



# POSPac LiDAR QC Tools for LV

## FREQUENTLY ASKED QUESTIONS

### 1) WHAT ARE LIDAR QC TOOLS FOR LV?

The LiDAR QC Tools for LV is a software module available in POSPac MMS 8.6 or higher, designed to calibrate the boresight angles (misalignment between LiDAR and IMU Frame) and generate georeferenced LAS files.

### 2) WHAT CAN I DO WITH THEM?

LiDAR QC Tools precisely estimate the boresight misalignment angles between the IMU and the LiDAR frames; these are required to produce an accurate georeferenced product. A point cloud generator is also included in the package and could be used to generate LAS files for further data analysis and visualization.

### 3) HOW DOES IT WORK?

The LiDAR QC Tools create Voxels (3D pixels) from the LiDAR data and match these in overlap regions. Software then runs an iterative least squares adjustment using the matched points to solve for the constant IMU boresight angles. The boresight misalignment angles are computed and are ready to be applied in third party software or as a refined trajectory file exported from POSPac MMS with these misalignments applied.

### 4) WHAT ARE THE LIMITATIONS?

There are no limitations, but optimal accuracy is subject to LiDAR noise, captured features in the scenery and integration quality. For the boresight mission a specific pattern needs to be collected. This is documented in a separate technical note that could be provided by Applanix Support ([techsupport@applanix.com](mailto:techsupport@applanix.com)) upon request.

### 5) WHAT INFORMATION DO I NEED TO PROVIDE?

You need to provide the raw GNSS and IMU data logged by the Applanix land based products along with the time-tagged LiDAR data collected in the LiDAR frame. The LiDAR QC tools support generic LiDAR format. The LiDAR tools can be run using the either extracted real time trajectory, or the post-processed (SBET) trajectory (for optimal accuracy).

### 6) WHAT ARE THE MINIMAL COMPUTER REQUIREMENTS?

The LiDAR QC Tools for LV as part of POSPac MMS runs on Windows machines. It is recommended to have a modern Intel based Core i7 processor with a minimum of 32 GB of RAM and a fast solid state drive (SSD) with at least 100GB of free storage at the time the tools are running. Processing efficiency is also improved if the raw LiDAR measurements are separated in multiple files of about 1GB in size.



## 7) HOW CAN I PURCHASE LIDAR QC TOOLS FOR LV?

These tools are available through the Applanix distribution channels, please contact your regional sales manager for more information:

<https://www.applanix.com/contact.htm>

## 8) CAN I HAVE DEMO LICENSE?

Yes, it is possible to have a temporary demo license activated assuming you already have POSPac version 8.6 or higher. The tools are not compatible with previous versions of POSPac. Please contact our Customer Support department for details:

<https://www.applanix.com/contact.htm#support>