DELAIR AFTER FLIGHT 6.2.0

RELEASE NOTES

November 5, 2019

![DELAIR AERIAL INTELLIGENCE]

1   Scope

These Release Notes contain information about the **Delair After Flight** software, version 6.2.0.

2   Objectives

Delair After Flight 6.2.0 is a new minor version. This release contains a number of improvements and exciting features, bringing UX11 and UX11 Ag users a better customer experience.

3   New features

- Using the same PPK station settings to process multiple flights in a row.

  The PPK base station dialog window now includes an additional checkbox, "Use this base station for subsequently opened flights".

  When checked, each flight opened afterwards will attempt to automatically use the same base station, provided the RINEX data overlap with the flight and all other inputs (base station coordinates, etc.) are valid. The process stops when a flight does not satisfy these criteria.

  This new feature is especially handy when you made several flights on the same day and have valid RINEX files for the whole duration of your mission. You then just have to enter the PPK settings for the first opened flight, tick the checkbox and proceed – All other flights will re-use the same settings without your intervention.
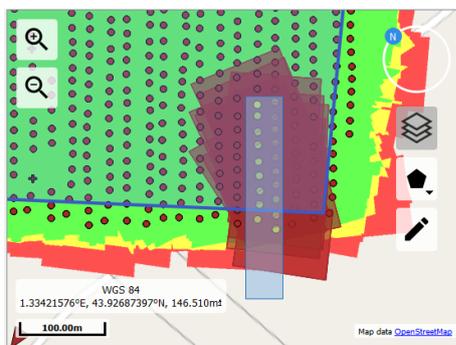
- Improved image range selection for filtering.

  The existing image range inclusion/exclusion filter allowed a user to select specific images by their numbers (IDs), but these numbers had to be entered manually.

  You now have the ability to easily select images on the map with the left mouse button and the **Ctrl** or **Shift** key:
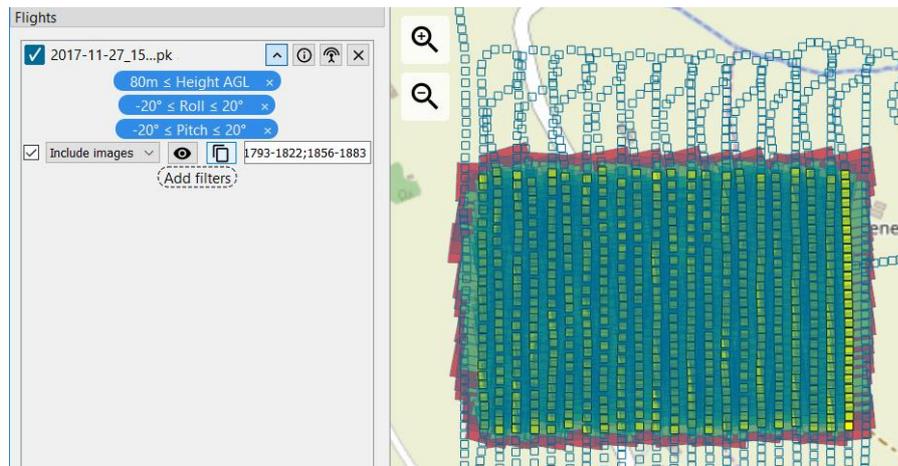
  - With the Ctrl key pressed, clicking on a single image selects/unselects it when the releasing the mouse button;
  - With the Ctrl or Shift key pressed, clicking and holding the left mouse button on the map, and then dragging the mouse show a selection area (known as a "rubber band").

  All images covered by the rubber band are selected.

  Use the **Ctrl** key to "add to" a selection, and the **Shift** key to "replace" a selection.

Once you are done selecting images, you may easily define or update a filter.

- o The 👁 button shows the currently selected pictures on the map;
- o The 🗗 button updates the filter with the selection from the map.

- Polygon drawing/editing improvements.

The currently selected point is now visibly shown on the map.

Moreover, when pressing **Delete** or **Backspace**, the current point gets removed. This is an additional way for removing points compared to earlier versions, that is, moving one point over another.

Finally, pressing the **Escape** key exits the drawing and measuring tools. This keyboard shortcut comes as an addition to the existing methods (i.e. right-clicking on the map or toggling the draw/edit button off).

- Searching for a location by name or address.

To enable this convenient feature, click **Window** > **Map decorations** > **Location search**. It is disabled by default to simplify the map view.

- New map layer: color shaded relief DEM (where the local SRTM90 DEM is installed).

- Choosing image processing options at time of export.

