Document information

Document: Release notes MapEO
Publication Date: 19/02/2024
Release number: 2024.01
Planned release date: 4/03/2024
Impact release on running operational processes: Users should make sure to download their plot statistics results and don't start new requests in the week before the deployment. At the moment of deployment, it is possible the request history is lost. Hence, we do not guarantee that ongoing requests are still available after deployment.

MAPEO Field Software

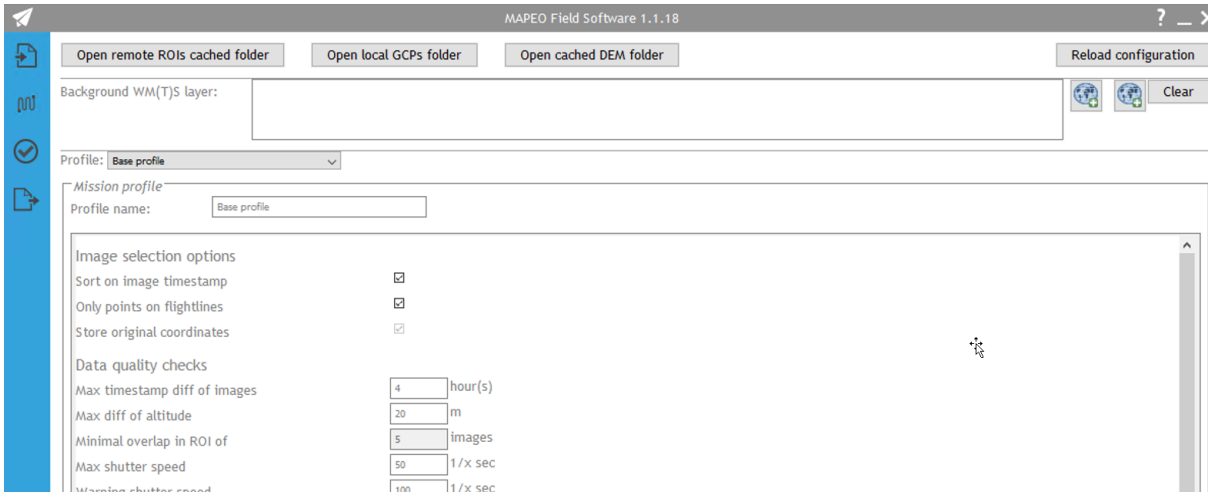
New MAPEO field software release can be found here:
https://support.mapeo.be/hc/en-us/articles/5146809158940-MAPEO-Field-Software

Make sure to update your current field software version, especially now with the start of the new crop season!

2024.01.01: Global DEMs to support terrain following
For drone mapping applications which require the drone to follow the terrain's elevation, we create a Digital Elevation Model (DEM) which can be used as input in the drone piloting software. DEMs are created automatically for locations in your MAPEO account and are made available via the field software. To find the DEM of your location, login to the field software, click on the settings icon and select "Open cached DEM folder". You'll find the DEM for every location which

a. Field boundaries are finalized by the drone manager of your project and
b. Contains GCPs. These GCPs are required to improve vertical accuracy of the DEM products

In case one of these requirements are not met the DEM will not be generated, and you should contact your drone manager for further instructions.



Executing a terrain-following mission requires an active RTK connection. Please verify that you have set up the RTK connection before executing the below procedure. The desired Ground Sampling Distance (GSD) should be obtainable from a minimum height of 25 m above ground level. Lower flight

altitudes are not permitted in DJI Pilot 2 terrain following routes for safety reasons. As always, the drone operator is responsible for the safety of the flight and must respect local regulations. Further instructions on how to use the DEM for terrain following missions for the DJI M300 or DJI Mavic3E/M can be found on https://support.mapeo.be/

Bug fixes:

- Better handling of missing calibration tags for micasense cameras
- Better handling of inconsistent Roll/Pitch/Yaw measurements from DJI camera's
- Remove custom DJI XMP GPS metadata when updating image GPS from user-defined CSV file

