Interview: "...for us it is important to improve the day-to-day work in practices and labs..."

By Dr Dobrina Mollova, DTMEA

Dr Dobrina Mollova from Dental Tribune Middle East & Africa interviewed Dr Frank Thiel, Vice President Global Research and Development CAD/CAM and Orthodontics at Dentsply Sirona at the Product Launch & Press Conference 2019 in Frankfurt, Germany on the 1st of February 2019.

Dr. Frank Thiel, who began working in the CAD/CAM business unit at Dentsply Sirona 25 years ago, is around that same time, the Centre for Advanced Professional Practic- es established the first CAD/CAM and Digital Dentistry Conference and Exhibition in Dubai. Could you share your first experi- ence with CAD/CAM and digital dentistry and your views on its significance today with our readers for the upcoming 14th year of this conference, a technological milestone?

Digital technologies and CAD/CAM systems in dentistry have undergone a long development. At Dentsply Sirona, we consider ourselves pioneers as well as pioneers in this field, as we intro- duced CEREC to the market more than 30 years ago. Through our own innovation and development of both the hardware and the software, we were responsible for mak- ing digital dentistry the standard for the first place. We have always been convinced that digital impressioning is the way forward.

Now, digital impressions are widely accepted, and competition has be- come stiffer. So this makes us even prouder that we are able to bring a solution to the market that under- scores our pioneering spirit and al- lows us to provide a solution to an important issue in practice – faster, precise and comfortable impressioning is easy to manage in the usual prac- tice environment, which is reliable, while being absolutely flaw- less, and which is simply fun to use.

And since you asked about the sig- nificance of digital technologies in dentistry – for us it is important to improve the day-to-day work in practices and labs. Digital technolo- gies help us do this by enabling pre- dictable treatment outcomes for many indications. Of course, the competence and skill of dentists and dental technicians will always be important – with our solutions, we want to be able to practise radi- cally different, and the patient and ensure sustain- able success.

Dentsply Sirona is starting a new era in intraoral dentistry with the introduction of the new intraoral scanner Primescan. What makes this product a technological mile- stone and how will Primescan change how dentists work? Is it going to be faster, easier, and more accurate than any other intraoral scanner on the mar- ket? Why is that?

Primescan is an intraoral scanner that per- fects digital dentistry. We base this on four important points:

(i) A scan made with Primescan is ex- tremely accurate: Up to a million 3D data points are captured per second. With optical high-frequency contrast analysis, they can now be calculated much more effectively than before.

A recent study by Prof. Albert Mehl from Zurich confirms that Primescan can yield by far the best results with respect to accuracy and precision of digital impressions. With such a high level of accuracy, you can predict precisely fitting restorations without needing to reprint them.

(ii) Scans can be made very quickly with Primescan. Upper and lower jaws can be scanned in less than one minute, including bite. The data is calculated rapidly and displayed on the monitor in high resolution. Prac- titioners and patient benefit equally from this speed.

(iii) Primescan is very easy to handle and can be quickly learned. Users do not need to follow a prescribed scanning protocol, but can scan in- tuitively and rescan certain areas easily and quickly. The touch inter- face makes the software easy to use. Artificial intelligence results in a high level of automation of the individual procedures.

(iv) There is a very good hygiene solu- tion for Primescan. All surfaces are smooth and easy to clean. Primescan is an intraoral scanner that can be subjected to all necessary hygiene reprocessing (wipe disinfection, autoclaving, hot air sterilisation, high level disinfection) This is made possible by three sieve concepts (sterile stainless steel, stainless steel sleeve with disposable window, dis- posable-sleeves).

For this reason, we think that we have an absolutely premium product that really offers more than other in- traoral scanners.

Does the new product have the flexibil- ity and freedom to be used in addition to filling material in various dental treatments? What kind of treatments?

You are asking about what indica- tions our Primescan scans are used for. Our Primescan testers answered, “While we used to ask what indications it could really be used for, today we ask what can it not be used for!” And in fact, the range of indications makes Primescan a special intraoral scanner. Examples include conventional restorations, such as crowns and bridges, inlays and onlays, and there is also the op- tion of an implant planning scan with an intraoral scan and the corre- sponding restoration proposal – you can plan the outcome.

Primescan scans to a depth of up to 20 millimeters. In Primescan, we can do more than an intraoral scanner and if you think about it.

In the past, dentists were justi- fied in questioning the scanning qual- ity when the patient has quite long crowns or the dentition has exposed root areas. These difficult-to-reach places can easily be captured with Primescan, without the user having to make too much effort with the scanner. This is a real advantage.

Does Primescan fulfill the dream of a precise full arch scan?

The study at the University of Zurich, I mentioned before showed that Pri- mescan also had the best results with respect to the accuracy of full arch scans. The scan requires no more ef- fort than with partial arch scans.

All processes that use Primescan are validated. Why is that so spe- cifically?

The entire system has been extend- ed by validated interfaces to exter- nal partners. Validation makes the system so special – users are assured that the transmission will be imple- mented completely and securely. The respective portals can also be reached with just a few clicks.

This is special because most dentists do not want to have to deal inter- mittently with interfaces or with data transmission technology in general. They want it to work quickly, reliably, and at any time. Predictable, repro- ducible. This is exactly what we offer with our internal interfaces (seam- less) and the validated processes with our partners. In addition, there is still the option of an open STL ex- port.

Are you convinced that Primescan is the starting point for other digi- tal processes in dentistry? Why?

We touched on this briefly be- fore – the range of indications for 3D intraoral scanners is now wider than ever before. We still see a lot of potential especially in orthodontics and implantology.

The question of conventional ver- sus 3D intraoral scan is also going to be discussed for more than 30 years. Where are we today?

We also have to consider that digital impressions are at least as good as conven- tional ones and also deliver very good clinical results. This has been substantiated in studies. It has never been easier for dentists to choose digital impressions. Therefore, our aim is to develop digital impressions into the preferred process because they have many advantages for everyone involved – for dentists, their partners, and the patients. Discuss- ions with our customers have re- vealed that, besides the many techni- cal advantages of scanning, is also a whole lot fun.

What feedback on Primescan have you had from customers regarding user friendliness and ergonomic safety?

The initial feedback from users has made us very optimistic. We have received a lot of compliments for the usability and convenience, which is also experienced by the patients. We have also heard that the hygienic safety of Primescan is perceived very positively.

What might your customers ex- pect from you in the near future regarding the development in the area of digital dentistry?

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