FBX to/from glTF

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Beyond graphics APIs, we need a runtime 3D Model Format
What’s in a 3D model?

Node hierarchy and geometry

Animations and skins

Materials and textures
glTF Internals

.json
Node hierarchy, materials, lights, cameras

.bin
- Geometry: vertices and indices
- Animation: key-frames
- Skins: inverse-bind matrices

.glt
Shaders

.png, .jpg, ...
Textures
gltF viewers

three.js Loader
https://github.com/mrdoob/three.js/

It's the native format!
http://cesiumjs.org/

Babylon.js Loader
http://www.babylonjs.com/

Autodesk View & Data
http://developer.Autodesk.com/

collada2gltf converter
https://github.com/KhronosGroup/gltF

Online drag and drop COLLADA to glTF converter
http://cesiumjs.org/convertmodel.html

FBX/... to glTF Convertor
(in development)
Online Drag and drop convertor coming
http://gltf.autodesk.io/
More than just FBX

- .fbx
- .dae
- .obj
- ???

FBX

glTF
I/O FBX plug-in DLL

- **2 components**
  - **Command line tool**
    - `-f/--file` - file to convert to glTF [string]
    - `-o/--output` - path of output directory [string]
    - `-n/--name` - override the scene name [string]
    - `-c/--copy` - copy all media to the target directory (cannot be combined with --embed)
    - `-e/--embed` - embed all resources as Data URIs (cannot be combined with --copy)
  - **I/O FBX runtime extension**

- **Supported on the 3 main platforms**
  - Windows, osx, linux
  - Actually can work on iOS too, but…
Engine integration

- Microsoft - Babylon.js
- Three.js
- …
- Autodesk Forge – View & Data API
FBX-glTF

- https://github.com/cyrillef/FBX-glTF
- http://gltf.autodesk.io