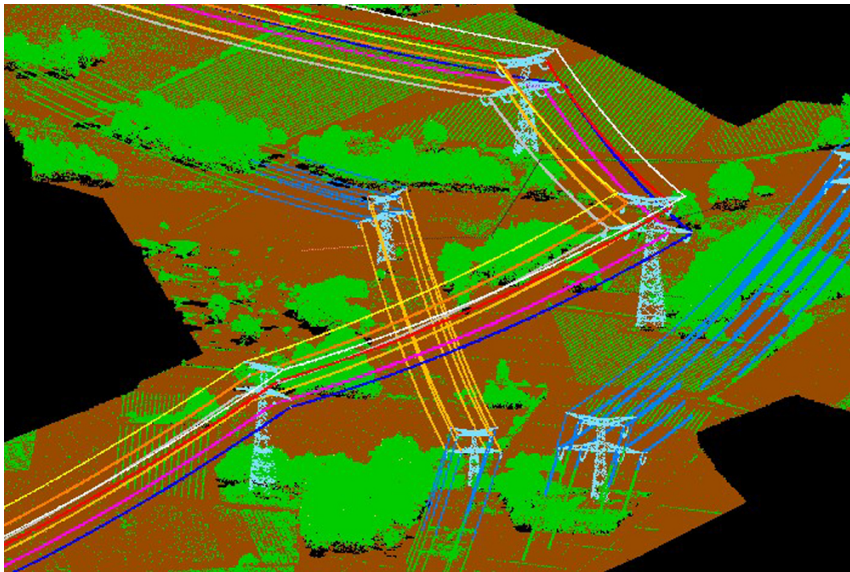


Lidar data acquisition of power lines

Profile generation, inventory and analysis of spacing to vegetation



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In 2012, the Eiffage-Énergie / BSF Swissphoto bidding consortium won the tender by the French RTE (Réseau de transport d'électricité) to carry out an aerial survey over parts of the French high-voltage power line network. This would encompass roughly 2000km of 63kV - 400kV power lines over a corridor width of 70 to 120m.

For this mission an airborne lidar system and a digital medium format camera were simultaneously operated from a helicopter. The acquired data has a point density of more than 20 Pts/m² while the resolution of the images lies around <10 cm.

The final products are a classified point cloud, a digital terrain- and surface model (DTM/DSM) and a digital orthophoto (DOP). A profile is generated along the cable lines, allowing the measurement and documentation of the safety spacing of the power lines to obstacles.

Services of the consortium:

- ◆ Flight planning, mobilisation and flight initialisation
- ◆ Laser- and image data capture: oblique and vertical imagery
- ◆ Georeferencing and classification of the lidar data
- ◆ Generation of a DTM, a DSM and a DOP
- ◆ Generation of profiles
- ◆ Analysis of spacing to objects
- ◆ Quality control
- ◆ Technical documentation