Point cloud comparisons with CloudCompare

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Data collected with Erin DiMaggio (PSU) and David Feary (ASU)

Tutorial notes

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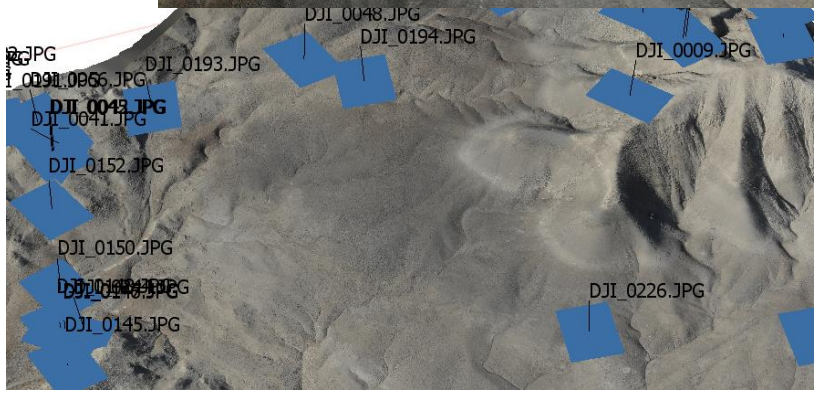
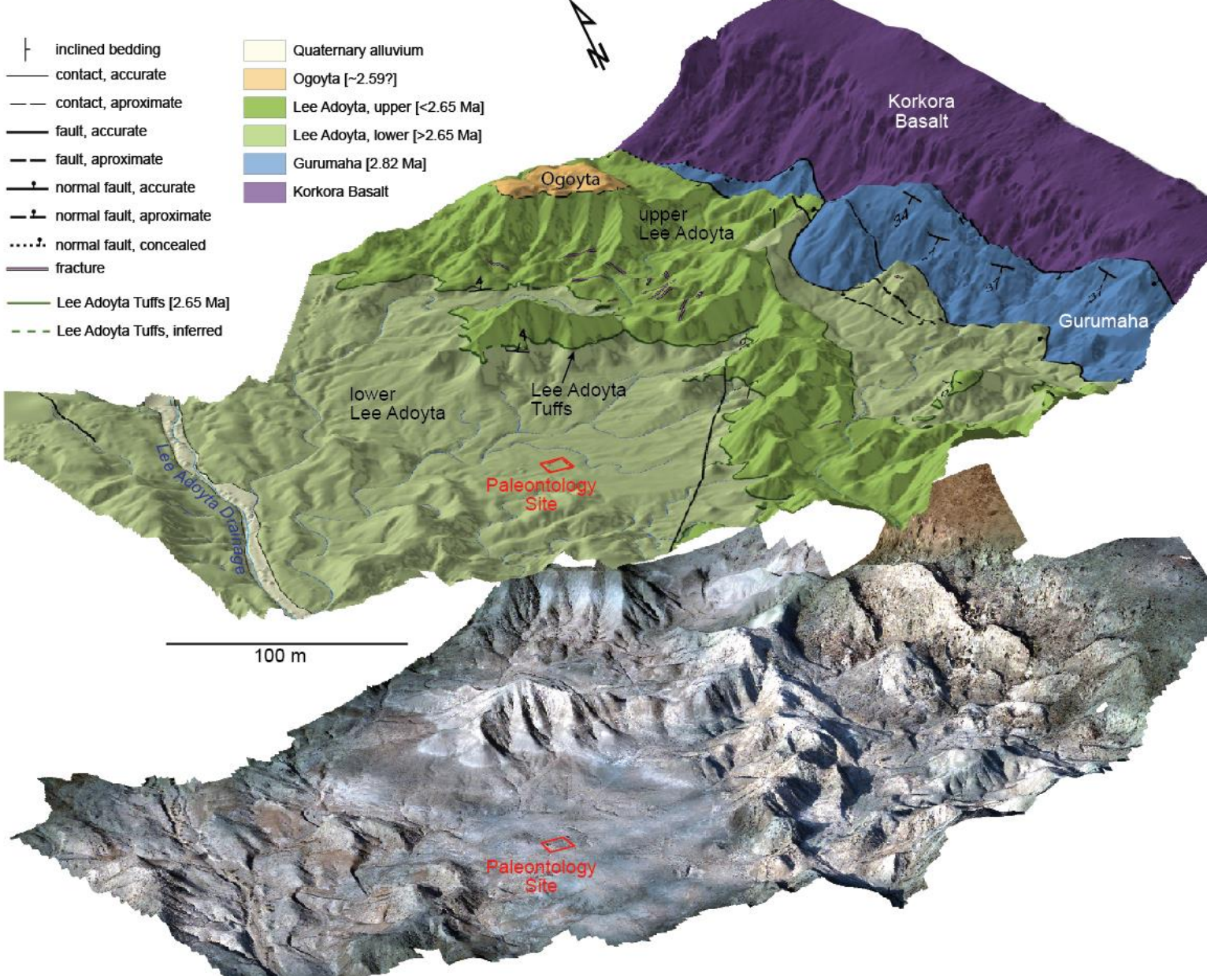
OpenTopography

High-Resolution Topography Data and Tools

Ground control dGPS

DJI Mavic Air images





Detailed geology of Lee Adoyta, Ledi Geraru Research Project Afar Ethiopia:

Rapid acquisition of imagery of deformed fossiliferous and tuff-bearing sedimentary rocks in the Afar region of Ethiopia provide 3D control for paleontological provenance and environmental reconstruction studies

