The smart MDC alternative:

Smart*MONITOR*

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WERMA®

EUROPE'S LEADER IN SIGNALLING

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Smart*MONITOR* is the smart MDC alternative for industrial companies looking for a way to quickly and easily gather reliable data to optimise their manufacturing processes. **Smart*MONITOR*** provides all of the relevant data for machines, systems and manual workstations easily at the touch of a button. Unlike conventional, complex MDC systems, **Smart*MONITOR*** is a simple, wireless-based retrofit solution for signalling and analysing your entire production facility - at a glance.

Christian Höhler, Research & Development Director

PRODUCTION MONITORING

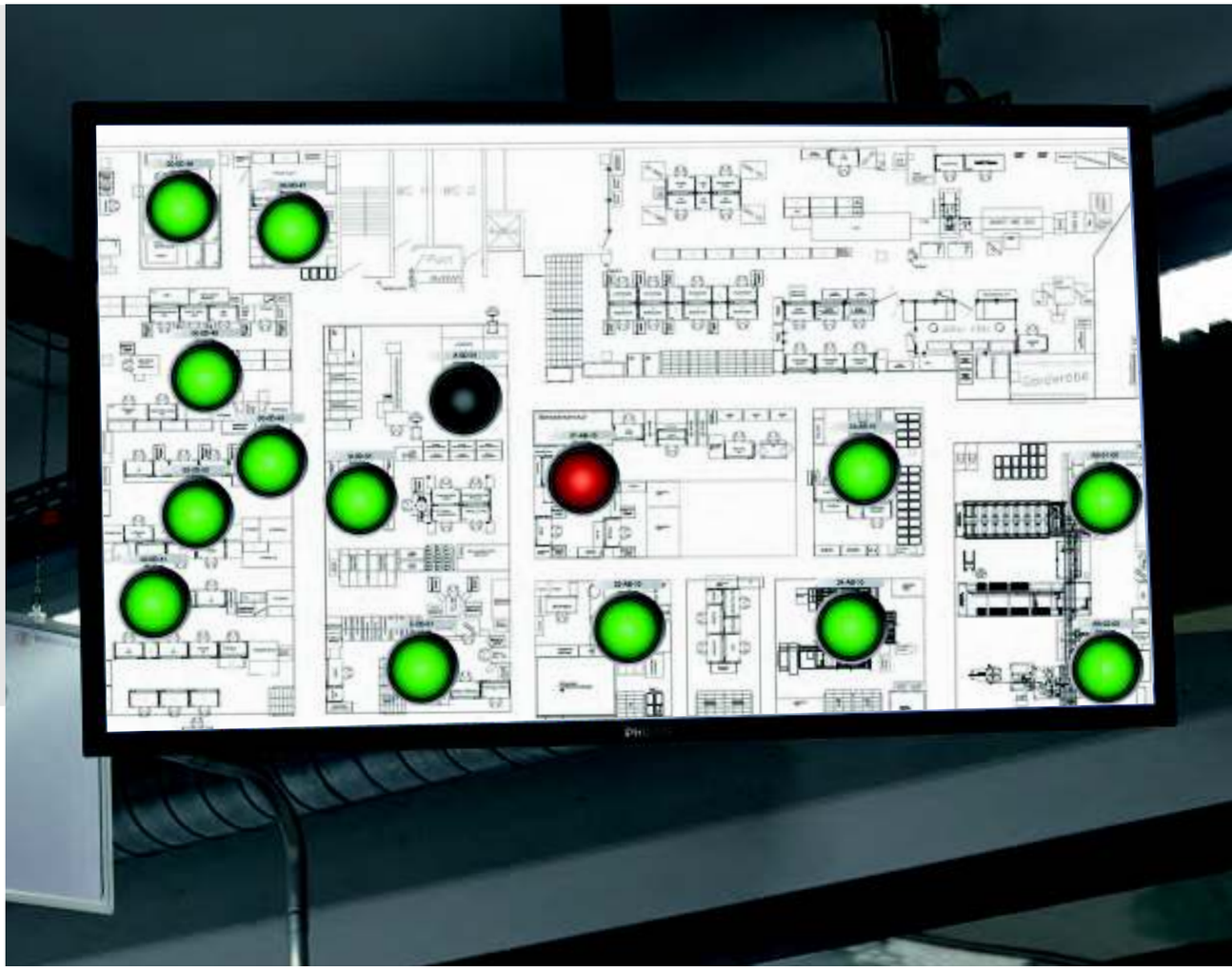
- Transparency of the complete production facility, even if spread over several buildings
- Identify free capacity
- Reduce downtime
- Increase machine productivity
- Easily integrate manual workstations

MACHINE MONITORING

- Reduction of reaction and downtimes
- Increase productivity
- Overview of the complete production facility
- Independent of the manufacturer of the machines and systems

EVERYTHING UNDER CONTROL WITH Smart*MONITOR*

With **signal devices**, **the control station module** or a message on **your smartphone** you can shorten your response times and optimise your manufacturing process, with the guarantee that you will never miss a critical situation.
Everything is documented and the reports also show you how to permanently **improve your processes and productivity**.



