Your dental lab needs CAD/CAM technology or else...

Source: 3Shape

What should dental labs look for when considering digital solutions?

Matt Roberts: For laboratory owners that are just thinking about getting into the digital CAD/CAM technologies, there are several things to consider. There are many systems on the market. There are entire complete systems that are very expensive that involve both scanning and milling. One of the things that I like about the 3Shape model is that they build scanners from the entry level to the industry's most sophisticated. Plus their software is compatible with so many other products, so for me, it is a great and broad-based system that addresses all my restorative needs.

What should labs expect from a dental system?

The three things to expect from your digital dental system would be accuracy of the final product, predictability or consistency in performance, and ease of the user interface. I think that 3Shape is currently providing all three of these to me in restorations. I use it, in fact, for all of my cases currently.

Was it hard to switch from a manual workflow to a digital one?

As technicians, we fought digital dentistry for a long time. The tools seemed to be counterintuitive in some of the first systems that came on the market. So going from a manual workflow to a digital workflow required a little different paradigm and thinking.

What I like about 3Shape's system is that the same tools that I would normally use in waxing seem to be in the software. If I want to add to a cusp, it is very easy for me to grab the cusp (in the software) and stretch it. If I want to move the whole crown, I can move the whole crown. It is just a very intuitive interface, which made the transition to digital easy for me.

Is openness or compatibility important to you?

I think that it is necessary for a company like 3Shape to maintain an open business model. So that I can outsource my implant abutments to one location, my milled disilicate to another location and maybe my wax printing to a third location.

Currently, these applications do not all exist under one roof. So having flexibility within the system is necessary.
Do you feel your workflow is more efficient now because of 3Shape?

The 3Shape system is very fast for designing restorations. What I like is that if the initial design is not where I want it, it is easy to maneuver into a position that I like. I can look at cusp to fossa relationships and feel like I have control over the functional occlusion with a patient. This is very important to me.

3Shape's solutions not only helped me to meet my business goals, they have actually established new ideas for me in the laboratory business. I am setting up a new business model based upon digital design and milled posterior restorations. So far, it's been really successful. Our clients have been really stoked about the results.

There's a lot of industry talk about CAD/CAM technology putting dental technicians out of work. What is your take?

As far as the number of employees we have here, and the impact that digital dentistry has had on our team, we have not reduced our number of employees at all. My philosophy on this particular area is that digital dentistry should be a tool that doesn't threaten, but makes us more productive.

Each of our employees has a very valuable knowledge base gained from years of experience and I want to see that applied to as many cases as I can. So if I can get a tool like 3Shape that lets me design 10 crowns in the time that it would take me to wax two crowns, I'm now applying that knowledge to a broader range of cases and more people benefit from it.

We have been building this area of our business independently from the rest of our business and looking at it as a separate entity.
There will be more jobs created here rather than less with the advent of 3Shape.

_Can we talk about your return on investment?_

Any digital system that we are looking at today has to have a return on investment that happens over a short period. This is a market where technology is changing so fast that the last thing that I want to have is a six-year old system that I am still trying to pay for.

There is not a lot of cost recovery. If you want to sit down and do the math on producing ten crowns every 30 minutes and working an eight-hour day doing that, the dollar production potential is fairly high with a fairly low number of employees.

_What do you see as the next steps?_

In posterior dentistry right now, where room is not a factor and milling works well, digital design is much faster than conventional design. I think that people that fail to embrace the technology will be left behind and will not be able to be competitive in the marketplace.

_SO you would recommend for labs to go digital or else...?_

The future of digital dentistry is starting to replace many different areas of the field. Right now, I feel that posterior restorations, especially the design phase, is more efficient to work in the digital environment than it is to wax a single posterior crown. Although, as mentioned, I use 3Shape for all of my cases currently.

The milling works very well in that. There is still some hand finishing involved with that too and there will always be some hand finishing that will put the final touch on a case by a technician.

As digital programming develops over the next five years, much more design work will be done in the digital environment as opposed to simply sitting down and waxing something. We’ll see a time where most of what we do is done on a computer.

I would encourage people that haven’t yet, at least explored the digital environment to look at it quickly, become conversed in it and keep an eye on it._

Matthew Roberts, founder of CMR Dental Laboratory, is one of thirteen accredited ceramists in the American Academy of Cosmetic Dentistry. He lectures nationally and internationally and has worked with many of the leading clinicians in the country. Matt is on the editorial board of numerous dental publications; Practical Periodontal and Aesthetic Dentistry, Signature Magazine and Reality. He is the founder of Team Aesthetic Seminars. He holds Advanced Dental Education training classes for dentists and ceramists. His goals are to elevate the quality of restorative treatment received by patients by redefining the working relationship between dentists, ceramists, and specialists.