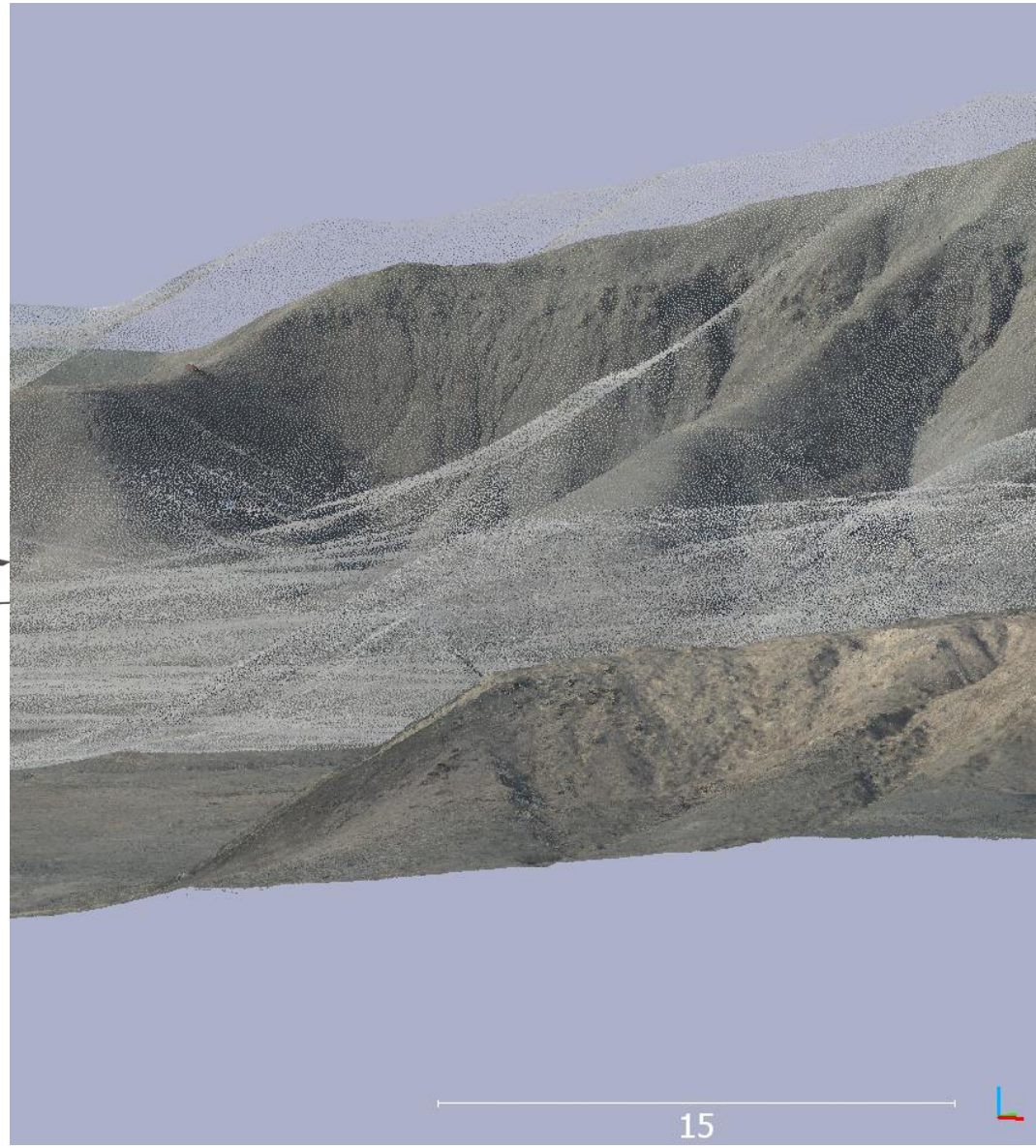
Multiple acquisitions: how do the results compare?

DJI Mavic Air (Arrowsmith)

+dGPS georeferencing

DJI Inspire 2 + ZenMuse camera (Feary)

On board GPS positioning for cameras



CloudCompare

3D point cloud and mesh processing software
Open Source Project

Want to support/help us?

Donate

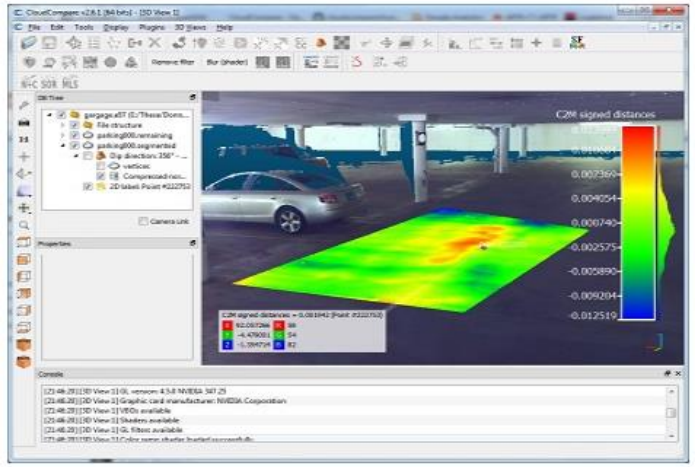
Welcome to the official website of the **CloudCompare** project.

Want to know when a new release comes out? Subscribe to the newsletter your email address JOIN

