

Wins with TTO

Port of Tanjung Pelepas Sets New Productivity Records After Launching Terminal Truck Optimization from Kaleris



EXECUTIVE SUMMARY

The Port of Tanjung Pelepas (PTP), Malaysia's largest transshipment hub, implemented Kaleris' Terminal Truck Optimization (TT-O) solution to enhance efficiency and streamline operations. Integrated with the Navis N4 Terminal Operating System, TT-O improved truck scheduling and dispatching, allowing drivers to receive job assignments 44% faster and reducing truck cycle times 13%. These advancements enabled PTP to set a new terminal record with 14,914 quayside moves in a single 12-hour shift and 1,420 moves in one hour.

THE CHALLENGE

- Manual or static processes for assigning truck moves led to delays and suboptimal resource utilization across the terminal.
- Trucks spent significant time waiting for assignments, reducing overall productivity and increasing operational costs.
- Inefficient coordination between truck movements and crane operations resulted in prolonged waiting times, impacting terminal throughput.

“The deployment of TT-O has already demonstrated measurable improvements, including reduced deployment, fuel savings, improved cycle times, and increased laden travel. This success showcases the impact of bringing together our talented staff and the Kaleris team to drive the industry forward. - Joe Schofield, COO of PTP”

PAIN POINTS



Fuel and resource wastage

High levels of unladen truck travel and inefficient workflows contributed to unnecessary fuel consumption and resource inefficiency.



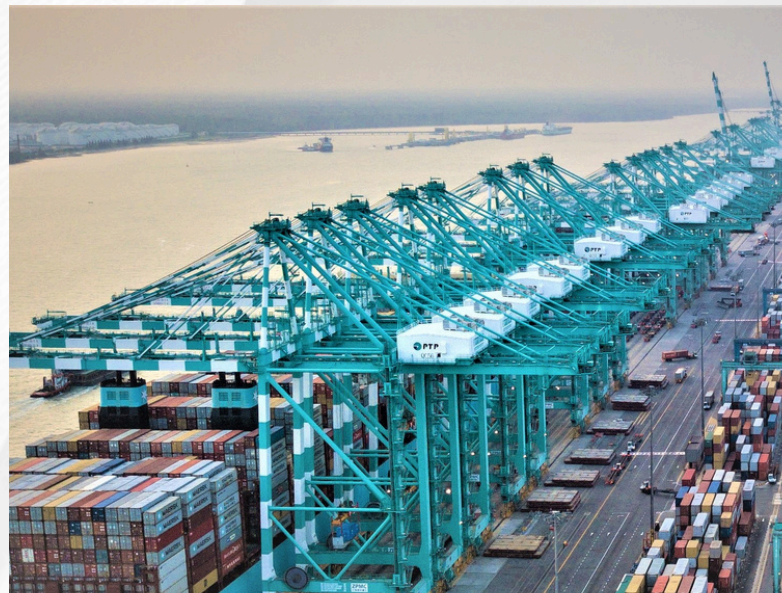
Inefficient truck assignments

Without a dynamic system, delays in assigning jobs to terminal tractors led to longer truck cycle times and reduced productivity.



Coordination challenges

Misalignment between truck movements and quay crane operations caused delays and impacted overall terminal throughput.



THE RESULTS

14%

Improvement in truck productivity

11%

Reduction in truck deployment

20%

Increase in laden truck travel

7%

Reduction in fuel consumption

20%

Reduction in quay crane waiting time

14,914

Quayside moves in a single 12-hour shift

HOW WE SOLVED IT

The Port of Tanjung Pelepas (PTP) partnered with Kaleris to implement the Terminal Truck Optimization (TT-O) solution, fully integrated with the Navis N4 Terminal Operating System. This advanced technology improved scheduling and dispatching by leveraging real-time data to dynamically assign tasks and adapt to changing yard conditions.

With smarter truck movement planning across multiple zones, PTP's team achieved greater efficiency, significantly reducing truck cycle times and accelerating job assignments. These improvements played a key role in breaking a new terminal record for quayside moves in a single shift. The introduction of dual-cycle handling and optimized crane prioritization further streamlined operations, reduced idle time, and enhanced overall productivity.

Within just two months, TT-O delivered measurable gains, reinforcing PTP's position as a global leader in container handling while demonstrating the power of automation in modern terminal operations.

FUTURE OUTLOOK

With the Terminal Truck Optimization (TT-O) solution fully implemented, the Port of Tanjung Pelepas (PTP) is well-positioned to drive continued operational excellence and innovation. Looking to the future, the port aims to:

- Build on the success of TT-O by further refining truck scheduling, yard operations, and crane performance to maintain industry-leading efficiency.
- Leverage fuel savings and reduced emissions as a foundation to implement additional environmentally friendly practices across operations
- Enhance the integration of advanced technologies to support increasing cargo volumes and solidify its standing as a top global transshipment hub.



Scan here to learn more!

