

The supply chain is changing at an increasingly rapid pace and the emergence of new technologies, which go hand in hand with the enhanced performance of logistics platforms, is also imposing new constraints.

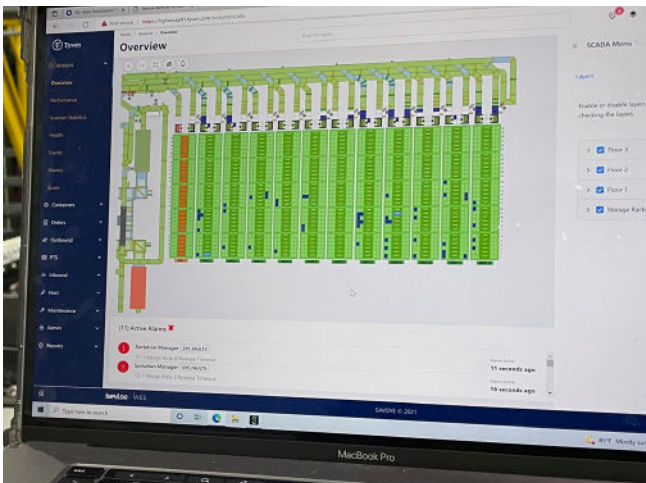
Warehouses, which are becoming more and more mechanized, automated, and robotized, need to be able to rely on the high availability and productivity of their equipment. If misused, these systems can experience congestion or malfunctions.

Therefore, it is crucial to improve the orchestration, overall visibility, and real-time management of the logistics platform's internal operations. This challenge can only be overcome by the collection and careful analysis of data emanating from automated systems, which represents a genuine goldmine of information enabling goals, in terms of efficiency, responsiveness and performance, to be achieved.

WHAT VISIBILITY OF YOUR ACTIVITY DOES Kwest ENSURE?



Data plays a central role in a logistics platform's activities and lies at the heart of all its operations. It is with this in mind that we have equipped our Kwest with operational data collection and retrieval functions by means of a 100% web-based supervision module. The data collected relates to all the equipment managed: operator stations, conveyors, mobile robots, shuttle systems, stacker cranes, palletizing robots, picking robots, packaging machines, etc. Each piece of equipment continuously reports on its operating status and the activity being performed.