The amount of time it takes to export UX11 images varies due to the successive processing steps to reconstruct a full color image. By default, the UX11 image resolution is 21.4 MP upon export from Delair After Flight which enables high resolution point clouds and orthophotos. Users may, however, have different needs and not all applications require the full image resolution in order to produce the final map deliverables required for a particular project.

For example, if the ultimate goal is to produce an accurate topographic map with 1 m (3 ft) contour intervals and a surface model that can be easily read in CAD software, higher resolution photos are not necessary. They can even wastefully add several hours of photogrammetry processing time to your workflow and result in data files that are too large and unmanageable in other software suites. Alternatively, if you use lower resolution images from the beginning of your photogrammetry process, you can still end up with high-accuracy data products that are more than sufficient for 1 m contours and surface models of a manageable size.

Exporting and processing lower resolution photos not only decreases the time it takes for exporting the images from Delair After Flight, but it conserves disk storage space, requires less RAM during photogrammetry processing, and can enable you to get an orthophoto, surface model, and point cloud delivered much faster.

The application now offers additional flexibility with the ability to select from two image processing options:

- o "Optimal" mode outputs full 21.4 MP resolution images and is recommended for high-resolution photogrammetry operations afterwards.
- o "Fast and accurate" outputs smaller 5 MP images for faster, though still accurate, photogrammetry processing, or for conserving disk space.

Note:
These settings do not apply to the UX11 Ag. They are therefore disabled at dataset export unless you mix images from both UX11 and UX11 Ag flights. In that case, they are applied to the UX11 images only.

Delair | 676, Rue Max Planck – 31670 Toulouse-Labège, France | Tel: +33 (0) 5 82 95 44 06 | www.delair.aero
Capital: 238 110,30 € - APE: 3030Z – Intra-Community VAT number: FR90 53 09 69 781 – 530 969 781 R.C.S. Toulouse

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4   Resolved issues

- Nested multi-geometries are now correctly supported when importing a KML or Esri shapefile.

- Serial number and type fields of the base station are now populated in TBC 5.x JXL export. (These are mostly "informative" fields, but some users could need them in their processing reports.)

- The graticule (map grid lines) now has latitude and longitude labels. (As a reminder, the graticule is an optional map tool, which may be enabled in **Window** > **Map decorations** > **Graticule**.)

- Abnormal software termination when cancelling the selection of a coordinate system (resulting in an empty coordinate system being selected) but still validating the selection.

- The "Clear" button in the PPK base station dialog window now also resets the RINEX file selection dialog window.

- The "Remove" button in the RINEX file selection dialog window now behaves correctly with unordered multiple selections.

- The style for the local SRTM90 extents (**Window** > **Map decorations** > **Local SRTM90 extents**) was updated, to make the available tiles more visible.

- Additional fixes when reconnecting to the Wi-Fi network when it has changed or the connection is unstable.

- Software exception when the mission area filter is automatically imported and the mission area contains a lot of polygons.

- Improved error management and logs for PPK errors.

- Performance improvement when computing and displaying the image thumbnails (in the "Previews" bottom panel).

5   Other changes

Not applicable

6   Documentation

Please refer to the *UX11 User Manual*, chapter 9 or the brand new in-application documentation.

7 Installation information

Prerequisite:

- Windows 10, 64-bit desktop computer
- Minimum:
  - Any CPU
  - RAM: 4 GB
  - Storage: HDD, 30 GB free space (approx. 2000 images in JPEG 100% quality)
- Recommended:
  - Quad-core Intel CPU
  - GPU: Intel HD Graphics
  - RAM: 8 GB
  - Storage: SSD, 100 GB free space (approx. 3000 images in TIFF)
- The computer must be connected to the Internet during the installation process.

1. Go to https://download.mydelair.com
2. Download the **Delair After Flight** installer **delairafterflight-windows-x86_64-*version*.exe** (where version stands for the latest available version).
3. Launch the installer and follow the instructions.
4. During the installation, you will also be prompted to download Digital Elevation Model (DEM) files locally. Select a subset of the DEM according to your needs.

   CAUTION: To ensure that **Delair After Flight** works properly when computing photo projections and performing quality checks, the Digital Elevation Model (DEM) must be available for the geographical areas of interest. It is therefore strongly recommended to install the DEM. In the application's "Help > Options" menu, you may alternately point to the online Delair SRTM90 web service, but in that case an Internet connection is required during the entire work session. Moreover, Delair does not guarantee the service to always remain available.

7.1 Obtaining PPK licenses

For high accuracy photogrammetry (PPK, Post-Processed Kinematics), a commercial license is required.

1. Contact your Delair distributor or sales representative.
2. Select the appropriate license package among those proposed.
3. You can view and check the status of your PPK licenses on MyDelair (mydelair.com), the Delair community platform.