



“We aim to continue on this path by implementing more options from the SmartPort suite.”

JESMOND BALDACCHINO,
ICT MANAGER, MALTA FREEPORT

Boosting efficiency

Malta Freeport goes live with the first deployment of Kalmar SmartPath.

Terminal

Malta Freeport Terminals aims to grow from 2.54 million TEU in 2012 to 3.5 million TEU. An investment program of 189 million euros since 2004 has ensured various leading shipping lines have chosen Malta Freeport as their transshipment hub in the Mediterranean, with it now reaching 117 ports worldwide through regular service. Ultimately the capacity is envisaged to increase to 4.2 million TEU.

Challenge

To establish the growth Malta Freeport seeks to reach premium performance levels by optimising its processes. The company found that for its terminal tractor operations, manual job step information being entered too early or too late was making the dispatch process inefficient. With land area a constraining factor, improving the efficiency was the only way to increase the terminal's throughput.

Solution

Kalmar SmartPath helps terminals accommodate higher volumes by boosting equipment efficiency. With SmartPath, the driver has no need to input job step data manually as the system provides automatic job status updates and consistent, correct data on equipment along with container positions. In concert with Navis Prime Route, it also reduces truck idle time and driving distance, thus cutting operational costs.



Technology

Depending on the solution that is best fit for the business need, Kalmar supports multiple location devices such as GPS, DGPS and LPR. The known position is transmitted to Terminal Operating System wirelessly, allowing it to assign the most appropriate job to each piece of equipment based on its position. SmartPath works by creating dynamic geographical boundaries, known as geofences, around a target location as well around target equipment such as a Quay Cranes or RTG. When a SmartPort equipped vehicle enters that geofence, SmartPath can trigger relevant messages to the TOS that can identify the appropriate job, advance the job, optimise job assignment and other functions depending on the required process flow. The net result is workflows becoming more efficient, accurate and timely, ensuring utilisation and efficiency are increased.

Added value

With SmartPath saving a couple of seconds per move, the savings per year quickly add up. At a terminal with 3 million moves, the benefit would equal over 100 days when saving only 3 seconds each time.

SmartPath

- improves efficiency and saves money
- improves safety by letting drivers focus on their primary task
- provides consistent job step information through the entire fleet
- offers one platform for all machine types
- increases the TOS investment payback by improving the accuracy of the Prime Route algorithm
- cuts the number of manual errors with automated data capture and transfer

Results

Within just three months after signing of the contract, Malta Freeport soft launched the visualisation tool, providing operators with insight into the actual position of assets and containers in the terminal.

After the visualisation tool, the job stepping feature was installed. Even based on the early results from the tests, Malta FreePort indicated to be very positive, believing there are various benefits and opportunities that will emerge from the implementation of the system. As a consequence there are thoughts to expand the process automation solutions for the terminal by implementing more options from the SmartPort suite. Malta Freeport is considering SmartStack and SmartLift for installation.

The whole project was completed within 7 months.

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Kalmar is the industry forerunner in terminal automation and in energy efficient container handling, with one in four container movements around the globe being handled by a Kalmar solution. Kalmar is part of Cargotec.

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