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

by Bernhard Moldenhauer & Matthias Diessner, DTI

3Shape headquarters in Copenhagen

benefit professionals in their daily work,” pointed out Tais Clausen, CTO and spearhead of the 3Shape development team.

Today CAD/CAM has conquered the dental labs and clinics, ensuring high profitability by maintaining top level quality through standardised and controlled treatment and production processes that are also beneficial to the patient. In Germany, traditionally an early adopter of new technologies, nowadays approximately 82 per cent of all ceramic restorations are already produced by 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 lab industry, 3Shape leveraged the proven technologies also to the dental clinics. “We did an analysis of all existing scanning systems on the market and defined what we like and what we don’t like about them. We wanted to do 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 explained.

At the opening day of the International Dental Show 2011 in Cologne, 3Shape launched its newest achievement, the TRIOS intraoral impression-taking solution, which aims at revolutionising the work in the dental practice. Their booth was literally flooded by dentists to try the TRIOS 3D scanner in sleek and elegant design, seldom seen in dental clinical equipment.

One of the TRIOS 3D scanner’s notable features is that it does not require dentists to apply spray or powder to coat the patient’s teeth, making scanning an easy, fast and patient-comfortable process that doesn’t ruin scan accuracy by adding material to teeth surfaces. In addition it can scan any materials, such as metals, semi-transparent materials and skin. It only requires minimal amount of training for use in clinical practice from day one. The scanner captures over 5000 2D images per second, which is 100 times faster than a conventional video camera. Dentists who witnessed the presentations at IDS stated that the “impression-free” dental practice seems to be just around the corner.

An open communication interface allows the dentists to send the scanning data by internet directly to the lab of their choice where the technician can start designing the restoration solutions immediately using 3Shape DentalSystem software or the appropriate interface to third party software. The TRIOS communication software also includes a tool to visualise the technician’s solutions for the patient, for example on an iPad, while the patient is still in the chair, which is especially important for anterior cases.

The system is designed to give dentists best 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 lab.

Generally, digital data are controllable, predictable and available any time by requiring only minimal space. This guarantees that the dentist own and can use patient data without limitations and can potentially export virtual setups to other systems such as for appliance manufacturing.

Surprisingly, 3Shape is the only major dental company that goes by a non-exclusive basis. All products are designed as plug-and-play solutions and feature open interfaces for connection to third-party applications.

3Shape has been recognised three times as Ernst & Young’s Entrepreneur of the Year in the Innovation category in Denmark. This prestigious award recognises innovation, leadership, state-of-the-art products, international network and clear strategy to pursue continuous growth.

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

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But even with 10 years of outstanding history behind it, 3Shape never stops looking ahead. The company believes that the age of fully digital dentistry is only a few years down the road, even if there will always be some smaller dental practices who will still go the traditional way.

About 3Shape

Branches of 3Shape’s customer support service are operative in Copenhagen (Denmark), New Jersey (USA) and Shanghai (China), virtually covering any time-zone. The very close collaboration between the customer support and the development team allows for unprecedented level of efficiency and responsibility to partners’ call for help - typically available in 12 among the world’s major languages.

3Shape is a privately-held company headquartered in Copenhagen, with the market’s largest team dedicated to scanner and software development for the dental segment based in Denmark and Ukraine, production facilities in Poland, and Support Offices in New Jersey, USA and Shanghai, China. For further information regarding 3Shape products, please refer to www.3Shapedental.com.

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The new EMS Swiss Instruments Surgery MB6 with unique spiral design and internal instrument irrigation for ultralow temperature at the operative site benefit of dental practitioners and patients alike – the very philosophy embraced by EMS.

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