

CS 3600

Using Digital Impressions to Enhance the Orthodontic Workflow

Christopher Harris, D.D.S., M.S.



When Dr. Harris relocated his orthodontic practice, there was one thing he never wanted to do: store stone models.

“At my previous location we had a lab professional who took impressions, poured them, trimmed and then filed them for storage,” said Harris. “Eventually we had an attic full of models. Storage eventually became an issue, plus the effort spent moving the models to the attic and categorizing them was not an efficient use of staff time. I knew that utilizing stone models for treatment planning was not something I wanted to do moving forward.”

Dr. Harris was convinced that digital models were the best way to combat the storage issue, but he was also largely attracted to them because of their accuracy—and the benefits that come with that accuracy. He envisioned a solution that would integrate smoothly with his workflow while also improving it.

Challenge

Create distortion-free 3D digital models using a cost-effective method that enhances the orthodontic practice workflow

Solution

CS 3600 intraoral scanner, which offers seamless integration into practice management software

Benefits

- Improved workflow
- Reduced lab turnaround times
- Fast digital model acquisition
- Enhanced patient communication
- Seamless integration
- Portability
- Cost-effectiveness
- Improved case acceptance



CASE STUDY



To assist with diagnosis and treatment planning—and to eliminate the need for plaster casts—Dr. Harris uses CS Model software, which automatically generates a high-resolution digital model using information from the CS 3600 digital impression. Dr. Harris can easily manipulate and view the digital model from every angle, facilitating diagnosis.

Improved Workflow and Lab Turnaround Times

Appliance fitting and fabrication turned out to be one of the biggest areas in the practice where the CS 3600 could be most impactful. In the past, when an appliance required bands, Dr. Harris would place spacers and then schedule another appointment to seat the bands and take an impression with the bands in. He would remove the bands, place them in the impression, pour the stone model with the bands in, and send it to the lab for appliance fabrication. Dr. Harris would then place spacers again and schedule the patient to return when the appliance was delivered.

“I wanted to reduce appointments whenever possible,” said Harris. “This saves valuable chair time for my practice, but, more importantly, patients—and their parents—appreciate the reduction in the number of times they have to disrupt their schedules for a trip to the orthodontist.”

With the CS 3600, Dr. Harris scans the patient’s mouth, sends the digital impression to the lab and places spacers prior to the end of the appointment. With the accuracy of the model, the lab can fit the bands and fabricate the appliance, saving the patient two appointments.

	Appt 1	Appt 2	Appt 3	Appt 4
Traditional impression process	Spacers placed	Bands fit and impression taken for appliance. Model is poured with bands in and sent to lab.	Spacers placed while waiting for appliance to be fabricated.	Appliance is fit and delivered to patient.
CS 3600 intraoral scanner	Digital impression acquired and sent to lab. Spacers placed. Appliance is fabricated and bands are fit by the lab. Appliance is shipped to office.	Appliance is fit and delivered to patient.	–	–

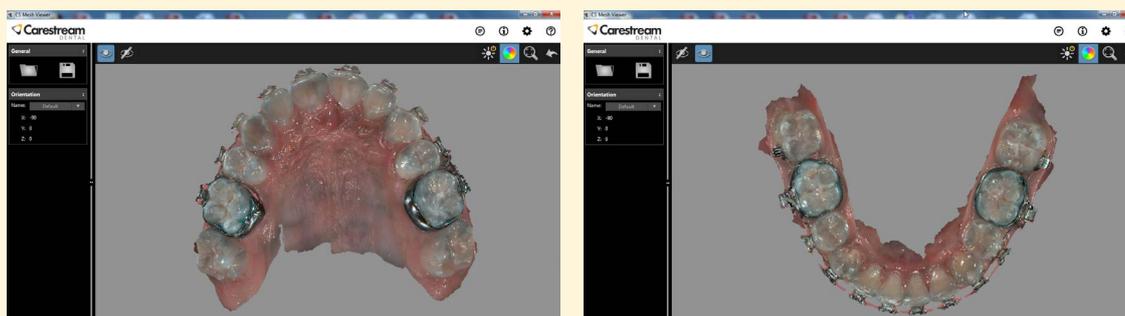
Figure 1: Workflow for appliance fitting, fabrication and delivery

“The problem with traditional impressions is the potential for distortions,” said Harris. “In the past, if an appliance didn’t fit, it was never because the lab made a mistake. It was due to an inaccuracy with the impression or the model. To address this issue, we added extra appointments to ensure that the bands fit and to reduce the opportunity for error.”

