SkyHub

Endless Integration Capabilities

The SkyHub 3rd generation has multiple communication ports and channels to support virtually any sensors:

- 1x Fast Ethernet interface
- 2x RS-232 ports
- 4x UART ports
- 4x GPIO (general purpose input-output) pin pairs
- WiFi
- Bluetooth
- 2x USB 2.0 ports that can provide power up to 3A to the USB-connected sensors

Automatic True Terrain Following

The necessity to fly with automatic terrain following has multiple reasons:

- For some sensors, especially geophysical, the distance between the sensor and target is critically important for successful detection (GPR, magnetometers, EMI tools).
- Some sensors require constant elevation of the sensor to gather consistent useful data (magnetometers, echo sounders).
- Safety of the flights at very low altitudes.
- Regulatory requirements (for GPR).

Power for Sensors

- SkyHub eliminates the need to have a separate battery or power circuit for the sensors. Every connector with communication ports has pins with +5V and +12V covering 99% of power requirements for the sensors.
- One additional power connector is configurable and may output 9, 12, 15, 18V with 5A load maximum. This connector is software controlled and you can turn the payload power on and off while the drone is in the air!
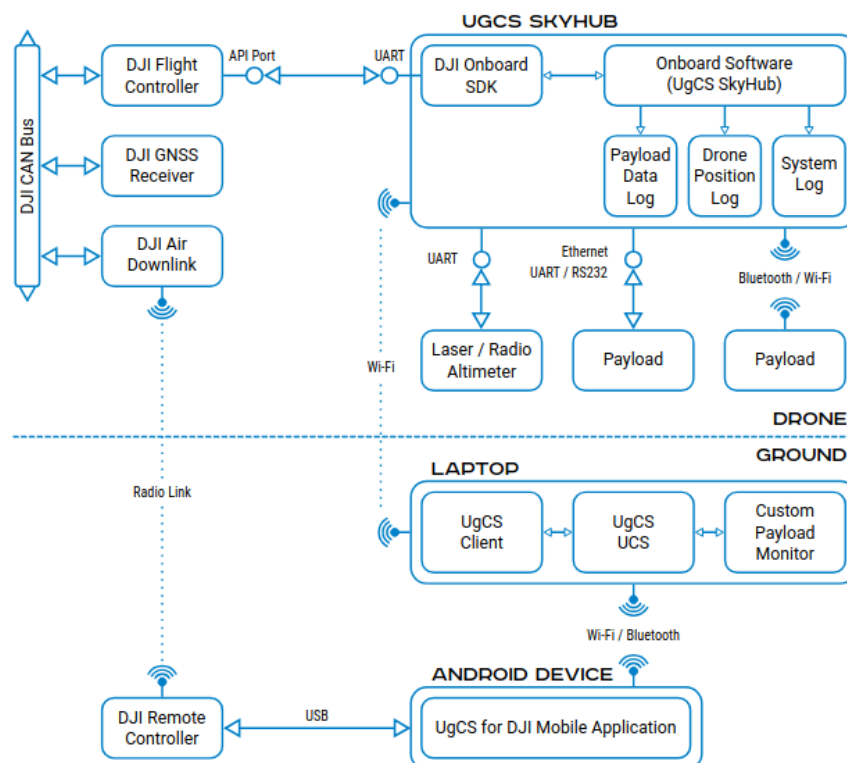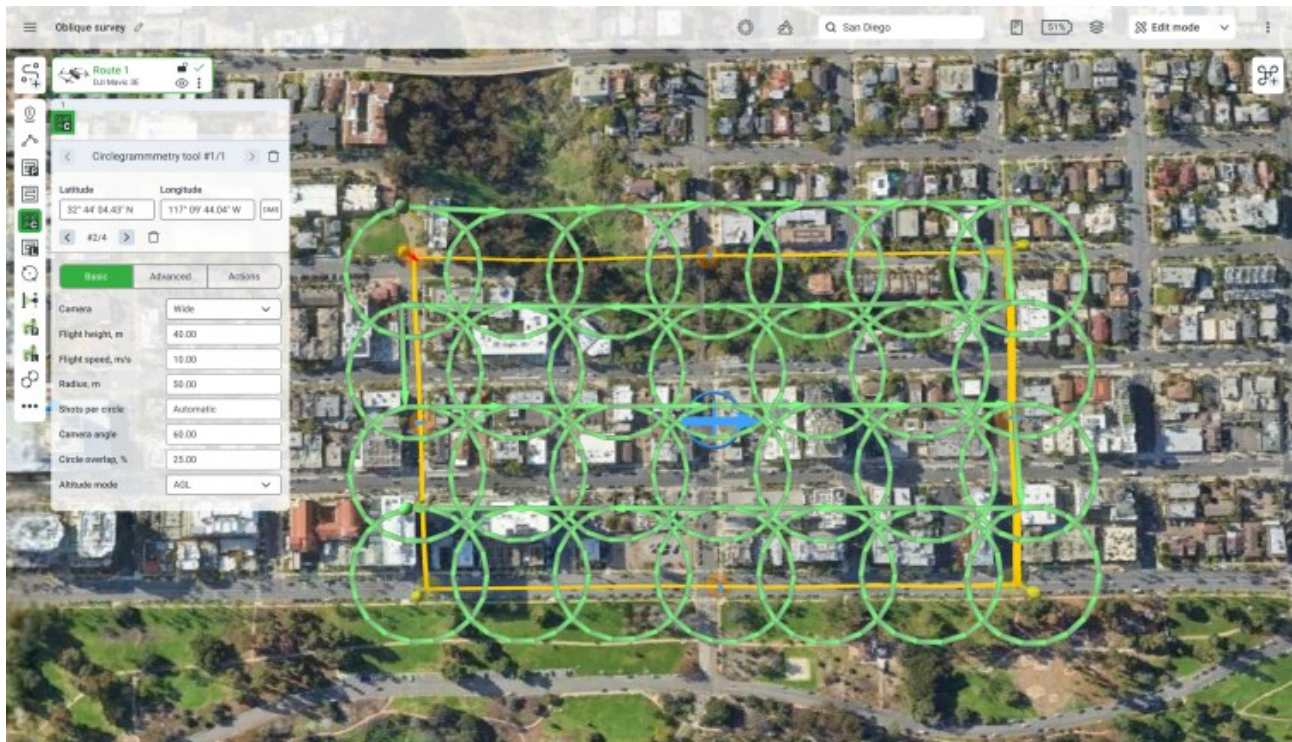

