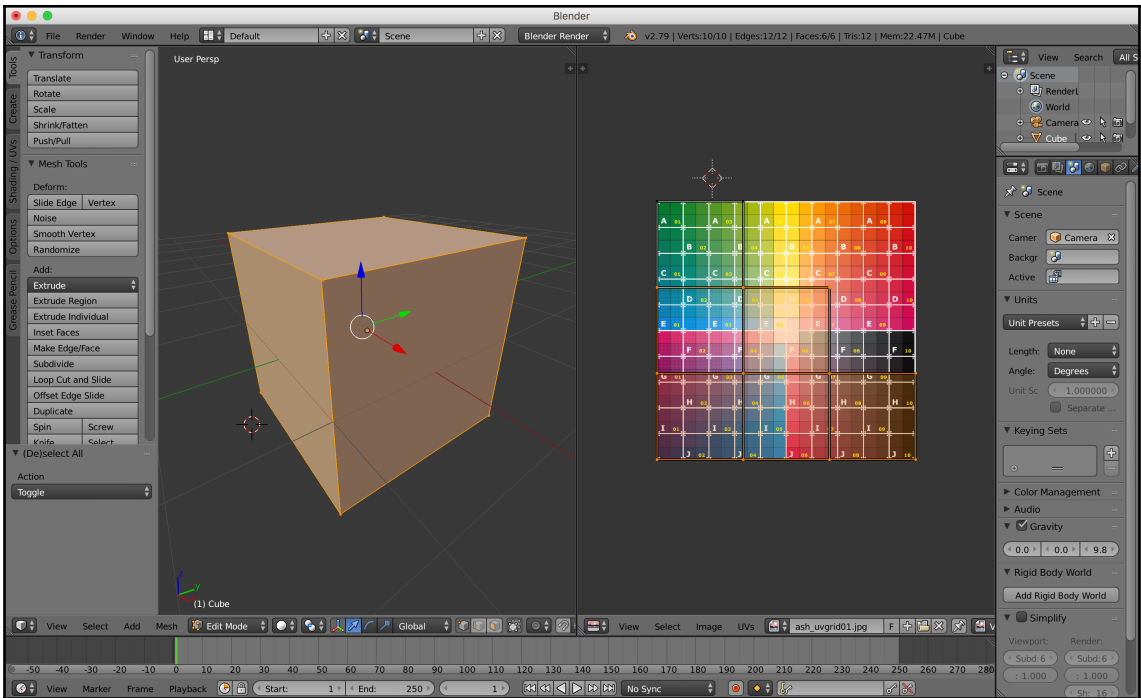


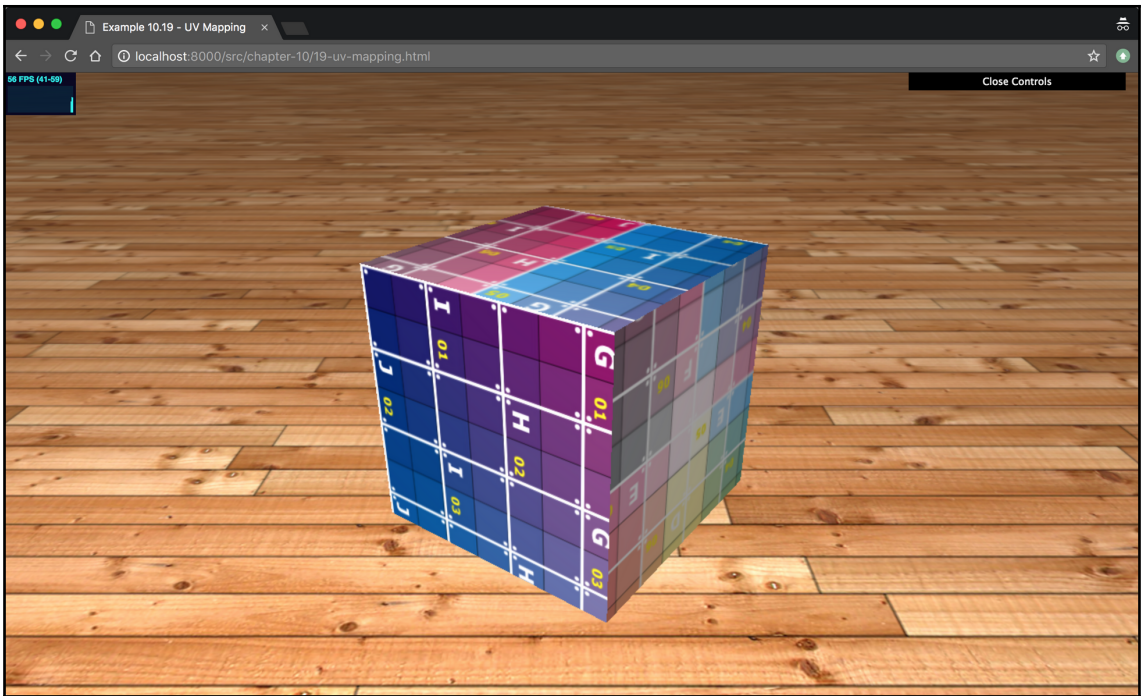


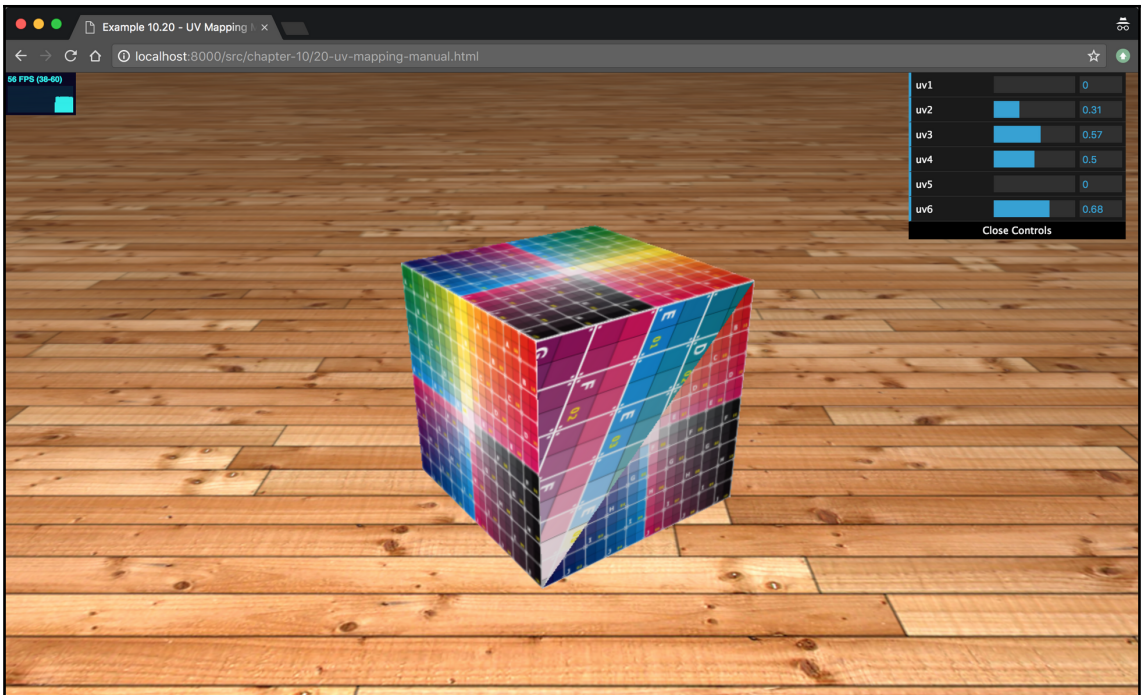


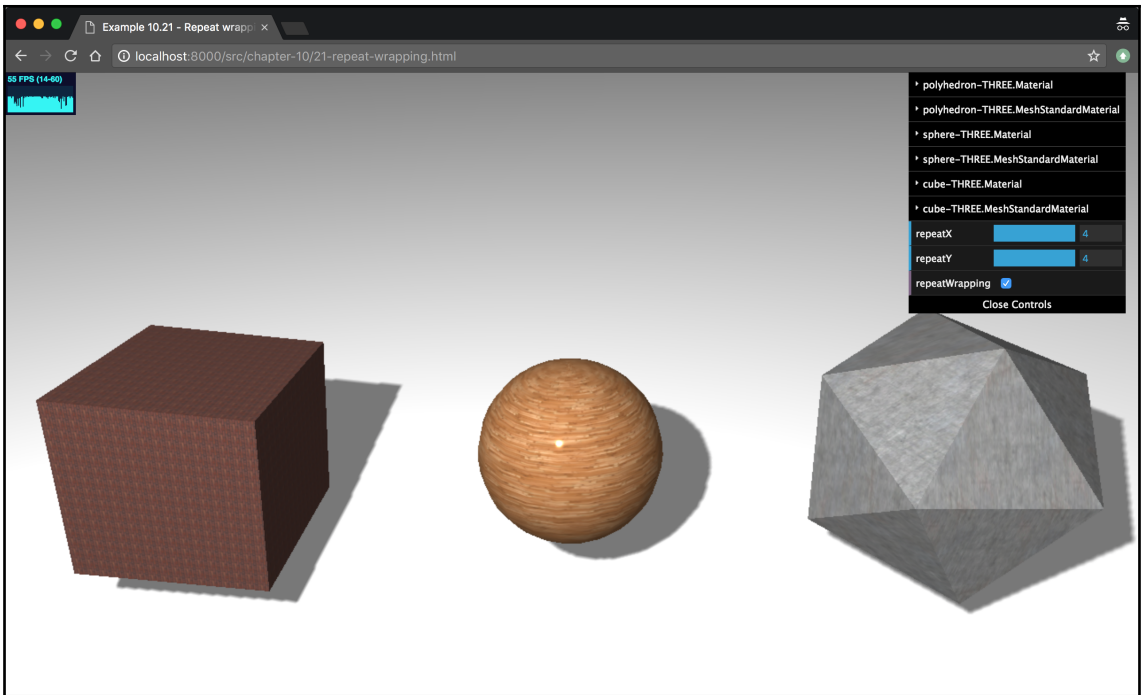


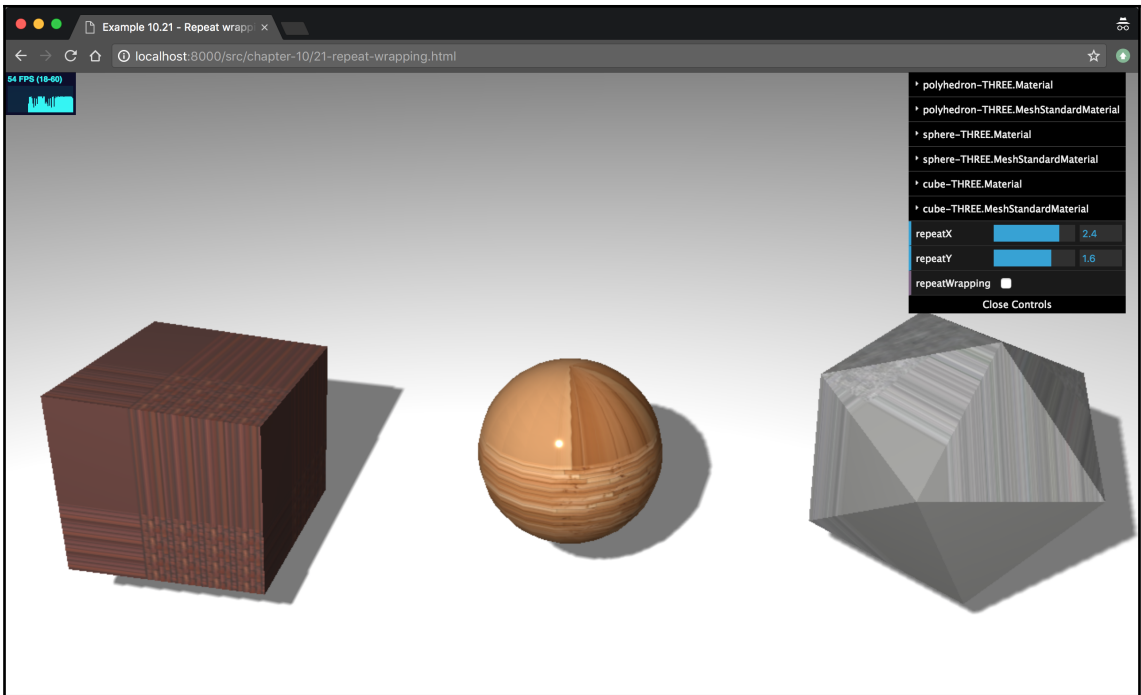