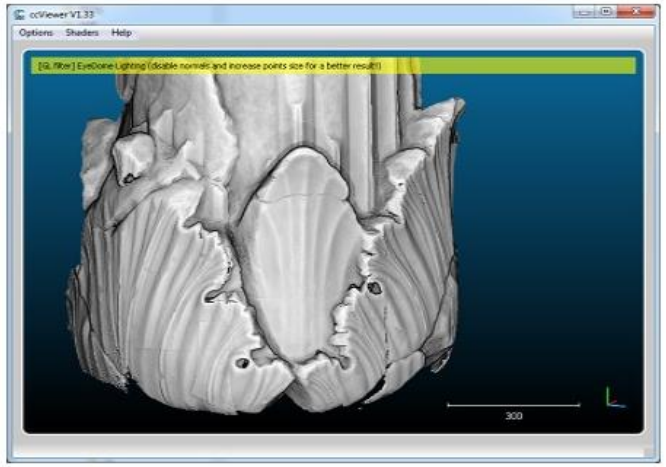
You can now follow us on **twitter**

CloudCompare 2020 Developers training & Workshop: March 11-13 2020

Visit the event page



CloudCompare *(view, edit and process)*



ccViewer *(light viewer only)*

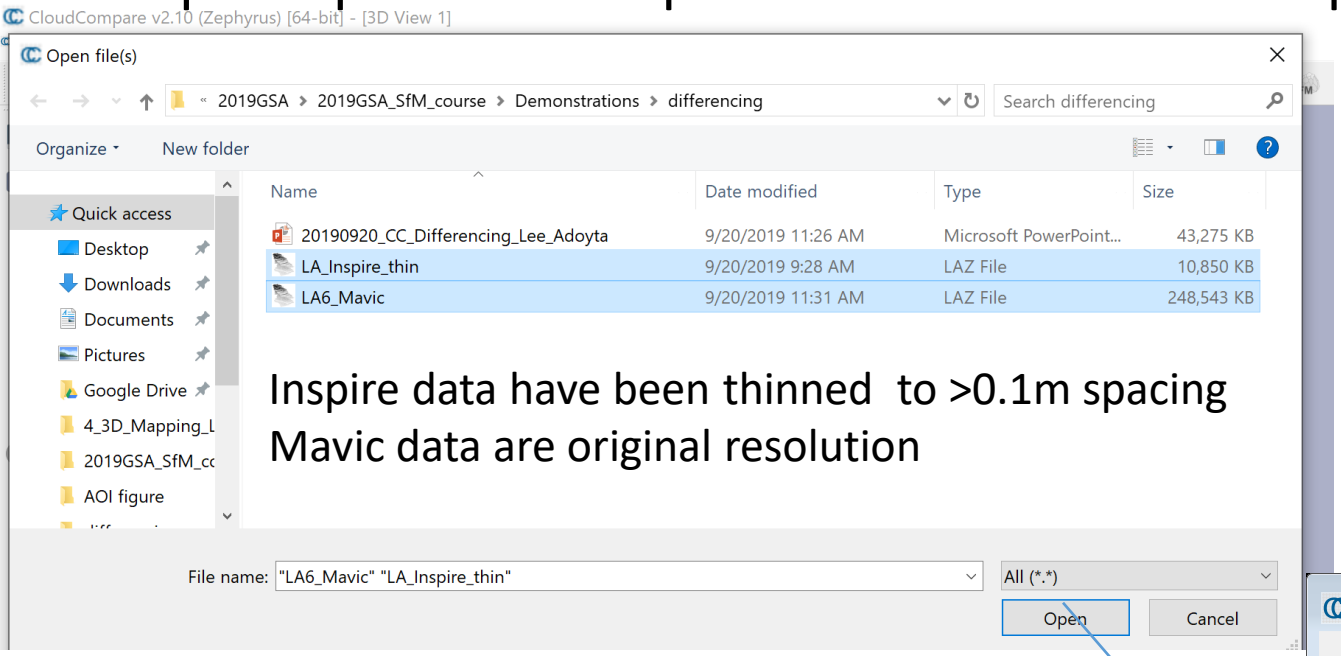
Download the short course presentations of the 2nd Virtual Geoscience Conference 2016 (*in English*) here

Télécharger le support de formation du congrès de la SFPT 2018 (*in French*) ici

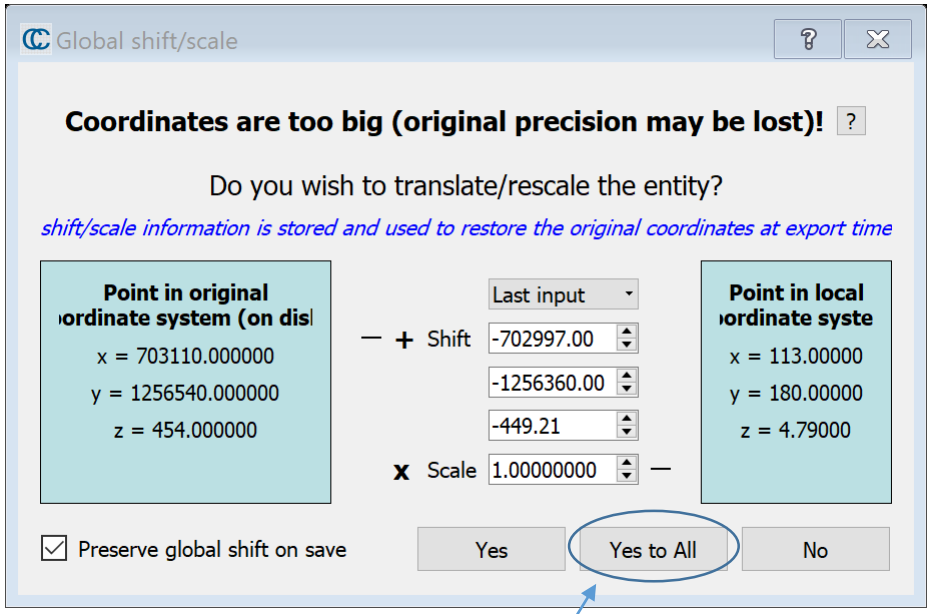
CloudCompare and ccViewer currently run on Windows, MacOS and Linux.

