simactive

Perform Land Surveys More Rapidly

QUICK GUIDE

Challenges

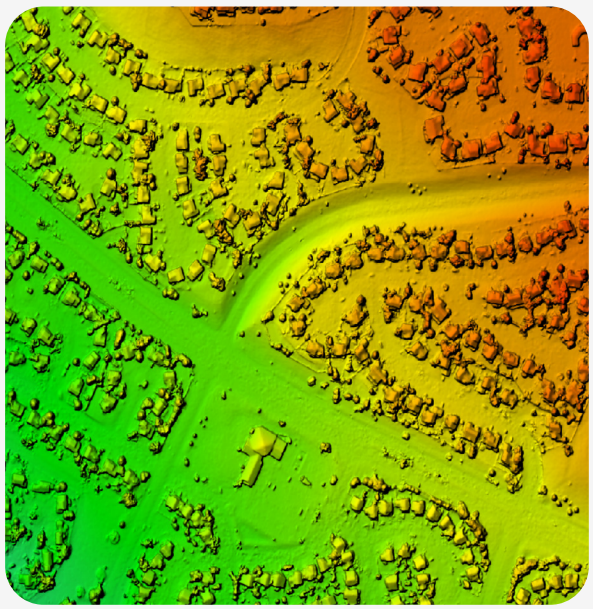
Measuring land is a complex process that requires advanced expertise, expensive equipment, and often working in restrictive conditions. Surveyors must often cope with obstacles in the field that can make surveying missions complex and time-consuming. The use of aerial platforms with cameras greatly facilitates and accelerates the acquisition of data since surveyors do not require to physically access the land, at least not extensively.

Collection

Imagery can be collected by aircrafts, but recently drones are becoming widely used due to their low cost and ease of use. Multi-rotor or fixed-wing platforms can be flown, depending on the resolution required, the size of the area to be covered and operational constraints. To ensure absolute accuracy, high-precision GPS are often combined with correction technologies such as RTK or PPT for direct georeferencing. It is also possible to use ground control points consisting of physical targets placed on the ground for which the position is measured prior to flight.

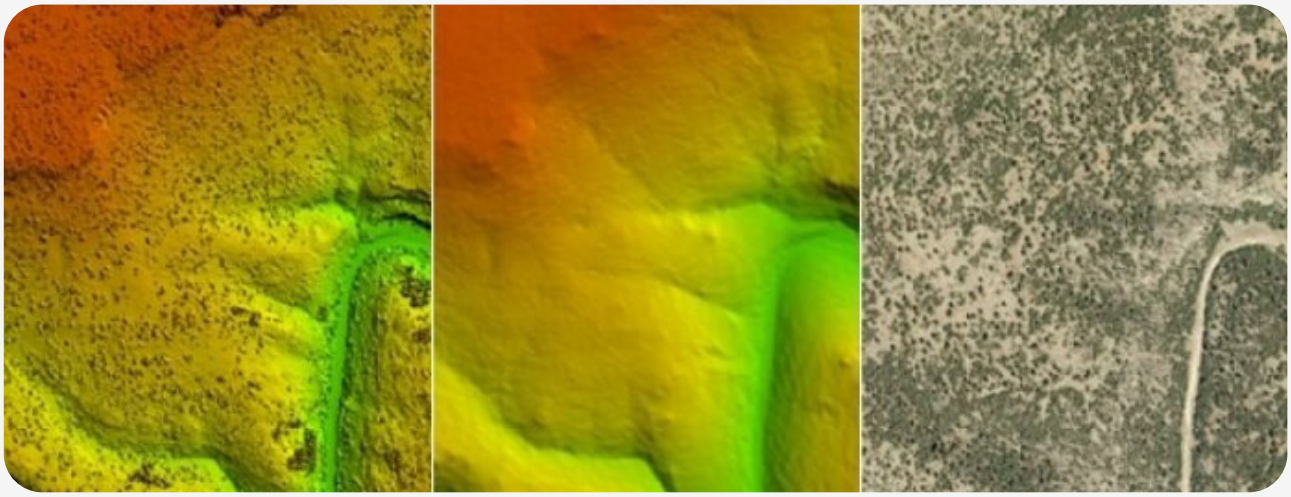
Processing

The collected data can be quicky processed by Correlator3D™ software to create different mapping products. The use of a high-end photogrammetry suite allows not only to save processing time, but also to generate the most accurate results possible. These include digital surface, terrain models (DSMs/ DTMs) and point clouds at high densities as well as seamless orthomosaics. Using fast software leads to quick turnarounds for large projects and, can even allow processing drone projects directly in the field on a laptop.



Interpretation

The rapid generation of elevation data and orthomosaics at very high resolutions and accuracies provide surveyors with advanced knowledge of the land. Whether to measure distances, elevation differences, volumes, or to extract contour lines, the mapping data represent a rich source of information. Not only do they precisely represent the ground topography but also how entire areas look like by giving a seamless visual representation of the land.



Benefits

Using aerial platforms for land surveying leads to highly accurate and dense map products, often at the centimeter or even sub-centimeter level. Hard to reach locations are much more easily accessed from the air. Large areas can be covered in short periods of time and combined with a high-end photogrammetry software, results are produced quickly. All these advantages combined together lead to reduced costs compared to traditional terrestrial surveys.

DISCUSS YOUR SPECIFIC REQUIREMENTS WITH OUR SPECIALISTS

SCHEDULE MEETING