POSPac Go!

Many hydrographers and POS MV users have benefitted from the increased accuracy and reliability offered by POSPac MMS, the industry-leading GNSS-aided inertial post-processing software from Applanix.

NEW FROM APPLANIX

To ensure many more users can access the power of POSPac to deliver the most reliable and accurate position and orientation solution possible, Applanix have developed **POSPac Go!**, a subscription service providing one-button access to POSPac processing.

Data may be processed either in PPK mode, using data from an RTK base station or, with the optional PP-RTX subscription, without any need to deploy or access base stations. Each method provides robust, centimetric positioning and orientation results.

Embedded in the familiar MV-POSView command and control software, POSPac Go! will automatically identify the location of logged data.

Alternatively, the user can browse to the data to be processed should they wish.
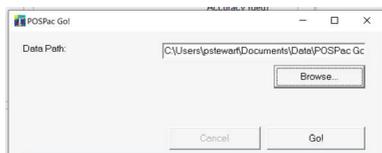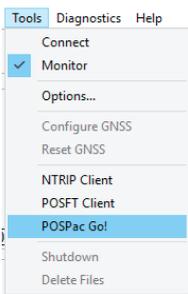
With the click of a single button, the power of POSPac is harnessed to create a smoothed best estimate of trajectory (SBET) file, the associated error estimates, and a PDF report, detailing the processing done.

General Information

Mission Information

Project name	POSPacGO
Processing date	2019-04-05 11:01:16
Mission date	2018-05-06 07:01:39
Mission duration	02:14:52.095
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS MV 320 VER5 HW1.1-11
Serial number	S/N5954
IMU type	26
Receiver type	BD982
Antenna type	AT1675-540TS

TWO MODES OF DATA PROCESSNG

POSPac Go! SingleBase

In PPK mode, POS MV Go! uses the GNSS Interpolator feature of POSPac MMS to interpolate through the gaps in RTK observables which often plague RTK operations, especially in areas where bridges, cranes, buildings, and large vessels inhibit real-time telemetry. GNSS Interpolator also eliminates any latency issues which might arise in real-time.

In this mode, POS MV Go! requires no internet connection or access to data from shore – the SBET may be produced while still in transit at the end of the survey.

POSPac Go! PP-RTX

PP-RTX is Applanix' unique post-processed implementation of Trimble's CenterPoint® RTX™ service. Available as a subscription add-on to POSPac, it provides centimeter-level positioning worldwide. In POSPac Go!, all that is required is an internet connection to download the corrections.

MERGING WITH MULTIBEAM DATA

The proprietary Applanix SBET format is readily accepted by a wide range of multibeam and LiDAR processing software packages, allowing the real-time navigation solution to be replaced, and the ultimate in data quality to be achieved.

The following images show the marked improvement afforded by POSPac Go!. Both are the same dataset, recorded in a typical port environment; an environment where RTK outages are common due to buildings, bridges and other structures.

Below is the standard deviation surface from real-time, with areas of higher standard deviation clearly highlighting the discrepancies between soundings from adjacent lines.
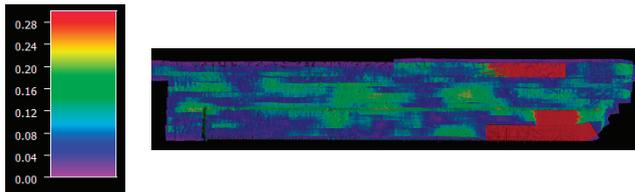
Using the same colour map, the equivalent surface is shown below, post-processd with the POSPac Go! SBET, and the improvement is clear.
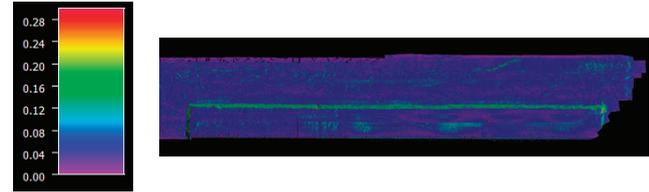

Note that the line of slightly higher standard deviation in the above POSPac Go! image is a result of the steep slope in the dredged area to the lower part of the image – see the bathymetric surface below.
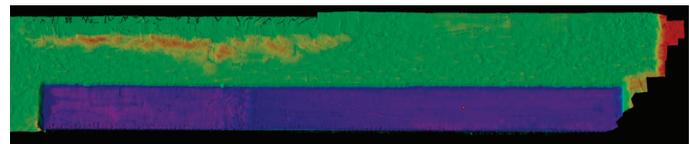
SUMMARY AND CONCLUSIONS

POSPac Go! makes the power of POSPac available to a much wider audience – no need for explicit training or significant additional overhead in processing time.

POSPac Go! in PPK mode takes RTK observables logged in real-time and interpolates through any gaps caused by telemetry issues. Eliminating the gaps and latency which tend to limit RTK performance in real-time provides a completely standalone SBET solution, with no need for internet access or returning to shore to download data from a dedicated GNSS base station.

In PP-RTX mode, POSPac Go! expands the applicability of the tool yet further – with just an internet connection, centimeter-level Direct Georeferencing of multibeam data is available anywhere, without reference to base stations or other infrastructure.