CASE STUDY

Replicate and test distribution facilities

Euro Car Parts: UK's largest car part supplier leverages simulation to optimize warehouse layout, ensuring it can scale seamlessly with future demand

Snapshot

Company
Euro Car Parts

Regional Hubs
20

National DCs
4

Warehouse Size
5,250,000 SQ. FT.

Infios Competency
Supply chain software

Solution(s)
Warehouse Modeling & Simulation - K.Sight CLASS

Features and benefits

- Validation of operational assumptions
- Ensuring optimum efficiency of all operations–testing performance
- Finding ways to increase capacity during peak periods
- Identifying cost savings by optimizing headcount and MHE numbers

Established over 30 years ago, Euro Car Parts is the UK's largest car parts supplier and is part of parent company LKQ Corporation; the largest provider of aftermarket and recycled collision replacement parts, systems, equipment and refurbished products throughout North America, the UK, Netherlands, Belgium, France, Italy and Taiwan.

Euro Car Parts uses an omnichannel approach, with the complexity of its operations involving daily replenishment of every store – based on same day sales and next day deliveries – their aim is to deliver faster, unprecedented levels of customer service, exceeding customer expectations and building a well-deserved reputation for outstanding availability, service and value.

CLASS was chosen to help Euro Car Parts test the operation of a newly built, highly automated distribution center, in terms of congestion and resource requirements, reducing risk and saving costs.

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The challenge
Euro Car Parts had a newly built national distribution center (known as Tamworth 2), located just off the M42, junction 10 comprising over 1 million sq. ft. including a mezzanine floor and with 47,500 sq. ft. of office space. Tamworth 2 is Euro Car Parts' second distribution center on the same business park and offers a highly automated distribution center for the supply of car parts direct to customers, branches, export and to other regional distribution centers. It also handles a large proportion of returns. Operational considerations included VNA (Very Narrow Aisle) bulk storage, manual picking and 'pick and pack' for ecommerce orders.

Prior to investing in the facility layout and design, Euro Car Parts wanted to develop a business case for likely performance, resource requirements and to identify any potential problems ensuring optimum efficiency.

The team wanted to be able to test alternative layouts and scenarios without the risk and additional costs of trying to fix issues retrospectively, whilst retaining customer service levels for their national customer base.

With over 1,000 employees, many of the Euro Car Parts employees amongst the management team are seasoned logistics professionals, and so they decided to take a collaborative approach using Infios's expertise to fast track to a validated simulated model design. This 'hybrid' approach enabled the team to access the very latest in warehouse simulation technology and to test Euro Car Parts assumptions and data, resulting in the fastest way to a 'working model.'

Using 'best-in-CLASS' practice
Starting with a CLASS consultancy project, the team was able to quickly simulate the baseline model and run at forecast volumes, selecting the optimum design to ensure it met the design goals. This was also used to identify any performance issues such as the number of decant stations or number of dock doors required to process returns. Infios experts then executed a model handover, and full CLASS training for the Euro Car Parts team to enable them to continue using CLASS as best practice within the business, to run other future scenarios.

Modeling the site using CLASS simulation, enabled the team to identify any issues which might arise in the building either once it went live, or in the future as volumes increase. Particular areas of concern included the congestion in the aisle between the VNA and wide-aisle picking, inbound and outbound marshalling areas, headcounts and MHE requirements.

Gallagher added "To try new ideas and scenarios such as aisle adjustment is a low cost and flexible solution and isn't one that would be naturally considered without having CLASS to model its effectiveness."

"Using CLASS to model the new facility was a great insight tool for the management team. It enabled us to try new ideas without the risk and to build the business case, giving us the confidence in our final design."

Brian Gallagher
Head of Continuous Improvement, Euro Car Parts

By creating to-scale visuals of best practice packing for pallets and containers, the ECP team was able to show exactly how all pallets and containers should be packed, creating "cheat sheets" for their warehouse staff. CLASS's easy customization and powerful visualization capabilities meant that the team could even add details such as product branding and precise dimensions.

One of the most valuable benefits that the team at Euro Car Parts found by implementing CLASS is their ability to challenge reluctance to change. By assessing models of their warehouses, the team is better equipped to ask pertinent questions about the use of space and make suggestions for improvement. Using CLASS on a day-to-day basis, the team is using it for all their migration plans, process changes and timings.

The CLASS license has enabled Euro Car Parts to extract and import similar process assumptions into a second model, created by themselves, for the older distribution center. Collaborating with Infios to create a baseline model, facilitated a 'fast track' understanding of CLASS modeling for Euro Car Parts users. CLASS has since been rolled out as a best practice tool across the business, due to the added value it has brought.

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