



WERMA[®] *Success Story*

TRW calls for action with the help of WERMA Clear and efficient call for action monitoring with the WERMA WIN system

In order to control unexpected downtime better and to detect latent available capacity TRW in Blumberg swears by the simple machine data collection system from WERMA. The southern German signal device manufacturer had equipped the TRW factory with its WIN (wireless information network) system a few years ago now and is continuing to extend the co-operation with TRW.

Manufacturing Development Engineer Bernd Müller explains: "when I started to work there was a lack of transparency of production as the TRW site

continued to expand". Over a number of years the number of machine shops increased and it became increasingly difficult to maintain an overview of machine status. Another problem was the diversity of machine process controls being employed. At the beginning of 2010 Bernd Müller heard about WERMA where he was able to find what he was looking for. The signal device manufacturer from Rietheim-Weilheim had developed a simple machine data collection system called WIN which he began to introduce.

DIFFICULT CHALLENGES TO MEET

Today, with 23 years service, Bernd Müller is an important figure in the production area. He knows a great deal about machine monitoring and is aware that there are many very costly and complex monitoring systems on the market. In addition he had the challenge of finding a wireless monitoring system as it would have been unthinkable to lay cables and trunking throughout the extensive elderly building infrastructure. WERMA was able to meet these challenges head on.

The automotive giant began by monitoring 10 critical machines with 10 transmitters monitoring machine status. Using WIN the customer was able to get a precise overview of their status in a matter of minutes. The plug and play wireless system was quick and easy to install and up and running immediately.

In no time it was clear that WIN was meeting all of TRW's expectations in terms of flexibility, standardisation and ease of expansion of the system. Data is transmitted wirelessly to a central master PC – no complex interface with the individual machine is required as the system simply transmits data from the existing machine tool signal tower.



TRW Automotive insists on signal devices from WERMA. The automotive manufacturer has installed large plasma screens in various locations to display machine monitored data.

TRW
Profile

TRW Automotive GmbH in Blumberg belongs to the global TRW Group which builds components for engines and vehicles in just about every conceivable configuration. The HQ of the automotive giant is in Livonia in Michigan US. TRW has more than 65,000 employees worldwide, 186 subsidiaries in 26 countries including 13 test tracks and 22 technology centres. The TRW site in Blumberg was commissioned in 1945 and today manufactures valves of all shapes and sizes. Around 858 employees working here ensure that the subsidiary in Baden remains the strongest component builder in the industry segment.

EASY TO INSTALL – NO PROGRAMMING KNOWLEDGE REQUIRED

"I was particularly impressed with the WIN software which came with the system which builds up the wireless monitoring network in easy steps" reports Elmar Giner. The database expert works in the IT department of TRW and he is particularly impressed with the network routing capability of the system. A simple root and branch structure of the network shown in the control station view gives the signal strength and structure of the network between individual machines. This view will also tell any potential weak spots in the network that may have to be reinforced in order to ensure effective wireless monitoring.

IT specialist lays great value on transparency in production. The WIN system allows you to monitor all of the machines monitored from the PC. It is simple to find errors, interruptions in production, analyse productivity and thus improve efficiency and eliminate wastage. The clear and concise intuitive user menu ensures the system is easy to use.

TRW WANTS EVEN MORE

TRW has presently 80 slaves/transmitter units and the component manufacturer is expanding the system all the time. The wireless system means that expansion is simple to carry out – additional WIN units can be added to the network without the need for additional cabling.

TRW have set up 5 large plasma screens to show the productivity of the shops. Service, Production lines, Electrical department, as well as both mechanical

and electrical Maintenance departments can see the current status of the machines and deal with issues arising in a timely manner. Using the Email notification function allows faults/error messages to be sent directly to those responsible to local PCs or smart 'phones. This allows intervention to take place quickly and avoid unnecessary downtime. No wonder that IT specialist Elmar Giner wants "more". He knows how flexible the WIN system is and appreciates how quick and simple it is to extend the functionality to new machines without complicated configuration.

