

Bertram Dental Lab increases productivity by 20% with Oqton's AI-based automation for metal 3D printing

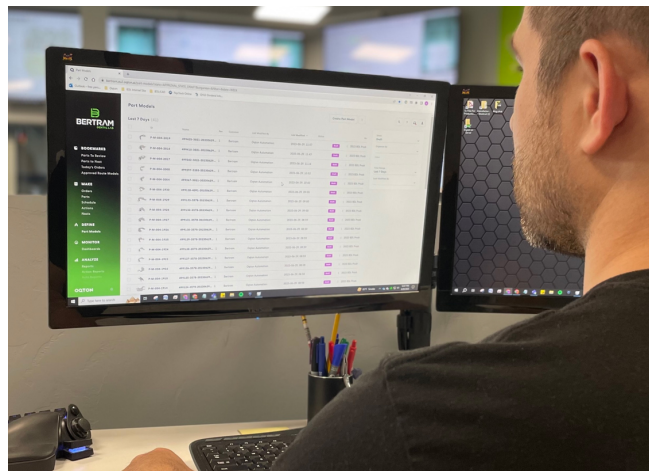
CUSTOMER STORY

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Successful dental labs need to run like a well-oiled machine, printing and processing hundreds of small, patient-specific parts every day. Introducing change to such a complex system is risky, so the potential rewards need to be big. [Bertram Dental Lab](#) made the decision to switch to [Oqton's software](#) because they wanted to scale, and they believed its smart automation was the answer.

They saw the results they were hoping for when Removable Partial Denture (RPD) printing productivity increased by 20%. "We were stuck at the same production level with our previous software," Andy Timblin, CAD/CAM Production Supervisor at Bertram Dental Lab, explains. "With Oqton we can automate support generation and nesting, and the efficiency with which it does it is a huge time saver. It used to take three people a full production day just to add supports. Now it's just one person a few hours a day."

Headquartered in Wisconsin, USA, Bertram Dental Lab is the largest RPD manufacture in the country, manufacturing most of their parts on five [SLM 280 printers](#).



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Tim Bertram, co-owner of the lab with his cousin Joe Bertram, and Timblin first met Oqton in November 2021, and moved their entire production to Oqton's [Manufacturing OS](#) in January 2023. The software was gradually rolled out because the lab wanted to dial in the production route models, develop an ERP integration, and test the system to determine whether the software was reliable and consistent.

"It was a big deal for us to consider switching from our previous 3D printing software to Oqton," Timblin says. "We had been using it for seven years. I told Oqton sales that we were really happy with what we're doing – but we are open to change if you can offer automation."

With every new meeting, Timblin and Bertram grew more impressed with the software's potential for digital dental production. In the end, Oqton delivered on their promises.

"I'll just say one word – scalable. That was the biggest thing for me," Bertram says. "We could only scale so much with our previous software. In our long-term vision, we needed automation and that's why we kept coming back to Oqton."



In addition to automating support generation, Oqton's Manufacturing OS suggests a much lighter support strategy, saving the lab print time and material waste.

Another efficiency increase is down to the Manufacturing OS's automated nesting. "With Oqton we can fit 20% to 25% more RPD frames per build. With five machines printing one build every day, this is essentially like having another machine," Timblin explains.

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To increase production capacity, labs usually resort to buying an additional 3D printer. However, this comes with an increase in labor costs because more hours will be spent on manually creating supports and nesting. For Bertram, this was an important consideration.

“We could have bought another printer, but we probably couldn’t invest more time in manually supporting that sixth printer. Even though we still only have five printers, Oqton’s software kind of got us at that sixth printer without having to hire more people to do the supports and the nesting,” Bertram explains.

Profitability at the lab has continued to increase, even during the two years of inflation. The math behind it is simple – Bertram managed to increase capacity and sales without hiring more dental technicians.

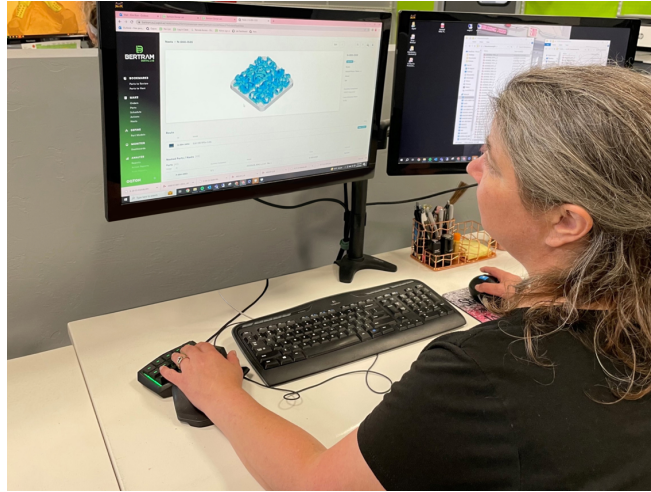
Removing limitations in 3D printing

Additional benefits of working with Oqton include a unique ERP integration tailored to Bertram Dental Lab’s needs. “Oqton is now saving us three labor hours a day just by logging in cases for us and it reduces human error because it doesn’t attach the wrong files to a case,” Timblin adds.

Bertram Dental Lab facilitates order submissions with a special customer portal, LazerTEK Print Service, where people simply upload a file to print, and the production starts. Before Oqton, the staff processing the cases had to routinely do a series of tedious, time-consuming tasks in the ERP system. With the integration, that three-hour job was reduced to 15 minutes.

Aside from the immediate time and cost savings unlocked by automation, the Manufacturing OS removed the usual barriers that come with using 3D printing software. “Our limit has shifted in my mind from software to hardware now. We’re only limited by how many parts a machine can print in a day,” Bertram adds.

Consequently, the lab’s staff can turn their attention to other areas of the production. “The fact that we are not hindered by minute or tedious things like adding support structures or nesting is huge. It means we can invest time in CAD designs, quality control, and printer and time management. The ceiling is off as far as what we can do, the question is just what we want to do,” Timblin explains.



Advantages of the cloud

While they initially had to get used to the fact their software is now on the cloud, today Timblin sees it as an advantage. Remote work has become simple, and, when someone needs a hand, he quickly logs in and solves the problem directly in the software. Smaller issues he deals with from his phone.

Constant updates with useful developments are another important benefit of cloud-based software, and one which Timblin looks forward to. “Every time I see a new release, there's something for printing RPDs so I always check what we're getting out of the update. You know Oqton always remembers the RPD crews. I appreciate they give us what we need,” Timblin says.

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OQTON

Oqton's staff played an important part in ensuring successful implementation of the software. What Timblin appreciates the most is they have experience in printing RPDs, which means they provide useful advice. “I've been working closely with them on developing a support strategy and route model, and their suggestions and knowledge have been a huge help.”

Recently they have been seeing really good headway in the AI's capability to recognize segments of partial dentures, something they had always wanted to automate. “It just took somebody who knew what they

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were doing with AI for dental labs to actually develop that capability,” Bertram adds.



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About

Founded in 1976 in Neenah WI, Bertram Dental Lab is the premier outsource partner to dental labs for RPD (Removable Partial Denture) production needs. 100% made and based in the USA, BDL manufactures RPDs using cutting edge metal 3d printing SLM (Selective Laser Melting) Technology and through traditional lost wax casting to provide our partners superior RPDs. Bertram Dental Lab's mission is to provide their partners with the most consistent fitting, highest quality wholesale partial frameworks available in the industry.

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