

The word "AETHER" is written in a bold, white, sans-serif font. It is centered within a rectangular frame. The frame is composed of a solid magenta line on the left and right sides, and a solid yellow line on the top and bottom sides. Small white dots are placed at the corners and along the lines of the frame.

**AETHER**

R.2431 – Release Note

Deployment July 30, 2024

# Summary

MAIN TOPICS	MODULE
<b>Flight parameters &amp; metrics</b> - <a href="#">LINK</a>	Data Acquisition
<b>Fixing artefacts</b> - <a href="#">LINK</a>	Digital Inspection
<b>UX/UI improvements</b> - <a href="#">LINK</a>	Infield mobile app
<b>Annotations in 3D comparison mode</b> - <a href="#">LINK</a>	Data Studio
<b>Other upgrades</b> - <a href="#">LINK</a>	All
<b>Solved issues</b> - <a href="#">LINK</a>	All

# Data Acquisition – Flight parameters & metrics

## CONTEXT

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### Use case:

- **LiDAR** capture tasks management
- **RGB** capture tasks management
- Capture task **activity monitoring**

**Target Customers:** All users having access to Data Acquisition module

## PROBLEM SOLVED

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- User could not export data coverage metrics
- Data coverage metrics were only available in the UI for point cloud data
- Missing flight parameters for RGB and LiDAR tasks

# Data Acquisition | New flight parameters

## Additional flight parameters for RGB sensors

Sensor type  
RGB

**Flight parameters**

Above Ground Level

Ground Sampling Distance

Above Ground Level Unit: m

Flight speed Unit: m/s

GPS accuracy Unit: m

Camera rotation - tilt Unit: deg

Camera rotation - pan Unit: deg

Distance to equipment - min Unit: m

Distance to equipment - max Unit: m

[Link to kb](#)

## Additional flight parameters for LiDAR sensors

Sensor type  
Lidar

**Flight parameters**

Above Ground Level Unit: m

Flight speed Unit: m/s

GPS accuracy Unit: m

Points density Unit: pt/m2

Number of echos

## Data Acquisition | Coverage map for all deliverables

It's now possible to view the data set footprint for most types of data collection tasks.

When the mission area is available, the coverage metrics will also be provided (except for raw images).

① The quality check based on the photogrammetry results is OK

**REPORTING**

✓ Field report ● Complete [VIEW OR EDIT](#)

**DATASETS** [VIEW SURVEY](#)

- Raw images ● No data available
- Reflectances \* ● Available
- DSM \* ● Available
- Point cloud ● No data available
- 3D model ● No data available

[VIEW COVERAGE](#)

### Dataset Coverage

Dataset: Reflectances

<b>Covered mission area</b> 100%	Area 3106.7m <sup>2</sup>	<b>Uncovered mission area</b> 0%	Area 0m <sup>2</sup>
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Legend: ● Covered mission area ● Uncovered mission area ○ Dataset footprint

[CLOSE](#)

## Data Acquisition | Addition of coverage metrics to CSV export

The CSV export now contains coverage metrics:

- **Covered mission area (%)**: for mission area of type linestring, multilinestring and polygon
- **Covered mission length (m)**: if the mission area is of type linestring or multilinestring
- **Uncovered mission length (m)**: if the mission area is of type linestring or multilinestring
- **Covered mission surface (m<sup>2</sup>)**: if the mission area is of type polygon
- **Uncovered mission surface (m<sup>2</sup>)**: if the mission area is of type polygon

The metrics are based on the data set of reference associated with the capture task (Lidar point cloud or orthomosaic or reflectance map...)



