



MET: DATA

360° LASER SCANNING

The surveying industry, as any other, changes with the introduction of new technologies. Met Surveys believe that to provide clients with the best possible service and data, these technologies must be embraced and has invested in a 360° Laser Scanner to ensure that the market leading reputation built with clients is maintained.

As technology and equipment becomes more advanced, so does the information it collects, and the way in which it is collected. Before laser technology, surveyors were only able to measure single points at any given time. Now, however, 360° Laser Scanning allows for thousands (1,800 per second, with the HDS3000) of points to be collected as part of the survey.

We live in a 3D world and until recently, generally, because of the technology available and limitations of knowledge, any form of land or building survey data was commonly presented in 2 dimensions only. However, the increased power of software and hardware has led to many more clients utilising the 3D capability their systems possess and demanding survey data in a 3D usable format.

Laser Scanning is ideal for use on sites where detailed 3D measurements need to be taken and accurate 3D models created. The scanner can be used externally or internally to capture existing information, which can be anything from mechanical plant rooms though to historical monuments and buildings. It allows a digital model of an object to be created via computer software, quickly and accurately with all measurements and points having an actual geomatic reference. This model can then be used to accurately measure, plan, design and develop from.



turning technology
into service



The scanner works by emitting a laser beam which scans the specified object/site, capturing 3D coordinates from the surface. Unlike traditional survey equipment which measured a point in isolation, the scanner is able to tightly scan (at pre-defined intervals set by the user), thousands of measurements per second. These points are displayed on screen in a format known as a point cloud, which is in essence an accurate 3D high resolution model of the object/site scanned.

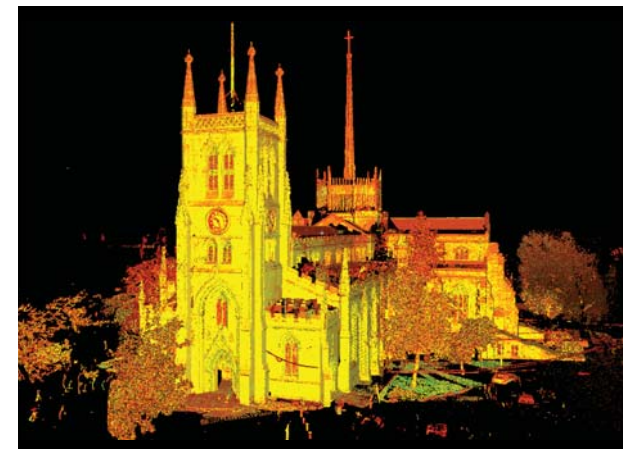
To ensure that the object/site is not clouded with interference (shadows/trees etc.) the object/site must be scanned from different angles. All scans are then registered, amalgamating all scans and resulting in one point cloud being produced of the desired object/site. The scanner also has a built in digital camera taking photographs as it scans. This results in the point cloud being able to take colour and detail from the imagery and use this to produce point clouds that look like photographs. This enables easier manipulation of the point cloud to produce final drawings and models.

Met Surveys has found the technology invaluable and ideal when mapping decorative features, façades and fine detail. The company has also provided fully modelled street scenes building on years of experience using CAD and related software in 3D.

360° laser scanning creates fast accurate digital models of building/ structures/ landscapes etc. which can then be used by architects, developers, engineers, and other end users, to accurately plan, design and develop the world we live in.

THE BENEFITS TO YOU, THE CLIENT, OF USING LASER SCANNING ARE:

- FULLY ALIGNED DIGITAL PHOTOGRAPHY AND 3D POINT CLOUD
- REDUCED HEALTH & SAFETY RISKS ON SITE
- DETAILED 3D MODEL CAPABILITY
- QUICK COLLECTION OF DATA ON SITE
- CAPTURE OF VERY COMPLEX DETAILING
- REDUCES ACCESS PROBLEMS
- INTERROGATION OF 3D POINT CLOUD DATA
- LESS NEED FOR RETURN SITE VISITS



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