

Optimisation with Automation

Peter MacLeod spoke with two experts from FORTNA at LogiMAT about the challenges warehouses are facing and how a consultation with FORTNA can help overcome them.

What better way to take the temperature of the automation market than to speak with two experts with a broad focus across system integration and software development. That opportunity presented itself to me at LogiMAT, where I had an audience with two senior personnel from end-to-end warehouse design-build firm FORTNA, namely Niall Prendiville, VP of Product Management, and Jordan Mitchell, Senior Director, Software Product Management.

When it comes to warehouse automation, the customer isn't always right. A larger company would typically have an engineering group that has come up with an idea which sometimes is right, sometimes it's not, without actually understanding that whilst this idea may fulfil a particular workflow requirement, it may only solve one aspect of the wider problem.

"The customer is used to technology being pushed upon them, but we're less about trying to sell technology," says Prendiville. "We have the understanding of how the warehouse operates, so we spend time with the customer, listen to them to really understand the problem, and then develop an integrated solution behind that. We can come in and support them with the broader aspect. What is your order profile, what is your SKU affinity mix, being able to understand that end-to-end workflow... Sure, we can tell them that we can implement that one point solution, but we will ultimately come up with a supply chain transformation that we support. We've become an advisor, even after the point solution installation."

Labour Challenges

In all the conversations I've had at LogiMAT, labour challenges have been brought up, whether that's labour availability, cost, safety or wellness. In

many ways, these can be solved with automation or a software solution. Often the accusation is thrown that 'robots are taking our jobs', but Prendiville disagrees: "Labour is often spread across unpleasant jobs, where they're walking up and down, lifting heavy boxes. We're not displacing these positions, because we already have a labour shortage. We're focused on problems where customers have very high turnover. So we're filling a need, not displacing people. We're taking the difficult, mundane, repetitive tasks that people don't want to do, where customers can't even find people to take on these jobs and the turnover they have is enormously high. So, by incorporating robotics, it enables them to redistribute existing labor to tasks that are less repetitive and physically demanding."

FORTNA also sees a trend towards using technology to enhance workforce performance rather than replace it. "In the past, automation has been a lot about finding ways to replace a human because costs were going up," says Mitchell. "But in the last year and a half or so, we have started to see more of

Jordan Mitchell,
FORTNA's
Senior Director,
Software Product
Management



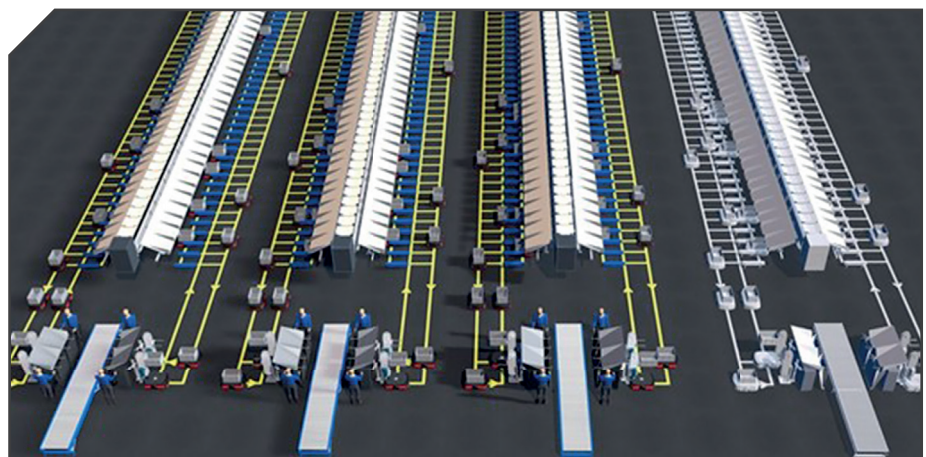
Niall Prendiville,
FORTNA's
VP of Product
Management



how do I combine my human resources with my automated resources, and allow them to work in concert together? Finding a way to orchestrate the tasks and to assign them appropriately either to a human or a robot. Optimising that work across the human and the automated interfaces has been the big change lately, because there are times where you have humans that are available and meet your pay rates, and there are times that you don't have enough people. You have to combine the two to work together, and make sure that the change management's there as well."

Inventory Optimisation

Another challenge warehouses face today is inventory optimisation, and again this is an area where FORTNA can add value, says Mitchell: "We have an inventory slotting offering that



OptiSweep, FORTNA's robotic solution to automate post-sorting process in high-volume distribution centres

takes in your order data and looks at where your SKU mix actually is in the warehouse. We create a digital twin of what you have available to you to go and pick from and allocate from, and we utilise machine learning to then identify where the inventory should be placed, both for ergonomic golden zones - where you're not having to bend or stretch - but also moving SKUs that have affinity together towards end caps. So you're A-movers are coupled with a few of the B-movers that are typically picked together. If we can move pickers towards only picking just a couple of feet inside the aisles, it's going to be faster as it saves them walking time."

In order to provide further differentiation for its customers, FORTNA is always looking to innovate, especially in the area of software development. But this is only effective if it benefits the overall goods flow. "The way we think about it is an initial consultative model," says Mitchell. "You start with understanding your customer's overall problem rather than just answering their question on an individual offering request. We are able to triage what their root problem is, determine how best to lay out either a series of procurement offerings or the actual design of their workflow, and then come out with the installation of a project, and then support it. We differentiate by initially understanding the root cause of the problem, then coming up with a design that we partner with our customers together on, that we all agree will meet the goals."

Prendiville concludes: "FORTNA takes a holistic approach - we're looking at the whole supply chain, and delivering solutions to meet that full supply chain need. We have deep, enduring domain experience. That's not just through robotics, hardware or software integration, we have that deep expertise across the whole supply chain. We're very data driven, and do a lot of internal analysis to make data-informed decisions. We have a lot of simulation capability, so we're able to de-risk the solution for the customer."

"In the past couple of years, we're seeing customers really starting to lean into us rather than going directly to single-point solutions. It gives us a high level of confidence in the throughput and capability we tell the customers we're going to deliver."

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OptiSlot DC, FORTNA's warehouse slotting software

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