Covered mission area (%)	Covered mission length (m)	Uncovered mission length (m)	Covered mission surface (m <sup>2</sup> )	Uncovered mission surface (m <sup>2</sup> )
100			3106.7	0

# Data Acquisition – Flight parameters & metrics

## CURRENT LIMITATIONS

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Flight parameters updated for RGB and Lidar sensor only (other sensor types were out of scope)

## NEXT STEPS

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Feature upgrade complete

Future improvements:

- Notifications to users
- Field report upgrade

## DEPLOYMENT

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Enterprise + Apps

Available by default to all users having access to Data Acquisition module

# Infield mobile app - UX/UI improvements

## CONTEXT

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### **Use case:**

*Asset Inspection:* reporting, quality checks directly based on annotations (initially created in the web app or from the field)

*Agriculture:* report field observations from an annotation

**Target Audience:** Operators, technicians involved in asset or, agricultural field inspection

## PROBLEM SOLVED

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Annotations "Type issue" are now compatible with Infield

Any raster layers available in the web app can be displayed in the Infield app

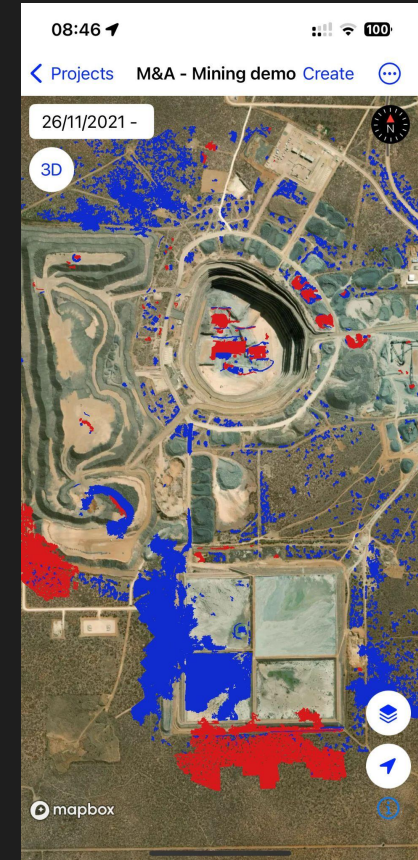
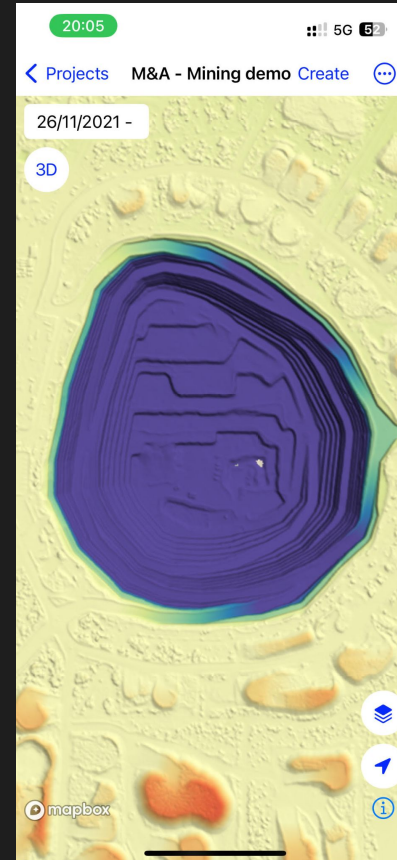
Infield app users now have access to the same level of functionality on both operating systems (Android and iOS).



## Infield mobile app | Raster visualization (IOS and Android)

Any raster from the web app can be displayed in Infield (vegetation indices, DSM, DTM, change map...).

The style applied to the map in the mobile app is the default style applied to the web application.



