

gram

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UPDATE FOR
E4D CLINICAL
OPERATORS



Ronald S. Wilson, D.M.D. with his daughter, Carolina

ECO PROFILE: Dr. Ronald Wilson, Greenville, SC

Here's a great story that summarizes my experience with the E4D System...

"I've recently had some issues with a particular laboratory in that their margins haven't been great, and I've had to send a lot back for remakes and the consistency just hasn't been there. Anyway, we were seating a crown the other day and it went on beautifully and when we were finished I commented to my assistant, "finally they sent me a crown with great margins." She then delighted in telling me that we had made that crown ourselves using the E4D System! I simply had forgotten that I had designed it and stained and glazed it myself a couple days earlier! I will have to say it looked better than anything that lab has sent me lately if I do say so myself."

ECO Congratulations on becoming an ECO member! How has your experience been with E4D?

As with any new technology I consider myself a continual learner, and this is no

exception and is always a work in progress. Taking a scan of the tooth instead of a physical impression and then designing virtually definitely takes some getting used to.

Because I have complete control of the restoration, I find myself tinkering and trying new things all the time. I don't really focus on the SAME DAY DENTISTRY approach, delivering the final restoration in the same appointment. I much prefer to let the patient go and to take my time in working with the design and finishing off the restorations, but I can schedule them any time I'd like for the seat. I am no longer locked to the two week turnaround. I'm actually surprised that the aspect I didn't think I would like doing, I like the best, characterizing the final restoration with staining and glazing. This whole process of designing, finishing, and delivering these works of art has awoken the real artist in me.

ECO I understand your particular area has a lot of the other system, how did you make your decision to select E4D?

Yes, living in Greenville, SC does mean I am in the land of that other system. With their North American corporate office in Charlotte, NC, only 100 miles away, there is quite a bit of influence nearby. While my operatories are all equipped with SIRONA chairs, units and cabinets, I wanted to make sure I made the best choice for my office when investing in chairside CAD/CAM Dentistry and not just going with the flow.

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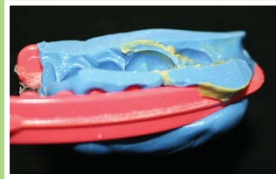
Helpful Hints:

Tips to help make you an E4D expert. Straight from the source, these tips are brought to you by your E4D University trainers.

*Note: Due to on-going improvements in the E4D Dentist system, these Helpful Hints may not be applicable to your current operating system. Please check with Customer Support for clarification.

Select

- 1 Select Model scan when scanning impressions.



- 2 Turning off Highlight Low Data Areas and ICE can speed up the scanning process when exceeding 9 scans.



- 3 Ensure enough occlusal scans on the adjacent teeth on both the prep and bite/pre-op scans to aid in alignment.

Design

- 1 Don't be afraid to experiment with your design. You can always use Undo/Redo or go back to the initial state by reapplying the library.



- 2 If your restoration has a tall narrow bump you would like to remove, use the smoother tool. Select an area of influence big enough to cover the area, then smooth it until the bump disappears.

Mill

- 1 Tip from Sherri White, RDA, CDD of McKinneyDentist.com: Develop a checklist to keep near the mill to track the restorations milled. Mark on this sheet how often you change the burs or change the water. Even though the mill has timers that do this, it is nice to have a quick reference. This is great for any office which has multiple users of the equipment. This is also a good idea because you can be sure the maintenance of the equipment is completed.

- 2 When using the collet cleaning icon, the mill's tools are put away. The same tools will automatically be reloaded when a new job is beginning or the mill is turned off.