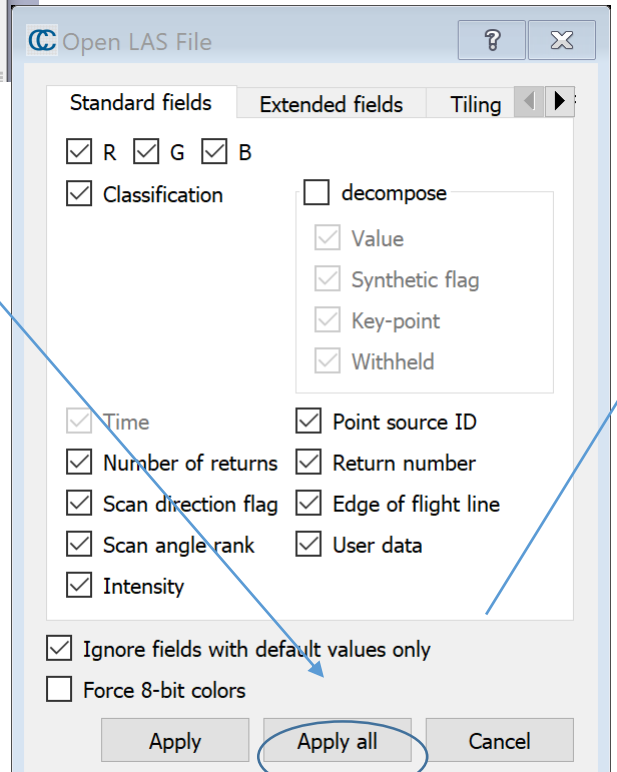
You are free to use them for any purpose, including commercially or for education. This freedom is being defined by the **GNU General Public License (GPL)**.

Step 1: Open the two point clouds in CloudCompare



Inspire data have been thinned to >0.1m spacing
Mavic data are original resolution

