

User Story Kronospan

FARO



Kronospan use the FARO Focus Laser Scanner to survey their site.

FARO's speed and accuracy aid Kronospan site surveying

MACHINE SHOP / CAD-BASED INSPECTION Site and land surveying enables further planning and development of all industries. Kronospan has invested in the FARO Focus^S 350 laser scanner to obtain higher accuracy of data at speed, and fast accessible data.

Based at the company's Chirk, North Wales site, Chris Norman CAD Technician is responsible for surveying each of Kronospan's global facilities. As each site continually evolves and makes physical changes, Chris is kept busy constantly up-dating all relevant 3D records.

Although Kronospan's existing laser scanner was less than a year old, owing to the magnitude of Chris' scanning tasks, the time constraints involved in foreign travel and the need to further speed-up scanning routines, a search was made for a fast acting, precise, easy to use laser scanner. Given the need to make regular visits to Kronospan factories throughout the world, and the company's understandable reluctance to transport the proposed laser scanner in aeroplane's holds, a light weight, compact scanner that could be taken on-board as carry-on luggage was the preferred option. The answer to this demanding list of prerequisites was found in the advanced FARO Focus^S 350

Explaining his choice Chris Norman said, "I carried out a lot of prior research and evaluated several laser scanning systems, although, having first witnessed other options in action, a very impressive on-site practical demonstration of the FARO Focus^S 350 performed on a range of demanding applications convinced me that FARO's advanced laser scanner was by far the most impressive of the systems that I considered.

"I bought the Focus^S 350 as it met, and in many areas exceeded all of my requirements. In addition to being impressed by the FARO Laser Scanner's accuracy and the resolution of its HDR (High Dynamic Range) system, its robust construction, IP54 rating, compact size and light-weight nature made it ideal for convenient transporting.

"A key factor in the purchase of our Focus^S 350 was the major time savings made possible by the advanced scanner's on-site registration function. Previously, when undertaking a

scanning project at one of Kronospan's overseas facilities, I would spend time post-processing all of the day's scans in my hotel room. Now, thanks to the Focus^S 350's enhanced capabilities, as I carry-out my work, each scan is automatically transmitted into my computer via a wifi link and the previously time-consuming processing and registration functions are immediately performed.

"In addition to the FARO laser scanner, I now use the most relevant FARO software applications to our intended use, such as FARO Scene, 3D laser scanner software that efficiently processes 3D point clouds. I also use PointSense Plant software that is specifically designed for use by professionals involved in maintaining industrial plants. PointSense Plant has proven extremely useful as it enables the modelling in AutoCAD of items such as steel components and piping runs, all based on captured 3D laser scan data. I also use Faro

Scene VR App to use the pointcloud data with our Virtual Reality goggles.

"Having received excellent training, and as our new Focus^S 350 is very easy to use and its related software is so intuitive, I became competent in the use of the FARO laser scanner and software very quickly. It also helped that the very knowledgeable FARO Account Manager, Jack Strongtharm who performed the original product demonstration, carried-out my training, he also remains contactable should we have any future difficulties or questions.

"Soon after the delivery of the Focus^S 350 and our training session, over a period of time I was able to scan many aspects of the Chirk site. Given the many different aspects and complexities of the site and the required accuracy related to certain features, my learning curve was extremely short and I was able to establish a comprehensive 3D model of the facility in a much shorter time than I expected.

"Now, given the time constraints that are often involved in international travel and the need to achieve both accurate and quick results, it helps that once I arrive on site at a remote destination, the Focus^S 350 is very quick to set-up. Also, as the laser scanner has an extended scanning range, all of the intended targets can be accurately surveyed with fewer scans when compared to other systems, meaning that scanning projects can be completed extremely quickly.

"As no drawing exist for some parts of certain world-wide Kronospan facilities, my aim is to use our new FARO laser scanner and software to create accurate three-dimensional models of all relevant features of every single company plant. These models will prove invaluable as they will allow Kronospan facilities managers and other company staff to precisely plan and to visualise changes before embarking on activities such as structural alterations, machine installations and modifications to services such as electrical supplies, pneumatic air lines and pipe-work. In future, on completing of each major alteration, the changes will again be scanned by the Focus^S 350 allowing the appropriate 3D models to be updated.

"The instant access to up-to-date, precise 3D models by Kronospan colleagues throughout the world will result in shorter planning phases, the earlier completion of alterations and additions, and also bring about reductions in lost production time."

The FARO Focus^S 350 is ideal for both indoor and outdoor applications and boasts a small size, light weight and extended scanning range. The Focus^S 350 provides scanning results even in challenging environments, such as difficult to access locations, dusty or humid areas and in rain or direct sunlight. An on-site compensation tool allows data quality optimisation on-site. Integrated GPS and a GLONASS receiver enables easy positioning. HDR imaging and HD photo resolution ensure true-to-detail scan results with high data quality.

The scanner's 3D scan data can be easily

imported into all commonly used software solutions for a wide range of applications, including use in areas such as architecture, civil engineering, construction, industrial manufacturing and land surveying. Distance dimensions, area and volume calculations, analysis, inspection tasks and documentation can be carried out quickly, precisely and reliably.

As purchased by Kronospan, FARO SCENE is specifically designed to process 3D point clouds collected by FARO laser scanners. SCENE processes and manages scanned data easily and efficiently by using automatic object recognition as well as scan registration and positioning. SCENE can also generate high-quality coloured scans very quickly, while providing the tools for automated targetless or target-based scan positioning.

The smart registration software is extremely user-friendly, from simple measuring to 3D visualization to 3D meshing and exporting into various point cloud and CAD formats. Added verification steps now allow users to confirm if a scan registration result is contextually correct adding an additional level of confidence to their data quality.

Once the scan project complete, scan data can be published on a web server at the touch of a button. With SCENE WebShare Cloud laser scans can be easily accessed and viewed with a standard Internet browser. The new version allows viewing multi-layer overview maps, too.

Also used by Kronospan, PointSense Plant provides tools for the pattern recognition of plant assets from point cloud data, this gives users the ability to move directly into their familiar AutoCAD based plant design programs (Plant 3D, MEP, CADWorx, AutoPlant, etc.). Exact tie-in points for components can also be determined without any modelling.

PointSense Plant enables industrial facility design from scan data and provides advantages such as the auto-recognition of industry standard components and the ability to achieve 'best-fit' to point cloud data on items such as piping components.

- FOUR GOOD REASONS -

- 1 Lightweight and Small Size**
Weighing only about 4.2 kg the Focus Laser Scanner is simply mobile and portable.
- 2 Range up to 350m**
Within the Laser Scanner Focus Series, FARO offers its customers the possibility to choose between short, mid and long range laser scanners with the latest technology and high accuracy.
- 3 On-site Compensation***
With the on-site compensation functionality users can verify and adjust the Focus compensation on-site or in the office, ensuring the highest scan data quality.
- 4 Integrated Accessory Bay***
With this future-proof interface users can connect additional accessories to the scanner, which offers an option for user specific customization.



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KRONOSPAN

Established in 1897 in Austria, Kronospan is the world's largest wood-based panel manufacturer. The company's comprehensive range of manufactured products includes Particleboard, Medium density fibreboard and Laminate flooring. Remaining a family concern, Kronospan currently manufactures wood-based panels at more than 40 sites across the world and employs more than 14,000 people.

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