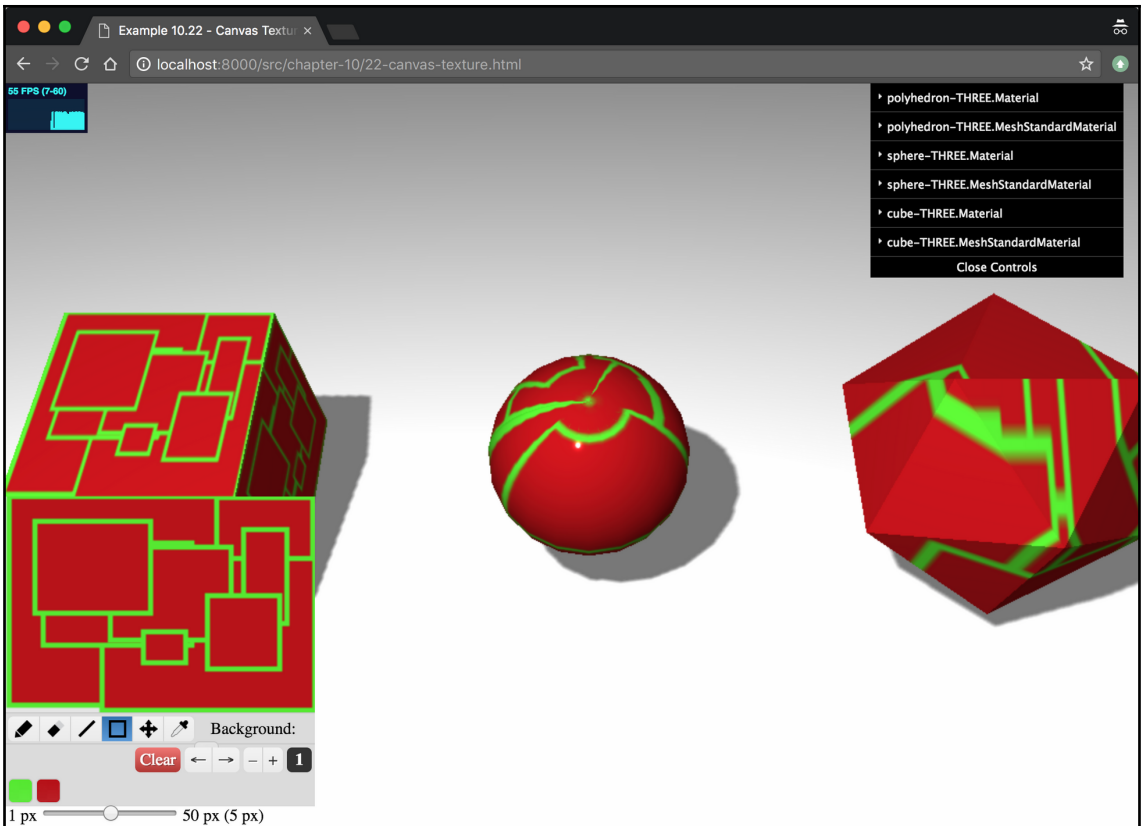


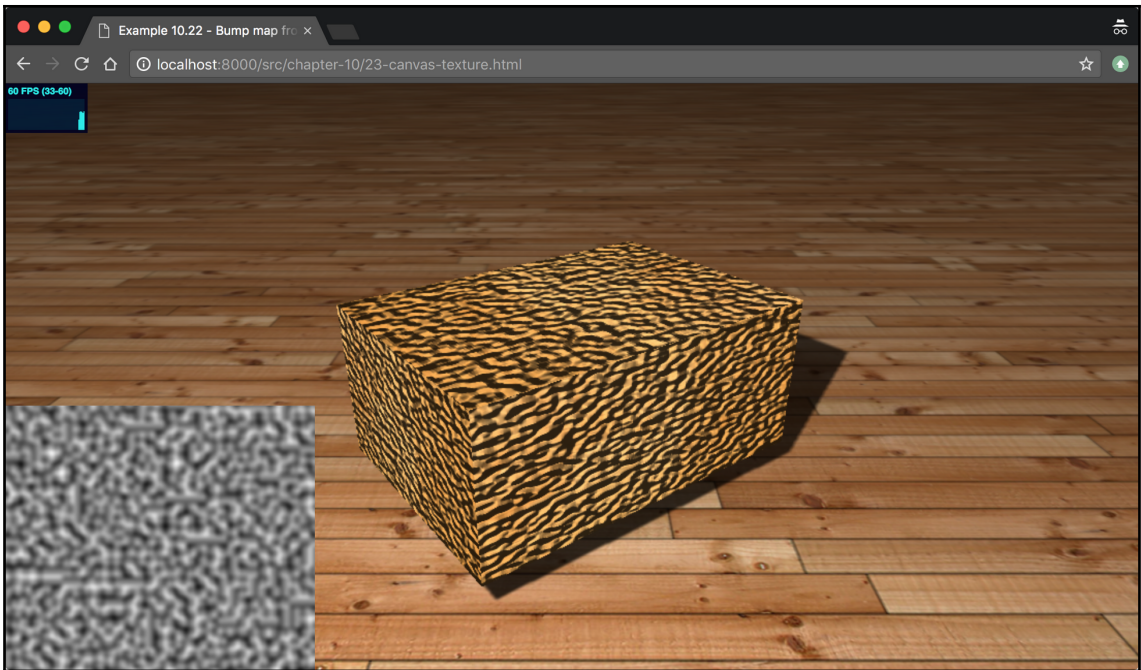


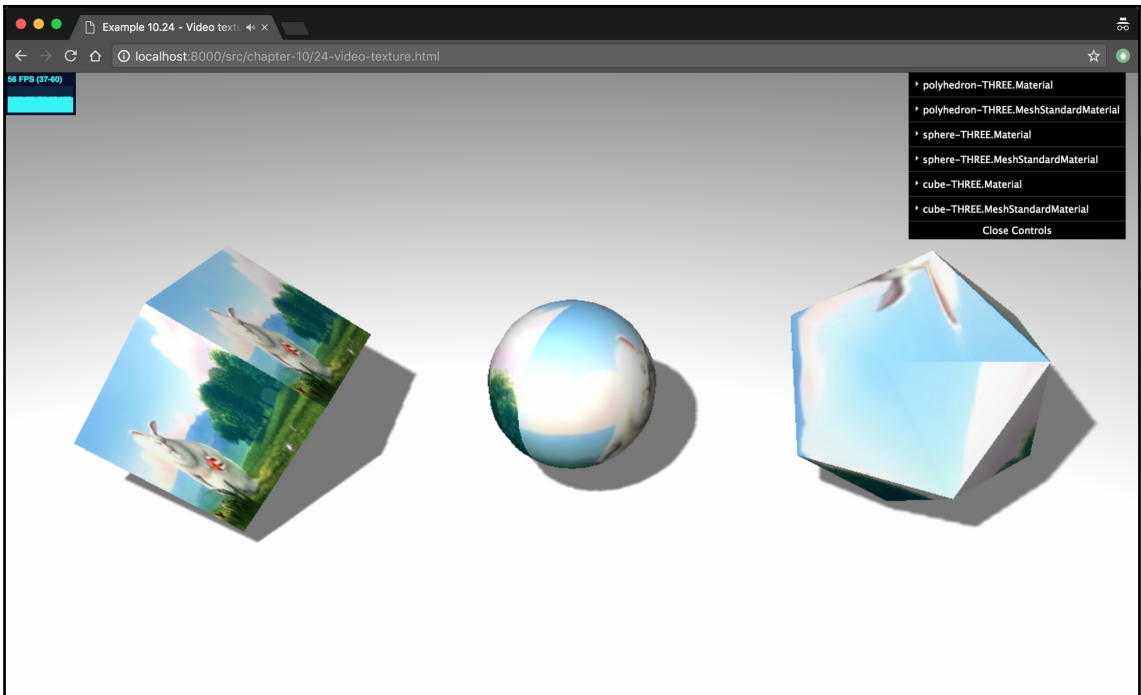




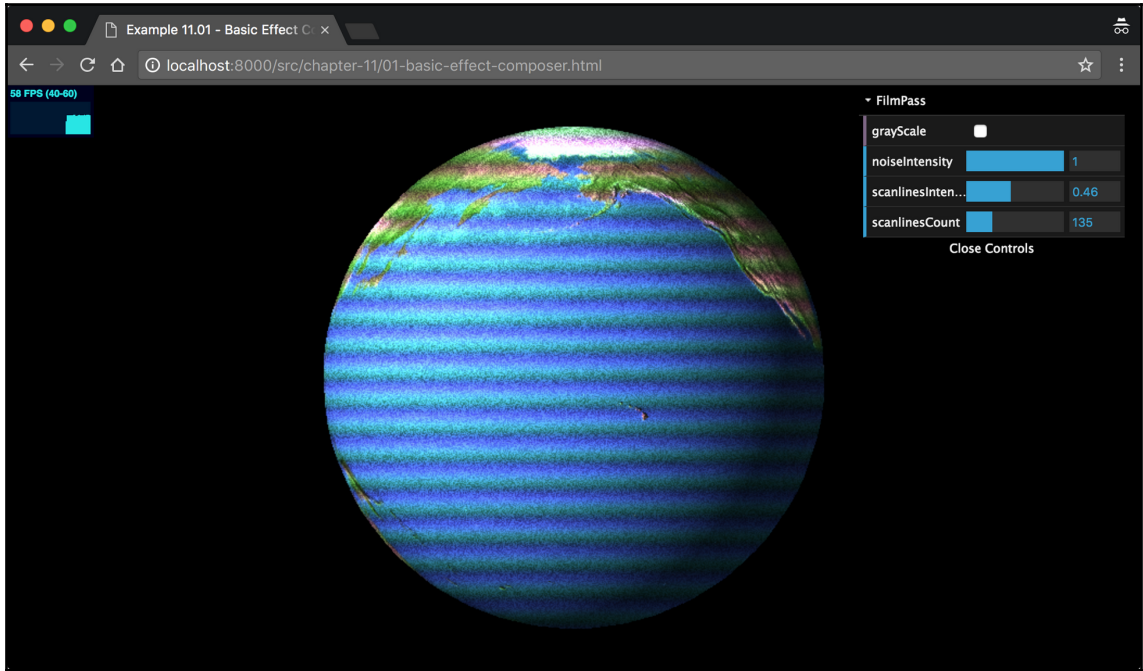


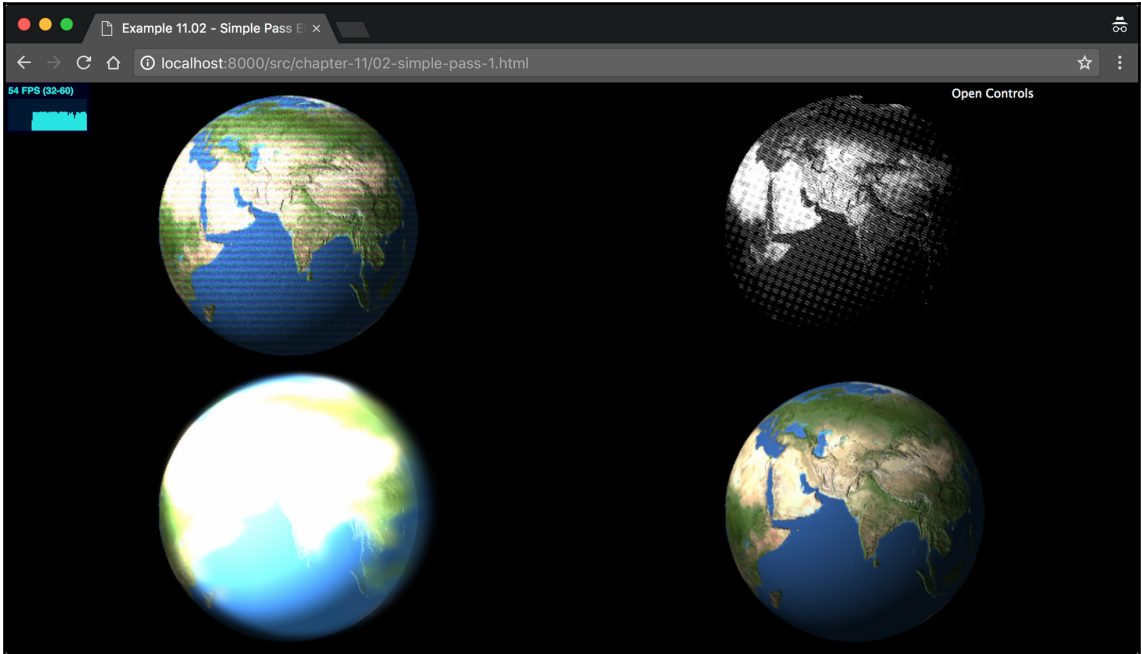
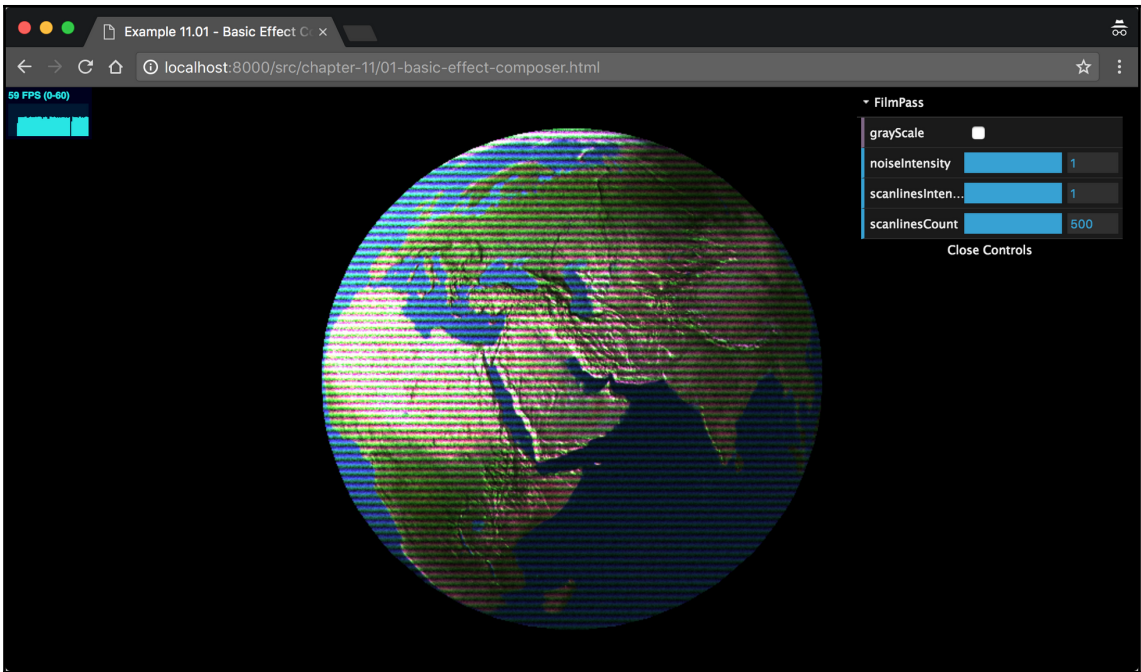


