Three.js: Creator Ricardo Cabello (mrDoob)

Javascript API for WebGL

Results can be high or low level, in canvas or SVG

Compatible with most modern browsers

Hooks into the GPU

CPU can render few calculations very quickly, while GPU does it slowly however with far more parallel processing concurrently

Paints triangles are drawn and then the pixels therein are colored according to the material shader

github.com/mrdoob/three.js/

Basic Scene

github.com/nickolas nikolic/ meetup

index.html

main.js
- Scene
- Camera
- Renderer
  - geometry
  - material/shader

THREE variable Lots of classes

Scene
- Like a container
- Objects, lights, models, particles
- Rendered off output

Mesh
- Combination
  - geometry
  - Material
    - color in hex 0xffffff = white in RGB

Easiest thing to forget is to forget to add the mesh object to scene. Next, lights. Lastly, camera.

Camera
- point of view
- can have many cameras and switch them programmatically
- Kinds
  - perspective → similar to eye w/ adjustible
  - box → isometric

perspective Camera (positionable too)

- Main
- in degrees
- aspect ratio adjustible
- Size -> 'size' of image -> stretchable to viewport

(Aspect ratio is width/Height)

Renderer takes element to transform into canvas and renders objects

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Loading Modules triggers CORS restrictions

To load needed additional modules, run a server.

Bundler needed to follow imports to new files

Webpack is dominant