

Cesium Ion WebODM Plugin

1. Introduction

Overview

The Cesium Ion WebODM plugin enables seamless integration to upload processed WebODM tasks to your Cesium Ion account.

Using the Cesium Ion ecosystem, multi-gigabit models can be streamed to any device using Cesium clients to load 3D tiles.

Learn more at <https://Cesium.com>

Prerequisites

- WebODM version 2.5.0 or later
- [Cesium Ion](#) token with `assets:list, assets:read, assets:write` permissions
- Internet connection

2. Initial Setup

Enabling Plugin

1. Go to "Administration -> Plugins" and enable Cesium ion.
2. Select the left Cesium Ion tab
3. Copy and paste your Cesium Ion token then `Set Token`.

3. Usage

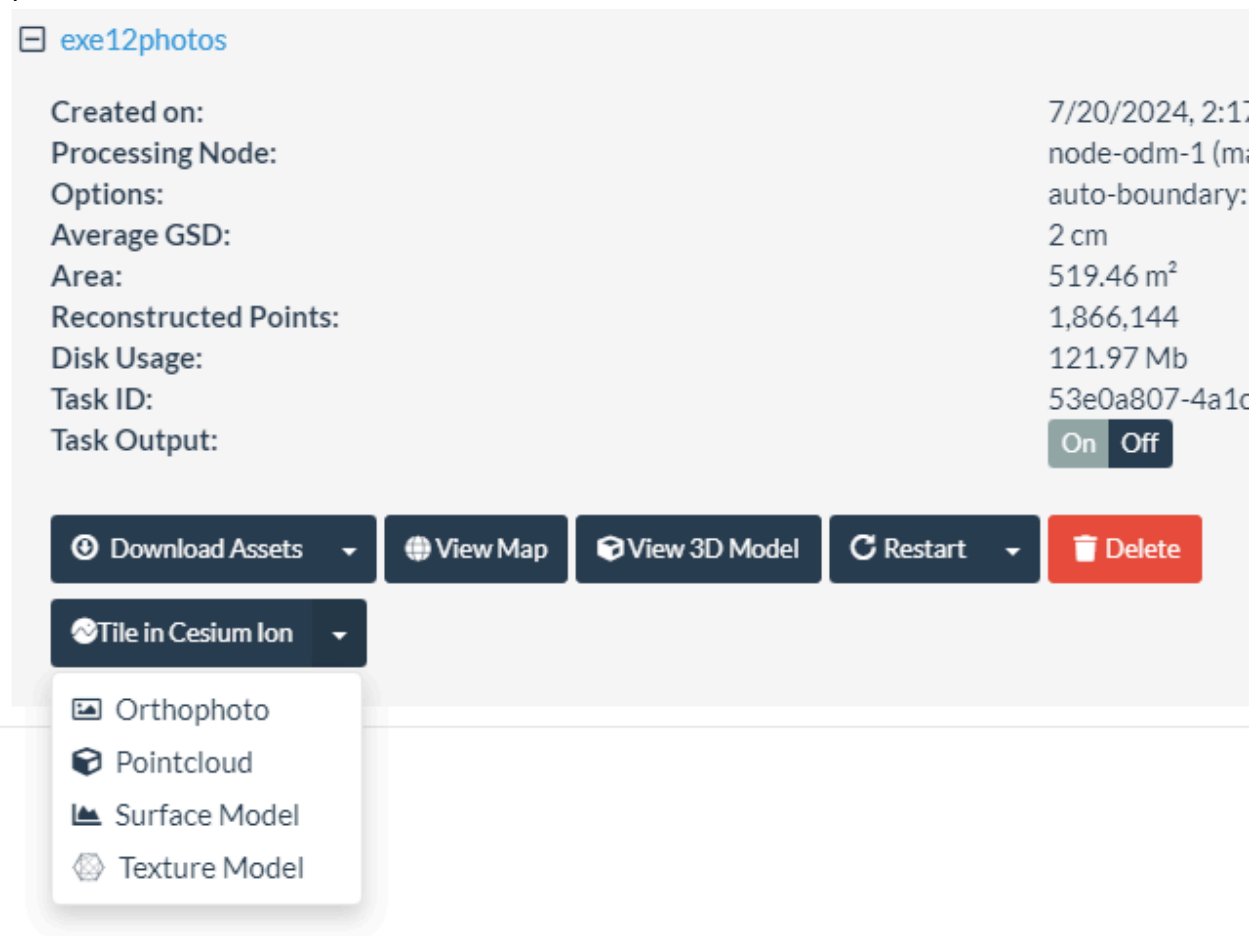
Basic Usage

Example:

1. Create a new project in the WebODM dashboard.
2. Upload your images.
3. Edit the WebODM task options and make sure to enable `texturing-single-material`.
4. Start the WebODM processing (this will take a while to complete).



