

MAN IT Services GmbH uses IPC technology from Beckhoff



→ Technology for the world of automation is strongly driven by the consumer or IT world, although there are also examples for the reverse route, as demonstrated by MAN: The commercial vehicle, engine and mechanical engineering company utilizes automation know-how for IT tasks, based on consistent application of robust, high-performance Industrial PCs from Beckhoff close to the production line.

Robust Industrial PCs for IT tasks

The fact that this is no isolated case, but rather a meaningful strategy, is illustrated by Beckhoff's inaugural presence at CeBIT 2006, the leading trade fair for developments and trends in the information and communication systems market worldwide. With their presence as a pure PC and Control Panel supplier, Beckhoff demonstrated that the company's components, which are currently predominantly used for machine control in factory automation applications, can also be used for a wide range of purposes outside the world of automation, for example for production data acquisition or as an operator interface for building automation.

Industrial components have a range of familiar benefits. In order to be competitive outside the industrial environment, costs have to be kept within a commercially acceptable level.

MAN has recognized the benefits

Beckhoff Industrial PCs and Control Panels are also ideal for applications outside automation. The MAN Nutzfahrzeuge department, for example, routinely uses Beckhoff technology for production data acquisition (PDA). The industrial IT sec-

tion of MAN IT Services GmbH (MIT) is responsible for implementing the special IT requirements in harsh industrial environments. "The technology used in this environment must offer high availability and reliability", said the industrial IT department, who is responsible for the implementation of Group-wide standardization for industrial components at MIT: "In collaboration with the individual sections we develop standardized solutions for preventing production stoppages. New projects are realized with the existing, highly available IT infrastructure. The standardization of IT processes, IT infrastructures and hardware and software leads to a harmonization and stabilization of industrial IT landscapes within the individual Group sections. The IT service sectors (i.e. computer centers, networks, terminal devices) and their operation are brought together at MIT. The aim is to achieve further cost and performance benefits beyond the existing cooperation and standardization. In addition, MIT also handles support of Group-wide applications with the same aim."

"The special requirements in an industrial IT environment need a specific approach regarding the application of standard components and their availability", said the industrial IT team. Against this background, an industrial partner with re-



The MAN Group is one of the leading commercial vehicle, engine and mechanical engineering companies in Europe, with annual turnover of around 13 billion euros and around 50,000 staff worldwide. MAN produces large trucks, busses, diesel engines, turbomachines and offers industrial services. The company has leading market positions in all these sectors.

As internal service provider for the MAN Group, MAN IT Services GmbH (MIT) provides the computer centers, networks and terminal devices required for IT operations, and support for Group-wide applications. MIT has around 320 staff at 10 locations in Germany and Austria.

liable components and a comprehensive product portfolio is required. "For us it was important to find not only a partner with the right industrial hardware, but also an expert who understands the relationship between the systems to be automated – a specialist with knowledge of IT and control systems. Another factor in our decision in favor of Beckhoff was the strong international presence of the company."

Stefan Lorenz, responsible sales representative from the Beckhoff branch in Munich, said: "Based on years of experience with PC-based automation, Beckhoff understands the challenges of the industrial PC world. Sustainability of the product strategy was also important for MAN IT Services. Long-term availability is one of the essential benefits of Beckhoff Industrial PCs. The products are available in the same configuration for many years."

MAN uses Beckhoff technology at a wide range of different locations all over Europe. "When it comes to industrial IT, Beckhoff has become the Group standard for the MAN Nutzfahrzeuge AG. Five specific IPC types cover the majority of requirements, although Beckhoff also offers solutions for special applications, for example for the robust production environment in the Nuremberg, Germany





plant: In this case, the Industrial PCs were upgraded with impact protection and armored glass for the displays in the harsh industrial environment", said Stefan Lorenz.

A standardized combination of an Ethernet Panel with Ethernet Bus Terminal I/O modules enables efficient and cost-effective realization of MDA/PDA requirements for machine tools in the MAN Group. At the same time dynamic uploads/downloads of NC programs for the machines can take place from a central location. Ethernet Panels are used as operator interface.

Efficiency thanks to integrated technology

The aim of MIT's Industrial IT section is Group-wide standardization of industrial IT components in all MAN sections, taking into account different requirements. In addition to the traditional office environment, standard industrial components are used in assembly and manufacturing areas. Different IT standards are used, depending on the required availability. With this standardization for PC applications, MAN aims to enhance the quality of IT components with associated cost

optimization through volume bundling and practical maintainability of a standardized range of components.

For the industrial IT team, the specific practical requirements of the individual MAN Group sections are not a problem when it comes to implementation of the standardized PC landscape: "Due to the wide range of products they produce, the individual Group sections have very different practical requirements, although the requirements in terms of quality, availability, reliability and maintainability of IT systems are almost identical. While standardization generally involves limitation to standard devices, flexible implementation of diverse requirements in individual areas was an important decision criteria in the selection of our industrial partner."

In large truck production, the industrial IT team observes a general trend towards "networked manufacturing", i.e. a merger of communication in systems and automation technology with IT infrastructures. The team feels this trend offers potential for standard components and interface harmonization, supported by the integrated Beckhoff automation system.

MAN succeeded in implementing the much-discussed consolidation of the worlds of systems and machine automation and the IT and management level in an impressive manner.

—> MAN IT Services GmbH www.man-mit.com