## Infield mobile app | Annotations improvements

### Upgrades in both IOS and Android versions:

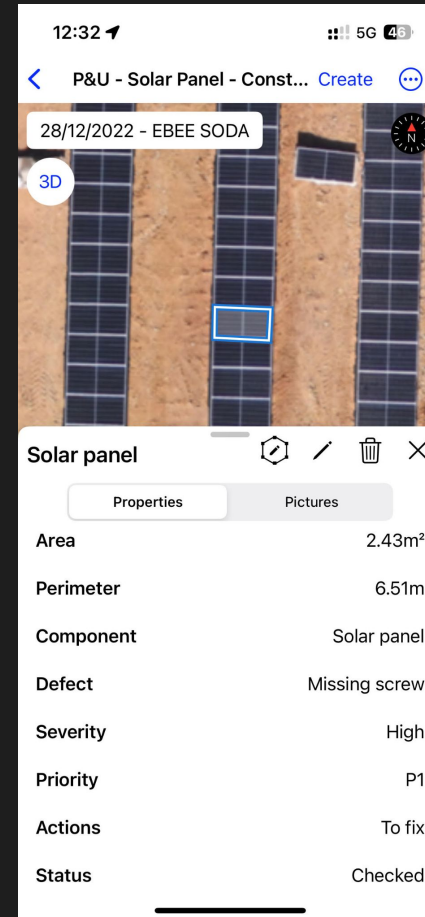
- Annotations of type Issue can now be created and displayed in Infield  
It includes the capability to visualize and edit the inspection attributes
- Annotations can be deleted

### Upgrades in IOS only (was already available in Android)

- All annotations geometry can be edited

### Upgrades in Android only (was already available in IOS)

- Point annotation can be created and edited anywhere on the map, not just at user position
- Annotations information and metrics can now be displayed



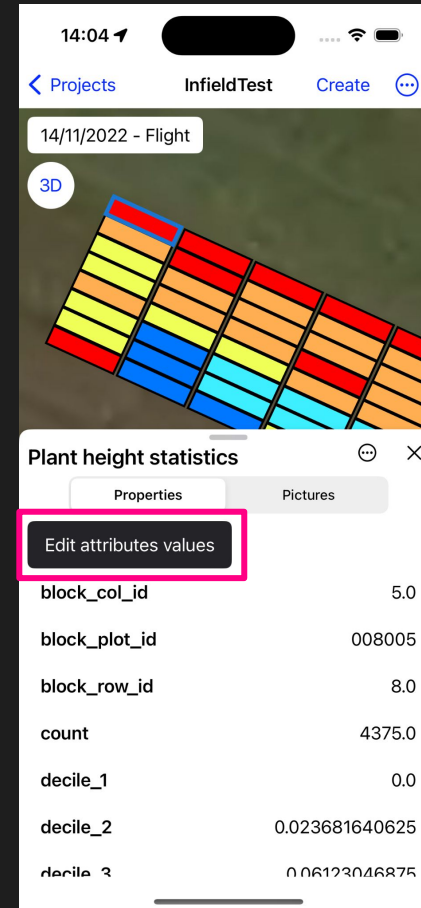
## Infield mobile app | Improvements for vectors

### Upgrades in both IOS and Android versions:

- Edit attribute values in a more direct access

### Upgrades in Android only (was already available in IOS):

- Deletion of pictures attached to a vector



# Infield mobile app

## CURRENT LIMITATIONS

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Rasters and vectors: style not configurable