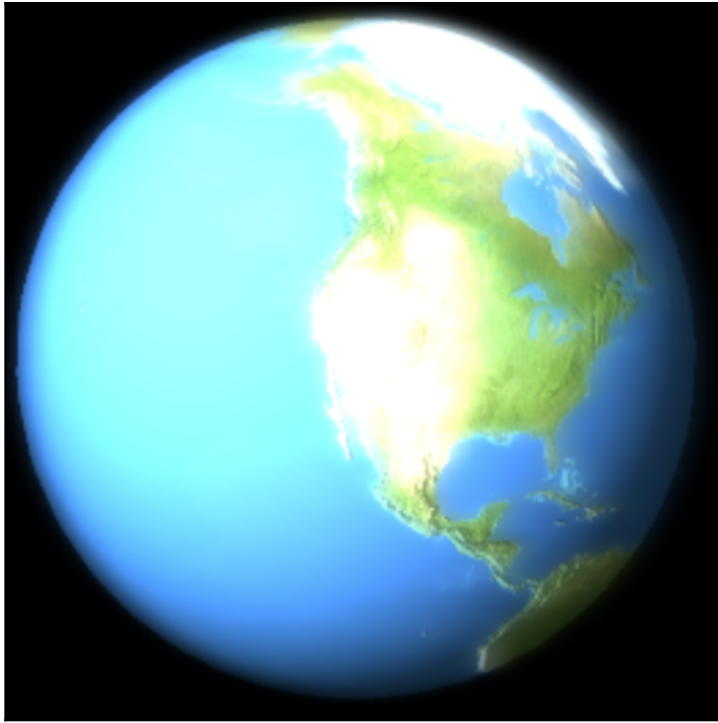


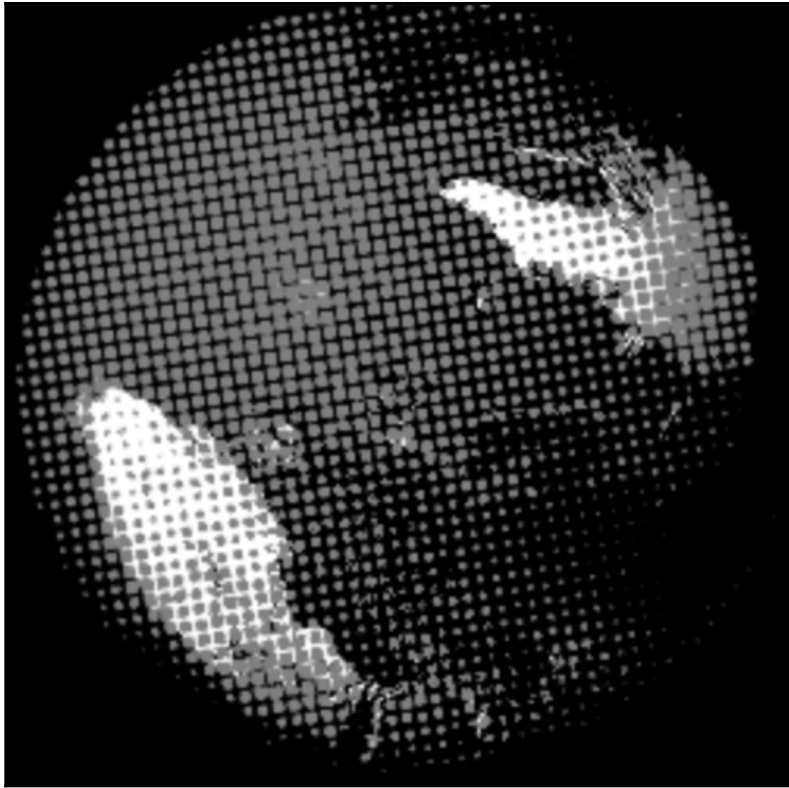


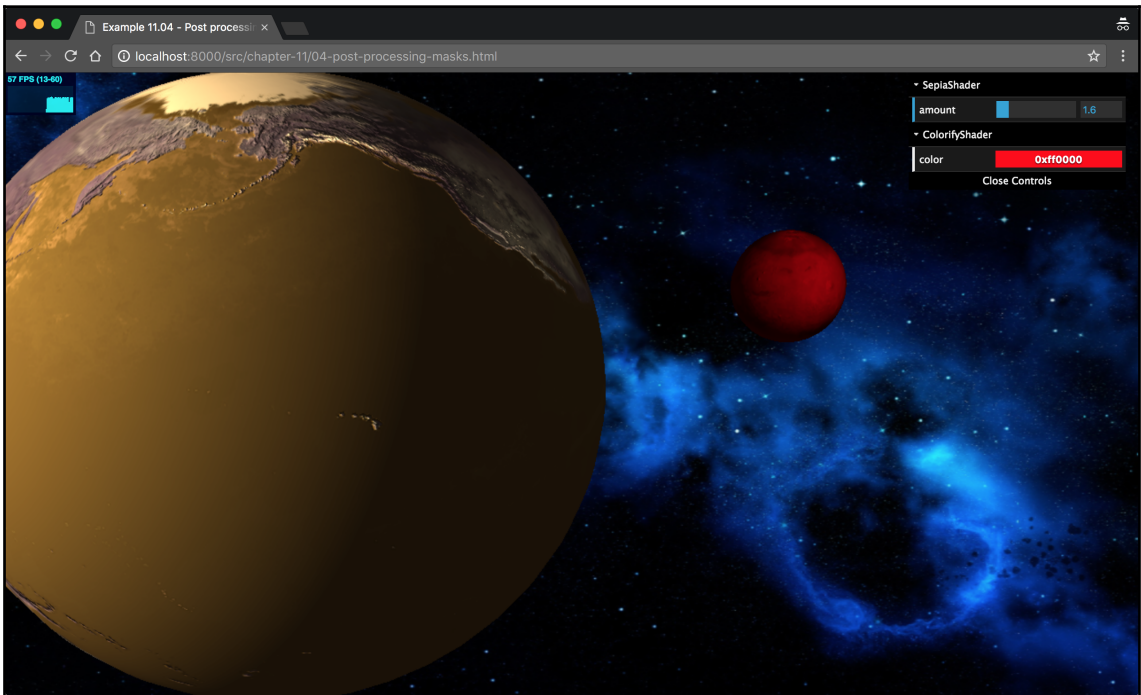
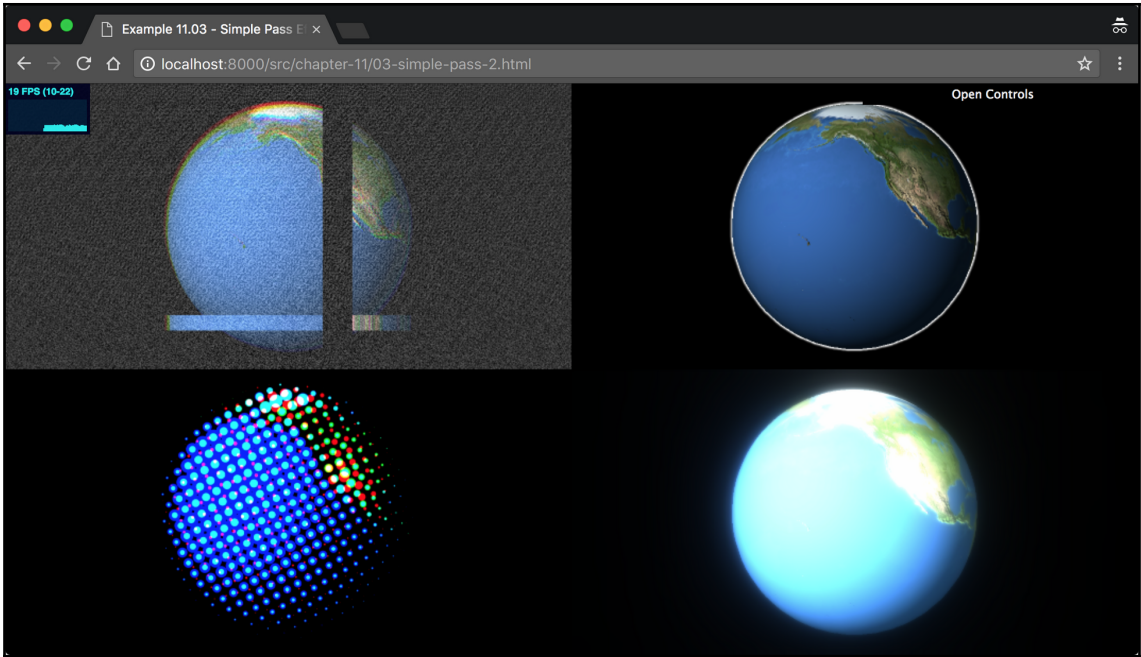
Chapter 11: Render Postprocessing

