

Minimise unplanned system downtime!

HIGHER PRODUCTION EFFICIENCY THANKS TO CENTRAL SYSTEM MONITORING

Unplanned system shutdowns are still one of the main cost drivers, as the reasons are often detected too late. What's more, there are almost always no fault descriptions that show the problem in a dedicated way. As a result, additional time and capacity must be spent looking for the cause of the problem — because until this is known, neither the right measures can be determined nor the right contact person from maintenance contacted.

But it is not only in the event of a standstill that central system monitoring offers real added value. Even without shutdowns, process deviations can be detected more quickly, for example in the case of slow deterioration due to longer cycle times or slowly increasing energy consumption. The possibility of target/actual condition comparisons of relevant process values, such as number of units, cycle times or energy values in real time, provides direct information about unwanted deviations.



Competitive advantage thanks to central system monitoring

There will always be unplanned system shutdowns. However, reducing the frequency or mitigating the impact saves money. Companies that implement the following four parameters will find themselves in a better position to gain a real competitive advantage:

1. Real-time data collection

The availability of data creates transparency and therefore real added value for many processes. The key to successfully reacting to ad-hoc scenarios lies in real-time recording. This not only means that a breakdown can be communicated directly, but also allows the cause to be identified. This significantly increases your ability to act, react and implement measures quickly.

2. Fast communication

In the event of an unplanned system shutdown, several groups of people and sub-processes are affected. Seamless and, most importantly, rapid communication to all parties involved is essential in order to limit the damage and maintain the highest possible efficiency despite the failure. For example, communication can take place via smartwatch notifications sent to the relevant maintenance personnel. This produces a near real-time flow of information, regardless of where the employee is at the time of the incident.

3. Intelligent analytics and comprehensible reporting-

Learning from problems is the best way to improve. With the help of intelligent analysis methods and reports, optimisation potential can be identified and recurring problems can be eliminated in the long term. In this way, it will be possible to act and react even more effectively in future — fully in line with the continuous improvement process (CIP).

4. Central control station as a “control tower” for all systems

Central plant monitoring enables foresight through end-to-end transparency across the entire production process. With horizontal data integration, you aren't limited to simply looking at a specific area or system. Thanks to the visualisation and monitoring of entire and, in part, interlinked process, an analysis of process interrelationships as well as the effects of individual production problems can be seen.



Higher production efficiency through intelligent software

The module for central system availability in our MES software solution, Legato Sapiient, enables a connection to a machine for recording data in real time — both for homogeneous and heterogeneous machine parks with different types of communication. Regardless of which manufacturer the production machines are from, over 2,000 machines can be connected within a single system.

Based on this machine connection, process values and error messages, among other things, can be recorded and visualised in real time. The user frontend can be accessed via a standard web browser, which means it doesn't matter whether the information is required in the control room, via large displays, on mobile devices or on the PC. The status of the system, the production line or a machine can therefore be queried in real time, always and everywhere. The graphic visualisation makes it easier to identify problems, for example, by schematically illustrating production areas or individual systems in colour based on the current status quo.

In the event of a standstill, maintenance is automatically notified via a call system or information sent to the

smartwatch, and thanks to automatic escalation, it can be ensured that an employee deals with the problem.

Thanks to the recording of process values such as quantities, cycle times or even energy values in combination with continuous monitoring based on defined target and limit values, the software solution enables optimised production efficiency well in excess of fault situations. Just as in the case of a standstill, the system informs about irregularities and deviations, which means it not only provides monitoring, but also the basis for optimised decision-making.

This allows you to get the best out of your production facilities.

THE BENEFITS OF CENTRAL SYSTEM MONITORING AT A GLANCE

 Greater transparency throughout the entire manufacturing process

 Reduction of downtime

 Faster detection of system shutdowns

 Automatic notification system in the event of a standstill

 Increased production output through the possibility of comparing the target/actual status

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