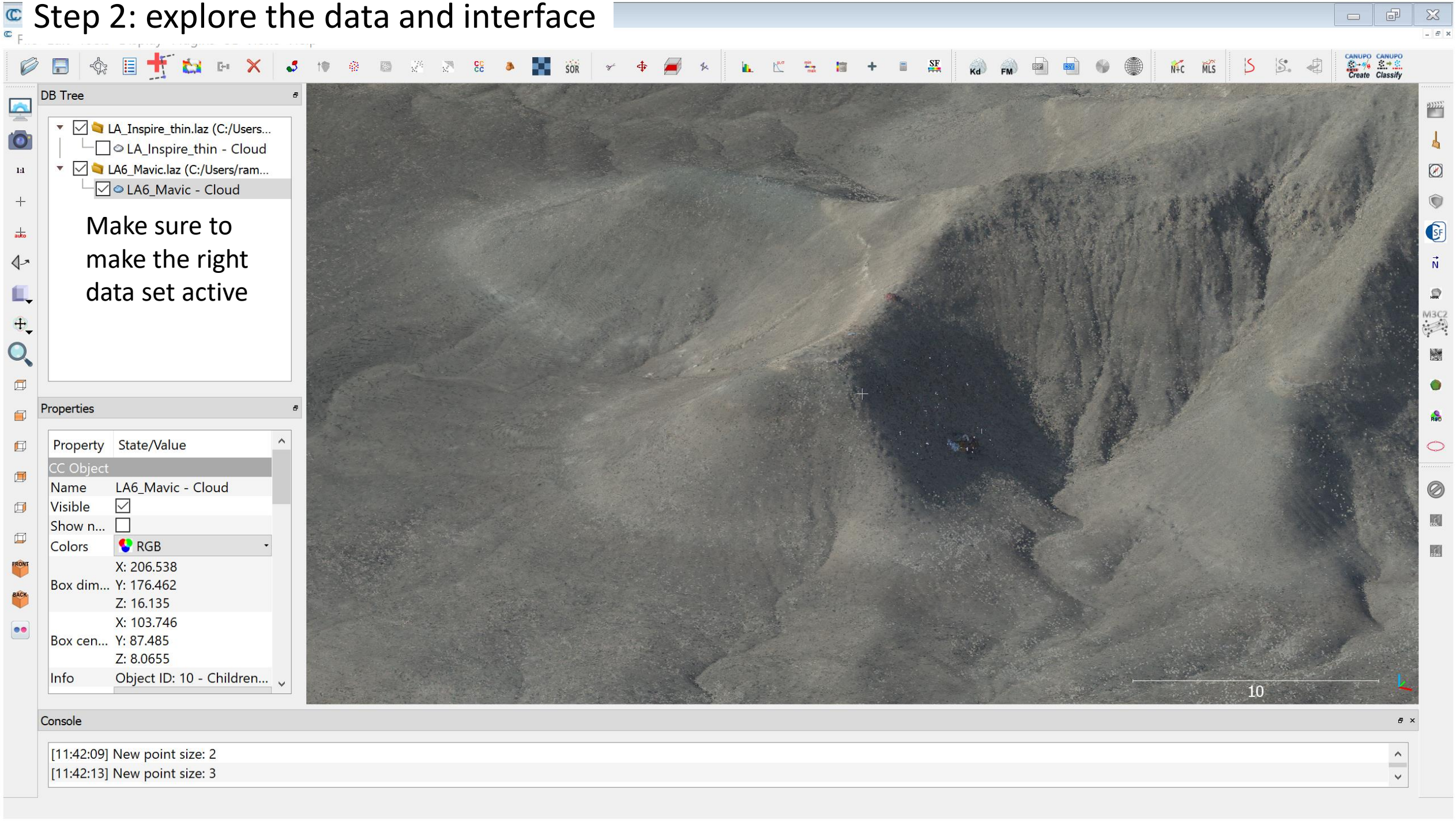




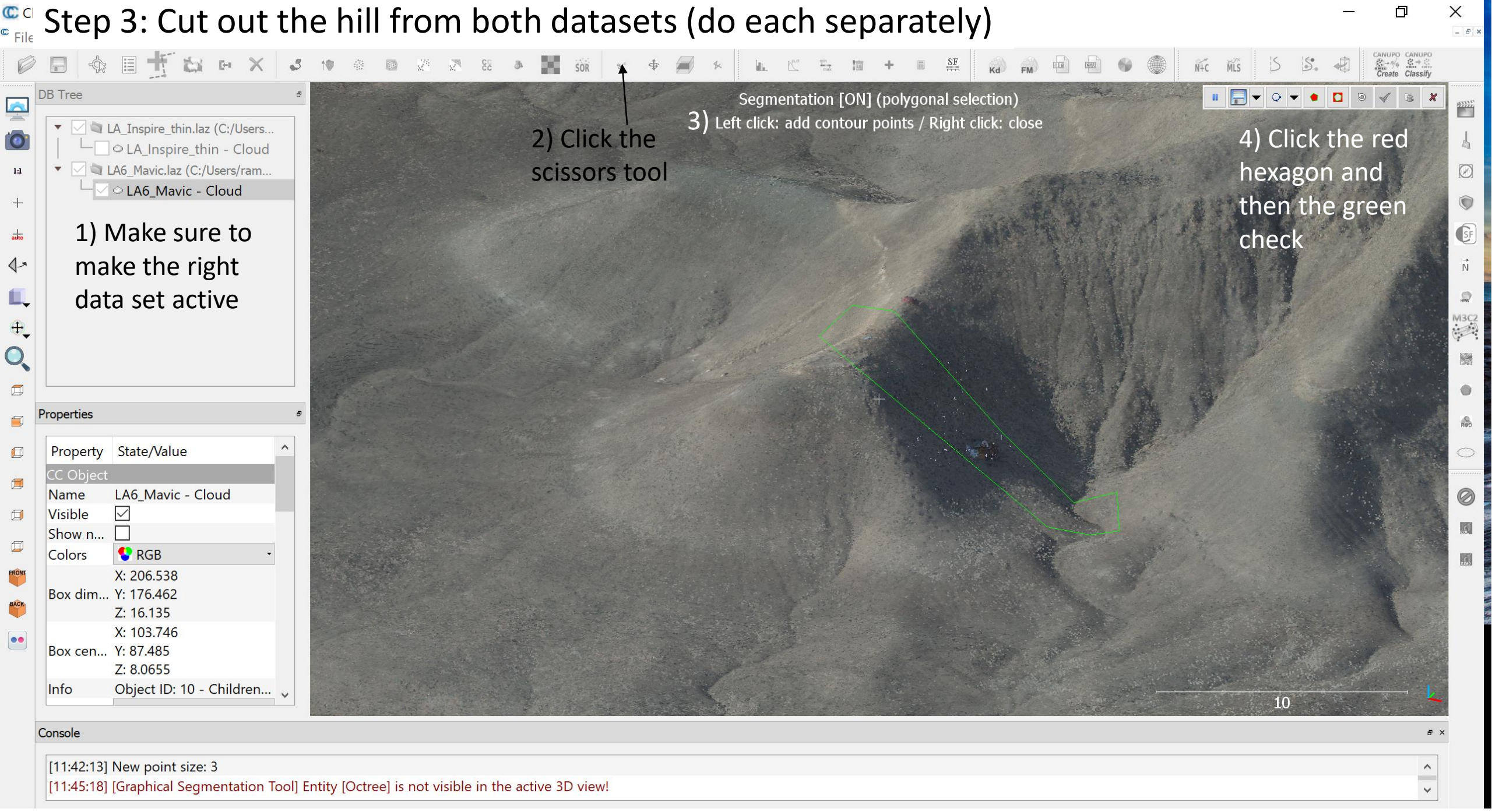
More accurate computations with a temporary local origin

It is built for opening lidar-derived point clouds which may have many attributes with each point.

