Pick-by-Vision claims productivity rise of up to 30%, maintaining worker safety in COVID-19

by Thomas R. Cutler

Carsten Funke (CF), pictured here, is the CEO for Picavi U.S.. Here he talks with manufacturing journalist Thomas R. Cutler (TRC) about improved productivity and efficiencies while maintaining employee safety as a COVID-19 return to work strategy.

TRC: How is Pick-by-Vision part of an IIoT (Industrial Internet of Things) solution?

CF: The main drivers for IoT deployment are improved efficiency, cost savings, product quality, and customer satisfaction. IoT is also opening the door to new business models and revenue streams, as companies look to evolve traditional product strategies toward a more services-led approach. This shift has quickly become even more important as companies across all industries are learning to navigate the impact of COVID-19.

Pick-by-Vision allows companies to achieve full scalability, meaning companies can derive maximum value. Using smart glasses and a remote installation removes the complexities around integration, making adoption and expansion safe and immediately available.

TRC: How does Pick-by-Vision increase profitability through productivity?

CF: We see productivity improvement up to 30% compared to the former system. The smart glasses, for example, replace RF Guns and gain 15-30% improved productivity. Customers who migrated from voice
picking to Picavi improved productivity by 10-15%. Switching from paper is even higher than 30%. Another benefit is a reduced error rate up to 30%.

TRC: How should these processes be quantified in terms of return on investment (ROI)?

CF: The ROI is within two years, however customers like Heinemann report significantly faster results. Additional metrics for this machine learning pick process must include a reduced training time of just fifteen minutes.

TRC: Does Pick-by-Vision offer a fast improvement by focusing all attention on one critical area or the system constraint?

CF: We see improvement on the first day. Picavi measures against the status quo. Improved capacity means optimising the constraint enabling more product to be manufactured. Customers are able to move more product with the same workforce. Reduced lead times are possible because the Pick-to-Vision system allows higher flexibility and real time reaction.

TRC: How does the interaction with a Warehouse Management System (WMS) impact the data collected?

CF: Picavi is interfaced with the customers’ WMS, the “Intelligence” is based there. However, we communicate with the worker on the shop floor via the smart glasses without returning to the base. With the information displayed in the analytics part of the Picavi Cockpit, we monitor order changes and increase in quantity in real-time as well.

TRC: Could you explain how the analytics in the Picavi Cockpit reduces inventory eliminating bottlenecks and reducing work-in-process?
CF: The analytics part of the Picavi Cockpit contains an ABC Analysis or detailed report on the frequency of every product. We replace a system which does not support real-time information. Leveraging the data that the smart glasses gather via sensors provide an array of actionable information. The Cockpit shows all the customer individual KPIs in a dashboard. The advantage is that the logistics manager has all the information right at hand versus spending hours digging deep into the WMS or WCS. An analytics component also tracks screen times, determining where in the process the company is losing time.

TC: With COVID-19 on everyone’s mind, how does Pick-by-Vision ensure employees safety and avoid employee cross-contamination?

CF: The benefit of our system is that each worker has their own set, at least for the shift, and no one touches it, compared to the Lights – that get a lot of different hands. The glasses are the easiest device to disinfect since you can use a 0.5% detergent-water solution, such as natural detergent or mild dishwashing soap, or 70-80% isopropyl alcohol to a clean; using a soft damp cloth and wiping down all surfaces is most effective.

With Voice you would have to exchange all the parts that can’t be wiped down, and of course Lights where you can essentially employ someone to clean the lights and buttons constantly. So, in the end the glasses only need to be touched twice during a shift, creating a contactless and handsfree safe work environment. Since we are using voice commands to control and interact with the glasses there is no additional need to touch the equipment.