

Terramatrix Uses New ZEB1 Mobile Mapping System



ZEB1, 3D Laser Mappingâ€™s new handheld mobile mapping system, has been successfully used by service provider Terramatrix on a project in the Midwest of the United States. ZEB1 is specifically designed for use in areas of limited satellite reception, including indoors, underground and in high-density landscapes such as urban environments and forests.

Terramatrix, an Omaha, Nebraska-based professional survey company, stretched the limits of the ZEB1's capabilities in an outdoor overhead utilities application and has become one of the first commercial organisations to adopt this new technology.

Terramatrix selected ZEB1 following extensive field trials. It is intended to complement other types of survey technology, such as the vehicle based mobile mapping system StreetMapper, already in its survey toolbox.

ZEB1 allows to go back to the good old days of being a surveyor – in the field literally rattling the fence to get access to certain areas, commented Michael R. Frecks, PLS and president/CEO of Terramatrix. However, with ZEB1 there is no time-consuming set-up, it is possible to rapidly scan large areas and the data is accurate and ready to use on return to the office. Prior to purchasing ZEB1, Terramatrix rigorously tested the systems capabilities specifically looking at data accuracy, coverage and ease of use. It exceeded the expectations in all aspects, Frecks continued.

The ZEB1 system includes a lightweight laser scanner mounted on a simple spring mechanism. A small backpack accompanies the handheld device which continuously scans as the operator walks through the environment. ZEB1 does not require expensive software or high-end computers to process the captured data. As the operator moves through an environment the scanner loosely oscillates about the spring producing a rotation that converts 2D laser measurements into 3D fields of view. Its ability to self-localise makes ZEB1 ideally suited for use indoors, underground and in other covered environments; such as dense forest and urban canyons, where traditional solutions that utilise GPS do not function well.

ZEB1 was developed by CSIRO, Australia's national science agency, and is licensed from GeoSLAM (a UK-based start-up company).

Download here the [brochure](#) of the ZEB1 mobile mapping system.