

Case Study

Customer:

Centara Ltd

Project:

Scanning Mount St Mary's Church, Leeds

Solution:

Trimble X7 3D Laser Scanner /
Leica Cyclone processing
software



- **ROI:** Not only was the Trimble X7 priced competitively, Neil and Sam calculated that the auto-calibration feature alone would save them in excess of £3k-4k a year because unlike their other scanner, the X7 would not need to be sent abroad for this process, nor would a replacement hire be needed for the duration which was usually around to 2-3 months. These savings enabled Centara to invest in additional kit that they were not expecting to purchase until the next financial year.

- **Ability to retain their existing workflow:** Thanks to the X7's .E57 open data format, Centara could use their existing Leica Cyclone processing software that they had bought three years previously.

“We now have our laser scanner of choice with no need to purchase new processing software,”

Sam Hough,
Centara

- **On-site registration of scan data:** Full data capture, registration, and exporting of data completed in the field. Whilst still on site, the Centara team can ensure that all scan data has been captured

and also check for potential shadowing or the need for more detail. They can even export the finalised scan from the Trimble T10 Tablet, no further processing required, all before the surveyor leaves for home. This process is further facilitated by the X7 generating far smaller data files than other manufacturer's scanners.

- **Ability to georeference data on site:**

Centara's clients include architects who often request a point cloud deliverable georeferenced to the OS Grid. Using the T10 Tablet this can be achieved on site with the finished data emailed immediately to the client.

The best of both worlds

Why Yorkshire based Centara Ltd combined a new Trimble X7 3D Laser Scanner with existing Leica point cloud processing software to create the most cost-effective workflow to deliver timely, high-quality, high-accuracy data to clients.

Centara Ltd provides a range of geomatic and utility mapping survey services to multiple industries throughout the UK, servicing the demands of these sectors with an extensive portfolio of survey instruments.

Following an upsurge in demand for 3D Laser Scanning, the company sought to expand its fleet by moving away from its existing set up of one Centara owned scanner backed up by a second hired instrument as and when required, to full ownership of a second scanner. With an ethos of purchasing on merit, Director of Operations, Neil Beaumont and Principal Survey Delivery Manager, Sam Hough, were keen to select the best possible instrument available. However, they wished to achieve this without having to replace their Leica Cyclone point cloud processing software purchased three years earlier for use with an existing laser scanner.

Having heard about the recently launched Trimble X7, Centara contacted UK distributor, KOREC, to arrange a demonstration. Following this trial, Neil and Sam were impressed with the many

benefits the X7 could bring to their daily work and in particular, they were pleased to find that export formats supported Trimble and non-Trimble software through the instrument's new Trimble Perspective software. These included the open .E57 format for easy importing of data straight into their existing Cyclone software which meant buying the best scanner for their requirements would not require any further investment in new processing software or in time spent learning a new workflow.

Centara based their purchasing decision on the key benefits in which they felt the X7 scored most highly in compared to their existing scanner:





▲ Colourised point clouds captured by the Trimble X7

■ **Excellent quality, photo realistic scans:** Centara reports fast image capture times of just two minutes for the X7 compared to the 5-6 minutes taken by their older scanner. This has added value for the client and made interpretation of the captured data far more straightforward for non-technical stakeholders.

■ **X7 controlled by the Trimble T10 Tablet:** Sam Hough states that the Windows T10 tablet is extremely powerful and offers a large, high-resolution screen, perfect for handling the point cloud data. Additionally, he's found it useful to be able to share the screen with KOREC Technical Support when immediate onsite assistance has been required.

■ **Additional X7 functionality:** Little extras like the built-in dual axis compensator for automatic survey grade level compensating have proved useful to the team for reducing site time.

■ **Innovative technology:** Centara felt that the addition of such progressive technology would not only increase productivity but also reflect well on the company and in its marketing.

■ **Rain doesn't stop play:** Sam reports that it has more than proved itself in the UK's wet conditions.

Case study: Mount St Mary's Church, Leeds

Founded in the mid-nineteenth century, the vast Mount St Mary's Church was closed

in 1989 and since then has become increasingly derelict and in need of restoration. Plans to extend and redevelop the church into residential apartments are currently underway and these plans will see the Grade II* listed element of the church retained whilst a new extension will be added to the rear of the building. At the end of 2020, Centara were contracted to undertake a drone survey of the building along with internal and external scans to produce a final deliverable of an accurate, precise colourised point cloud.

The church would generate a data set that would be very difficult to register so the Centara team opted to use their newly acquired Trimble X7 3D Laser Scanner which would complete the registration on site.

During their morning at the church, OS control was established, and twelve scans were undertaken, three external and eight internal owing to the complexity of the internal architecture that still remained. No targets were used. The scans were then colourised with quality images in minutes, registered and automatically georeferenced to the OS Grid, all done on site using the Trimble T10 Windows Tablet and the X7's in-built EDM unit and laser pointer. The large, clear screen of the T10 also enabled Centara to ensure that nothing had been missed despite the complexity and different levels of the site. The job was thoroughly checked, and the client received a high-quality deliverable within 24 hours.

Sam concludes, "The X7 has been a fantastic addition to our survey fleet. It's extremely popular with the team, all of

whom picked up how to use it in minutes, and it's been on a site every single day since its arrival.

Our decision to purchase the X7 was based on two stand out factors - the quality of the performance it delivers for the price and the money saved due to the auto-calibration feature and the fact that the new Trimble Perspective software allows us to export using the open .E57 format straight into our Leica Cyclone processing software, all done with just the push of a button. We now have our laser scanner of choice with no changes to our workflow and no need to purchase new processing software, in short, we have the best of both worlds!"

Our thanks to Centara Director of Operations, Neil Beaumont and Principal Survey Delivery Manager, Sam Hough for supplying the information and pictures for this story.

About Centara Ltd

Based in Yorkshire but working throughout the UK, Centara is a multi-disciplined geomatic survey business specialising in above and below ground geomatic surveys for projects in Energy Generation, Energy Transmission & Distribution, Utilities, Rail, as well as industrial, commercial and residential developments. The company also works extensively on public sector projects for Healthcare, Transport, Education and Highways.

www.centara-ltd.com



Contact us:

Please do get in touch for further information on any of the products or services mentioned in this case study, a demonstration, support or just a chat about your requirements.

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