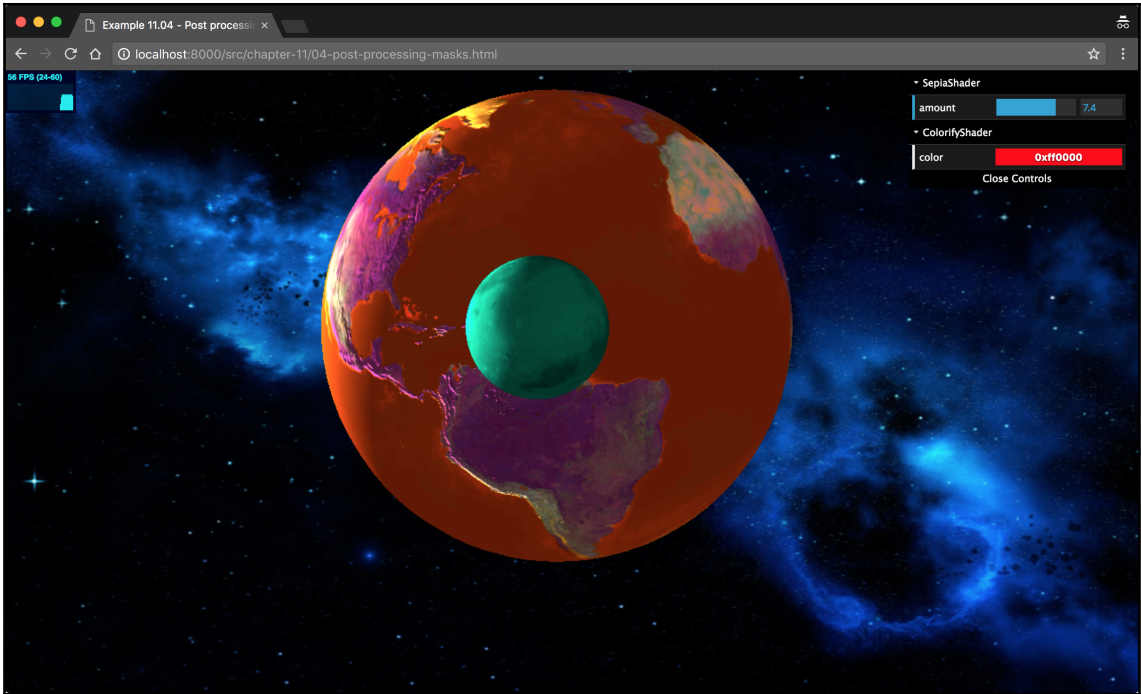


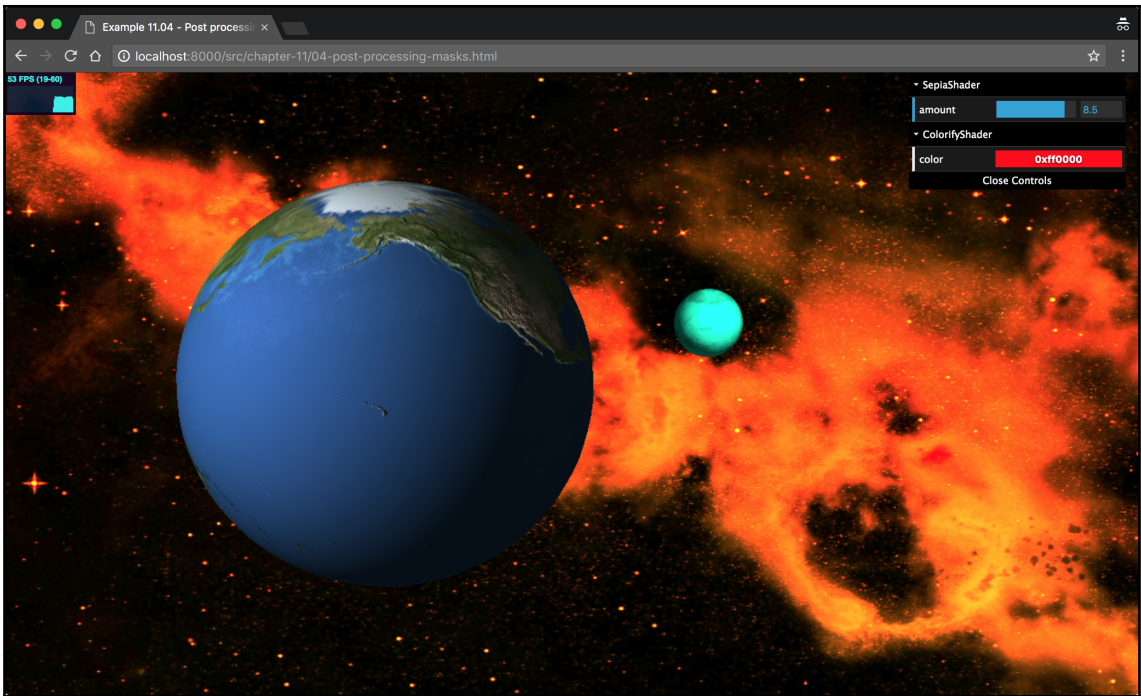


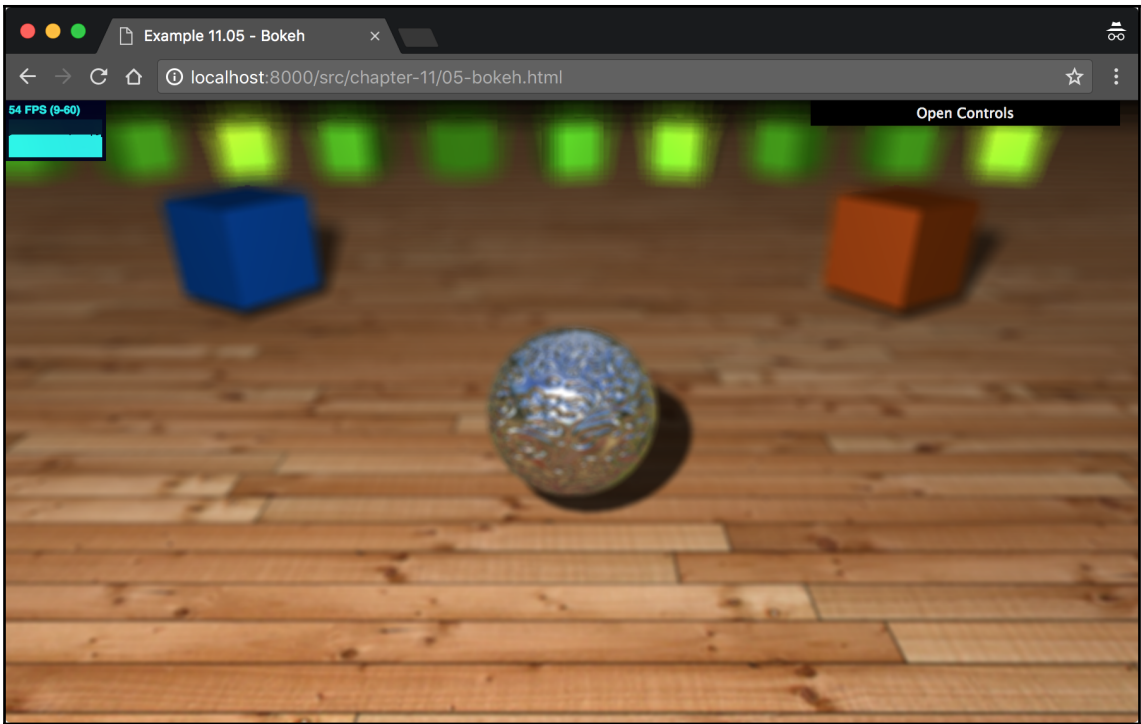


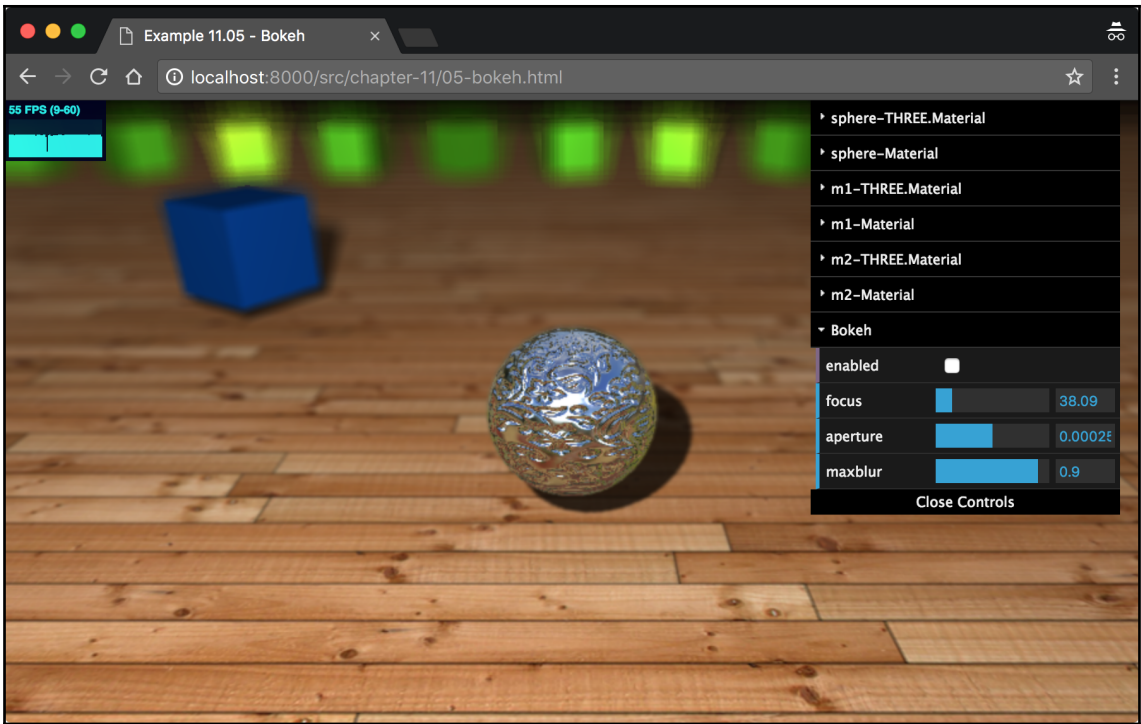