WHAT'S HAPPENING @ D4D



Madina Novikov



Mekenzie Canada



Shannon Bausch



Joey Jeske

Congratulations to four new Chairside Dental Designers who completed the CDD requirements in recent weeks – each is the first CDD in her state:

Shannon Bausch, Kansas City, MO
Mekenzie Canada, Indianapolis, IN
Jolene "Joey" Jeske, Cover d'Alene, ID
Madina Novikov, Newtonville, MA

We are proud of our new CDDs achievements and dedication. We encourage all CDD candidates to continue to pursue their CDDs and the recognition and accomplishment that this brings.

dEORating

Hints for staining and glazing your restorations

1. When glazing IPS e.max CAD restorations make sure that the consistency of the glaze paste is thick when you're placing it on your restoration. This will ensure a glossy finish once the crystallization process has been completed.
2. If you are using glaze spray on your IPS e.max CAD restorations, apply your stains first. Make sure that the stain application is subtle. Once the stain application has been completed, you may spray your restoration with e.max CAD crystallization glaze spray. Spray an even layer that covers all surfaces of your restoration.



Refresher: Remember...

The mill video CD (Education Resources) that you received during training will offer you a refresher on changing tools and more. For more detailed instructions see the User Manual or online Help (red question mark icon in the software).

There are multiple reasons why I chose the E4D Dentist System for my office some of which are:

- A) No powder
- B) Capturing multiple images from multiple angles gives me a truer sense of the 3-D picture of the tooth, rather than just looking down at the prep.
- C) After speaking with Lee Culp, Director of Dental Technology at D4D Technologies, I got a sense that D4D was a very forward thinking company. I realize that I'm just at the beginning of this whole journey with a great company in its infancy. Although I went into this adventure knowing there would be bumps in the road, I'm overwhelmed at the number of new features and additions that are made all based upon feedback directly from users. The amazing thing is that although this technology is new, I believe it is already ahead of what is out there and what has been on the market for over 20 years!
- D) Interestingly enough, one of the main reasons I took an even closer look at the E4D System was the tenacity from the other side trying to attack this system. Rather than encourage me to see all the options available and let me make an educated guess, they simply discounted the possibility that it could work.
- E) Finally, I guess I simply like to go against the grain sometimes. It is fun being the innovator in this area and a leader, not just a follower. So for once (maybe) I am the expert on something!

EO How has the integration of E4D Dentist gone in your practice?

The integration has been fairly smooth so far for the whole office. While I'm not yet concentrating on completing the restorations in one appointment, I can tell that it won't be too long and I'll be able to offer that service as well. I like the option of being in complete control whether I want to scan in the mouth, off models, or off impressions.

EO Is your team involved in the process?

I've still got that old dental school philosophy of doing a lot of it myself, and being extremely comfortable in all areas of the scanning, designing, and finishing before handing off some of those responsibilities to my great team. Plus I have so much fun with each process, that I'm enjoying it all. But I know I eventually have to let go to make the most of the investment...slowly but surely.

EO What has been the reaction from your patients?

My patients have been very receptive. Interesting enough it is the male patients that seem to go first for it, maybe because of the high tech fever we all have. I'm not aware of any patient that has opted for another method once they've been shown what is possible with E4D right in our office.

EO What has been the most exciting part of the whole CAD/CAM process for you?

The most exciting part thus far has been the control that this allows for the entire office and me specifically. From the marginal integrity to the design to the staining and glazing. As I have said before, the staining and glazing has been the most fun part of this whole process. I usually stay after work to do this so I can concentrate on it. I just hope my wife doesn't get jealous of my glazing oven.

EO Any words of wisdom to others that are embracing digital dentistry and specifically E4D?

Digital dentistry is a must for today's dentists. It begins with having a great practice management software and digital radiography. Having these maximize the benefits of CAD/CAM Dentistry. These are now the cornerstones of a modern practice. CAD/CAM Dentistry is a practice builder and a means to excite your patients, team, and yourself about dentistry. The E4D allows for you to showcase to your patients that you are at the forefront of dental technology. It's also economic in that in spite of the start up cost, once you get comfortable with the process you will reduce your lab bills as well as allow yourself to do more dentistry because you are not wasting time on frivolous appointments such as re-cementing or remaking temporaries. ■

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Ask the Experts

Ivoclar Vivadent

What are the firing parameters for IPS Empress CAD and IPS e.max CAD?

