Viametris Launches Mobile Scanning System with Panoramic Camera

Viametris, a leader in mobile scanning technology, has launched its bMS3D backpack mobile scanning system embedding a 360° camera. The device is the world's first mobile scanning backpack system including a panoramic camera. This sensor allows the user to maintain continuity of results with mobile mapping systems on cars which already include this kind of camera.

Operation and visualisation with such 360° images are now easy to use. Everyone is used to navigating through panoramic images ever since Google provided massive street views. Navigating through bMS3D-360 images becomes easy and intuitive when compared to 3D point cloud navigation.

"Users of mobile scanning systems know how difficult it is to cover an entire city with this kind of system and how complex the completeness is" said Jerome Ninot, Founder of Viametris. Narrow streets and pedestrian zones are considered hurdles when it comes to mobile scanning. The new bMS3D-360 makes these sorts of tasks achievable.

No-GNSS Dependent Technology for Trajectory Calculation

The system trajectory is calculated by LiDAR-SLAM. It produces colourised point clouds with absolute accuracy of less than 5cm under appropriate satellite reception conditions. Compared to many mobile scanners, this backpack does not rely on GNSS to work. If the GNSS reception is not good enough, control points can be added for absolute localisation. The bMS3D-360 is lightweight and protects the retractable camera and all other components since it is self-contained.

Post process in PPiMMS Software

PPiMMS post processing software manages the datasets coming from the system. Its mission is to calculate, control and improve the trajectories by calling LiDAR-SLAM functions, and reducing drifts thanks to Loop Closure Algorithms. The user can manually add GCPs to constrain the result when GNSS reception is poor. But, in most cases, the user will be able to include post processed global positions (PPK) using GNSS Post-Processing Software. Additionally, the panoramic camera can be used to colourise the point cloud using PPiMMS.

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