The “Geospatial” Profile

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Geospatial Problem

HLOD (Tiles)
- streaming textures for Terrain
- Streaming Large Point Clouds
- Large detailed CAD Models

Compressed
Points/Meshes/other

Metadata connected to Geometry
What can a creator include

What should a viewer support

Source: Confused Person Clipart from hdclipartall.com
Geospatial Profile

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

- Core glTF V2.0
- Metadata (**KHR_xmp_json_ld**)
- 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