

# The “Geospatial” Profile

---

Leonard Daly

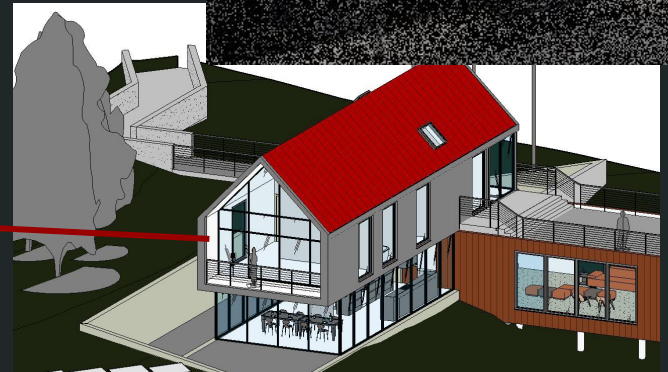
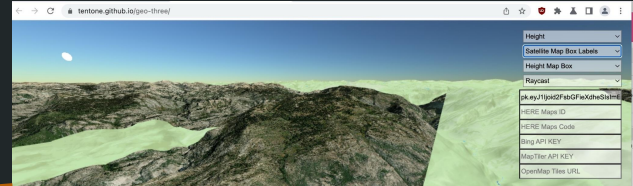
# Geospatial Problem

## HLOD (Tiles)

- streaming textures for Terrain
- Streaming Large Point Clouds
- Large detailed CAD Models

Compressed  
Points/Meshes/other

Metadata connected to Geometry





Source: Confused Person Clipart from [hdclipartall.com](http://hdclipartall.com)

What can a creator include

What should a viewer support

# Geospatial Profile

- Not a specification
- Define features & capabilities to support Geospatial
- Based on available **ratified** extensions
- Updates over time to reflect market & current gITF capabilities
- **Roadmap** for future sub-profiles, so creators and developers can anticipate
- Does not change contents of gITF

# Features in Draft Baseline Profile

- Core glTF V2.0
- Metadata (**KHR\_xmp\_json\_Id**)
- Compression
  - **KHR\_mesh\_quantization**
  - **KHR\_draco\_mesh\_compression**
  - *EXT\_meshopt\_compression*
- Coloring (**KHR\_materials\_unlit**)
- Models
  - **KHR\_texture\_basisu**
  - **KHR\_materials\_variance**
  - *EXT\_mesh\_gpu\_instancing*



## **Ratified Extensions**

*Not Yet ratified*

# Future Profile Work

- Support Wider Range of Metadata
  - Per vertex or texel data
  - References external database
- Develop generalized HLOD system
  - Support large-scale highly detailed models
  - Existing: 3D Tiles (Next) [Cesium], I3S [Esri]
  - Considering: glXF
- Timeline: 9+ months



# Q&A

---

online