The firing parameters for IPS Empress CAD and IPS e.max CAD vary greatly due to the different processes occurring during the firing process.

When using IPS Empress CAD, following the proper firing parameters ensures a complete fusion of the glaze to the underlying ceramic and optimal esthetic results. The total firing time is shorter than that of e.max CAD, and no vacuum is required.

When using IPS e.max CAD, you will typically want to perform a combination firing that will crystallize the restoration while at the same time properly fusing the glaze onto the restoration. Unlike the firing process for IPS Empress CAD, the firing process for IPS e.max CAD requires a vacuum pump and additional time to allow for crystal growth. The distinct parameters ensure that your final restoration has the extraordinary flexural strength of 360 MPa while also having great esthetics.

The following firing parameters should be followed for the firing of IPS Empress CAD and IPS e.max CAD, respectively:

IPS Empress CAD Stain and Glaze Firing:

Firing parameters for the Stain and Glaze firing (note the temperature control)

IPS Empress CAD with IPS Empress Universal	B	S	t ^r	T	H	V ₁	V ₂
Stain and Glaze firing	403°C	6'	100°C	790°C	1-2'	-	-
	757°F	6'	180°F	1454°F	1-2'	-	-

B = Stand-by temperature °C / °F

S = Closing time/minutes

t^r = Temperature increase rate °C/min. / °F/min.

T = Firing temperature °C / °F

H = Holding time / min.

V₁ = Vacuum-on temperature °C / °F

V₂ = Vacuum-off temperature °C / °F

IPS e.max CAD LT Crystallization and Glaze Combination Firing:

Furnace	Stand-by temperature B	Closing time S	Heating rate t ₁	Firing temperature T ₁	Holding time H ₁	Heating rate t ₂	Firing temperature T ₂	Holding time H ₂	Vacuum 1 T ₁ / T ₂	Vacuum 2 Z ₁ / Z ₂	Longterm cooling L	cooling rate t _i
Programat CS	403°C 757°F	6:00 min	90°C/min 162°F/min	820°C 1508°F	0:10 min	30°C/min 54°F/min	840°C 1544°F	7:00 min	550/820°C 1022/1508°F	820/840°C 1508/1544°F	700°C 1292°F	20°C/min 36°F/min

In conjunction with the development of innovative all-ceramic materials, Ivoclar Vivadent developed the Programat CS furnace. The Programat CS furnace comes with the above parameters pre-programmed so that the dentist can fire both IPS Empress CAD and IPS e.max CAD in an efficient and worry-free manner every time.



Calendar

Jan. 30 - Feb. 1, 2009

MASTERING DIGITAL
DENTISTRY: ANTERIOR SMILE DESIGN
Instructor: Lee Culp, CDT at D4D.

This exciting three-day digital hands-on course will offer participants a unique insight into the replication of natural anterior esthetics while focusing on proper function and occlusal harmony. Participants will learn a format for achieving that often elusive goal of pleasing the patient and the dentist with creative ceramic artistry combined with predictable digital CAD/CAM design.

Prerequisites: Completion of the E4D Elements or Clinical Elements course to ensure basic knowledge of the workflow, tools, and terminology.

Course fee: \$2995.00 per person

\$1295.00 additional participant
from the same practice

February 21-22, 2009:

CAD/CAMp

A perfect course for all willing, able, future, and present CDDs (Chairside Dental Designers) to share their experiences and enrich others as Sherri White, RDA, CDD and E4D University Instructors demonstrate efficient methods to make each team member an invaluable resource in the CAD/CAM office. Learn intraoral photography, the latest E4D tips and techniques, and additional stain and glaze opportunities.

Course fee: \$595.00 per person

For more information please contact
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