

MANAGE HIGHLY DETAILED MAPPING

The Microdrone Airborne Mapping extension to Orbit GIS provides the tools required for automated flight and high precision mapping. It contains a Waypoint Generator, a Microdrone in-flight tracker, and a capture tool. Further image-, stereoprocessing and orthorectification can be executed using the Strabo Photogrammetry extension to Orbit GIS.

The Waypoint Generator

The Waypoint Generator creates an automated photo coverage task for the Microdrone, by defining a route on your map. The tool automatically calculates the required waypoints to create a full mono or stereo image coverage of any area. Just draw the area on your map and indicate the main flight axis. You can also define a free path, a coverage along a vector, an ellipsoid flight focussed to a point of interest.

The waypoint list is uploaded to the Microdrone that will fly, take the vertical or oblique images and return home fully autonomous.

The In-Flight Tracker

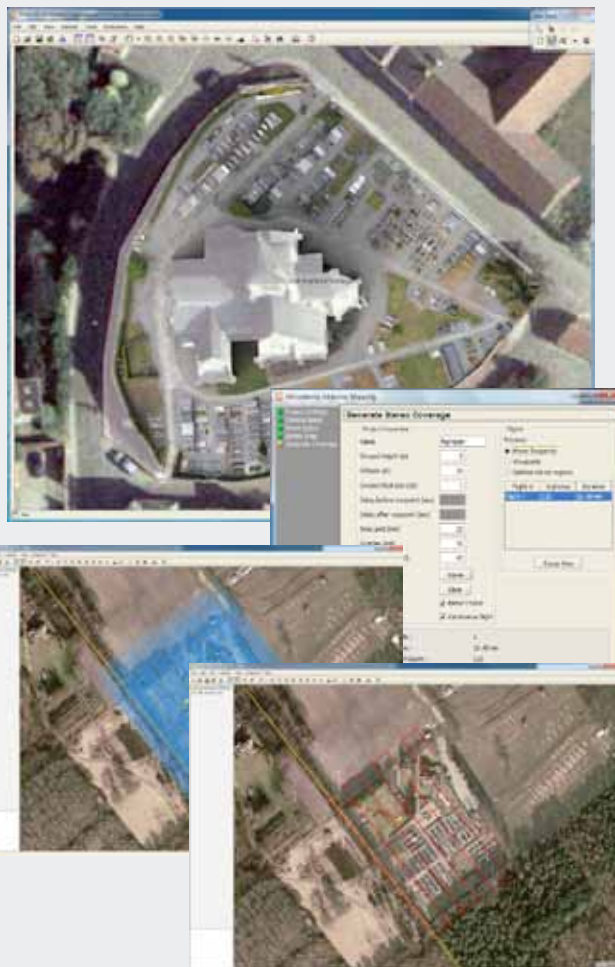
Whether you have commanded an automated flight, or control the Microdrone manually, the In-Flight tracker shows the Microdrone position instantly on your map. You can choose to view and/or register the flight track.

Recover Images for processing

Send out the Microdrone to take the images set forth in your Waypoint list. The drone flies to the waypoints at set height, stabilizes and takes the pictures. On it's return, download the pictures. The pictures are automatically identified and associated with the programmed waypoints. The attitude (GPS/INU) is extracted and a Strabo-project is created. You can now continue with mapping or image processing.

Application fields :

Surveying * Map Updates * Disaster Mapping * Event Documentation * High Accuracy Mapping * and more!



MICRODRONE AIRBORNE PHOTOGRAPHY

Use the Microdrone to get up in the air and take oblique and/or vertical photography. Equipped with a hi res camera, this innovative vehicle can take precision photo's at low altitude ready for photogrammetric processing, for orthophoto production, 3D vector mapping, city modelling...

ULTRA PRECISION STEREO MAPPING

Using the Microdrone's low altitude vertical photography, one can capture high precision details in photogrammetric stereo mapping unseen in standard aerial photography, up to a Ground Sample Distance of 1 cm at a 50m flight height.

The Orbit GIS photogrammetry extension Strabo allows direct creation of vector data integrated in your current GIS project.

ULTRA PRECISION ORTHO CREATION

The stereo coverage of the area enables Strabo to generate an ultra detailed orthophoto from the covered area.

Created in co-operation with Microdrones GmbH

