POSPAC UAV

NOW WITH POST-PROCESSED CENTERPOINT® RTX™ SERVICE

POSPac UAV is Applanix' industry-leading differential GNSS-aided inertial post-processing software for georeferencing data from the Trimble APX series of board sets flying on small UAVs. POSPac UAV turns your UAV into a low-cost, highly efficient, professional grade mapping solution compatible with cameras, LiDAR and other mapping sensors.

DIRECT GEOREFERENCING FOR UNMANNED AERIAL VEHICLES

POSPac UAV coupled with a Trimble APX UAV GNSS-inertial system delivers the benefits of Direct Georeferencing to aerial surveyors flying small UAVs:

▶ Achieve high accuracy position and orientation ready for map production, minutes after data collection

▶ Eliminate or reduce the need for Ground Control Points

▶ Fly less sidelap for greater effciency

▶ Map inaccessible and dangerous areas remotely with lower cost

WHY POST-PROCESSING?

POSPac UAV post-processing produces a higher accuracy and more robust georeferencing solution that can be generated in real-time, all within minutes of flying.

▶ It uses "gap-free" dedicated base station data or that from a CORS service instead of corrections over a radio link that can be jammed or interrupted.

▶ It uses the inertial data to bridge outages in the rover GNSS receiver data to ensure a continuous, gap free position and orientation solution.

▶ It improves the accuracy of both the position and orientation (especially heading), by running the data forward and reverse in time.

▶ Map without base stations using PP-RTX subscription service

INDUSTRY LEADING SOFTWARE

▶ POSPac UAV is integrated with Applanix' industry leading IN-Fusion™ GNSS-Aided Inertial processing technology for:

· robust, centimeter level position and orientation information worldwide without reference stations

· maintaining full accuracy before and after GNSS outages

· no restriction on minimum number of satellites

· fly turns without limiting bank angles => faster turns

▶ POSPac UAV also includes Applanix SmartBase Cloud for generating a set of observations for a virtual base station exactly where and when you need it, and emails it to your inbox ready for Differential GNSS processing (where available)

YOUR BENEFITS

▶ Reduced acquisition costs

▶ Reduced re-work costs with "know before you go" in field quality control

▶ Faster production

▶ Better accuracy

▶ Increased utilization
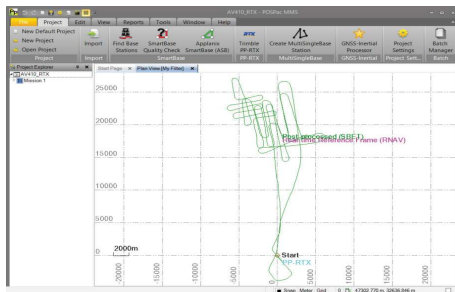
For more information, visit:
www.applanix.com/products/dg-uavs

Key Features

▶ cm-level post-processed DGNSS position accuracy

· removes the need for Ground Control Points in aero-triangulation (AT)

· achieve cm level accuracy in LiDAR point cloud

▶ Accurate GNSS position translation from Antenna Phase Center (APC) to sensor origin

· eliminates the need to estimate offset in AT which results in better accuracy

· obtains cm level accuracy in LiDAR point cloud

▶ High accuracy orientation

· strengthens the geometry in the AT block which reduces or eliminates sidelap

· obtains cm level accuracy in LiDAR point cloud

▶ Speeds up processing time of AT by improving point matching success and blunder detection

▶ 200 Hz Georeferencing solution

· filters out bad GNSS observables

· improves heading accuracy

· reduces interpolation errors to sensor sampling times

▶ Automatically survey in dedicated base stations direct from POSPac using Trimble CenterPoint® RTX™

· streamline map production workflow

▶ Full transformation support

· user selectable datums and projections

· transformation to camera Exterior Orientation

▶ Optional PP-RTX subscription for mapping without base stations (Fast Regions)

▶ Optional LIDAR QC Tools for UAV module for LIDAR

· Boresight calibration

· LiDAR-based Corrected SBET trajectory

· Point Cloud generation

TRANSFORMING THE WAY THE WORLD WORKS

applanix
A TRIMBLE COMPANY
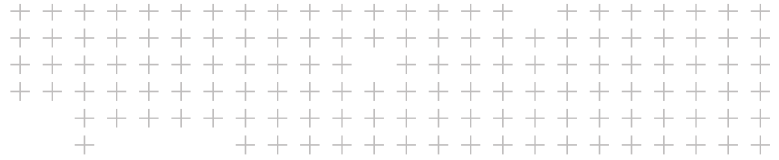
POSPAC MMS 8

NOW WITH POST-PROCESSED CENTERPOINT® RTX SERVICE!

POSPac MMS™ (Mobile Mapping Suite) 8 is Applanix' next generation of industry leading GNSS-Aided Inertial post-processing software for georeferencing data collected from cameras, LIDARs, multi-beam sonars and other sensors on mobile platforms.

NOW WITH TRIMBLE RTX TECHNOLOGY!

Using Trimble® RTX™ technology, POSPac MMS 8 delivers significant new benefits for mobile mapping from land, air, marine and UAV platforms:

- Achieve centimeter-level accuracy within minutes after data collection with just an internet connection – no need to set up base stations, no need to wait for delivery of public-domain ephemeris data

- Map inaccessible regions that have no existing Continuously Operating Reference Stations (CORS) without the cost of deploying local base stations

- Attain more uptime and reliability using Trimble's professionally managed, highly maintained private network

- Automatically survey in dedicated base stations direct from POSPac - streamline map production workflow

INDUSTRY LEADING SOFTWARE

"Applanix has a solid track record of delivering new and innovative solutions to its customers to solve their business needs. By integrating the Trimble RTX technology into POSPac MMS we are able to continue this tradition and offer our customers something that is truly unique and promises a whole new level of accuracy and efficiency."

- Joe Hutton, Director of Inertial Technology and Airborne Products at Applanix Corporation.

ABOUT TRIMBLE RTX

Trimble RTX is a proprietary GPS, GLONASS, BeiDou and QZSS enabled technology that provides high-accuracy GNSS positioning worldwide without the use of traditional local base stations or a VRS network. By combining real-time data from a global reference station infrastructure with innovative positioning and compression algorithms, Trimble RTX technology computes centimeter-level positions based on satellite orbit and clock information.

POSPAC 8 IMPLEMENTATION

POSPac 8 includes a post-processed implementation of Trimble's premier CenterPoint® RTX service, integrated with Applanix' industry leading IN-Fusion™ GNSS-Aided Inertial processing to provide robust, centimeter level position and orientation information worldwide and without reference stations. The Post-Processed CenterPoint RTX service is available for purchase as a 6 or 12 month subscription.

YOUR BENEFITS

- Reduced acquisition costs

- Reduced re-work costs with "know before you go" in field quality control

- Faster production

- Better accuracy

- Increased utilization

Key Features

- Post-Processed Trimble CenterPoint RTX trajectory processing (PP-RTX)

- Automatic base station survey using static PP-RTX

- "Know before you go" Quality Control licenses for checking GNSS data in the field, ensuring accuracy specifications are met before leaving the project area

- New floating license support – share a single license across a network or between computers

- New User Interface

- 64-bit processing for faster throughput

- Windows 10 support

- RTCM 3.2 support

- SmartBase database update

POSPac MMS 8 is now available worldwide through Applanix sales channels. For more information or to purchase POSPac 8, go to: http://www.applanix.com/products/pospac-mms.htm

POSPac™ MMS 8
CenterPoint | RTX | Post Processing

applanix
A TRIMBLE COMPANY