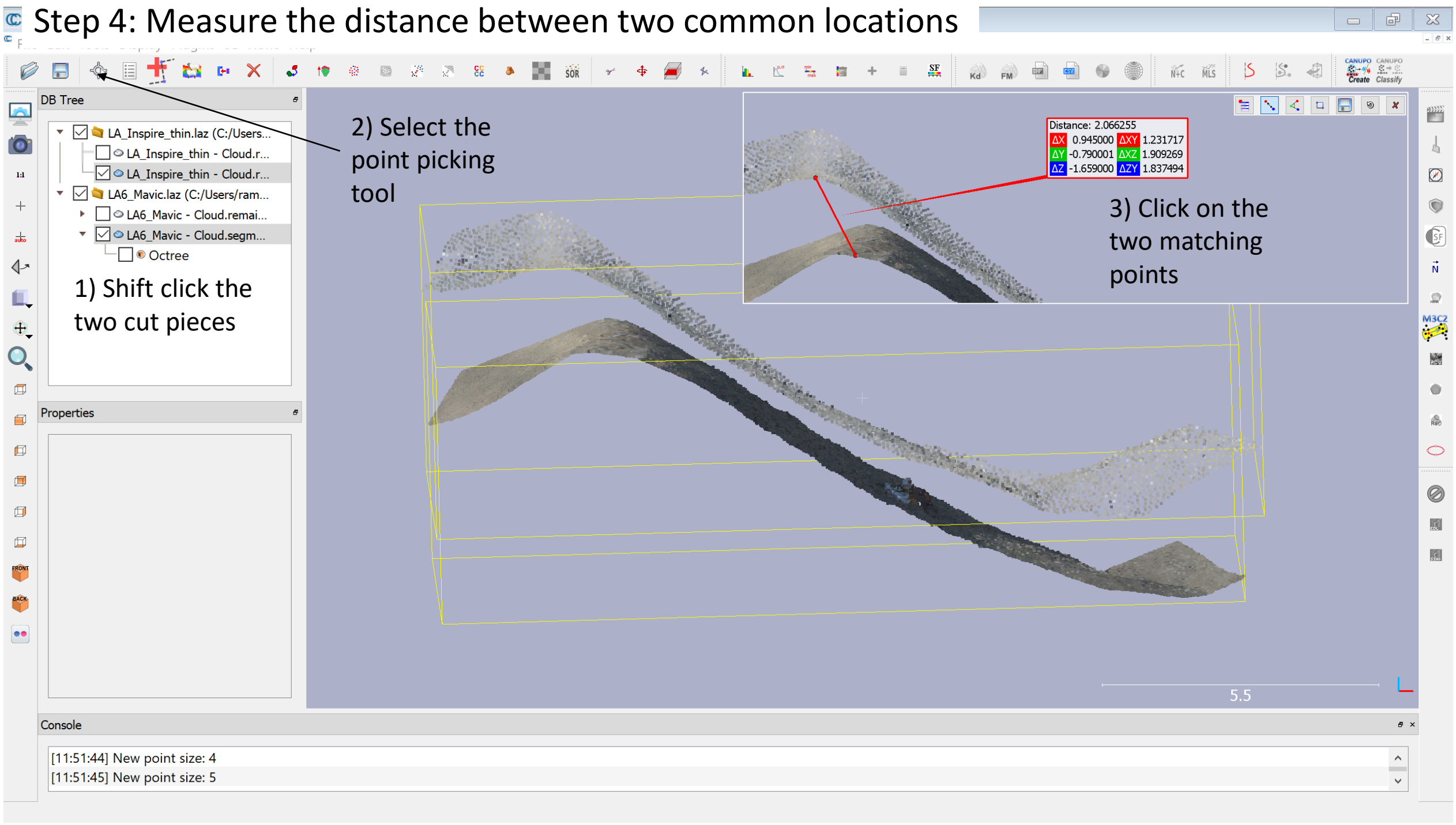
Step 2: explore the data and interface



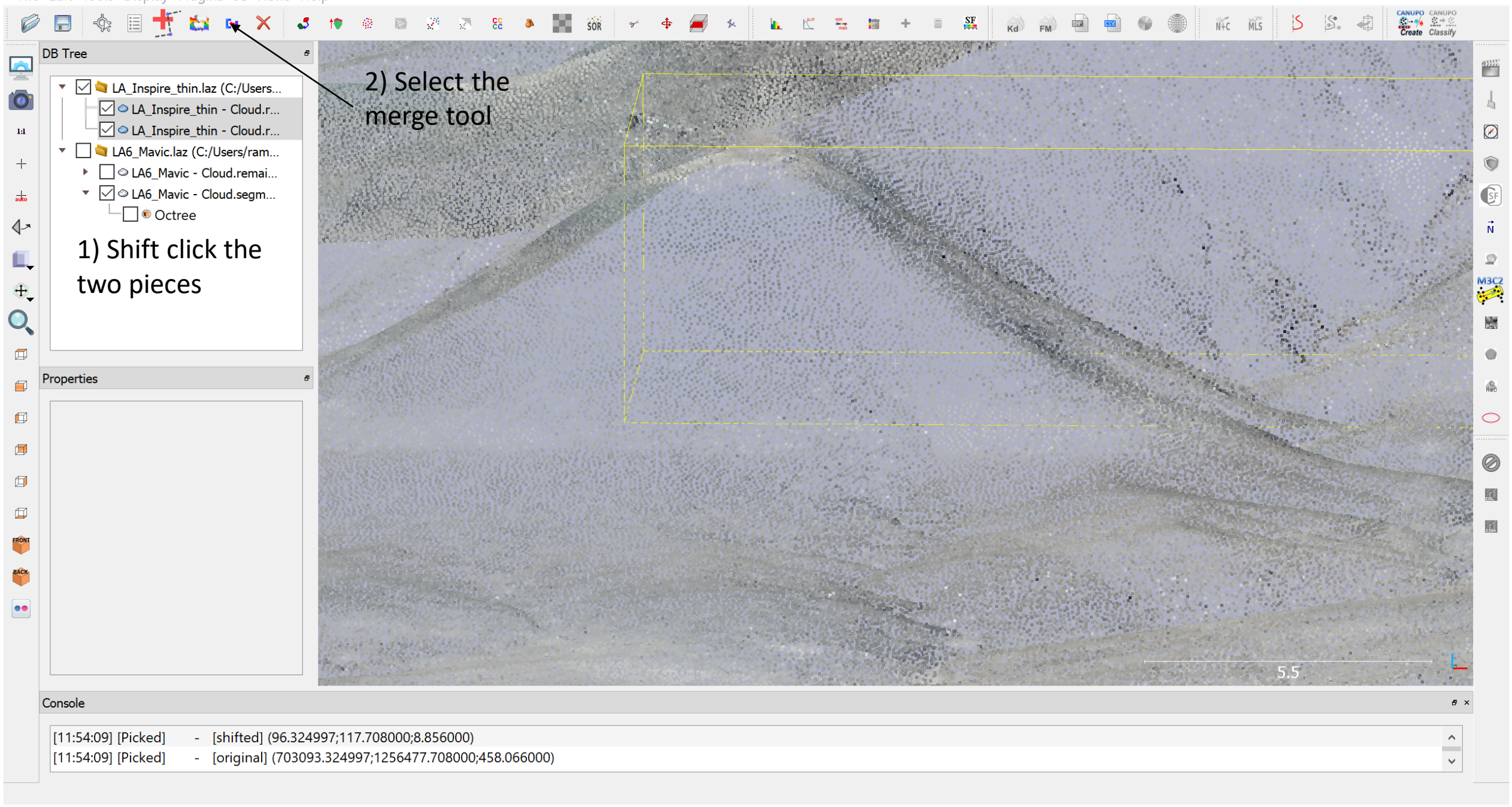
Step 3: Cut out the hill from both datasets (do each separately)



