



Streaming 3D Map FAQs

General

What is a Streaming 3D Map?

Streaming 3D Maps are the next trend in GIS, AEC, and Real Estate visualization, combining 2D and 3D data on an open-source globe application called Cesium. They are 100% web-based. [Try a demo](#) on the CyberCity 3D website to see for yourself.

What is Cesium?

Cesium is a free, open-source 3D globe application developed by Analytical Graphics, Inc. (AGI). Cesium is based entirely in your internet browser and has a vast online community that collaborate on advancing the features and uses of the platform. [Learn more](#) on the Cesium website.

Who is AGI?

AGI provides commercial software for designing, developing and operating missions within the space and national defense communities. [Learn more](#) on the AGI website.

How does CyberCity 3D work with AGI?

CyberCity 3D has always been a provider of high quality 3D data. While our models work on a variety of platforms including ArcGIS, SketchUp, Autodesk Infraworks, Rhino and Google Earth, none are suited for high efficiency web mapping like Cesium. CyberCity 3D and AGI entered into a partnership in 2015 to create Streaming 3D Maps utilizing both the Cesium platform and CyberCity 3D high resolution building data.

Data Preparation & Setup

Who builds the 3D map?

Depending on the type of license you select, either your organization or CyberCity 3D will build your map. Unless your organization has extensive JavaScript and GIS development experience, CyberCity 3D will set up the map.

What data can be displayed in Cesium?

Cesium can visualize both 2D and 3D data. This includes .shp, .json, .kml, collada (.dae), and other file formats. Note that collada files must be converted into glTF format using Cesium's [glTF converter](#).

Can I use my existing data in the Streaming 3D Map?



Yes! Proprietary 3D models created in other platforms such as SketchUp and Revit can be optimized for upload into your Streaming 3D Map. Existing 2D data managed in other systems such as ArcGIS and can be uploaded into the map as well. Existing data can also be added to CyberCity 3D models as "clickable" pop-up building attributes. The possibilities are nearly endless.

How often is the map updated?

CyberCity 3D typically updates a map monthly or quarterly. Depending on the data used and the preferences of the client, this can be adjusted.

Licensing & Fees

What are the licensing options?

CyberCity 3D currently offers 2 licenses for our 3D Streaming Maps:

1. **Basic License:** This is our most common licensing, and is intended for clients that desire a turnkey solution to visualize and stream their data on Cesium. Let CyberCity 3D take care of the setup, hosting, and streaming of your map. This license includes a setup fee, as well as a standard annual streaming fee.
2. **Developer License:** This is intended for clients who have the desire and ability to download Cesium and create a Streaming 3D Map themselves. This option gives you the freedom to customize your solution as much as you can develop it. There is no setup fee involved-- only an annual streaming fee for access to an API key for high resolution streaming buildings.

Do I have to pay per user?

No, CyberCity 3D does not charge based on use. You can share, collaborate on, and publish your Streaming 3D Map across all departments within your organization.

Is there any training required?

No, there is no training necessary to use a 3D Streaming Map. If you choose to partake in a Developer License, Cesium provides ample [documentation](#), as well as a highly active [help forum](#), to assist you while you develop your own map.

CyberCity 3D Data

How does CyberCity 3D produce the high resolution 3D building models?

We create our models using our patent-pending photogrammetric modeling software-- the core of our technology stack. This semi-automatic process begins with the acquisition of



stereo-imagery. From there, point clouds are created, which are then formed into our 3D buildings . Finally, the models are exported into one of several leading 3D formats.

Does CyberCity 3D capture the stereo imagery?

No, we do not capture our source imagery . Depending on the city modeled, we acquire the imagery files from either the local municipality, or third party imagery vendors. The source imagery is captured from either aircraft or satellite. If imagery is not available off-the-shelf, we can contract a new flight over an area from a vendor.

Can I add information attributes to the models?

Yes, a CyberCity 3D building model is essentially a data file that can store several types of information. When our models are created, 14 measurement attributes are automatically included with each building, with 6 inch accuracy. See table below for a list of these measurements:

ATTRIBUTES	DESCRIPTION
Building ID	Unique building ID number
Area	Planar area size
Volume	Volume of building
Block Volume	Building volume with roof sub-structures removed
Flat Height	Building height with roof sub-structures removed
Ground Z	Z coordinate of the lowest point of building
Top Z	Z coordinate of highest point of building
Height	Maximum building height (Top Z subtract Ground Z)
MinRoof Decline Angle	The minimum decline angle of roof faces
Translate X	Translation value of X coordinates in local projection
Translate Y	Translation value of Y coordinates in local projection
Translate Z	Translation value of Z coordinates in local projection
DAE File Name	Geometry model of building
Data Type	Internal data type reference
Longitude	Longitude coordinates of building (centroid & lower-left)
Latitude	Latitude coordinates of building (centroid & lower-left)
Country	Name of Country building exists in
State	Name of State building exists in
City	Name of City building exists in

Automated Measurement Attributes - Collada Format

In addition to these fields, clients can add their own proprietary information. Common custom attribute fields include building ownership details, square footage, development cost, and energy consumption metrics. These attributes can be seen listed in a building attribute window on your Streaming 3D Map by simply clicking on a model.

What file formats are available?



Our building models are available in shapefile (.shp), geodatabase (.gdb), sketchup (.skp), collada (.dae), object (.obj), .fbx, .dxf, and .kml. For Streaming 3D Maps, we convert models from collada into gLTF, a format optimized for web streaming.

Can I try a sample of CyberCity 3D data to test prior to purchase?

Yes, simply [email us](#) a request for sample data and we will be happy to send you a small sample in any of our available formats, at no charge.

Any more questions? Contact us directly!

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