MATERIAL FLOW

- Optimise material flow process
- Reduce flow time
- Eliminate wastage
- Increase productivity
- Reduce costs and process times

INITIATING PROCESSES

- Start or stop machines
- Logical networking of machines
- Head-of-Line function

Smart*MONITOR*

With Smart*MONITOR* we help to make processes faster, leaner, better and more efficient - simply at the push of a button. The simple, wireless-based retrofit solution for signalling and analysing your entire production area ensures further growth and that you are always a step ahead of your competitors.

SOFTWARE
CENTRAL CONTROL STATION

- Control station offers an overview of all machines, equipment and workstations
- Retrospective analysis of data
- Process optimisation
- React quickly to production disruptions
- Produce reports

THE SYSTEM

Smart*MONITOR* from **WERMA** consists of a wireless transmitter, a wireless receiver and the software. The robust and proven wireless network for the production environment intelligently searches for the best connection and thereby ensures the simplest integration into your production process. The **included software** already has integrated analysis and reporting tools.

TRANSMITTER
WIRELESS DATA MONITORING

- Can be integrated into the signal tower as an additional element
- Monitors the status and counts the output of up to 50 machines or workstations
- Data transferred wirelessly to the receiver
- Initiates processes, starts and stops machines

RECEIVER
SECURE DATA COLLECTION

- Receives all the data sent by the transmitters in the network
- Transfers and saves the data to a Microsoft SQL database

INTUITIVE AND CLEAR – THE WIN SOFTWARE

The **software supplied with the system** is easy to install and leads the user through a series of steps to establish an individual network. It displays the status condition of signal lights installed in the system, enables the user to **analyse runtimes**, **identify causes of disruption** in operations and therefore **improve efficiency**.

KEEP UP TO DATE WITH CHANGES
MESSAGING SERVICE

React quickly regardless of your current location. If the status of a machine or workstation changes an Email can be automatically sent to a PC or Smartphone of the person responsible. You can select to whom and after which time interval of the status change the Email is to be sent.

EASY TO CREATE
REPORTS AND EXPORT FUNCTION

The user-friendly report function in the Control Station, Productivity, Run time and Job modules offers the possibility of converting all existing data into individual reports (in tabular and/or graphical form). The report can then be individually amended, printed out, and be saved in various data formats (pdf, HTML, Excel, CSV, jpg).

REACT QUICKLY
CONTROL STATION

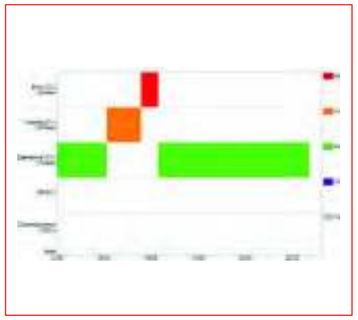
The Control Station shows you the operating condition of all machines or workstations being monitored so you can quickly see if a machine is in an error condition or running normally, or monitor which order is being worked on and the status of that order. This module helps you to quickly take action to reduce downtime.

INCREASE EFFICIENCY
PRODUCTIVITY MODULE

Using the Productivity Module you can check the productivity of your machines and workstations over any time period. You can look for example at the last working day, or define specific time periods such as shift patterns. Using this module it is possible to retrospectively analyse downtime and fault conditions and thus help improve efficiency in the future.

UPTIME / DOWNTIME
TOTAL PRODUCTIVITY OVERVIEW

Define the productive and non-productive statuses of the machine. The Productivity Module then enables you to analyse the real productivity of a machine, groups of machines or the complete workshop.



OBTAIN TRANSPARENCY
RUNTIME MODULE

The Runtime Module enables you to check the operation and down-times of your machines or workstations. This allows you to compare several machines with one another in order to detect and eliminate errors that affect the production process. This leads to sustainable process improvements.

DOCUMENT PROBLEMS
ERROR ANALYSIS

Identify, comment and analyse the fault conditions. First of all define the most common reasons for fault status occurring, for example material shortage. It is then possible to retrospectively analyse the frequency and length of the fault conditions and ensure that the cause can be eliminated.