

Forest Inventory Using Drone Data

Save up to 30% of costs for your forest inventory

Forestry projects are challenging and often difficult to map and monitor on the ground. Drone data with field plots increase the precision of field-based estimates of forest resource parameters offering a reliable and cost-effective solution.

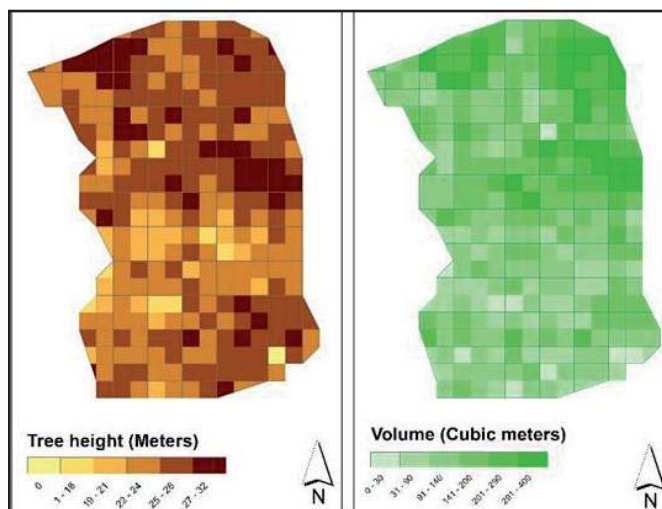
ForestFinest Consulting applies a smart and automatic algorithm to calculate forest parameters in a detailed and practical way, reducing the need for ground-based sampling measurements. The results are easily integrated with existing base and cover type mapping, inventory systems, and GIS.

In comparison with traditional forest inventory techniques, our models have proven to have a higher level of detail and precision, and reducing sampling and coverage errors.

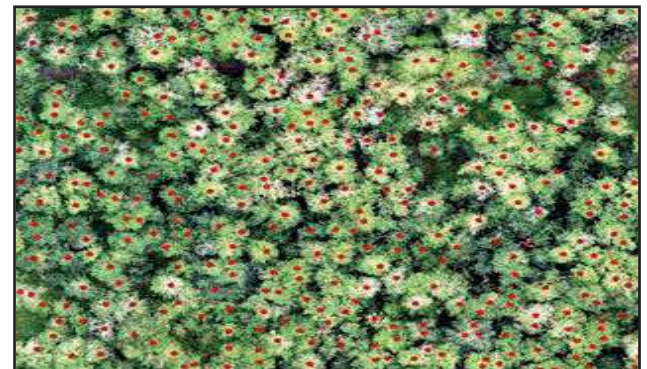
100% - full view of your Key Performance

Indicators:

- Project controlling
- Volume prognosis:
Growth estimation and yield prediction
- Decision making tools:
Financial risk and scenario analysis
- Harvest and thinning optimization
- Sustainable forest planning management
- Surveillance and monitoring



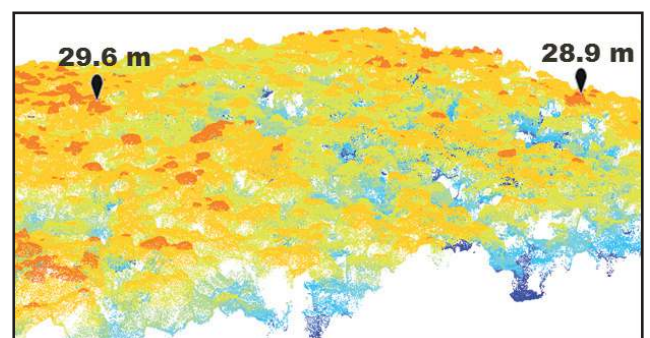
Mapping forestry values (tree height and volume/plot)
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Single tree identification on high resolution image
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Process steps:

- 1. Drone data acquisition:**
Drone flying under safety conditions
- 2. Mapping of single tree information:**
Measuring standing timber volume, diameter and height of trees in the plot
- 3. Processing drone data:**
Image stitching and creation of a 3D point cloud
- 4. Forestry variable extraction:**
Prediction of forest values: Diameter, height and volume per single tree
- 5. Statistics validation:**
Validation of predicted forest values using statistical analysis with the sample field plots measured in the field
- 6. Mapping:**
Single tree information, standing timber volume, height, diameter, carbon sequestration, productive area, land use and land use change among others



3D point cloud. Two trees marked as example.
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