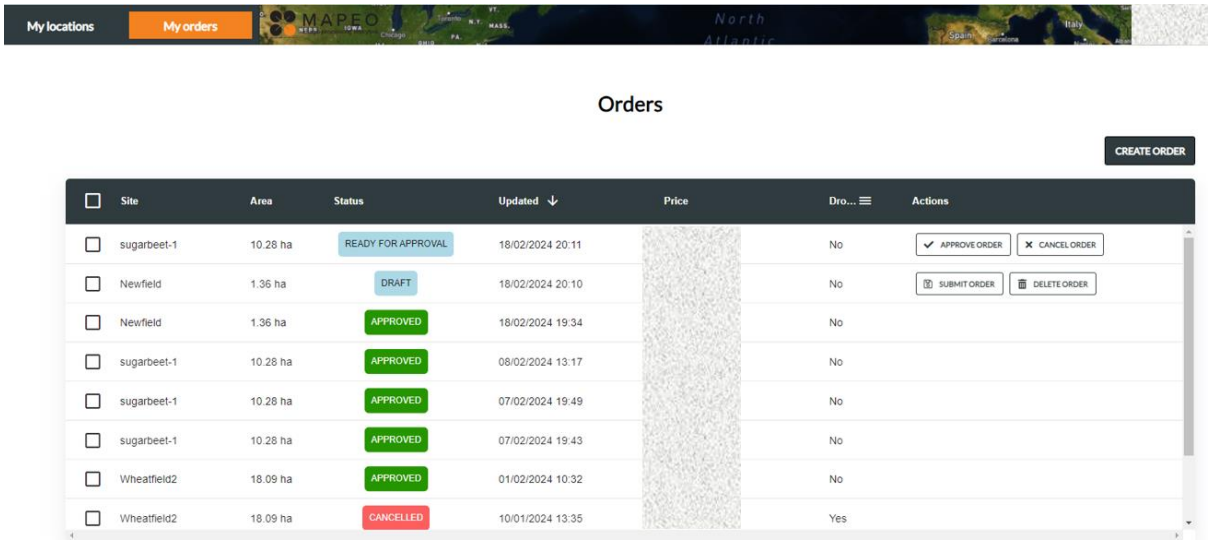
MAPEO Application

2024.01.02: Order management system

From this release onwards a new order management system is available for all users and industries. We added a new "my orders" tab on the MAPEO home page in which all product orders are listed and order status can be followed. Following order status are currently implemented:

- Draft
- Submitted
- Approved
- Finished
- Cancelled

The existing product ordering wizard has been updated and moved to this section and we added the possibility for users to directly see the ordering prices and edit/approve/cancel the orders. After approval (and after the location boundaries have been finalized), the missions belonging to this order will become available to upload via the field software. Per order, specific invoice details and internal reference information can be completed by the user or you can choose to select pre-defined values. In case you would like work with these pre-defined values, contact our service desk to add/remove default values for your account. Finally, you can export all order details to share with your drone team or financial administration.

