

PANDA RETAIL COMPANY

Saudi Arabian supermarket giant uses CLASS warehouse simulation to meet its business and territory expansion plans



Introduction

Panda is the largest supermarket chain operating in Saudi Arabia with branches in United Arab Emirates and Egypt as well. Today the company has over 25,000 employees serving 110m customers annually in over 440 stores.

Experiencing rapid store network growth the company needed to build a new Distribution Centre (DC) in Jeddah, and improve productivity at its existing 90,000 sq m site at Riyadh.

Saleh Jamal, Senior Project Manager at Panda, said: "Our vision is to continue to be the region's number one mass market retailer. Optimising our distribution and supply capabilities is critical to helping us deliver this objective."

"We chose to use CLASS software because of Cirrus's combined warehouse modelling and distribution network expertise. It is a valuable tool to thoroughly test and measure warehouse designs and resource allocation before making significant capital investments."

The Panda Challenge:

Existing DC

Panda wanted to identify the optimal approach for current and forecasted throughput and resource configurations at its existing site in Riyadh. The company also wanted to assess how the DC could handle increased volume during peak seasons such as Ramadan given the constraints of available warehouse space and Material Handling Equipment (MHE). A key focus was to identify bottlenecks and areas for improvement.

New DC

In addition, Panda needed to be confident that the final design of its new site in Jeddah would perform as expected. Jamal commented: "It was imperative that we could test our blueprint for the DC in a simulated environment before committing to any investment. We needed to ensure that predictions of labour requirements, equipment and throughput capacity were accurate and whether there were any unforeseen issues."

At a glance

CLASS helped:

- ▶ Validate warehouse design
- ▶ Ensure maximum operational efficiency
- ▶ De-risk capital investment
- ▶ Provide accurate scenario outcomes
- ▶ Optimise allocation of MHE and labour resources
- ▶ Deliver rapid solutions to distribution challenges
- ▶ Identify 'hidden' potential issues





Project Approach & Results:

Historically Panda had made operational decisions based on expert judgement and spreadsheets analysis. Moving forward the company wanted to use sophisticated and accurate simulation software to help evaluate projects, initiatives and expansion plans.

Cirrus consultants provided full training on CLASS to members of Panda's supply chain team at the company's HQ in Jeddah. During the initial training Cirrus helped Panda to create a 'Base Model' representing Riyadh's current warehouse operations. Actual data was input including employee head count, active MHEs, and throughput statistics. Panda ran several operational scenarios to identify the DC's 'stress' points.

Tests highlighted that inbound was a major bottleneck with an overflow of pallets in the receiving area. High levels of congestion were reducing picking rates while MHEs were regularly reaching 100% utilisation leaving no contingency for downtime.

One of the most effective and innovative simulation outcomes, was to eliminate inbound 'drop zones' and introduce

putaway direct to racking; resulting in an improvement of more than 50% in the number of putaway pallets over the same time period. Manpower and MHE resources were reallocated within the operation without any cost implications.

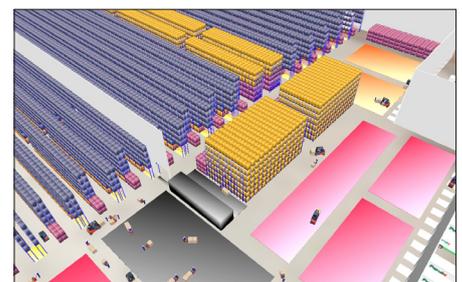
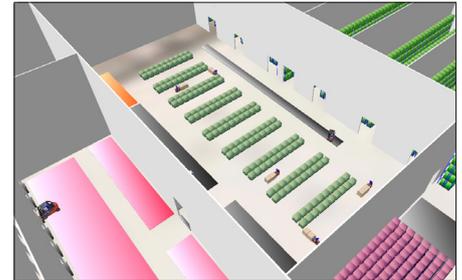
A 'What-if' analysis was then conducted to simulate the impact of a 70% increase in volume during Ramadan. A key test finding was that picking was faster than dispatch leading to overflowing outbound areas.

In addition, CLASS was utilised to model the planned new DC in Jeddah. Multiple scenarios were tested before committing to specific configurations. Different slotting, picking and staffing strategies were explored so that the finished design and implementation would be fit for purpose from day one.

Jamal added: "One of the most valuable benefits of CLASS is that the software supports faster responses and delivers valuable insight and optimum solutions to our distribution and supply challenges. It's a powerful and cost-effective simulation tool."

"We are impressed by the rapid design and modelling capability of CLASS. With a model that has 97% accuracy representing actual complex operations we can be confident about the changes that we are going to make."

SALEH JAMAL
Senior Project Manager



To hear more about how we can help you make your operation more efficient and cost effective, contact us today.

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