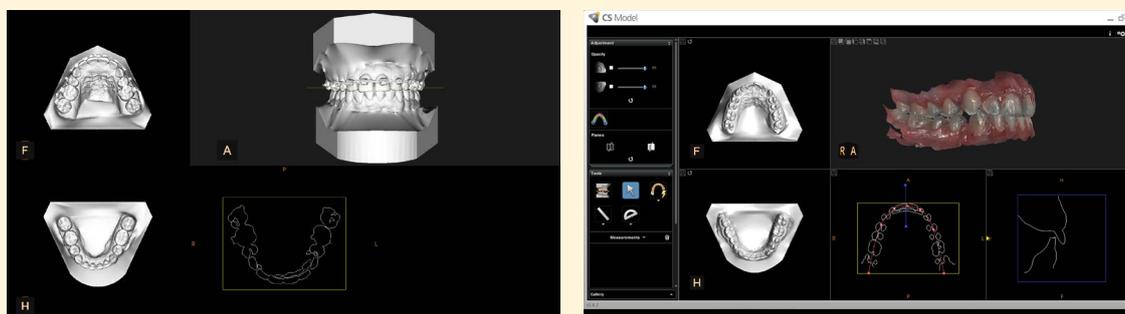
CASE STUDY

Fast Image Acquisition

With the CS 3600, Dr. Harris has no concerns about impression inaccuracies. As long as all of the necessary landmarks and anatomy are captured during acquisition, the lab can fabricate an appliance that fits perfectly. Dr. Harris's staff can typically scan both arches, including bite registration, in as little as six minutes. The scanner software's refinement capabilities automatically remove extraneous and irrelevant data—like the tongue or the cheek—without requiring the user to go back and actively erase and rescan. Dr. Harris verifies that all relevant landmarks are present, completes a prescription and creates the design of the appliance. The result: an accurate, distortion-free representation of a patient's teeth and an order for the appliance sent off to the lab in approximately 15 minutes from start to finish.



Vivid HD 3D digital impressions acquired by the CS 3600



Digital models automatically generated via CS Model

The CS 3600 is also very easy to use, and it takes little time to master it. "Obviously, the person who scans the most patients becomes the most proficient. But, because the CS 3600 is so user friendly, I never have to reschedule a patient who needs an impression because my scanning person is unavailable. Someone else can step in and do the job extremely well," said Harris.

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Enhanced Patient Communication

Dr. Harris uses the CS 3600's full-color feature when scanning, and patients enjoy looking at the colorful images as they are acquired. These images—and the resulting full-color 3D HD model—help patients and their parents better understand the treatment plan and have greater confidence in the approach.

CASE STUDY

Seamless Integration

Because Dr. Harris is a CS OrthoTrac user, the CS 3600 integrates seamlessly with his setup, and this integration affords him a level of flexibility that he values. "Treatment planning is a task I save for the days I telecommute. I just log into my server from home or anywhere with an internet connection, and I have digital access to everything in a single database: patient data, images and charting. I love the fact that I don't have to open multiple programs to access the information I need."

Portability

Dr. Harris has a satellite location, so scanner portability was a capability he prioritized as he considered intraoral scanner solutions. With no trolley to contend with, Dr. Harris can effortlessly transport the CS 3600 from one office to another.

Cost-effectiveness

Eliminating the costs related to conventional impression supplies, transport, storage and staff time is a significant benefit. For example, Dr. Harris no longer dedicates a staff member solely to impression fabrication and storage. While there is a charge for the lab to create 3D printed models, this cost is offset by the savings realized elsewhere.

Improved Case Acceptance

When he sees new patients, Dr. Harris takes records on them even before they've committed to treatment. I say to patients, 'You're here now. Let's save you a trip. We can take the records today. There's no cost,'" said Harris. His patients like this approach and his case acceptance rate reflects it.

The CS 3600 has brought the efficiencies in workflow that Dr. Harris was seeking, and has exceeded his expectations. For oral health professionals considering an intraoral scanner, he says, "I have no hesitation about recommending this one."

Christopher Harris, D.D.S., M.S.



EDUCATION

- Bachelor of Arts with Distinction – University of North Carolina, Chapel Hill
- Doctorate of Dental Surgery with Distinction– University of North Carolina, Chapel Hill
- Certificate in Orthodontics – University of North Carolina, Chapel Hill
- Master of Science in Orthodontics – University of North Carolina, Chapel Hill

Committed to orthodontic excellence, Dr. Harris enjoys speaking on orthodontic-related topics throughout North and South Carolina. In addition, he regularly attends continuing education courses in order to offer the most up-to-date and predictable treatments for his patients. Dr. Harris is a diplomate of the American Board of Orthodontics, and a member of several professional organizations:

- American Association of Orthodontists
- Southern Association of Orthodontists
- North Carolina Association of Orthodontists
- American Dental Association
- Charlotte Dental Society

To learn more about the CS 3600 intraoral scanner, go to carestreamdental.com.