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INTRODUCING THE NEW TRACK'AIR NANOTRACK FMS

The **Nanotrack** is a new entry level aerial survey flight management system designed to manage the planning and acquisition of aerial photography. The **Nanotrack** is an affordable system derived from the proven **X-track** system which is used by more than a thousand mapping companies and governmental agencies world wide. The **Nanotrack** does not have all the capabilities of **X-track** but in most cases the system will be adequate to handle any photo job.

Nanotrack will initially be offered in 5 different versions, covering most known survey cameras from small format digital cameras to the latest large format mapping cameras.

- 1) Nanotrack:** Basic entry level system for commercial small format digital cameras (Nikon, Canon, etc). Fires the camera at precomputed positions but does not read information or pulse back from the camera. Hence the camera is assumed to have correctly fired at the planned firing location and the exact actual location of the photo is not known.
- 2) Nanotrack PLUS:** Same as above but is also capable of reading a pulse back from the camera and accurately time tag and georeference the photography position.
- 3) Nanotrack PRO:** Entry level system for large format film cameras (RC10, LMK, RMK, etc). Fires the camera and read the existing mid exposure pulse back from the camera (LMK, RC20) or generates a simulated mid exposure pulse back (RMK, RC10)
- 4) Nanotrack PRO PLUS:** Same as above and specially designed for RC30 and RMK TOP large format film cameras. Fires the camera, reads the pulse back and handles some camera communications and data annotation.
- 5) Nanotrack PRO ULTRA** Same as above and specially designed for older UCD Vexcel large format film cameras and the new Microsoft UCL cameras (not suitable for other UC camera models). Fires the camera, reads pulse back and handles camera communications and data annotation.

A dedicated pilot display such as the **X-track PILOT84** is **NOT** delivered with the **Nanotrack**. Optionally an affordable 8.4 inch automotive display is available.

Nanotrack and Small Format Digital Aerial Cameras

The **Nanotrack** brings the power of a professional flight management system to airborne digital small format photography. It allows accurate planning and automatic triggering of both vertical and oblique commercial small format digital cameras. The user will be able to precisely fly small blocks of parallel strips of vertical photography using the same tools that so far have only been available to large mapping companies. Whether you are a pilot, aerial photographer or an engineer, **Nanotrack** will save you considerable time planning your work and will maximize your effectiveness in the air, saving hours of inefficient flying.

Whether you acquire photography for artistic, mapping or engineering purpose, **Nanotrack** will be an asset for your operation and its very low price will rapidly be written off.

Nanotrack and Large Format Film Aerial Cameras

Track'Air, has decided to adapt the **Nanotrack** to older large format film cameras. **Nanotrack PRO** is intended for the users who, in view of a future digital camera changeover, prefer not to invest in a full **X-track** FMS at this stage. The **Nanotrack** will allow them to extend the life of their cameras while taking advantage of many of the features of the **X-track** system without the need for a major investment.

Nanotrack and Vexcel Digital Aerial Cameras (UCD and UCL)

Similarly, **Track'Air** has adapted the **Nanotrack** for the older Vexcel UCD digital cameras and the new Microsoft UCL cameras for the users who are not ready to invest in a full featured **X-track** FMS. As these cameras cannot be operated without an FMS, the **Nanotrack** will allow the user to start using their cameras without the need for a major investment.

Upgradability

A **Nanotrack** system is always upgradable to a full **X-track** system and will be fully credited against the **X-track** new purchase price. Furthermore, the **X-track** system can also be later upgraded into an Applanix **POSTRACK** system, thus providing your company with a complete upgrade path, allowing you to grow and equip yourself as needed.

Compatibility

The **Nanotrack** software is 100% compatible with the standard **X-track** software and Applanix **POSTRACK** software. It is possible to load a flight plan created by **X-track** into **Nanotrack** and vice-versa.

Description

Nanotrack consists of special software which is a subset of the **X-track** system and computerized triggering system. The **Nanotrack** triggering system can be connected to any laptop USB 2.0 connector. It utilizes power from your laptop USB. It comes with its own integrated GPS and antenna. All the required camera cables are part of the delivery.

Accuracy

The **Nanotrack** will fire your camera with an accuracy of a few feet (depending on the GPS accuracy). Even if the camera has a delay in firing, **Nanotrack** will be able to compensate and record with precision the position where the photo was actually taken.

Difference with X-track

It should be clear that **Nanotrack** is **NOT** a replacement for the **X-track system**. **Nanotrack** is an affordable entry level system allowing some users to temporarily postpone their investment in a professional FMS such as **X-track**. Also **Nanotrack** is meant for the many applications that actually do not require the power of an **X-track** system.

The main difference is that the **Nanotrack** depends more heavily on the laptop computer to which it is connected. Although **X-track** also make use of laptop computer, its own microprocessors handles all time critical operations and can eliminates computer quirks and slowness. To operate properly, the **nanotrack** requires a clean computer free of any resources consuming software such as live updates, antivirus and fancy internet goodies. With all unnecessary programs and applications turned off, **Nanotrack** will perform as well as X-track, but its capabilities are limited by design to the basic essential operations.

For long term dependable professional operation, **X-track** (or Applanix **POSTRACK**) is the only choice.



