Planmeca ProMax CBCT with CAD/CAM technology: the perfect combination

CBCT imaging is becoming the new standard of care for complete patient information. These images provide multi-faceted views of teeth and everything below the gum line, including the mandibular nerve canal, making them an invaluable tool for planning implant cases and other restorative treatments.

Now, consider combining this detailed information below the gum line with images from an intraoral scan, capable of capturing the highest resolution of data above the gum line. This combination of CBCT and STL data from CAD/CAM sources gives doctors the ability to provide the required information and tissue leveling for a crown down to an implant plan.

In most cases, the STL data can also be utilized by the lab to create the final surgical guide for placing the implant with unparalleled accuracy and speed. Temporary and final restorative crowns can be milled in-office in a matter of minutes or milled by a lab in as little as 24 hours. Planmeca’s imaging and CAD/CAM technology have captured this concept with the ProMax 3-D family of imaging units and the PlanScan/PlanMill systems, offering doctors the ability to acquire a data set with more detail than ever.

Streamlining the digital workflow

Digital dentistry is streamlining virtually every aspect of the restorative workflow. Traditionally, doctors submit a physical impression to the lab with
the prescription and instructions written out on paper. This is gradually ceding ground to an entirely digital process where the patient’s information and doctor’s instructions are sent to the lab electronically via a digital impression system.

Planmeca PlanScan Restorations can be delivered mere days after the laboratory receives the patient’s intraoral scans, while the Planmeca PlanMill 40 in-office milling unit is making same-day dentistry a reality. The restorations produced by the PlanScan restorative system, along with the combining of the digital impression with CBCT scans, reduce the costs and treatment time associated with replacing a tooth, increasing the demand for digital dentistry exponentially.

For those who want to continue to work with their labs, all of the patient information needed to produce a model-less restoration can be submitted digitally to a dental laboratory. At the same time, clinicians enter the patient’s information and prescription data into their digital impression system’s software prior to submitting each case. Because the Planmeca PlanScan system is an open system and the dental team can send the file in a standard DICOM format, exchanging patient data is easy between most systems through Planmeca Romexis software.

Bringing today’s dental practice up to speed with Planmeca Romexis software and cloud service

While digital impression systems are realizing a data standardization solution, the digital X-ray, practice management, cone-beam computed tomography (CBCT) and digital treatment-planning systems found in today’s dental practice require the same sort of attention. Because these systems lack interoperability, they are unable to efficiently communicate patient data and reach their true potential.

To truly maximize the efficiencies and cost savings offered by these technologies, interoperability is imperative among these dental systems that are becoming increasingly common in today’s dental practice. As clinicians demand data standardization, the transfer of the patient’s information, X-rays, CBCT scans, digital impressions and prescription data between the dental office and the dental lab with the simple push of a button is now possible with Planmeca Romexis software and Planmeca Romexis Cloud.

Maximizing practice profitability with open architecture

Data standardization is essential to driving down costs for patients, doctors and laboratories alike by establishing interoperability between intraoral scanners, CAD/CAM software and other dental systems. Ultimately, having a common standard that allows the disparate systems used in dental care to function as plug-and-play devices rather than requiring pricy IT solutions will reduce the costs of integrating these new technologies into dental practices and maximize the ROI of the equipment.

Planmeca’s CBCT and CAD/CAM imaging systems, along with Planmeca Romexis digital treatment planning software, are using this idea to improve the efficiency, predictability and cost-effectiveness of dental restorations, making chairside dentistry a lucrative investment for dentists who wish to grow their practice and offer patients the latest in same-day technology.

Fig. 3 The ProOne features an easy-to-use color graphic user interface (GUI) with touch magnification for image verification.