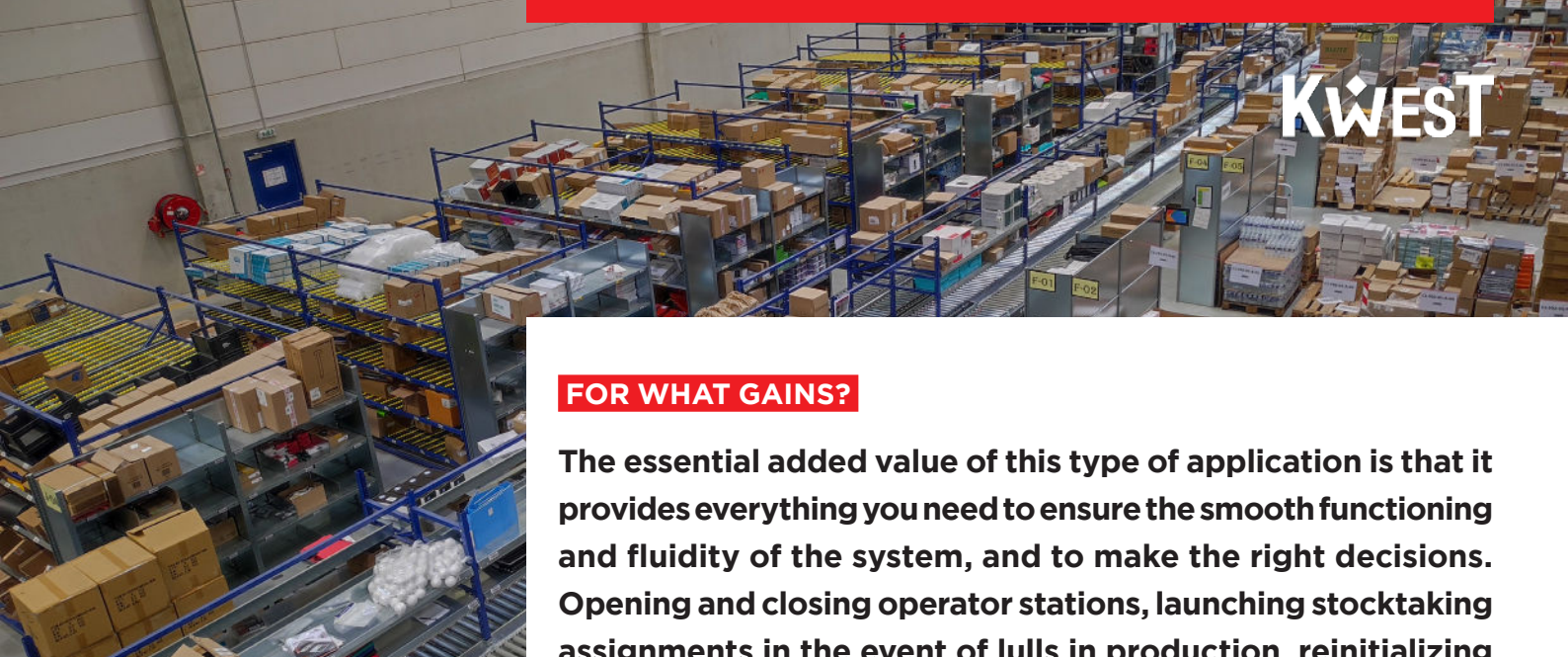
- ◆ Therefore, **in production mode**, it is possible to see, by means of a complete graphic overview, the status of each system zone and the status of each piece of equipment. A number of key indicators are defined for each zone, enabling a user to identify at a glance whether the lights are green or not. This monitoring provides access to a set of real-time KPIs, from the progress of the order book to the productivity of the system, overall and by workstation. It is also easy to monitor the load rate of various warehouse zones and to thereby identify potential saturation phenomena. In addition, a set of configurable alerts enable the user to be warned that a predefined threshold has been exceeded, for example, real-time alerts in the event that the occupancy rate for automated storage has been exceeded. All this enables the user to be informed and to act if necessary, facilitating real-time decision-making by the operator on the basis of changes in daily activity and contingencies to be addressed. Automated inventory management is also facilitated, with full functionality enabling the status of locations and media stored to be consulted, a graphic overview of the breakdown by product code to be obtained and even stocktaking or product exclusion assignments to be organized. A set of KPIs is also available for performing detailed analyses based on the production history for each piece of equipment, station, or operator.



- ◆ In maintenance mode, this monitoring allows the user to very quickly identify equipment behaving abnormally, to perform more detailed analyses and to prioritize maintenance operations to be undertaken. Combined with a CMMS application, it is thus possible to schedule preventive maintenance operations on the basis of cycles performed by each piece of equipment.



- ◆ As a **100% web-based application**, it is accessible from a remote PC or from a tablet anywhere in the warehouse, allowing the user to work naturally on the go, in particular for the team in charge of system maintenance.



FOR WHAT GAINS?

The essential added value of this type of application is that it provides everything you need to ensure the smooth functioning and fluidity of the system, and to make the right decisions. Opening and closing operator stations, launching stocktaking assignments in the event of lulls in production, reinitializing defective equipment, etc. All these actions are performed rapidly on the basis of information provided via the Kwest screens.

Equally essential is the ability to understand the root cause in the event of a possible malfunction. A malfunction may be very easy to resolve, for example a barcode reader that needs to be reset or a reminder of best practice for the manual introduction of parcels on a conveyor. However, a malfunction may be more complex, such as, for example in the case of a slowdown in picking performance. There may be many and varied causes: a reduction in the operator's speed, a temporary shortage of orders to process, a slowdown in the speed of a piece of equipment, etc. Only a methodical analysis enables the root cause to be determined: which is why it is essential to have access to all the information from the same application. In fact, access to equipment fault data is too often gained via one application, or even via access to the PLCs themselves, while the production data for the same equipment is located in another application.

Bringing everything together in a single system enables the data to be combined and a diagnostic that is both fast and accurate to be performed. This is what can be achieved by the Kwest via its standard dashboards and automated data exports, entirely in line with and complementing the ODATiO control cockpit. Where the latter permits macro monitoring of production and the overall performance of a system, Kwest provides a graphic display of the system's smooth functioning. The benefits are visibility, transparency, and complete control of your activity



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