Maestro Scanner system

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The concept of digital study models has often been talked about, particularly in orthodontic circles, as a solution to the considerable physical space required to store plaster models. If a model could be scanned in three dimensions to a high degree of accuracy, stored electronically and then reconstituted should the need arise sometime in the future, then the need for physical storage of models could potentially be eliminated.

While there has been talk of this, little in the way of real solutions have been available. Study model scanning services exist but often if you look at the fine print in their terms and conditions, you may not even own the scans of your own models! A more practical alternative is to be able to scan study models in your own laboratory rather than sending them out to be scanned by a third party.

Digital models have many advantages. They are easy to make, inexpensive, very accurate, cost very little to store and transportation is a breeze. Amazingly, you can store more than 800 sets of models on one DVD-R disc or an average 500GB hard drive could hold a staggering 100,000 sets of models! Much better than rooms and rooms full of study models.

New digital study model

I have been working with digital models for some time and have examined several systems on the market today. I have recently found a great new digital study model system with a host of very “useable” features and the best news of all is that it is very affordable.

The Maestro System comes with the Maestro Easy Dental Scan program and I have to say, the name says it all. Put your model into the scanner, click a button or two and you are on your way to a scanned model. However, diving deeper into the program allows you to uncover more complex features if you wish. It even allows you to scan crown and bridge models and acquire multiple dies (up to eight) in one scan. Some of the more advanced C&B scanners are not able to do this. Remember, digital study models are not just for orthodontic purposes but can be used for all dental models. It’s a great way to diagnose, discuss and store models.

Quality

The quality of the scans is more than impressive with a great amount of detail once the scans are processed. Once you scan the upper and lower models and do a quick occlusal scan, the registering of the scanned models into the correct bite relationship is completely automatic. This is a feature I really like. You can also register the models in various relationships—centric relation; centric occlusion; protrusive or construction bite to name a few. There are also various editing and measuring tools provided and you can do adjustments to the scans if need be. You can save the finished files in industry standard STL or a proprietary ORTHO and ORTHO iPad file format. File sizes are quite small and easily emailed to clients.

One of the additional notable features of Easy Dental Scan is the option to batch scan. In many systems, immediately after the scan is completed, it is processed which can take quite a bit of time. With the batch scan, you can quickly scan several models and then complete the processing of the scans at a later time. You simply walk away and the computer does all...
A real bonus of the package has to be the free Ortho Studio Viewer. This program is a cut-down version of Ortho Studio but is still feature rich enough for using digital models for diagnosis on an everyday basis. The viewer includes tools for measuring tooth and arch width, occlusal mapping, multiple views, snapshot, printing and more. Of course it’s very easy to use so people will actually use it! This is a great program to give away to people you want to share your digital files with. For example, you may be a lab scanning models for various clients. You can distribute the free viewer to these clients so they can use it to view and diagnose direct from the scans.

Ortho Studio

When a set of models are loaded, all the information from the database accompanies it so you know exactly what you are looking at. In this section of the program, you will find tools for adding virtual orthodontic bases using various popular angles including ABO 2013, measuring tooth and arch width, occlusal mapping, multiple views, snapshot, printing and much more. It's extremely easy to use and you are guided through each step in a wizard-like interface.

The latest version of Ortho Studio has the ability to perform complex digital diagnostic setups and the ability to create files ready for aligner therapy as well as orthodontic bracket placement. This is a powerful system and a valuable tool for any practice or laboratory.

It is a fact that approximately half of all traumas affecting the permanent dentition requires a restorative treatment, including various crown restorations or tooth replacement procedures. It is also known that many of these treatments have a very doubtful long-term prognosis. During this symposium 6 different restorative treatments, such as composite restorations, porcelain laminates, crowns and conventional bridges, implants and autotransplanted premolars used in the treatment after tooth loss, will be analyzed in detail and the most reliable treatments will be presented by 9 experts.

The University Hospital in Copenhagen offers a 2 days course in:

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