



## CUSTOMER CASE STUDY

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# OEM develops automated bartender with support from AVEVA to minimize overpours and serve drinks in just ten seconds

Industry - Manufacturing - OEM

## Goals

- Develop a solution for the events industry to serve mixed drinks quickly and efficiently so customers can spend more time in their seats
- Create low or no-contact bartending services to improve public health and safety of event venues
- Offer remote maintenance of machines to ensure customers don't lose revenue due to downtime

## Challenges

- Introduce a new digital solution to a heavily regulated market
- Limited operator involvement is still required to check identification

## Solution

- AVEVA™ Edge

## Results

- The solution provides immediate value of 15-30% by eliminating overpours
- An average transaction time of ten seconds allows vendors to serve more drinks more quickly to increase profits
- Capabilities for remote maintenance allow the OEM to offer high levels of service

An original equipment manufacturer (OEM) provides automated bar services to the hospitality industry, helping to reduce waste and customer waiting times to boost profits and help customers get back to their seats quickly. To create this machine, the OEM turned to AVEVA to provide a scalable and flexible HMI/SCADA solution that could be seamlessly integrated into its machines and act as its user interface.

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“Because it’s so well-designed, AVEVA Edge is ultimately empowering us to deliver our machines direct to the consumer – on-demand and at speed. Both the solution and AVEVA’s OEM model enable us to respond quickly to the needs of our clients. As the world starts to open up post-pandemic, reduced human-to-human contact at events offered by our automated bar service is an exciting differentiator for us. We are reassured to know that our partnership with AVEVA will help us to grow as large-scale events become more commonplace.”

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Founder and CEO

## Automation for the hospitality industry

Imagine you’re at an event like a soccer game or a music concert. When you need a drink, your choice is to wait for your turn at a busy bar during the interval or miss some of the game/music in order to be served quickly. Consider placing your drink order on an interactive screen, and a machine providing your cocktail within a few seconds – no waiting for bar service.

This was the vision of an enterprising OEM during his electrical engineering senior design project at university. He realized that in these scenarios, it’s the speed of service that’s key rather than the personal interaction of a typical bar, and he identified the opportunity to bring automation to the event hospitality industry. Once a proof of concept was developed, the OEM designer won an entrepreneurship competition in Las Vegas, which then helped him to secure funding and begin his automated bartending company.

## Proactive machine monitoring to drive high value for clients

A few months later, the newly formed team perfected the functional design of the machines and decided on the operational model of the business. As part of the machine build, they needed a human machine interface (HMI) - a way for their clients to easily operate the machines via an intuitive interface. They asked quite a bit from their HMI; the ability to configure the machine to reflect the drinks on offer, calibrate the fluids, specify recipes and batches, and even act as the hub to marry the point of sale system to the user interface of the machine.

## Industrial automation meets customer experience

They also needed a supervisory control and data acquisition (SCADA) solution to proactively manage maintenance of the equipment. The team wanted to monitor and provide feedback/alerts on numerous parameters such as drink/gas replenishment levels, what’s been poured, temperature, pressure, and whether a part needs cleaning. The goal was to ensure that any fault could be isolated and disabled, allowing everything else to continue in order to avoid catastrophic failure of the entire machine. Alerts would be issued enabling problems to be handled at the back end without impacting the end customer.

## Flexible and scalable HMI/SCADA solution for OEMs

Both the HMI and SCADA capabilities would need to be integrated into every one of their machines and for this reason, the OEM wanted to work with a vendor that had a sensible approach to working with similar OEM organizations. The team chose AVEVA Edge for its platform-agnostic capabilities that make it easy to integrate data sources and hardware with almost any hardware, software, or communication protocols. The solution’s ability to be configured easily also meant that the team would only need to develop their application once to deploy it to all machines.

## Automated bar service becomes reality

Now that the business has launched, the machines are being leased by event companies, music festivals, trade shows, and at sports stadiums – just as planned. With the food and beverage industry seeing customer demand for self-service options, the timing is spot on. Users interact with the touch panel screen, choose their drink, pay, and receive their cocktail within seconds. In addition, the data collected from sales allows vendors to understand at a glance what customers are ordering and in what quantities, so they can better plan for upcoming events.

“We offer our machines on a lease or rental, plug-and-play basis, and we recognized that for our business to fly, operating and maintaining them had to be incredibly easy. It goes without saying that it’s critical that machine performance is high – any downtime will impact our clients’ revenues. We wanted an HMI/SCADA solution that would provide an intuitive interface and frequently monitor the machine status, even allowing us to perform remote maintenance when needed. Our goal was to ensure safe and efficient operation with minimal failure to drive high value for our clients.”

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Founder and CEO

## COVID accelerates self-service trends

Typically, machine operators check customer identification and verify at the point of sale. While the aim is to make the automated bartending machines attendant-less over time, the concept is still relatively new. The process works more smoothly for now with limited human interaction. The reduced person-to-person contact is particularly advantageous as the world opens up to large-scale events after the global COVID-19 pandemic. However, with coronavirus looking set to remain a threat to the events industry for some time to come, the demand for self-service is expected to grow.

“We chose to partner with AVEVA to meet our HMI/SCADA needs because of their strong focus on working with OEMs like us. Not only do they offer a best-in-class solution for our machines, their approach to licensing is flexible and straightforward, meaning that we can focus our attention on ensuring that our machines are the best they can be.”

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Founder and CEO

## Flexibility drives development time savings

AVEVA Edge delivers the flexibility to scale, so the OEM can expand the business quickly when needed. The solution requires no hardcoding, so adding HMI/SCADA capabilities to a new machine is a speedy process. This has saved them many months in pre-launch development time and hours of set-up time for every new machine thereafter. These time savings mean they can keep their margins relatively low to ensure that their customers are getting a high-value service.







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“At large events, you want to grab a drink and get back to the show. A human isn’t needed to serve a pint of beer or glass of lemonade, or even mix vodka and tonic with ice and a slice. Automating this element of bar service frees up hospitality employees to focus on adding value where customer interaction is more beneficial.”

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Founder and CEO

AVEVA Edge also allows maintenance to be carried out remotely, which means that as soon as a fault notification appears technicians can intervene and resolve the issue before it causes a problem on-site. This naturally contributes to the reliability of their solution, and repeat business is high.

### Clients’ profits boosted

The reaction has been incredibly positive. Once a first-time customer is familiar with the concept, they are typically delighted at being served so quickly, typically within ten 10 seconds. Clients are also benefitting.

Using the machines at events results in reduced waste due to theft, spillage, and over-pours, which boosts throughput and profitability. Overpours alone can account for 15-30% value loss for each bottle, which can translate into an immediate return on investment when they are eliminated.

Plus, by leasing the machines, venues are able to reduce CapEx spending and improve safety. It’s easy to ensure that automated bartenders do not have COVID, and they can serve drinks much more hygienically. In addition, it’s easier to avoid adulteration of drinks, decreasing liabilities.

### What’s next?

The OEM has a patent pending for their automated bartending machine and is constantly making improvements to serve customers at a larger scale with even greater efficiency. Currently, AVEVA Edge serves primarily as the back-end interface, but the company has eventual plans to use Edge for everything but the POS. They are also experimenting with facial recognition technology to reduce the need for attendants to check identification at the point of purchase.