

# Applanix POSPac MMS 5.4

At INTERGEO 2010, Applanix has announced a new version of its post-processing software for Mobile Mapping and Positioning, POSPac MMS version 5.4. Designed to enhance the productivity of Mobile Mapping, the solution features an all-new Inertially-Aided Precise Point Positioning (IAPPP) engine and enhanced smoothing algorithm.

Precise Point Positioning (PPP) is an effective GNSS processing technique that uses precise clock and ephemeris information to converge to decimetre-level position accuracy without base stations or expensive commercial SBAS subscriptions. It is a cost-effective method of positioning for mobile surveys in remote areas or where centimetre level accuracy is not required. Traditionally, PPP techniques suffer degradation in accuracy following any loss of GNSS signal, requiring significant time for the solution to re-converge.

Applying the Applanix IN-Fusion™ techniques to PPP overcomes this by using inertial data to mitigate for signal outages and to retain full solution convergence. This means:

- Survey aircraft can fly sharp, high-banked turns to reduce time in the air for increased productivity, without concern for degraded accuracy
- Hydrographic survey vessels can obtain a decimetric accuracy PPP solution even when operating in port environments or around offshore structures where GNSS signal outages may be common
- Land survey vehicles can lose full signal lock when passing under bridges and through tunnels and still maintain converged PPP positioning accuracy after the outage

POSPac MMS 5.4 also uses a new smoother algorithm for reverse time processing, greatly reducing or eliminating the position discontinuities associated with satellite constellation or fixed ambiguity changes. This is ideal for applications such as high-resolution mobile laser scanning which measure thousands of points per second.

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