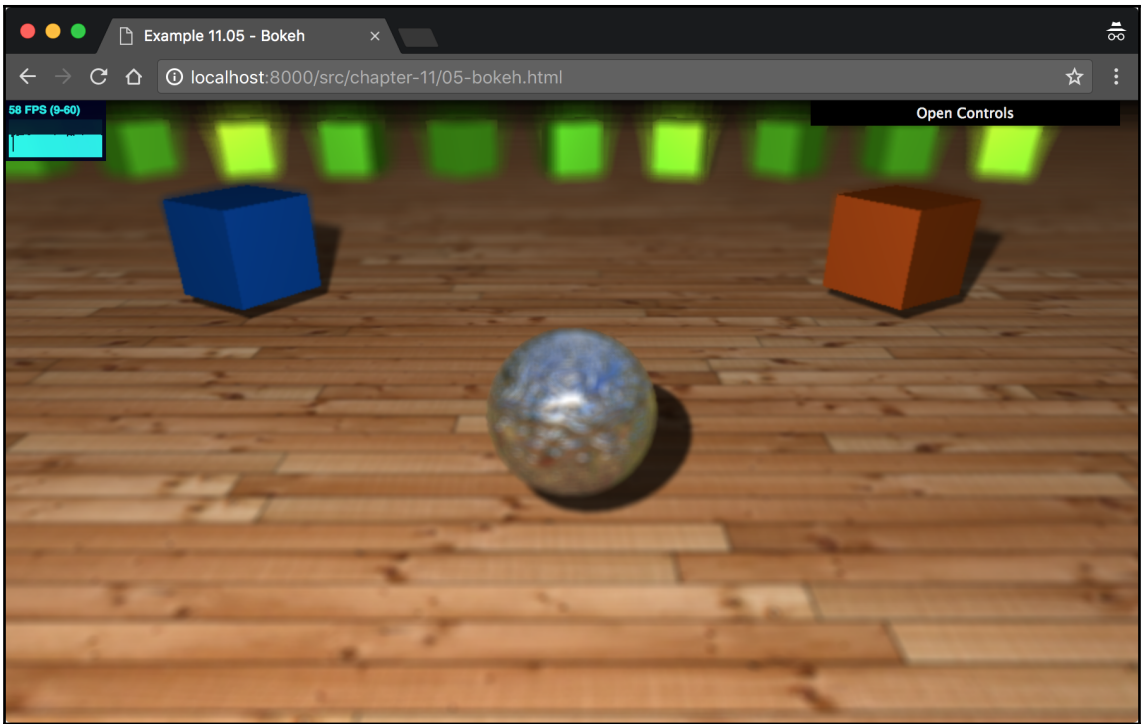


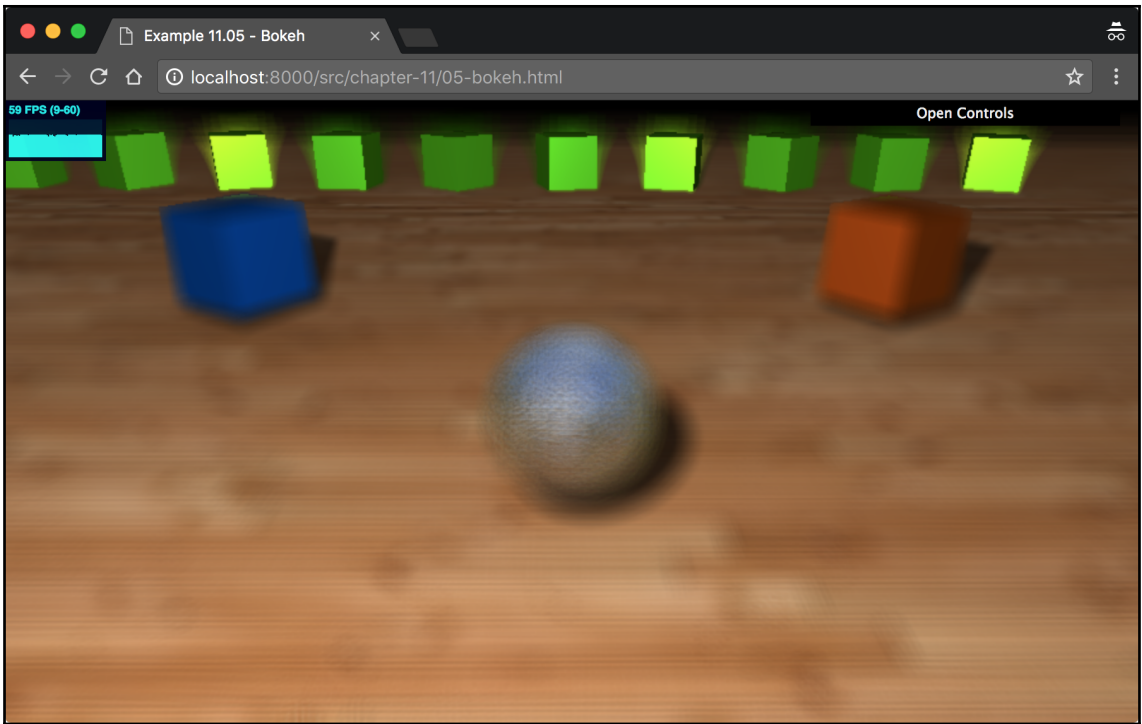


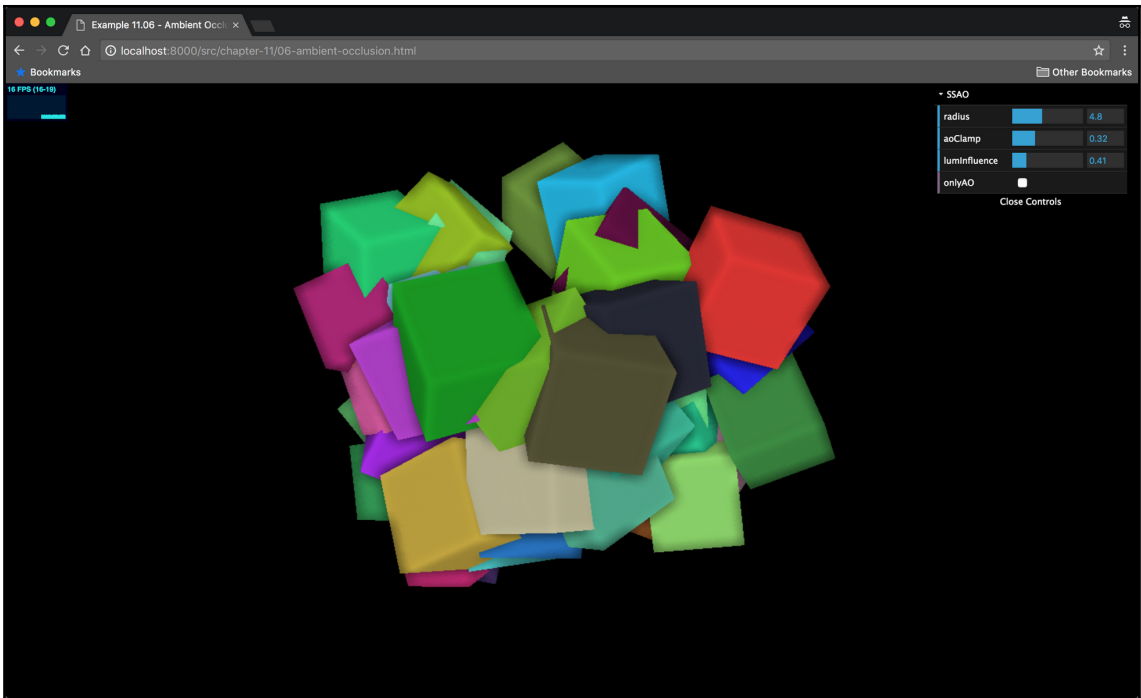