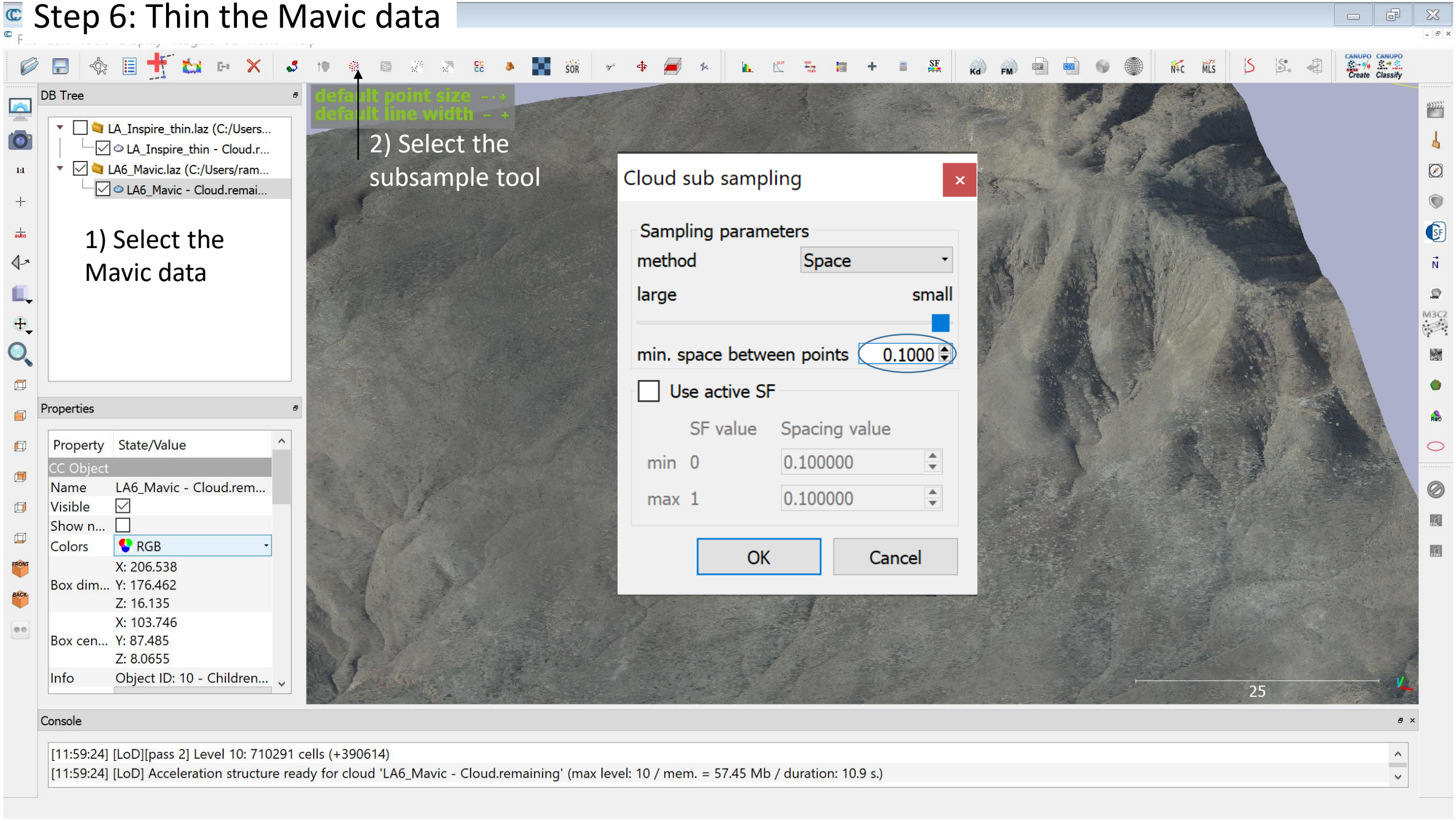
Step 4: Measure the distance between two common locations



