

Microdrone Airborne Mapping

High Precision, Low Altitude, Mono and Stereo Mapping



Manage highly detailed mapping

The Microdrone Airborne Mapping extension to Orbit GIS contains a Waypoint Generator, a Microdrone in-flight tracker, and a caption tool for further stereoprocessing and orthorectification in Strabo.

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 flight route or a coverage along a vector.

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

The In-Flight Tracker

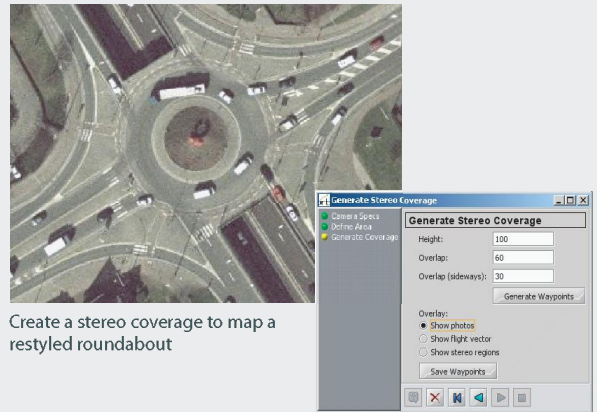
Whether you have commanded an automated flight, or control the Microdrone manually, the In-Flight tracker shows the Microdrone position instantly on your map. You can choose to view and/or register the flight track.

Recover Images for processing

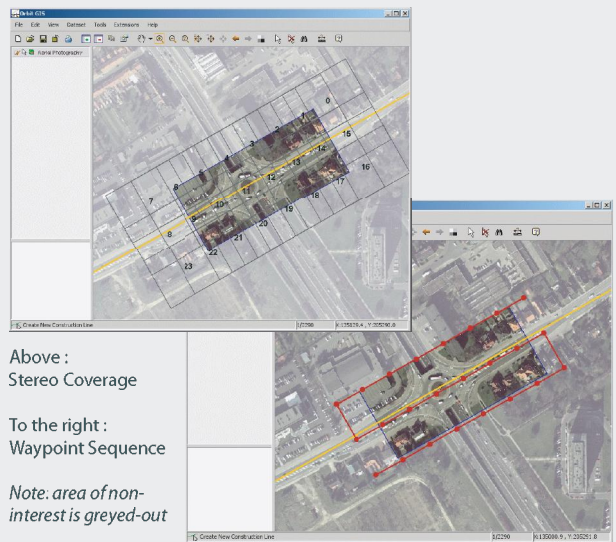
Send out the Microdrone to take the images set forth in your Waypoint list. The drone flies to the waypoints at set height, stabilizes and takes the pictures. On its return, download the pictures. The pictures are automatically identified and associated with the programmed waypoints. The attitude is 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!



Create a stereo coverage to map a restyled roundabout



Above : Stereo Coverage

To the right : Waypoint Sequence

Note: area of non-interest is greyed-out



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, either monoscopic for orthophoto production or stereoscopic for 3D vector mapping.

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.

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

Ultra Precision Ortho Creation

A monoscopic coverage of the area is sufficient to let Strabo generate an ultra detailed orthophoto from the covered area.



Created in co-operation with Microdrones GmbH