Moving the dental world from analogue to digital: 3Shape’s success story continues

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Often referred to as the “Google of the Dental Industry”, 3Shape was completing his master’s thesis on a groundbreaking 3-D scanning system in 2000. He wanted to replicate his success in the hearing-aid industry, but rather when all dental products are born from the union of cutting-edge technology with the latest trends in the industry and the markets. 3Shape product managers and key developers have regular meetings with distributors and partners who understand and continue to gather the needs of their customer base and the market.

Surprisingly, 3Shape is the only major dental company that offers easily integrable solutions. All products are designed as plug-and-play solutions and feature open interfaces for connectivity to third-party applications. 3Shape has won Ernst & Young’s Entrepreneur of the Year in the Innovation category in Denmark three times down the road (of course there will always be smaller, traditional dental practices).

3Shape, a privately held company headquartered in Copenhagen and boasts the largest team dedicated to scanner and software development for the dental industry. It is based in Denmark and Ukraine, has production facilities in Poland, and support offices in the US. The company offers an extensive array of digital solutions. 3Shape, who understands and continues to support customers and the development of digital solutions, is dedicated to scanner and software design that truly benefit professionals in various dental fields.

Innovation is only successful if it moves and is guided in directions that truly benefit professionals in their daily work,” Clausen, CTO and head of the 3Shape development team, pointed out.

Today, CAD/CAM has conquered dental laboratories and clinics, ensuring high profitability by maintaining top-level quality through standardised and controlled treatment and production processes that also benefit the patient. In Germany, a historically early adopter of new technologies, approximately 82% of all ceramic restorations are already produced using CAD/CAM technology. “The question today is no longer if CAD/CAM will endure in the industry, but rather when all dental professionals will be taking advantage of it,” Clausen said.

After having conquered the dental laboratory industry, 3Shape also extended the proven technologies to dental clinics.

“We analysed all existing scanning systems on the market and defined what we like and what we didn’t like about them. We wanted to create a system that incorporated all the advantages and eliminated all the drawbacks of the existing systems. Our solution really needed to be faster, easier, more accurate and more reliable,” Deichmann said.

At the opening day of IDS 2011, 3Shape launched its newest achievement, the TRIOS intra-oral scanning solution, which aims to revolutionise the dental practice. The TRIOS booth was literally flooded with dentists trying to get a glimpse of the sleek and elegantly designed scanner.

One of the TRIOS 5-D scanner’s notable features is that it does not require dentists to apply intra-oral spray or powder to coat the patient’s teeth, making scanning an easy, fast and comfortable process that does not run scan accuracy by adding material to teeth surfaces. In addition, it can scan any material, such as metals, semi-transparent materials and skin. It only requires minimal training for use in clinical practice. The scanner captures over 9,000 2-D images per second, which is 100 times faster than a conventional video camera. Dentists who viewed the presentations at IDS stated that an “impression-free” dental practice seems to be just around the corner.

An open communication interface allows dentists to send the scanned data via the Internet directly to the laboratory of their choice, where the technician can start designing the restoration immediately using 3Shape Dental System software or the appropriate interface to third-party software. The TRIOS communication software includes a tool to visualise the technician’s solutions for the patient, for example in an iPad, which remains in the chair, which is especially important for anterior cases.

The system is designed to give dentists high-quality restorations and treat more patients rather than spending time and money on chairside milling. It handles a wide range of indications and produces quality 3-D data that can easily be realised by any laboratory.

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Today, 3Shape’s development team consists of more than 100 developers from 22 different nationalities, with at least 50 PhDs amongst them. All their products and solutions are born from the union of cutting-edge technology with the latest trends in the industry and the markets. 3Shape product managers and key developers have regular meetings with distribution partners around the world to keep each product at the top of its class. During the life cycle, the products are developed in close collaboration with partners who understand and continue to gather the needs of their customer base and the market.

But even with ten years of outstanding results, 3Shape never stops looking ahead. The company believes that the age of fully digital restoration is only a few years down the road (of course there will always be smaller, traditional dental practices).