COWI Measure Building Plans 10-times Faster with GeoSLAM's Game-Changing Survey Solutions

Accelerating Survey Workflows

COWI, an international multi-discipline consultancy firm, has added another ZEB1 to its growing portfolio of GeoSLAM solutions for rapidly measuring and mapping building interiors and it's easy to understand why.

"GeoSLAM's solutions are changing the way we survey buildings." enthused Morten Thoft, Chief Specialist Mapping & Surveying, COWI Denmark. *"We can now measure building plans 10-times faster than we used to with Total Station or traditional survey equipment."*

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Indeed, in just 6 short months since acquiring their first ZEB1 hand-held laser scanner from reseller 3D Laser Mapping, a two-man team at COWI has used the ZEB1 to survey the interiors of some 400 municipal buildings; mapping in excess of 16,000 rooms and measuring more than 300,000 m^2.

"That is equivalent to scanning every inch of London's 'Shard' [the tallest building in the EU with 87 storeys] *not once, not twice, but three times."* commented Joe Croser, GeoSLAM.

"It is a substantially larger floor area than that covered by the 103-story Empire State Building in Manhattan which was the World's tallest building for nearly 40 years from 1931 to 1970; and it is roughly the same floor area as the Burj Khalifa in Dubai, currently the World's tallest building which boasts 211 floors and 309,000 m^2."

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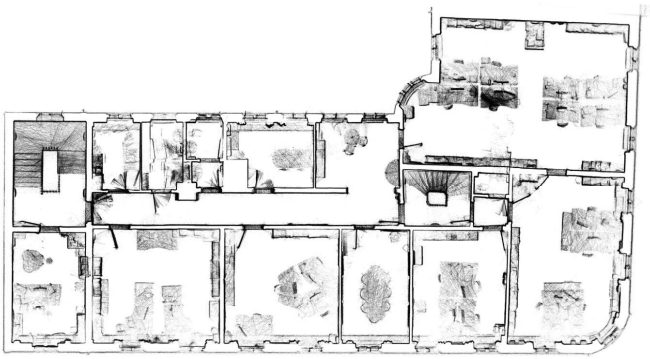
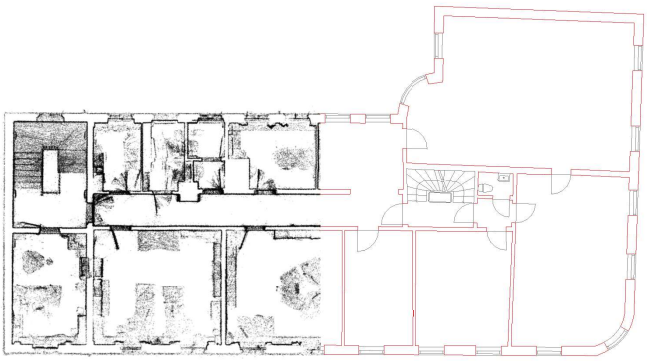
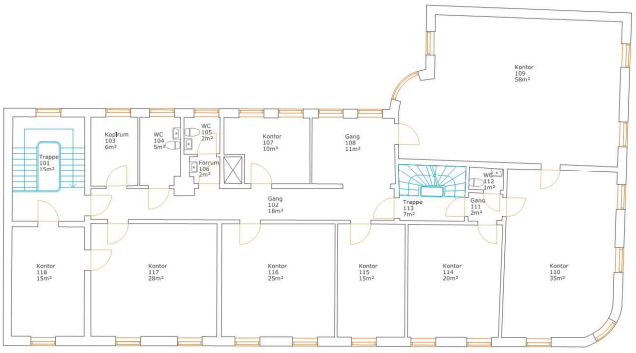


Point Cloud Survey Data from GeoSLAM ZEB1



Point Cloud Survey Data with BIM Floor Plan Overlay



BIM Floor Plan Extracted from Point Cloud Survey Data

While such magnitudes add a little context to help one imagine the scale of the project, they don't elucidate the measurable time-savings realised by COWI.

"Our decision to purchase a second ZEB1 was easy. With our first in hand, we surveyed more buildings with more rooms in six months than traditional survey equipment would have allowed in many years." continued Thoft. *"And we were able to capture more information in the process."*

Key facts

- COWI is a multi-discipline consulting firm
- Adopted ZEB1 for measured building surveys
- Won competitive tender on price and speed
- COWI surveyed 400 buildings + 16,000 rooms
- Used tape & Disto to check key dimensions
- Completed multi-year project in six months
- GeoSLAM survey workflows proved 10x faster

COWI's ability to turbo-charge their survey process caught their client by surprise; Thoft explained:
"We won this project in open tender, beating 3-5 other bidders by promising to complete the project for less money and in less time than any other bidder."

Indeed, COWI's project schedule was so much shorter than anticipated the municipality had to bring forward budget that had been allocated to future years; having fully expected the project would be a multi-year engagement.

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Still, if a project can be completed sooner, for a lower cost and comprising richer, more reliable data, it has to be a win-win for all concerned.

About ZEB1

The ZEB1 is the first truly mobile lightweight hand-held laser scanner which is suitable for use in a number of applications including: mining, forensics, architecture, forestry, stock piles and for rapid visualisation.

ZEB1 Data Logger with Hand-Held Laser Scanner

"Survey in Motion" ZEB1 'Nodding' Laser Scanner

High-Quality Product Assembled in UK

With ZEB1 in hand the user can simply walk through the target survey environment while rapidly recording more than 40,000 measurement points per second without the need for external positioning data such as GNSS. The ZEB1 works best in feature-rich environments while on the move, so there is typically no need for targets and absolutely no need for a tripod. Once the data has been collected, it can be uploaded to the GeoSLAM Cloud, where SLAM software transforms the survey measurements into a fully registered point cloud. Thereafter, the data can be downloaded (on a pay-as-you-go basis) for use inside all major CAD software. With this finance-friendly business model, the GeoSLAM solution eliminates the need for upfront software costs and annual maintenance charges.

About GeoSLAM

GeoSLAM develops game-changing survey solutions including ZEB1, for the measurement and mapping of multi-level three-dimensional environments. Backed by winners with a track record for innovation, GeoSLAM is a joint venture between CSIRO (Australia's national science agency and the inventor of WiFi) and 3D Laser Mapping (the UK's leading provider of LiDAR solutions to the mining industry and the inventor of 'Street Mapper' – the world's most accurate mobile laser mapping system).

For more information:

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