QUICK AND CLEAR BENEFITS

Improve transparency, increase productivity, strengthen flexibility, reduce downtime reduce costs and save time are just some of the benefits of the WIN system. In no time at all TRW has gained an overview of costly processes and hidden capacity. Manufacturing Development Engineer Bernd Müller has become very familiar with Lean Production techniques which have increased the competitiveness of the Blumberg based company.

The WIN system gives him a variety of key figures on orders in progress such as quantity of parts produced, scrap, or a detailed breakdown of downtime. Such information allows him to investigate reasons for and frequency of downtime and to develop countermeasures to improve productivity.

MUTUALLY BENEFICIAL PARTNERSHIP

Without TRW many of the WIN functions would not have been developed. For example it was the input from the Blumberg site that led to the development of a piece part counting function which can be monitored by a signal tower fitted with the WIN slave performance unit. With this unit up to six conditions can be monitored and a piece part count. This data is transmitted to a receiving PC and stored on a database.

TRW has become an exemplary user of the WIN system giving much valuable feedback to the WIN development team. In this way modifications and new ideas to the product hardware and software can be introduced quickly.



TRW Blumberg has been using WERMA signal towers for years and thereby ensures simple and effective machine monitoring and transparency in Production.

"It is a question of give and take" explains Bernd Müller and continues "we are very happy to have in the area of industrial signalisation a partner with whom we can develop our ideas together. In this way both sides win."

FURTHER HIGHLIGHTS

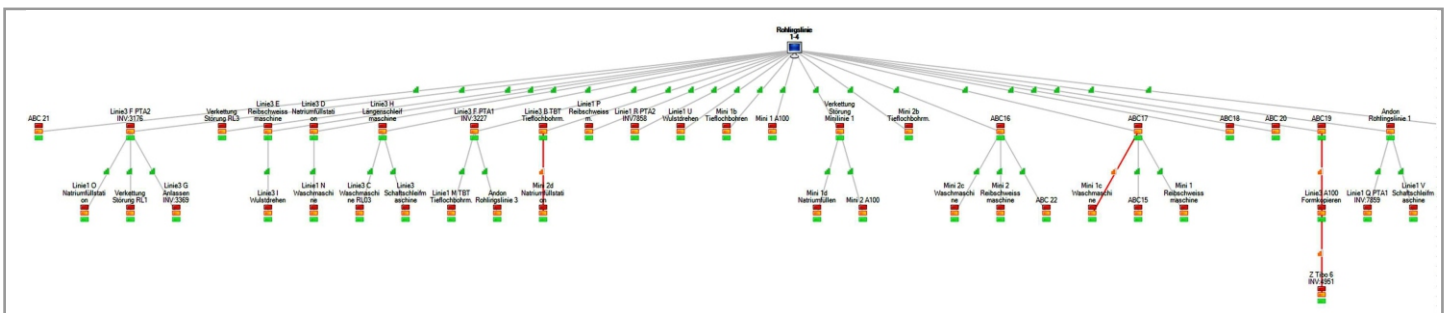
Alongside WIN TRW also uses other WERMA products. The forward looking andon products from WERMA have made their mark. Experts in Lean Management are conversant with the term andon light which is used to signify a clearly visible signal light used to indicate that a problem has arisen which needs attention.

This principle is being used now by signal towers in a new application where for example line side shortages of material or quality issues can be signalled for action. The member of staff who activates such a light need not go around looking for someone to provide assistance. Time can be spared and thus processes can be made leaner and more efficient.

"It would not be possible to think of TRW Automotive without WERMA signal towers" remarks Bernd Müller. The WIN system will be further extended on the site. "The seamless integration of the system is especially helpful" concludes the manufacturing specialist.

WIN Benefits:

- Improve transparency
- Increase productivity
- Strengthen flexibility
- Reduce downtime
- Save cost and time
- Can be retrofitted to older equipment
- Impartial monitoring system



The routing module of WIN is impressive – the root and branch structure shows the wireless connection between each signal tower and wireless transmission strength.