SUCCEEDING WITH DIGITAL ORTHODONTICS

3Shape and its Singapore-based distributor Quantum Leap recently organized a seminar on digital orthodontics for dental professionals. Held at Q&M Dental Centre in City Square Mall, Singapore, the seminar also featured joint organizing partners from Stratasys and Australia-based Dental Axess.

At the seminar, the participants learned about digital impression taking, digital model storage, treatment analysis, treatment planning, treatment simulation, digital appliance design, case management and 3D printing.

The seminar aims to inform orthodontists and dental labs in Southeast Asia about the new opportunities in digital orthodontics.

“We believe that the advantages of digital orthodontics are substantial. Thus, it’s important to educate the market and help them integrate the new technologies,” says Peter Tabor, sales manager of 3Shape.

According to 3Shape, the world of orthodontics is changing and the number of orthodontists and laboratories going digital is increasing rapidly. 3Shape has strong solutions for both clinics and labs, which is a unique position in the current market for digital orthodontics.

Mr Tabor adds, “Since we have solutions for both clinics and labs, we can help secure a smooth and efficient workflow and help increase turn-around times and improve communication.”

Peter Tabor of 3Shape kicked off the digital orthodontics seminar with an introduction of the company and a demonstration of TRIOS intraoral scanner.

“TRIOS can take an impression in 4-6 minutes and the model before instantly available for

BENEFITS OF DIGITAL ORTHODONTICS

Orthodontists can benefit from being able to take fast and accurate digital impressions. These can be stored digitally and sent to their lab within minutes. This system means saving in time, saving on rent of storage space, material savings and digital accuracy in the appliances. Furthermore, orthodontists can use the digital impression for patient communication, as the model becomes instantly available. Orthodontists then can start analyzing right away and communicate with the patient in a new and more impressive way.

The orthodontists may, for example, superimpose two models, making it very easy to show the patient the progress of the treatment. Since the scan is conducted in color it is easy for the patient to relate to the situation. It is also possible for the orthodontist to overlay the digital impression with 2D images (for example for cephal analysis) or CBCT scans. There are a number of tools available in the software, for example Bolton analysis, Space Analysis and it is possible for the orthodontist to make treatment simulations of IPR, tooth movements or retractions. The digital impression is also more comfortable for the patient than traditional impression taking, which may cause gagging reflexes.
the orthodontist to start the analysis and treatment planning,” says Mr Tabor. “This means that orthodontist can do this in real time and start communicating with the lab and patient in a much faster workflow. Since the model is digital, it’s instantly saved in the orthodontists digital library and will not take up physical space in the clinic.

“In many countries, orthodontists have to store the models for up to 10 years for insurance purpose. Our systems are open, and it is also possible to use our scanner for restorative dentistry, which makes it a flexible solution for clinic that conduct.”

Rudy Labor, 3Shape’s Application Specialist (Orthodontics), then provided an overview of 3Shape’s orthodontics solutions for dental professionals.

Dr Stephen Ong, dental associate director of Stratasys, spoke on 3D printing for orthodontics, while Ari Sciaccia, director of Archform Orthodontics, spoke on the topic, “The Whole Tooth Approach: High-quality 3D orthodontic treatment solutions using state-of-the-art CAD/CAM technology.”

Australia-based Archform Orthodontics is a fine example of a dental lab that is at the leading edge of orthodontic technology. Mr Sciaccia has a keen interest in digital technologies and uses the latest equipment and technologies in his lab, which serves orthodontists around the world. This includes 3D scanners, 3D printers and various orthodontics software.