

AT A GLANCE

Production indicators and operating data logging

Machines from pester pac automation use atvise® scada to provide information in pure web technology directly in the browser. This enables older machines without an IPC to establish the connection to the controller. Logged data can thus be visualized and analyzed.

Initial situation and solution

pester pac automation GmbH had to find solutions to challenges in two different areas due to different requirements: Firstly, in order to enable analysis and troubleshooting, there had long been a need in the company for a log function for machine and operating data, which could collect signals and variables over a long period, store them, and display them clearly as lists or also as graphs. Secondly, the company wished to provide its customers with value addition in the area of productivity indicators in the form of an OEE (overall equipment effectiveness) evaluation: the summation of machinery and production data is becoming increasingly more important; the optimum utilization of machines and a high level of productivity are an absolute necessity, particularly due to the globalization of major companies. It was therefore very important for the company pester pac automation GmbH to be able to not only offer evaluation functions for new machines and plants, but to also offer these functions as retrofits for existing machines and plants. »These two issues of process data logging and productivity indicator display are frequent hot topics for discussion in different sectors and of tremendous interest both from the point of view of plant operators as well as machine builders,« explains Tobias Weber from the sales team for atvise® products.

A technical evaluation at pester pac automation GmbH led to the conclusion that both require-

ments could be implemented quickly in spite of their high complexity, thanks to the openness and flexibility of the atvise® scada product. The requirements could be implemented to complete satisfaction through simple parameter assignment and also some development in the applications. In both applications, the OPC UA server already provided in the pester pac machines serves as a data source, from where the data is written to the internal database of atvise® scada and made available from there to the applications (OEE evaluation). The unit calculations required for this are carried out as basic functions of atvise® scada in accordance with OPC UA, while the compressed data is then displayed via the integrated »Highcharts« javascript library. An opposite architecture is used for the logging application: In this case, the data is displayed directly by the OPC UA server in a »live list« in the form of a ring buffer in the browser and only persisted in the atvise® scada database after the ring buffer is left.

Mobile applications

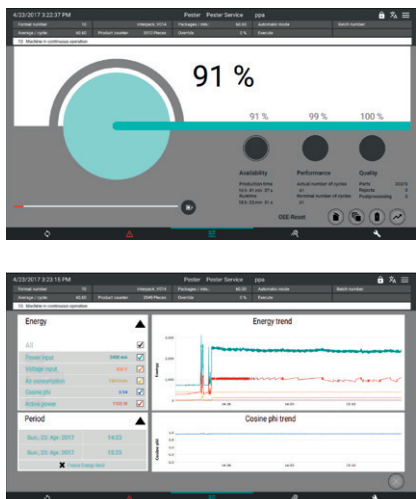
»The flexibility of atvise® scada has greatly impressed us,« explains Ralf Abler, director for electrical and software engineering at pester pac automation GmbH. As is usual with atvise®, the front end of the application is output via pure web technology in any browser, irrespective of the platform and terminal. This enables the pester pac customers to use the applications not only on the panel directly at the machine,



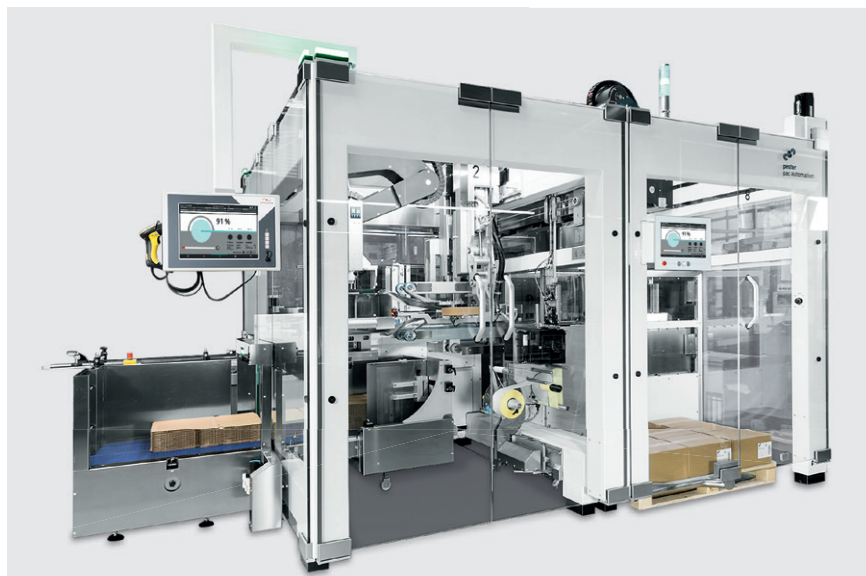
**pester
pac automation**

The fourth generation family-owned business is one of the leading companies in the sector. More than 8,000 pester plants and lines round the world demonstrate their intelligence in multinational concerns in the pharmaceutical and cosmetics industry. 700 employees worldwide, eight subsidiaries and 35 agencies in 80 countries work together in a dynamic network.

www.pester.com



▲ Energy consumption, availability and fault statistics of the side-loading case packer palletizer combination.



but also in the control center and on mobile devices such as smart phones or tablets. This opens up new possibilities for machine operators, production managers and quality officers, and represents a real value addition, particularly for the OEE applications, and with regard to trends such as »bring your own device«.

The development projects

The engineering tool of *atvise®* scada, the *atvise®* builder, is an essential tool for the successful and swift completion of these development projects. By combining the OPC UA technology in the core of the product and the full object orientation, a web application can be created through a simple configuration and parameter assignment. Any knowledge of web programming is unnecessary, as the html code required is automatically generated by the *atvise®* builder. Typical SCADA functions, such as alarming, historization, dynamization etc. are available via user-friendly drag and drop functions. This system also provides a world first – the ability to operate in hot standby redundancy with pure web technology. In the application shown, the pester pac team of developers also used the open and fully integrated scripting engine to implement special functions. This thus made it possible to create solutions

that are outside of the pure parameter assignment and configuration options. The use of these technologies and their associated possibilities can implement very efficient engineering processes in *atvise®* scada. This reduces the effort required in daily project business and leads to a fast return on investment.

In order to keep the required time to market for both applications to a minimum, two separate development projects were started, which could hardly have been more different: While pester pac automation GmbH developed the OEE module solely in-house with the help of joint training seminars and workshops, most of the development of the logging function was given to the application department at Certec EDV GmbH.

A close partnership developed within a few months through the varied and joint activities, during which the expertise of both development teams – process know-how on the one hand, and the SCADA/web programming know-how on the other – was exchanged. The results of this are evident in the software modules launched by both companies on the market.

Certec EDV GmbH acted here not only as a product supplier but also as a valuable partner and complete supplier of solutions.

Ralf Abler sums up the partnership so far: »The collaboration with Certec (Bachmann) has been absolutely professional. The know-how on both sides resulted here in a top product which is really well received by customers.«

» The flexibility of *atvise®* scada in particular impressed us very much. «

Ralf Abler,
 Director of electrical and software engineering
 at pester pac automation