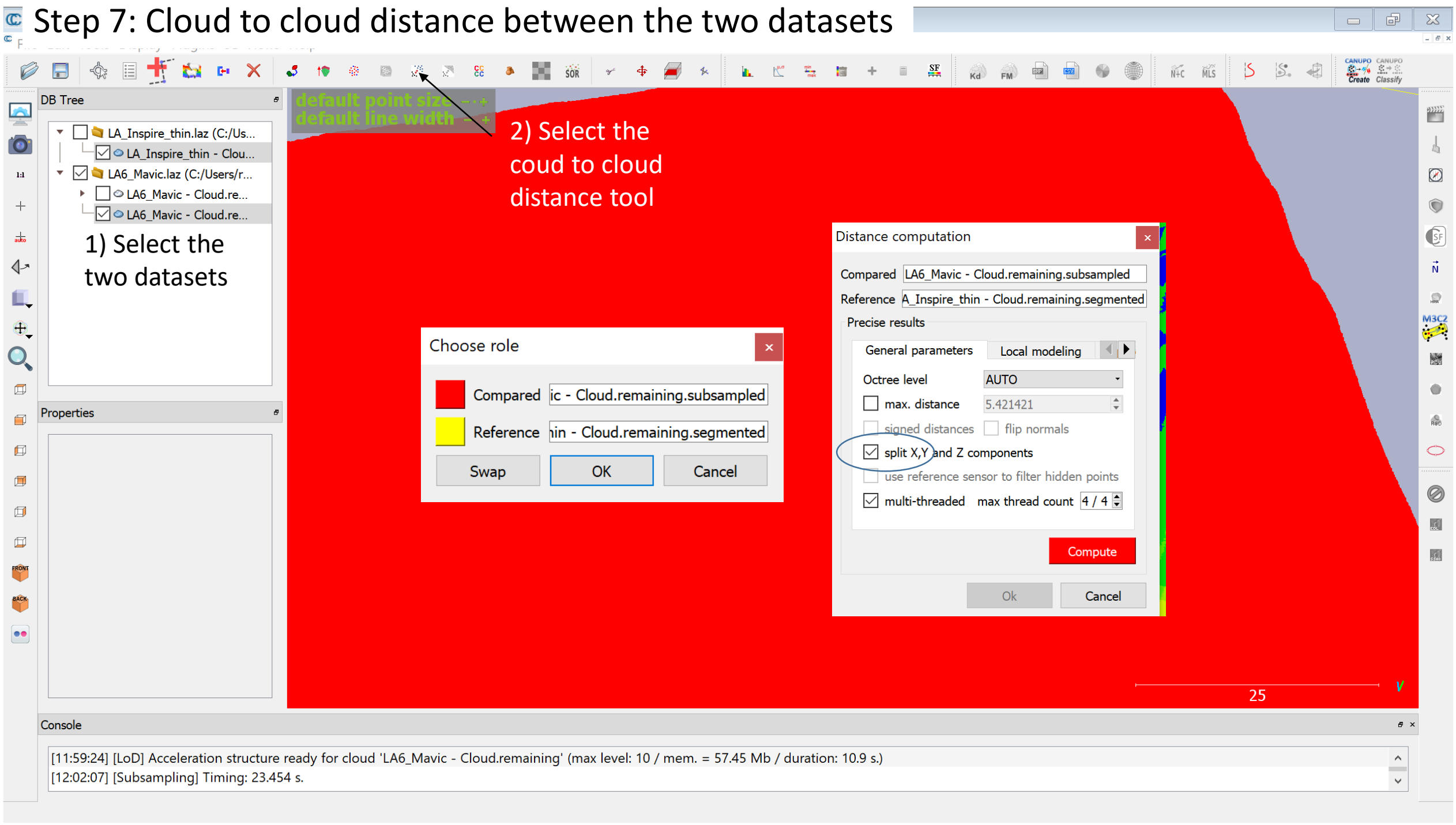
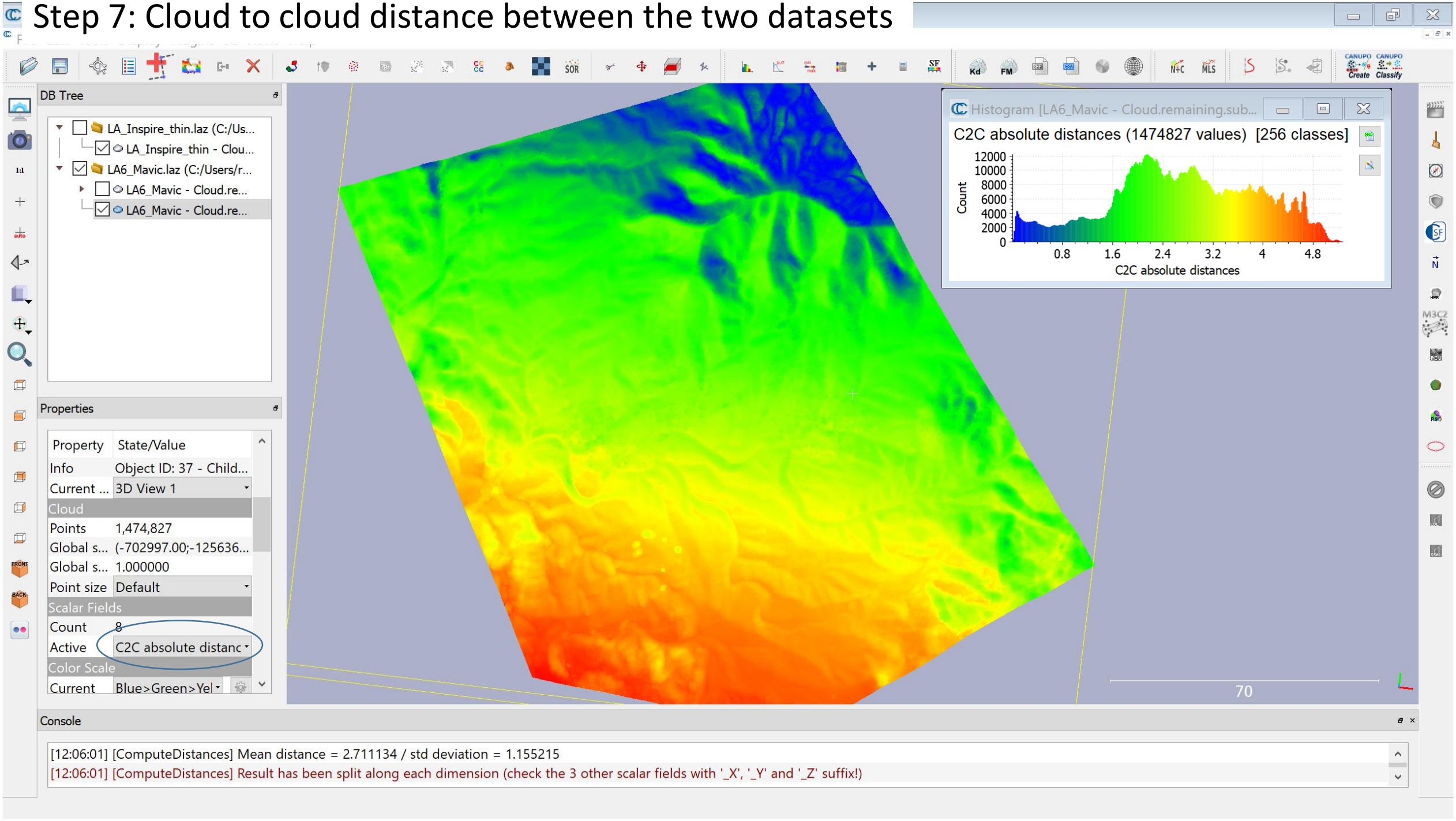
Step 5: Merge the data back together (do each separately)



Step 6: Thin the Mavic data



Step 7: Cloud to cloud distance between the two datasets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