3. Once finished, select the `Tile in CesiumIon` dropdown button for a list of available asset uploads.



4. Click on a dropdown item to show the popup dialogue where you can rename the asset, add a description/attribute, or enable an Cesium Ion option before uploading.

Tile in Cesium ion – Texture Model ✕

Name:

Description:

Attribution:

Use KTX2 Compression

KTX v2.0 is an image container format that supports Basis Universal supercompression. Use KTX2 compression to create a smaller tileset with better streaming performance.

- 5. Submit to start the upload to your Cesium Ion assets account.
- 6. You can view the progress of the upload by clicking the `View Ion Tasks` button.

Cesium Ion Tasks ✕

Texture Model Status: Uploading

Cesium Ion Tasks ✕

Texture Model Status: Processing

NOTE: There are 2 phases to a Cesium task: **uploading** and **processing**. Uploading is the transfer of processed WebODM data to Cesium Ion. Processing is the tiling/rendering Cesium Ion does to generate streamable models.

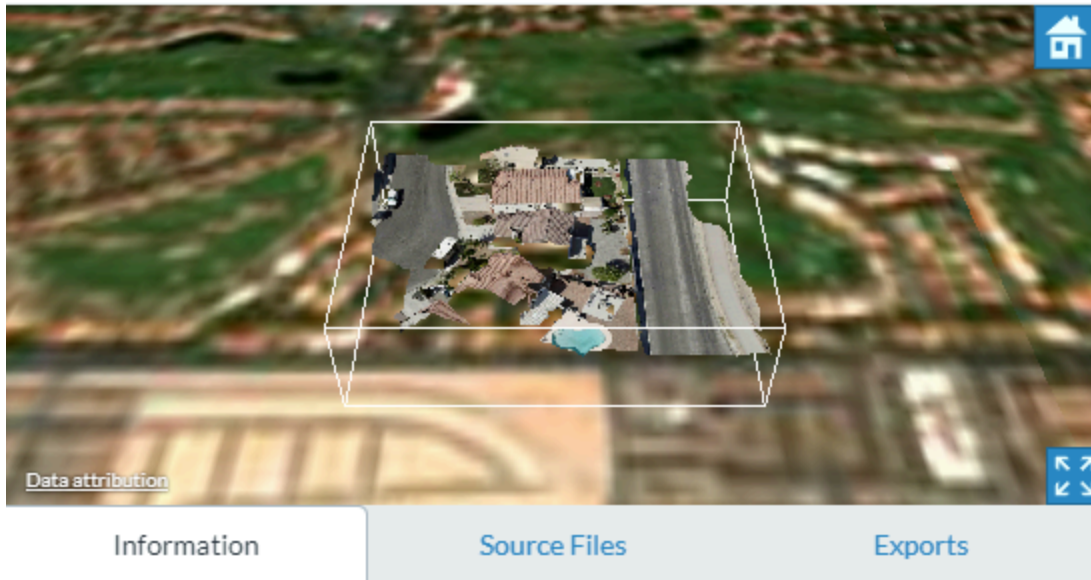
7. Once complete you can then click on the `View in Cesium` dropdown button to open a new browser tab to view your Cesium Ion assets

The screenshot displays the Cesium Ion interface for a project named "First Project". At the top, there are navigation options: "1 Tasks", "View Map", and "Edit". Below this, a task named "exe12photos" is shown with the following details:

Created on:	7/20/2024, 2:1
Processing Node:	node-odm-1 (n
Options:	auto-boundary
Average GSD:	2 cm
Area:	519.46 m ²
Reconstructed Points:	1,866,144
Disk Usage:	121.97 Mb
Task ID:	53e0a807-4a1
Task Output:	<input type="checkbox"/> On <input checked="" type="checkbox"/> Off

Below the task details, there are several action buttons: "Download Assets", "View Map", "View 3D Model", "Restart", and "Delete". A dropdown menu for "View in Cesium Ion" is open, showing the option "Texture Model".

Adjust Tileset Location



Name

(ID: 2676402)

First Project | exe12photos — Texture Model

Description

Example upload

Attribution

No attribution provided

4. New Feature: CesiumIon Plugin v1.3.0

KVX 2.0

Cesium Ion upgraded their streaming pipeline to automatically use their `1.1` tileset version. The new standardize tileset version comes with [KTX2](https://www.khronos.org/ktx/), a texture format compression option to create a smaller tileset for better streaming performance.

5. Troubleshooting

Common Issues

- **Issue:** texture model uploads to cesium ion but fails to process/render it.
- **Solution:** Ensure that you have enabled `texturing-single-material` before WebODM processing on a *new* project task as WebODM stores previously processed textured models in the same odm_textured data folder. (Cesium Ion only accepts single textured materials for a 3D_CAPTURE)

6. FAQ

Frequently Asked Questions

- **Q:** Can I use the plugin with older versions of WebODM?
- **A:** No, the updated plugin is compatible only with WebODM version 2.5.0 or later.