Figure 1.1 — DJI SDK drone interaction diagram

UgCS:

* Mission Planner
* Commander for Multiple-UAV cooperation
* Motion Control
* Terran Following and altitude keeping
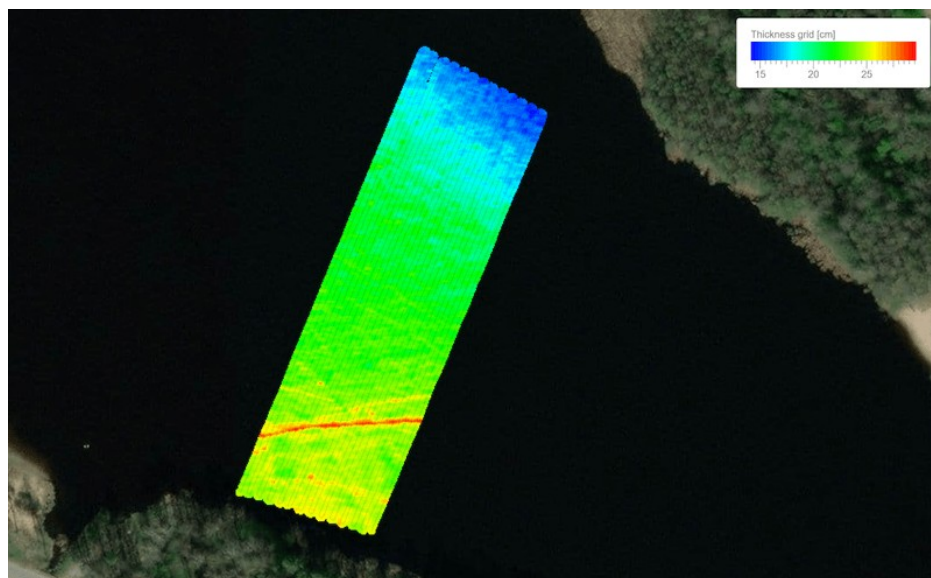* Mapper
* GPR/Magnetometer adaptation.

Data processing:

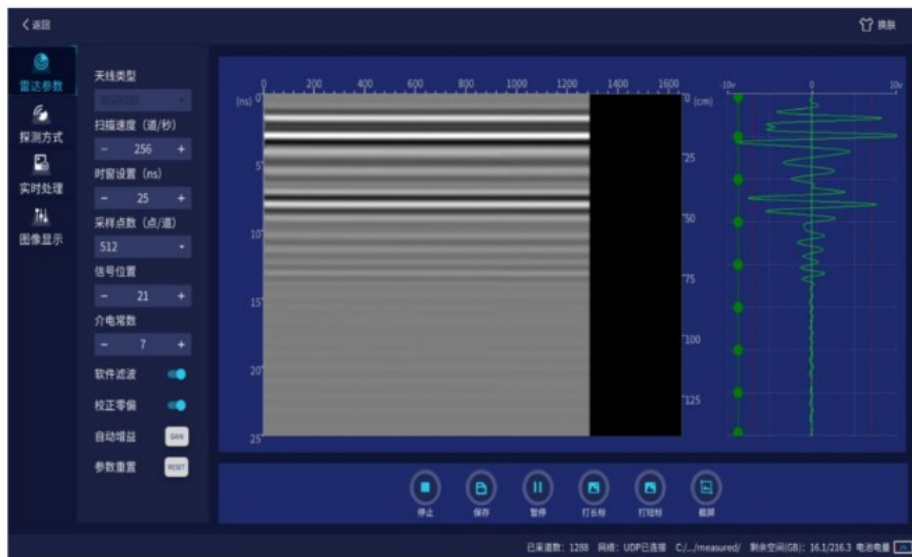|					
22	Survey planning and data processing SKU : IS-DATA-PROCESSING Includes: - Choice of the most suitable sensor - flight altitude, speed, survey line separation - all data recording parameters - profile combining and splitting - signal filtering		1 per 1 km	300,00	300,00
23	Data interpretation services SKU : IS-DATA-INTERPRETATION Includes: -Identification of local objects -Combination with other data, if available - Report preparation		10 per 1 manhour	150,00	1.500,00

ROS2- Magnetometer supported.

Figure 6.3 — UgCS and UgCS-CPM application open side-by-side

Terminal Software Interface