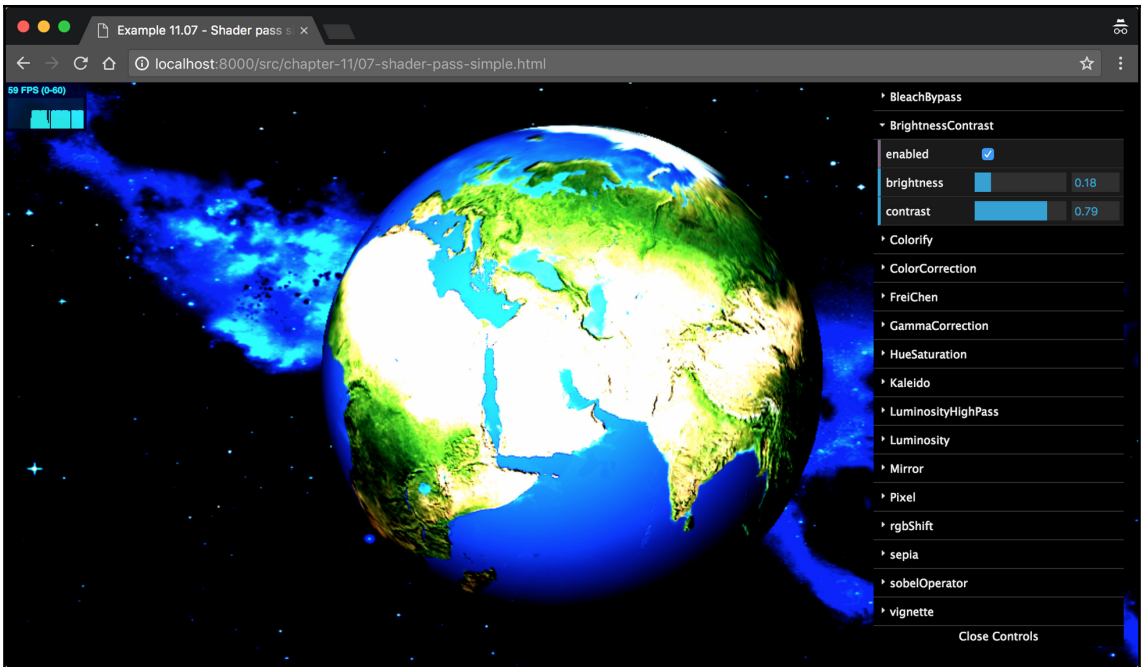
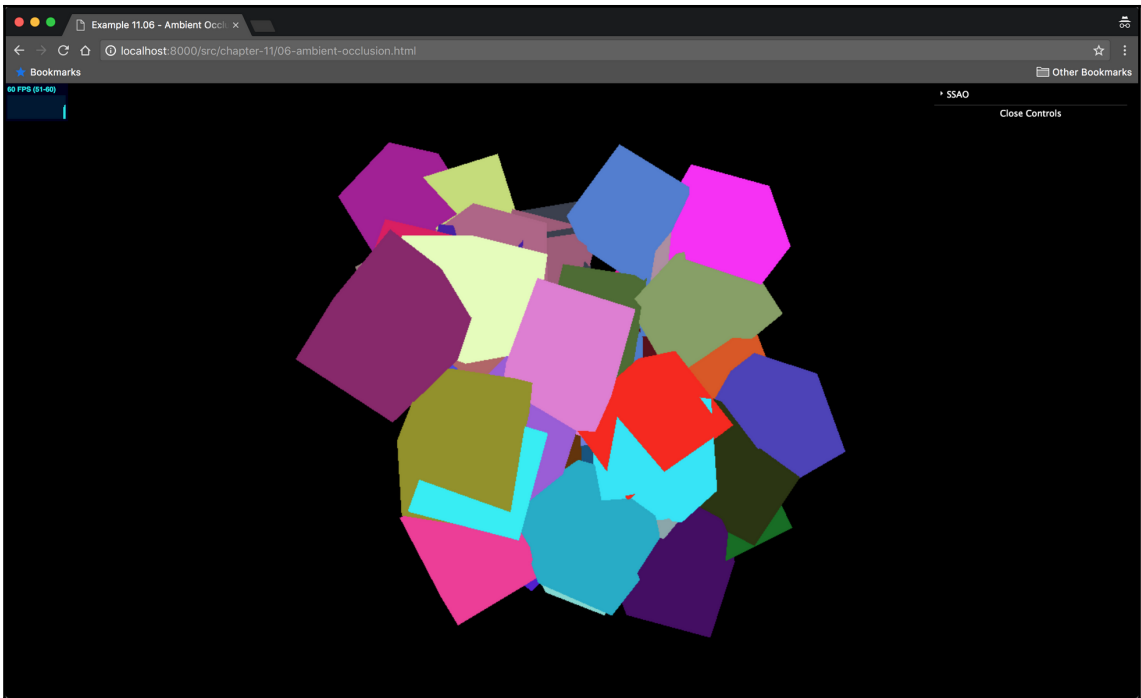


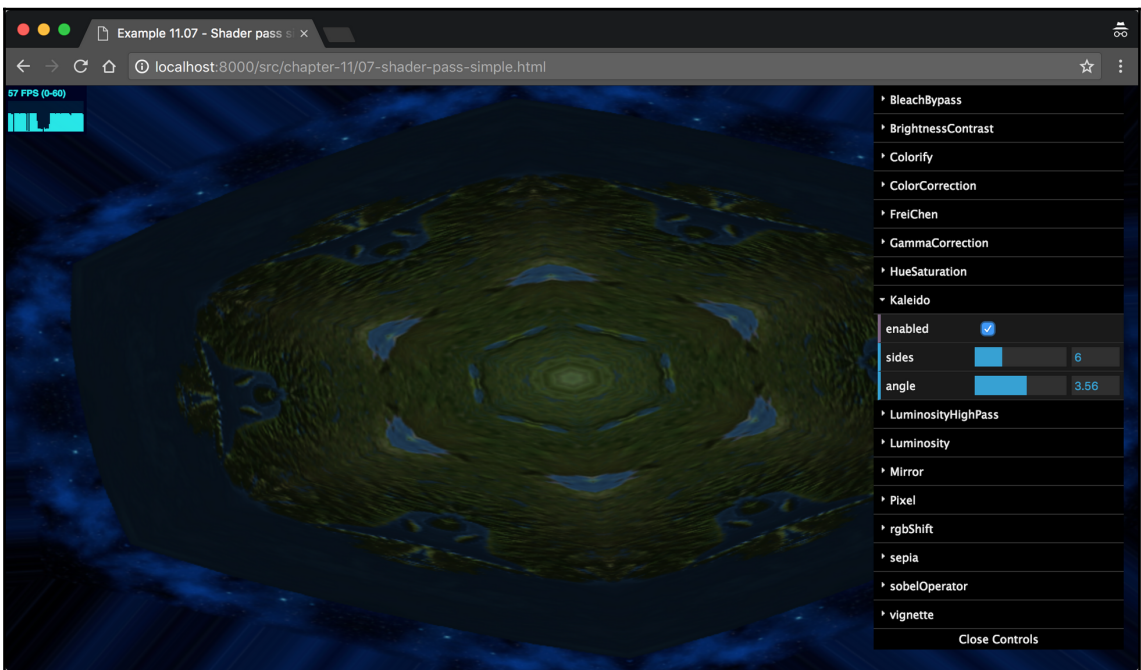
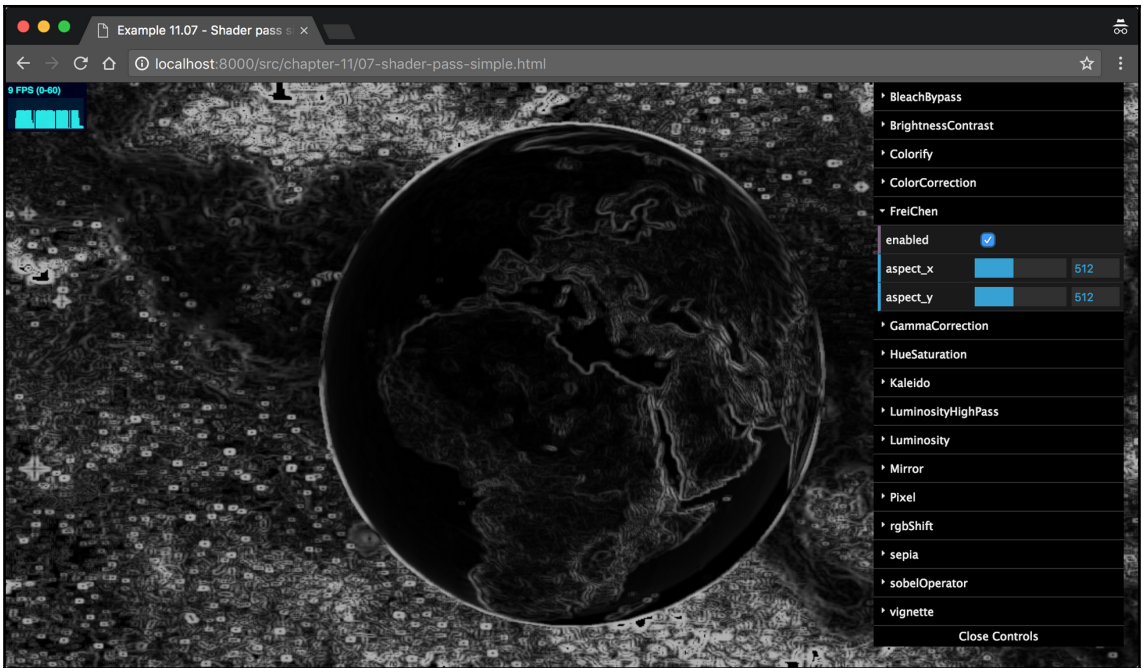


