

Virtual Geomatics VG4D Production Suite's First Add-on Module

"Virtual Geomatics has taken us all just another step further down the path of making LiDAR more useful and much easier to process. The addition of their visual VG4D Boresite Module component to the calibration process makes it so much simpler. "

Growing Complexity

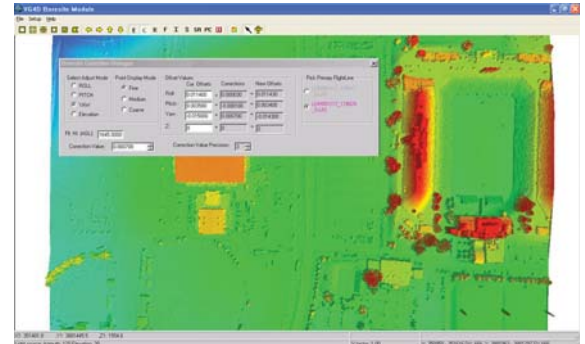
Over the past decade, airborne LIDAR data has increasingly become the primary choice for acquiring dense and precise digital elevation models of larger areas for a wide range of applications. In order to achieve maximum accuracy, it is imperative to calibrate a LIDAR system by determining corrective offset values for Roll, Pitch and Yaw. Due to the complexity of these 3-D misalignments, it can be a very intricate and stringent effort to calculate these corrections at the same time.

Simplified Real-time Visualization

While current common approaches to modeling a boresite solution employ tedious profile-based corrections, block adjustment corrections or intensity imagery and correlative methods, purely analytical techniques of solving a boresite are made much easier when combined with real-time subjective visualization. The VG4D Boresite Module approach does not pose any special conditions regarding flight altitudes, course directions or terrain details, but only requires two LIDAR strips flown in opposite directions along the same course at the same Above Ground Level (AGL) height.

Sophisticated Versatility

The new, versatile, user-friendly method adopted in the Boresite Module suggests a more efficient approach than others commonly available. By manipulating the data in real-time, this sophisticated 3D



technique finds the needed parameters to correct boresite misalignments without excessive requirements and processing steps. It requires no special attention to or conversion of data, such as developing correlation grids or images. Furthermore, it is not necessary to pick particular areas which contain specific features for processing purposes, nor for the data to be flown at multiple flight heights

Efficient Accuracy

The VG4D Boresite Module has consistently yielded precise offset values in less than four iterations; our successes show that it is not uncommon to solve a boresiting in less than thirty minutes.

Refine Your Company's Production Reality

Whether purchased and deployed together or separately, take the next step forward with us and enjoy the advantages delivered to your projects by Virtual Geomatics and the VG4D software suite and the VG4D Boresite Module combination.

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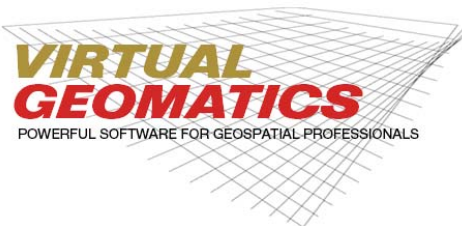
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Product Features

- OpenGL environment
- Handle multiple LAS files simultaneously
- 3D display and manipulation of data points
- Three point display modes
 - Fine
 - Medium
 - Coarse
- Points may be colored in multiple modes
 - elevation depth (chromadepth),
 - intensity,
 - file ID,
 - classification,
 - contour
- Zoom and navigation controls for panning and movement
- Data pre-classification of above-ground feature points
- Real-time visual modeling of horizontal and vertical discrepancies
- Instant display of the modified value results in real-time
- Post-processing into standard LAS format

Call for pricing and more information:



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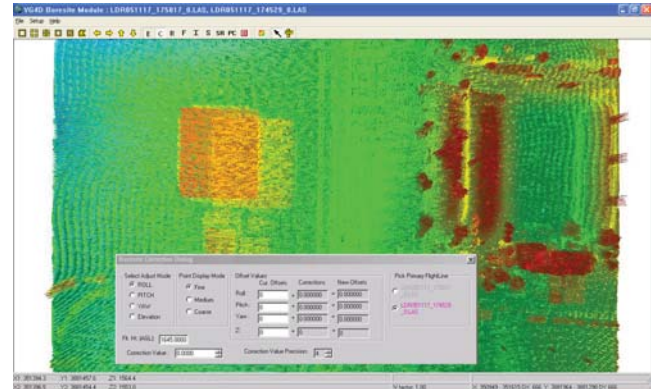


Figure 1. LiDAR points after initial post-processing with no adjustments

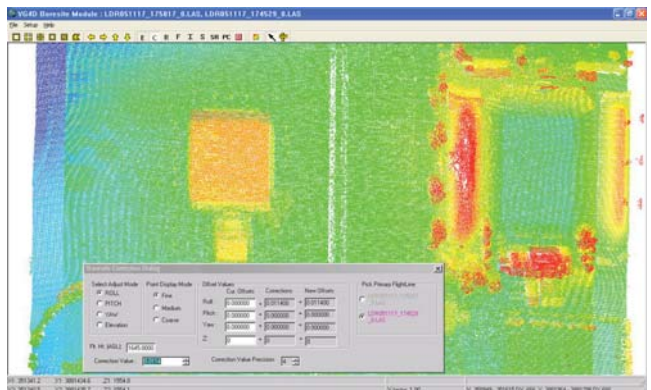


Figure 2. LiDAR points after 0.0114 Roll Correction

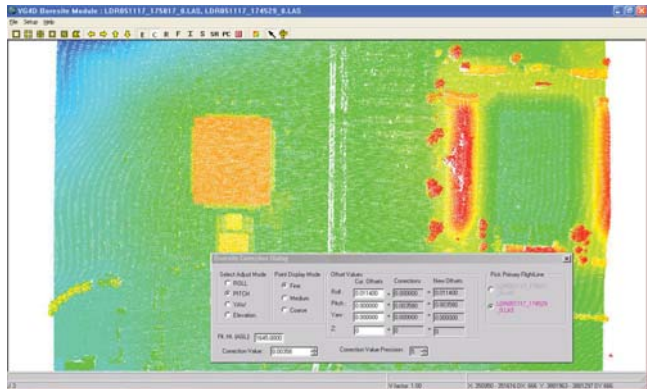


Figure 3. LiDAR points after 0.00358 Pitch Correction

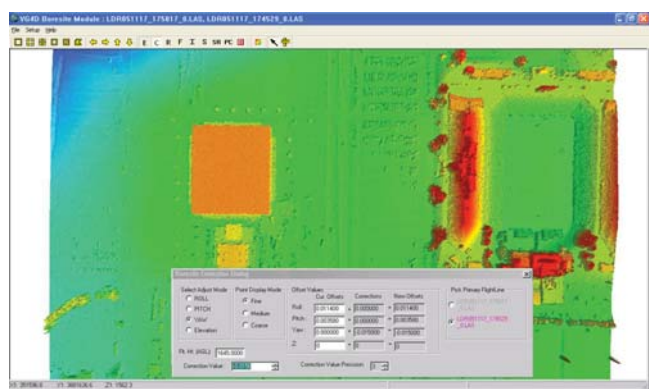


Figure 4. Rendered overlaid surfaces after -0.015 Yaw Correction