

Solution for Highly Accurate Building Floor Plans



3D Laser Mapping has launched a solution developed to change the production of highly accurate building floor plans. Combining the ZEB1 handheld laser mapping system with point cloud processing software, the end-to-end solution will allow users to scan and produce detailed floor plans in a matter of minutes. The announcement follows an agreement between UK-based 3D Laser Mapping, worldwide distributors of the ZEB1 handheld mapper, and PointCab, a German software company specialising in the processing of laser-scanned data.

The combination of ZEB1 and PointCab creates a powerful solution for building surveyors, said Charlie Whyman, global sales and marketing manager, [3D Laser Mapping](#). Trials of the combined solution have shown that a multi-room facility can be scanned, the point cloud data processed and a vector model produced, all in less than 20 minutes, she added.

PointCab provides a quick solution for the management of laser-scanned data. Promising to analyse a point cloud in less time that it takes to scan, PointCab builds on the ease of use of the ZEB1 mobile mapper. PointCab also offers an interface that allows both beginners and professionals to analyse point cloud data without training and with little support. The workflow between the ZEB1 and PointCab is direct and seamless, and models can be output in a range of standard file formats.

Range of applications

Frank Torno, head of administration of PointCab, added the ZEB1 is ideally suited for building surveys as it is portable and can be operated in confined spaces and difficult to access areas. The workflow of raw data into PointCab combined with the speed of processing make the ZEB1 PointCab partnership interesting for a range of applications including building surveys.

Developed by CSIRO and commercialised by GeoSLAM, ZEB1 uses robotic technology called Simultaneous Localisation and Mapping (SLAM). The ZEB1 system includes a lightweight laser scanner mounted on a simple spring mechanism, which continuously scans as the operator walks through the environment. As the scanner loosely oscillates about the spring, it produces a rotation that converts 2D laser measurements into 3D fields of view. Its ability to self-localise makes ZEB1 suited for use indoors, underground and in other covered environments where traditional solutions that utilise GPS do not function.