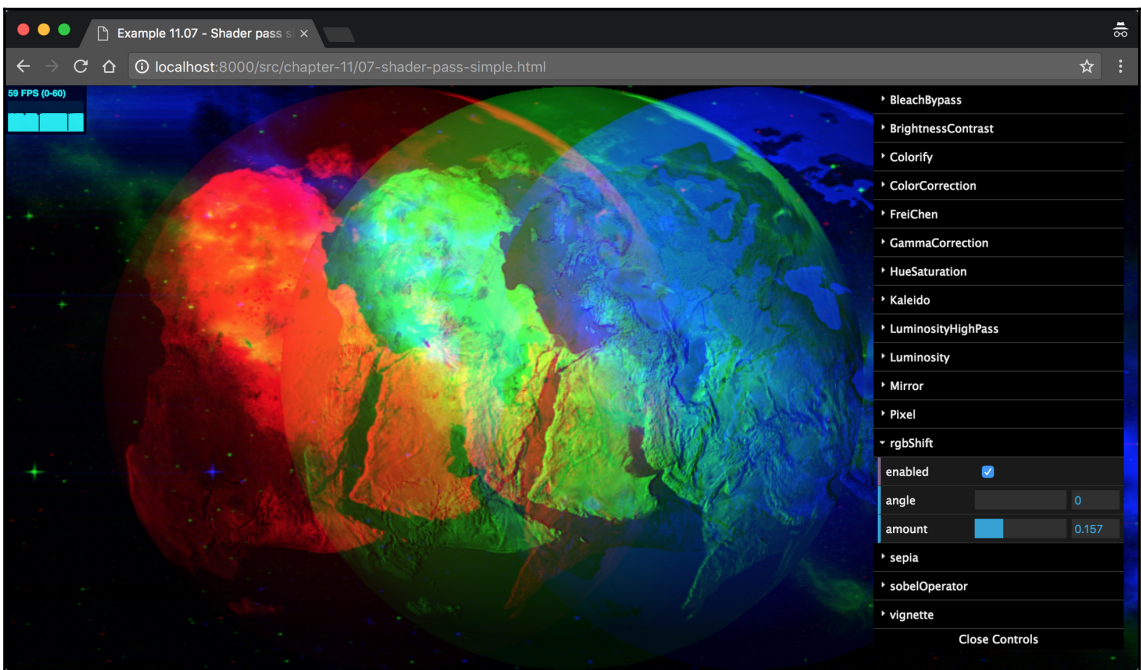
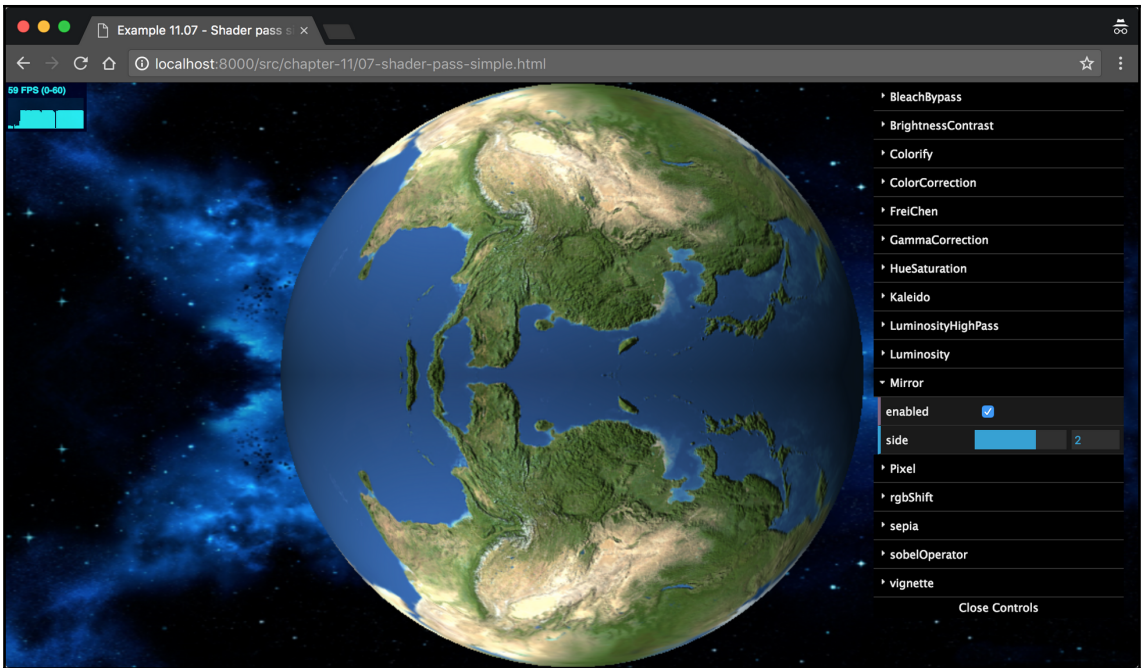


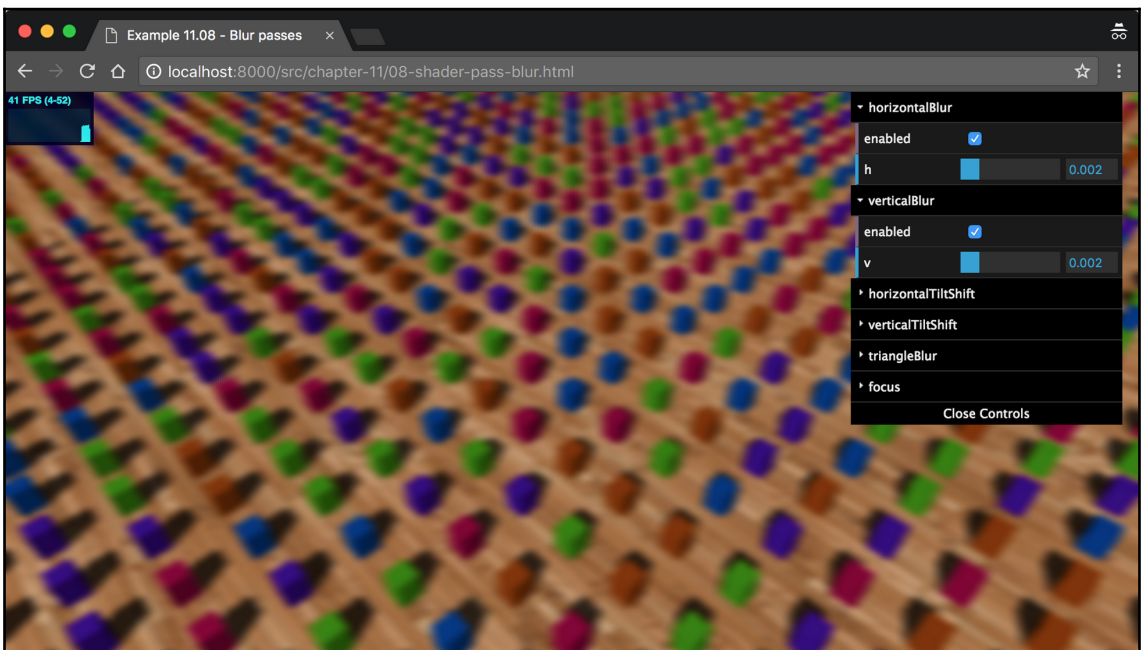
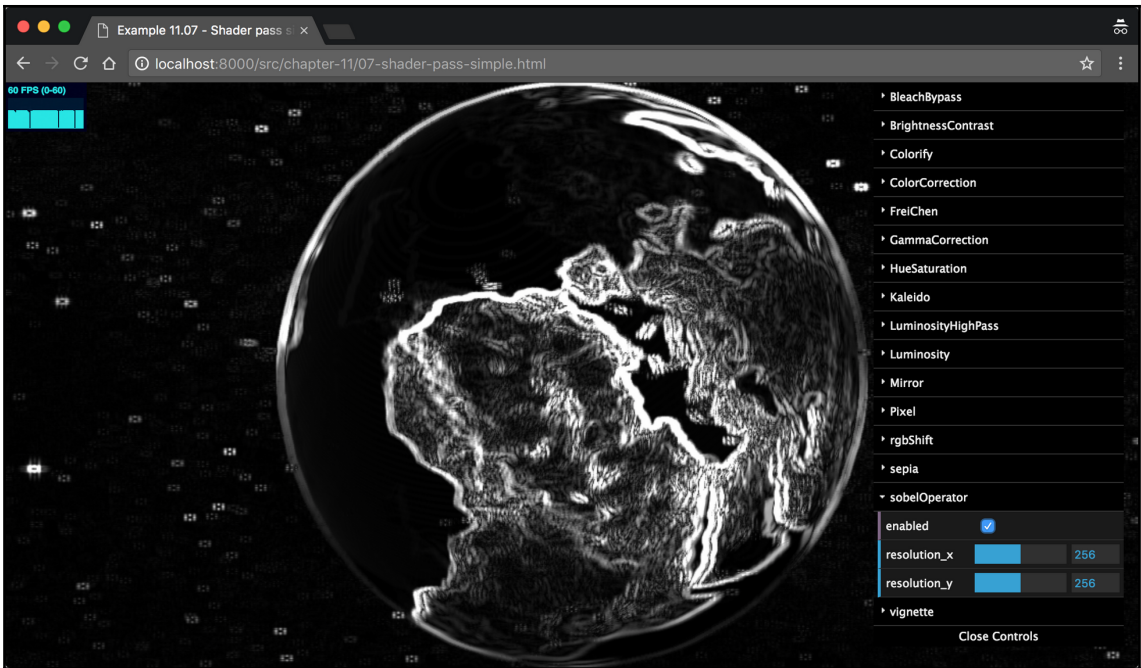


