

# Applanix POSPac Go!

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

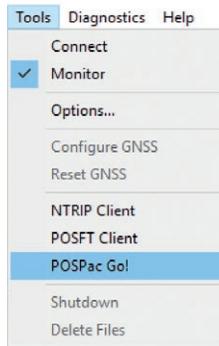
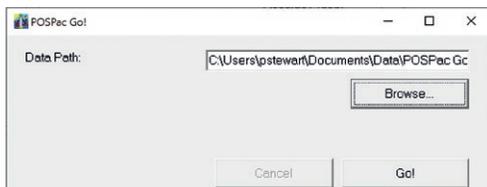
## New from Trimble Applanix

To ensure many more users can access the power of Applanix POSPac to deliver the most reliable and accurate position and orientation solution possible, Trimble Applanix have developed Applanix POSPac Go!, providing one-button access to Applanix 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 and included in POSPac Complete. Applanix 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 Applanix 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 VERS HW1.1-11
Serial number	S/16954
IMU type	2.6
Receiver type	BD982
Antenna type	AT1675-540T5

## Two modes of Data processing

### Applanix POSPac Go!™

#### Applanix POSPac Go! SingleBase

In SingleBase mode, Applanix POSPac Go! uses the GNSS Interpolator feature of Applanix 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, Applanix POSPac 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.

### Applanix POSPac PP-RTX™

#### Applanix POSPac Go! PP-RTX

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



# Applanix POSPac Go!

GNSS-inertial solution

## 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 Applanix 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.

Image one 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 color map, the equivalent surface is shown in Image two, postprocessed with the Applanix POSPac Go! SBET, and the improvement is clear.

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

IMAGE ONE

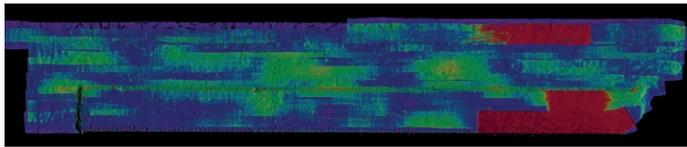
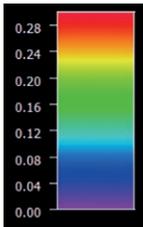


IMAGE TWO

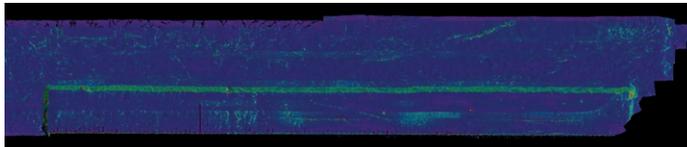
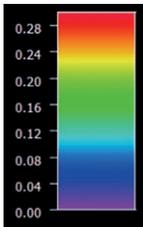
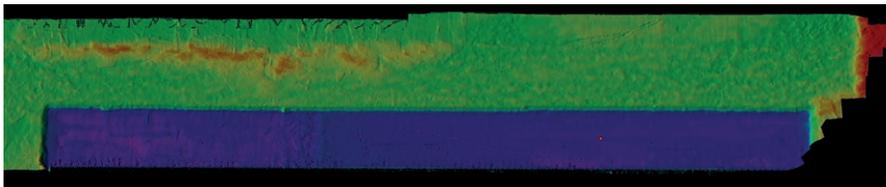


IMAGE THREE



## 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 SingleBase 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.

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