



Aerial view of a Prakab a.s. factory in Prague, Czech Republic



Customer Success Story

PRAKAB a.s. Prague, Czech Republic



Main Control Screen at PRAKAB a.s.

About PRAKAB a.s.

PRAKAB a.s. is one of the largest producers of wires and cables in the Czech Republic, manufacturing power and communication cables as well as building wiring. An extensive investment program was recently launched to modernize the plant and increase production.

Over the last few years, PRAKAB has put new cable production lines into operation, in cooperation with systems integrator, ADAX, Ltd. This was in addition to the reconstruction of, and maintenance of management systems for, existing production lines. ADAX staff was also involved in machine assembly and management systems supply.

ICONICS Software Deployed

ADAX has extensive experience with ICONICS products and therefore recommended the GENESIS32™

Web-enabled, OPC-integrated HMI/SCADA suite to manage their customer's production lines. GENESIS32 Enterprise Edition is now tied to each production line, while GraphWorX™32 now appears on each of PRAKAB's application displays, helping to provide facility-wide status and details on individual machines. AlarmWorX™32 provides early warning to operators if set process parameters are exceeded and, in the event of any process failure, the software helps operators to determine a root cause. TrendWorX™32 assists in analysis of production quality.

PRAKAB also utilizes GENESIS32's recipes capabilities, designed to integrate with VBA. Reports are conveniently stored in Microsoft Excel files and SQL databases. The company uses DataWorX™32 software for OPC data aggregation, bridging, redundancy and tunneling.

Project Summary

PRAKAB's manufacturing processes involve multiple machines, including extruders, decoilers/unwinders, rewinders, heating/cooling devices and PVC granulate dosers. An average of 300 I/O points are incorporated into each of PRAKAB's 15 cable and wire manufacturing lines.

The company mainly uses Siemens S7-300 PLCs that provide data to the SCADA system over PROFIBUS and Ethernet networks via OPC communications standards. In addition to Excel spreadsheet and SQL Server and Access database management applications, PRAKAB also uses multiple Microsoft operating systems throughout its enterprise, including Windows® Vista™, Windows XP and Windows 2000.

System Benefits

PRAKAB is pleased with the updated system that ADAX helped provide for the management of its cable production lines. GENESIS32 HMI/SCADA was selected due to its modularity, ease of configuration, and adaptability to different types of production lines. PRAKAB and ADAX have also found how these characteristics make it possible to significantly shorten implementation time and reduce the total cost of the entire solution.

The new control system has increased the reliability of connected equipment as well as reduced production downtime. The appearance of unified operator panels on all production lines has reduced staff training time.

PRAKAB has made plans for future system upgrades. These include ICONICS' WebHMI™ plug-in to provide HMI/SCADA information throughout the company over the Web, as well as ReportWorX™ (part of ICONICS' BizViz™ Manufacturing Intelligence/Business Visualization suite) for data reporting, charting and analysis. With these plans, PRAKAB is taking steps to integrate the data it now receives from its upgraded production line management system into a more comprehensive corporate information system.



A Cable Line Extruder



A Recipe Display Screen for PRAKAB a.s in Prague, Czech Republic

GENESIS32's trending and reporting abilities makes it possible to maintain high product quality and to quickly analyze any possible problems. PRAKAB sees an advantage to DataWorX32's ability to set individual tag scan/read times, making optimum use of PLC communications and OPC technology.

Conclusion

ADAX has currently outfitted 12 of 15 of PRAKAB's cable and wire production lines with its updated management/control system, including GENESIS32, with more to come. Since ADAX, itself, recommends the entire range of ICONICS industrial automation software,

Product Highlight

DataWorX32

DataWorX32 is a powerful data-optimization tool, as well as an easy-to-configure redundancy solution for any OPC-based application. The patented OPC data-aggregation technology found in DataWorX32 will lower network traffic by aggregating server-to-client requests, leading to a reduction in CPU load and an increase in performance.