Cesium Language (CZML)

A JSON schema for describing dynamic scenes in virtual globes & maps

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What is Cesium?

- WebGL based globe and map
- Open source under Apache license
Cesium Viewer

http://cesium.agi.com/CesiumViewer
What is Cesium?

- One API for 2D/3D/Columbus view
- Specializes in precise, dynamic data
- Includes 3 layers of abstraction
  - Low-level renderer JavaScript API
  - Mid-level scene JavaScript API
  - High-level JSON schema for data-driven visualization (CZML)
What is CZML?

- A JSON schema
- Accurately describes data over time
- Streamable and optimized for clients
- Easy to read and write
- An open and extensible format
File based demo

http://cesium.agi.com/CesiumViewer/?source=Gallery/simple.czml
Stream based demo

http://cesium.agi.com/LotsOfSatellites
czml-writer

- Java and .NET APIs for writing CZML
- Open source under Apache license
- Also contains converters
  - KML, shapefiles, WebGL Globe JSON
  - more on the way
- Code – http://git.io/czml-writer
Converted KML demo

http://cesium.agi.com/CesiumViewer/?source=Gallery/Airports.czml
US based air-traffic

http://cesium.agi.com/CesiumViewer/?source=Gallery/FAA.czml
Enabling CZML in clients

- Reference JavaScript implementation available in Cesium
- Reference code can be used largely as-is to add support to other maps and globes
- If you’re interested, let us know; we want to help.
A call for collaboration

- CZML specification is a work in progress
  - Latest specification: [http://git.io/czml](http://git.io/czml)
  - Greatly appreciate feedback
  - Want the community to help shape the standard

- Cesium is under development
  - Always looking for good developers, artists, designers, etc…
  - Lots of low hanging fruit for new contributors

- In short, we want you to come play with us and help build our community
Important links

- Google Groups
  - [https://groups.google.com/forum/#!forum/cesium-dev](https://groups.google.com/forum/#!forum/cesium-dev)
  - [https://groups.google.com/forum/#!forum/cesium-announce](https://groups.google.com/forum/#!forum/cesium-announce)
Questions?