## NEXT STEPS

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Offline mode

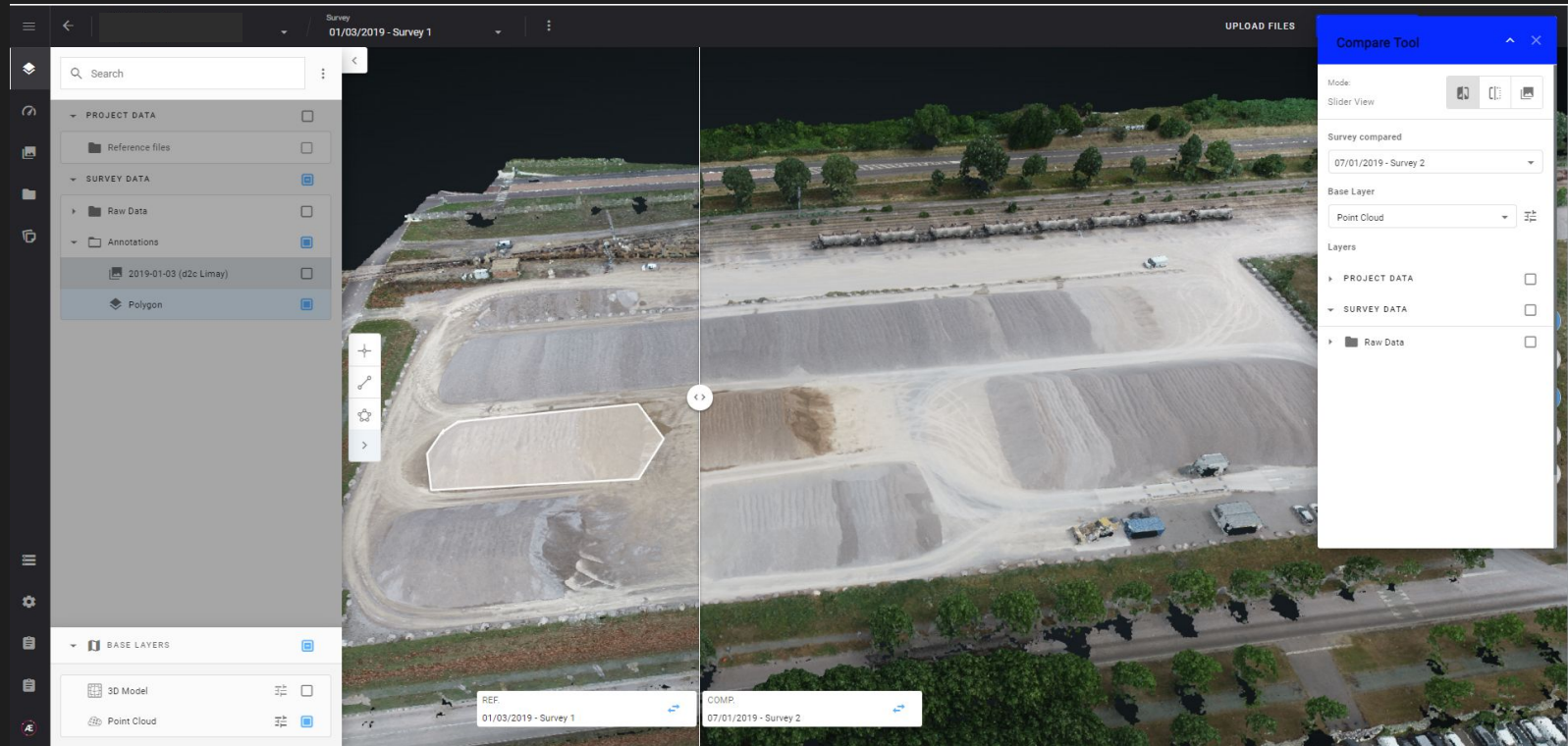
## DEPLOYMENT

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Available to all users having access to the Infield mobile app (Enterprise and apps)

## Data Studio | Annotations in 3D comparison mode

it's now possible to create annotations in the 3D comparison mode. Annotations are always created in the reference survey.



# Other upgrades

## Photogrammetry update for sensors M3M (RGB) / M3E / Zenmuse P1

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These sensors are now supported for Pix4D mapper without any pre-processing (no need to delete EXIF anymore).

For these sensors, the "roll" is forced to "0" to avoid outliers.

*Note: an update is also scheduled for Pix4D engine (PIX4D V2): will be achieved in a second step (by the end of september)*

## Analytic "Spectral index map" - new vegetation indexes

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The following vegetation indexes have been added to the analytic parameters:

- TGI: Triangular Greenness Index
- ExG: Excess Green
- GLI: Green Leaf Index

# Other upgrades

## Cold storage - sort by operation name

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In the cold storage module, storage operations can now be sorted by Operation name.

## Usage monitoring - export pixel count

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In the Usage monitoring module, analytics metrics can now be exported.

For the moment, the only available metric is "pixel count" for photogrammetry.

# Solved issues

MAIN TOPICS	MODULE
<b>Fixed</b> – Issue in generating Data capture tasks from the Season Planner – <a href="#">LINK</a>	Season planner
<b>Fixed</b> – DTM selection issue in a trial – <a href="#">LINK</a>	Season planner



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