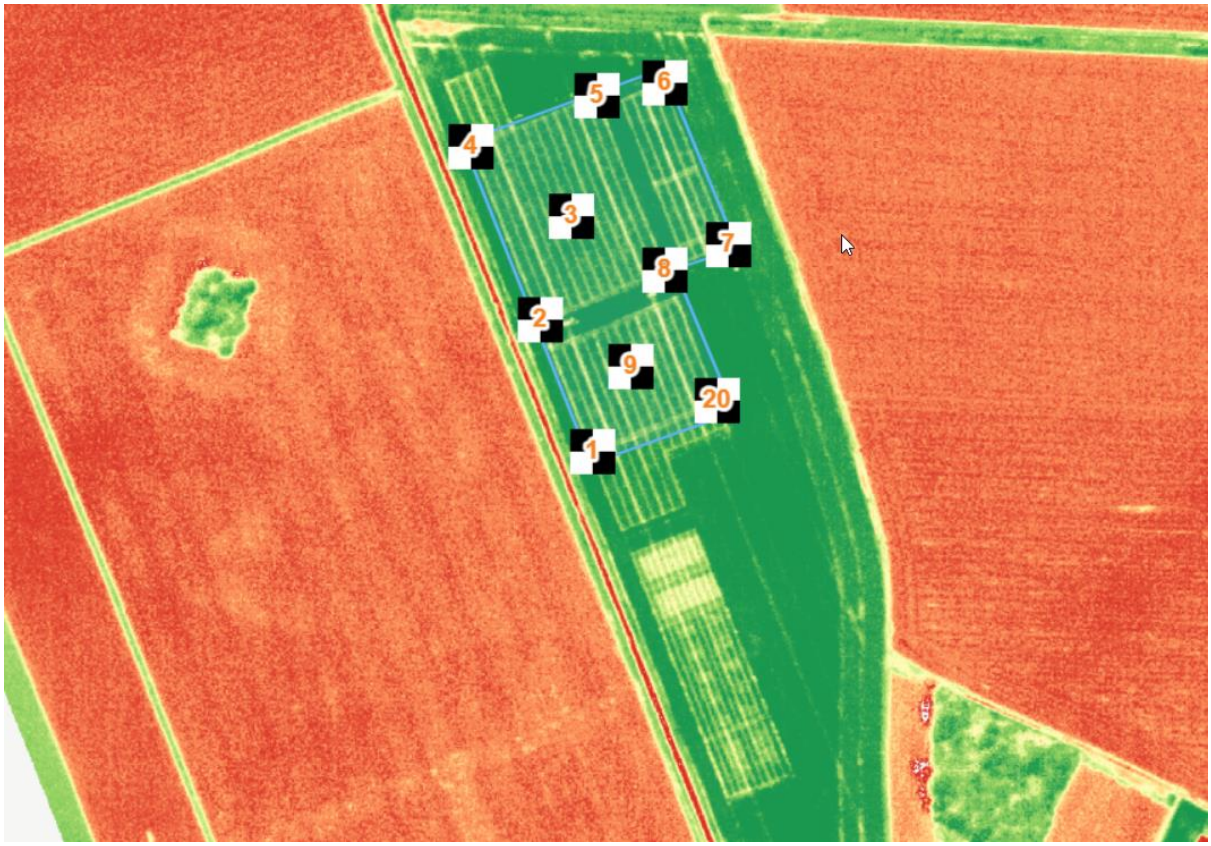


2024.01.03: Gap Count statistics

It is now possible to generate gap count data from any field that has both plant counts and field plots created in MAPEO. Gap counts are products that summarize the gaps between individual plants that occur if a plant did not emerge for whatever reason. Gap count products summarize gaps per plot, as well as per row. Gap counts also give the numbers of gaps in rows adjacent to each plot, as well as the number of plants adjacent to but outside of the plots. To generate gap counts, the user should refer to the corresponding page on https://support.mapeo.be for more information.

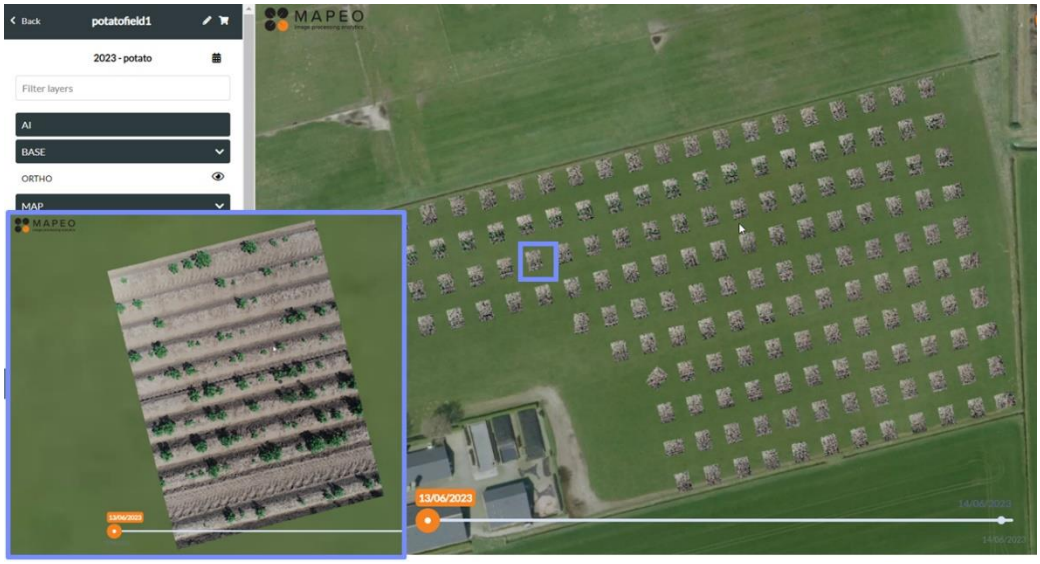
2024.01.04: Skysat satellite data

Skysat data are now integrated into the "satellite" product container. Both the satellite image and derived NDVI values will be displayed, respectively as NDVI-SAT and ORTHO-SAT. Users can reach out to support@mapeo.be for pricing and requests.



2024.01.05: Direct georeferencing workflow:

The direct georeferencing processing workflows are now available for all users within the Precision Agriculture industry. For this release, the fields must be located within Flanders, Belgium. Instead of the standard StructureFromMotion workflow, individual images are projected on top of the DHMV-II DEM from Belgium using direct georeferencing technology. After projection, an image mosaic ("ortho-dg") is made from all images of the drone flight and displayed in MAPEO. On top of these ortho-dg products, level 2 products like plant products, can be generated. For now, precision agriculture users can make a selection from 3 RGB resolutions (1mm,2mm,5mm). Drone sampling flight planning and support for other industries are expected later this year.



Bug fixes:

- Bugg in plant-based plot creation tool due to interference between annotations and field layers is fixed.

MAPEO API

2024.01.06: Improved Vector stats
The endpoint for exporting plots statistics for vector (AI) products has been updated. The endpoint is simplified and identical to the endpoint for exporting plot statistics for raster (map) products. Updated documentation is added to https://support.mapeo.be/hc/en-us/articles/5137950602524-MAPEO-API

Bug fixes

- Failed API requests coming from interference between annotations and field layers is fixed.

Contact information

https://support.mapeo.be/