SPECIFICATIONS

The airborne system only requires a standard laptop which could advantageously be a small tablet computer that will accurately show the pilot where and how to fly his airplane. Using the renowned graphical presentation of the **X-track** flight management system, **Nanotrack** will allow you to fly thousands of photographs in the minimum amount of time possible. **Nanotrack** simply connects to your computer USB port and will interface your camera to the laptop to insure that your camera fires precisely at the right moment while taking into account all possible parameters.

The **Nanotrack** interface includes its own GPS receiver.

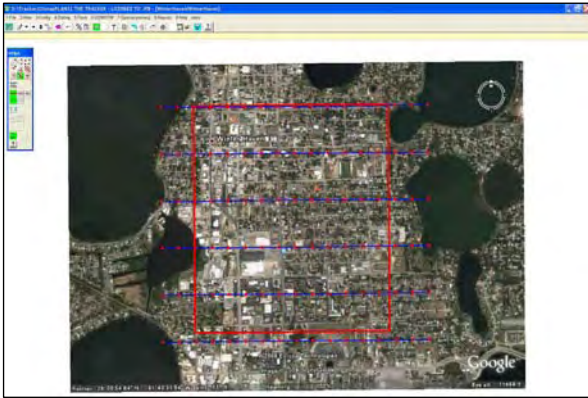
Specifications

- USB 2.0 device can be connected to any laptop
- Integrated single frequency 12 channel Garmin 25 GPS
- Included GPS antenna to be installed on the dashboard or outside.
- Operating altitude 25,000 feet + (laptop must have SSD above 14,000 feet)
- Operating temperature 0 to 60 degrees Celsius
- Dimensions 10 x 5 x 3 centimeters (4 x 2 x 1.25 inch)
- Weight max 200g (7 oz)
- Relative triggering accuracy estimated to 1 meter (3 feet) at 120 knots (depends on GPS signal quality)
- Minimum triggering interval between photos, one second (depending on camera)
- Unconditional guarantee 1 year (no repair, exchange only)
- Free software upgrade and support for 1 year.

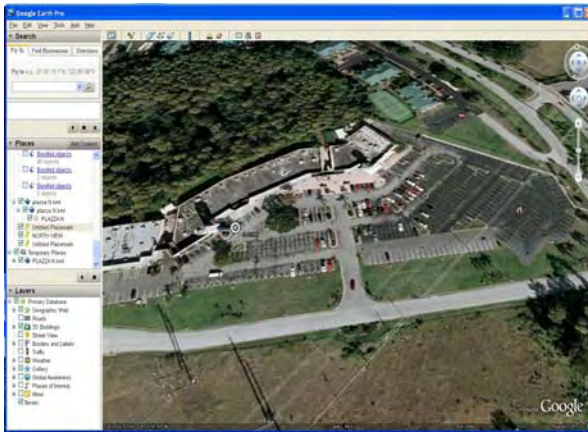
Delivery

- **Nanotrack** USB camera interface, with camera cable, integrated GPS, GPS antenna
- Software for planning: snapXYZ and snapPLAN, snapVIEW, light versions
- Software for flight management: snapSHOT, light version
- Software for checking and reporting: snapBASE and snapPLOT, light versions

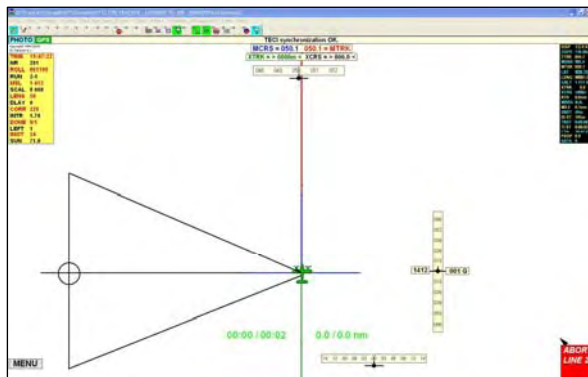
NANOTRACK AND SMALL FORMAT VERTICAL AND OBLIQUES



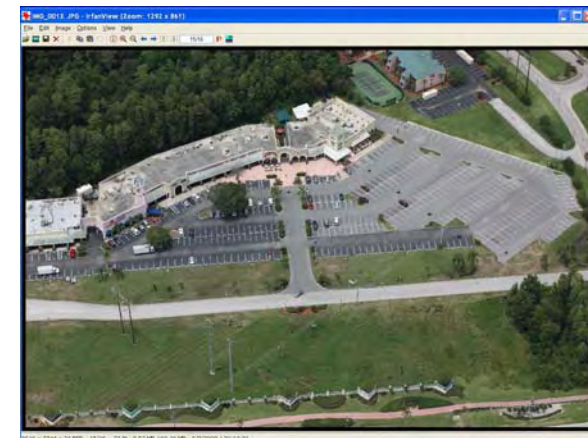
Planning a **vertical job** just requires a few clicks using the same planning tools that are used daily worldwide to generate millions of mapping photographs.



To plan an **oblique job**, simply compose your views with Google and the **Nanotrack** tools will automatically create the corresponding flight plan automatically taking into account your camera sensor size and your focal length.



Once airborne, **Nanotrack** will guide your pilot so that the views are automatically being fired from the right location, altitude and angle.



In addition, **Nanotrack** will allow you to re-fly the same exact views over and over again.