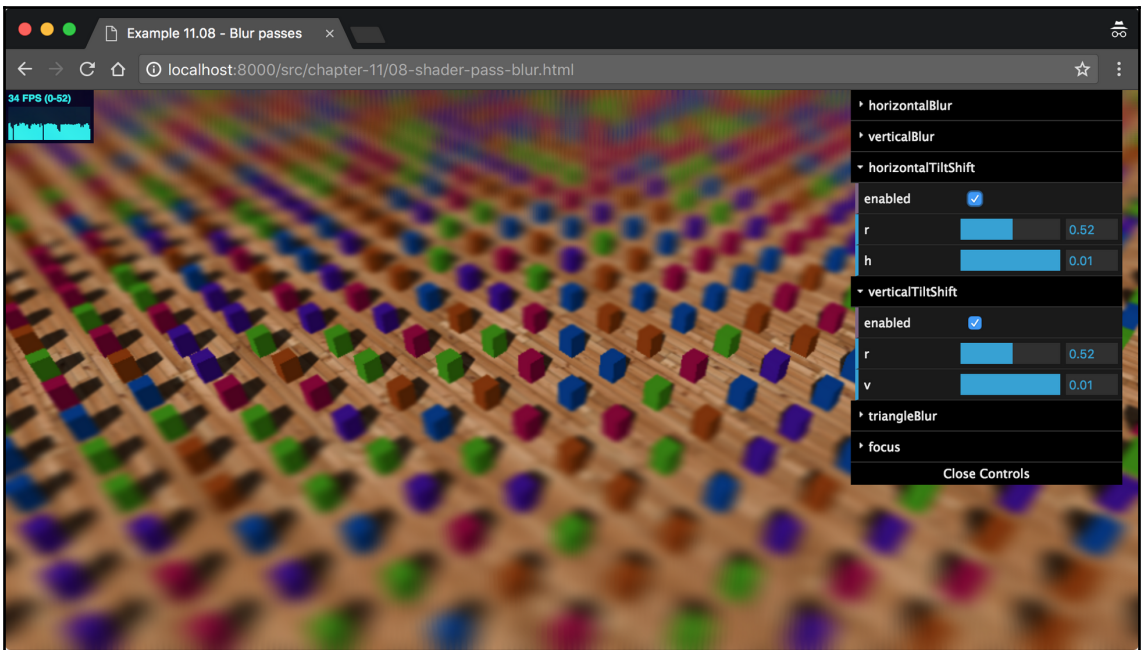
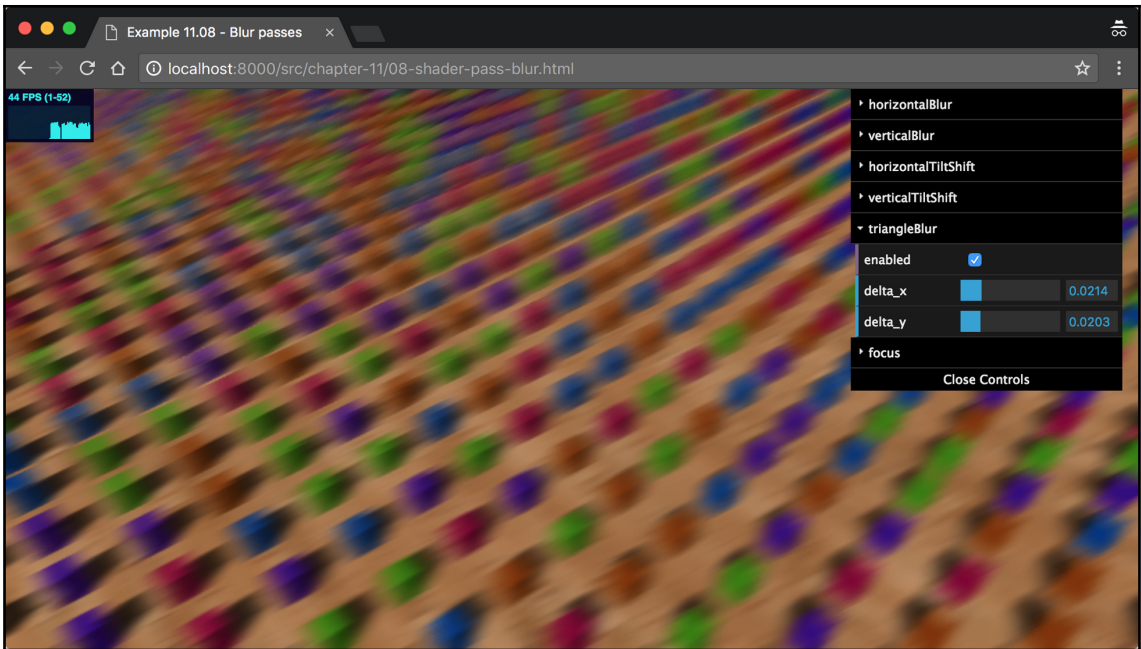


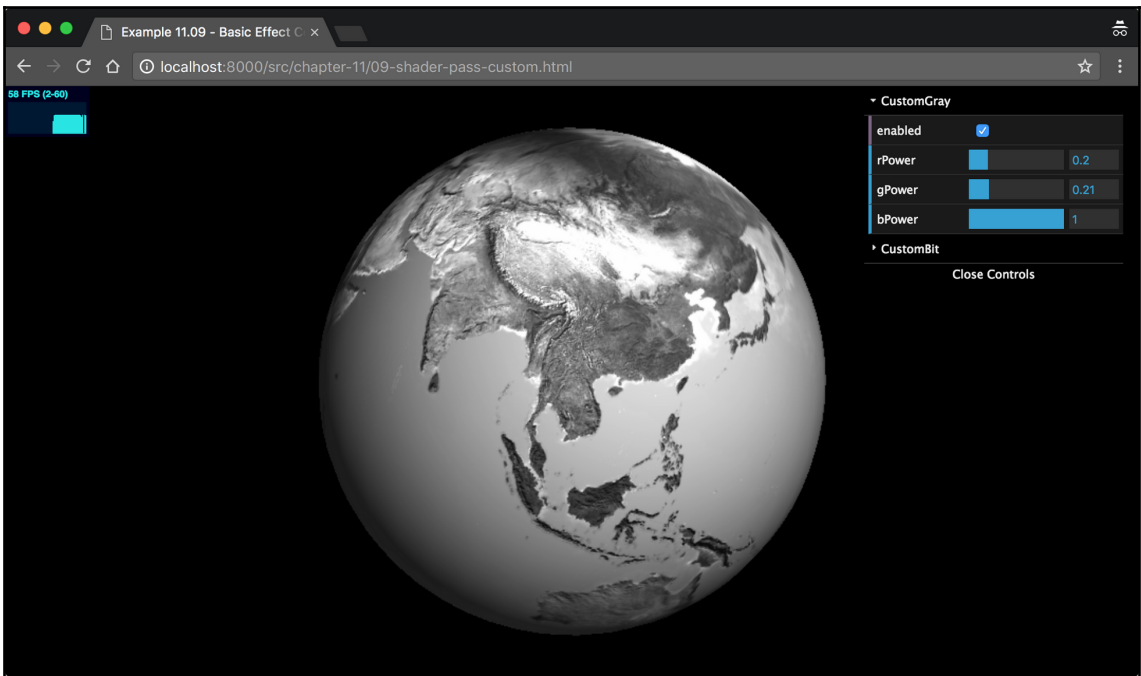
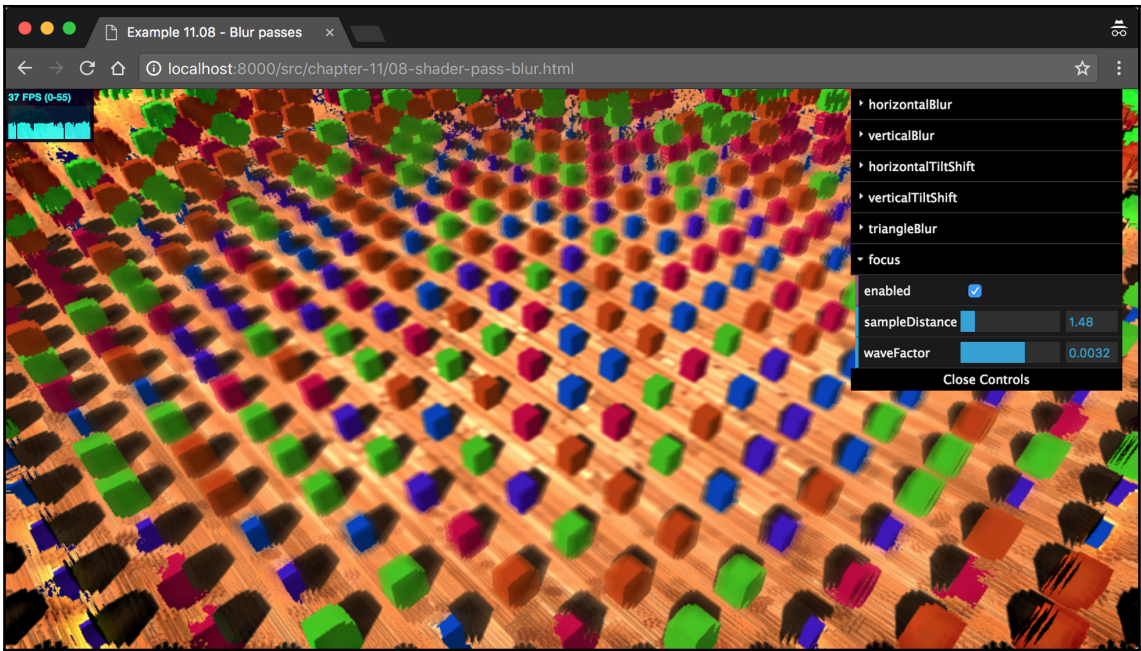


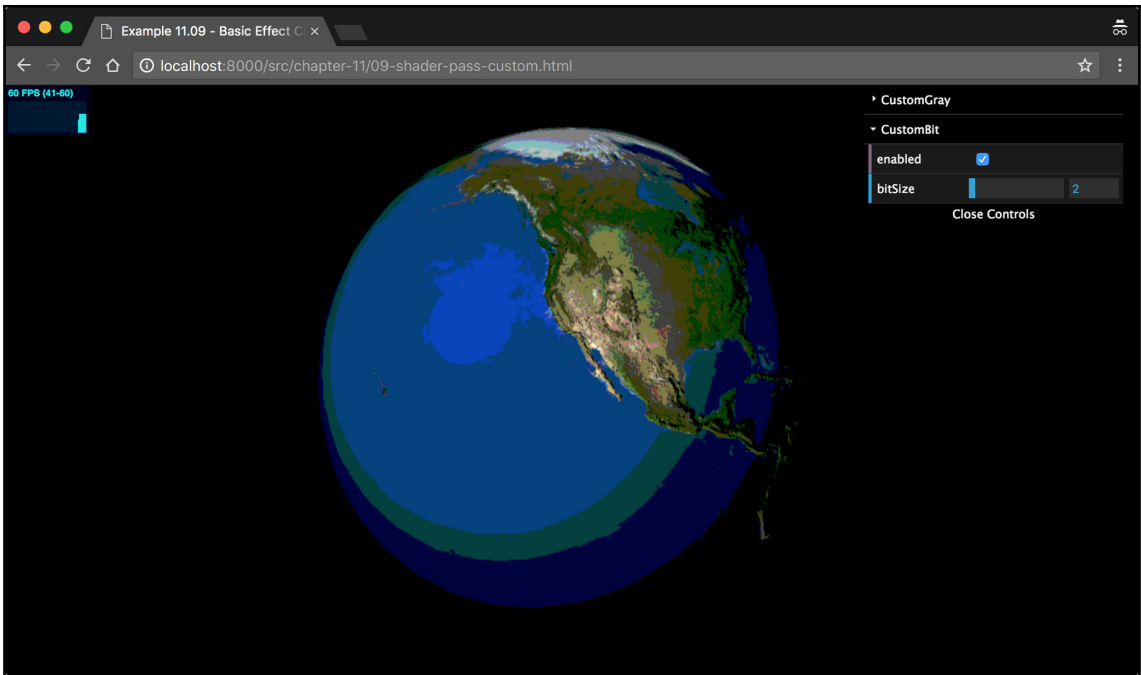












Chapter 12: Adding Physics and Sounds to Your Scene

