



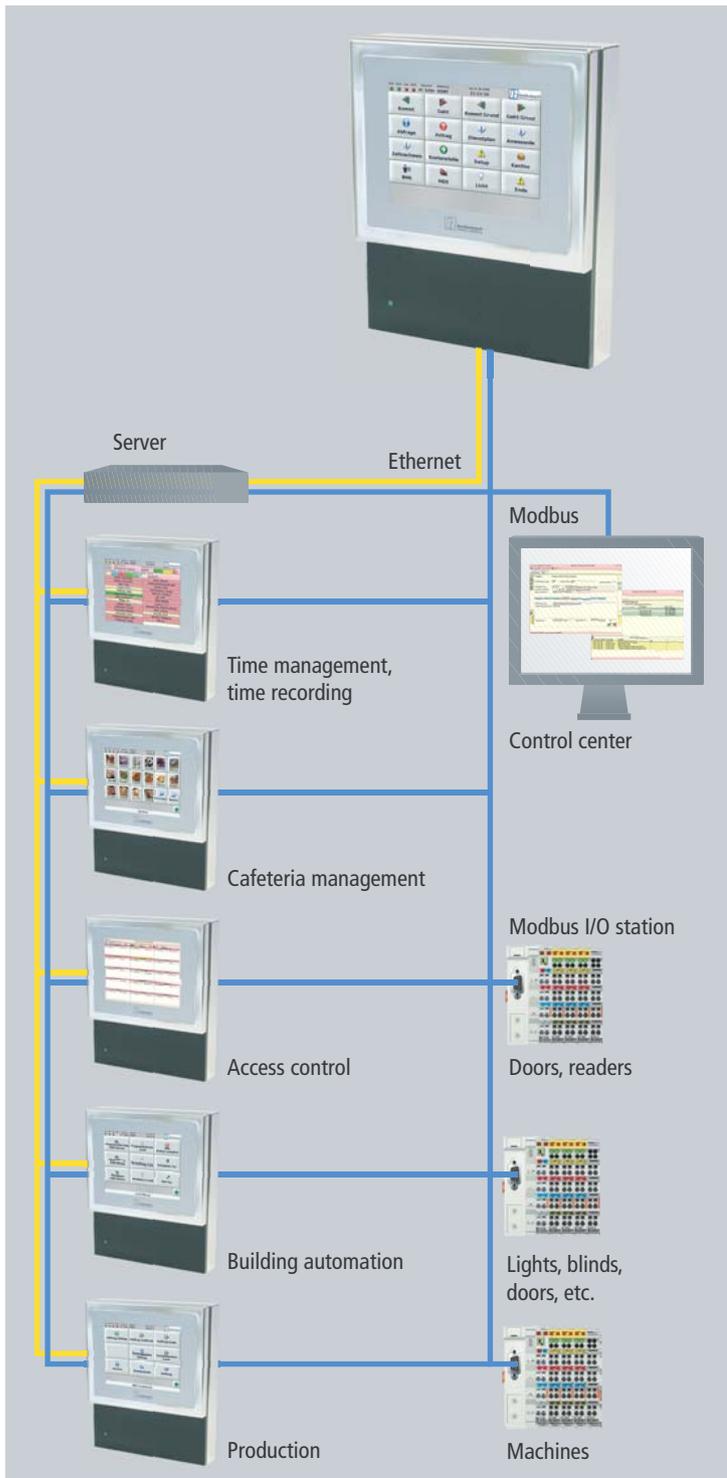
Breitenbach uses customized multi-functional terminals for industrial IT applications

Tailor-made Industrial PCs

With its multi-functional MF1065 terminal Breitenbach Software Engineering GmbH introduces a newly developed, innovative input and information system that offers an optimum solution for all processes in time and personnel management and operational data acquisition. The multi-functional terminal is based on a customized Beckhoff Panel PC.

The multi-functional MF1065 terminal is a newly developed, innovative input and information system. It offers users a versatile, cost-effective booking and information terminal with an intuitive touch-screen interface.

The software specialist Breitenbach, based in Möhnesee, Germany, has offered innovative, customized and integrated software solutions for time management, human resource planning and scheduling, production data acquisition, access control, payroll accounting, personnel management, etc. since 1980. In the past the company focused on software development and purchased hardware from third-party sup-



The multi-functional terminal combines a variety of functions and offers convenient control and operation of time management, cafeteria management, access control, building automation and production. External Modbus modules enable communication with the I/O level.

pliers. "With the new multi-functional MF1065 terminal we wanted to take a different route, since an off-the-shelf hardware solution was no longer able to meet our specific needs. "With Beckhoff we have finally found a partner who developed a solution that was just right for us," said managing director Wolfgang Breitenbach, describing the starting point of the cooperation.

For Breitenbach the key factors in the development of the MF1065 terminal were an attractive design, simple operation and a mechanically robust finish. "The specific requirements were: protection class IP 65, compact stainless steel housing, fanless cooling, touchscreen, RFID and fingerprint reader. In addition, Beckhoff could deal with maintenance of the terminals and guarantee long-term supply of spare parts. All these requirements were met," said Wolfgang Breitenbach.

In the business of customization

"The development of customized Industrial PCs has been part of our product philosophy for years," said Roland van Mark, product manager for Industrial PCs at Beckhoff. "Over 50 percent our IPCs and Control Panels are specially tailored to the requirements of our customers." This includes functionality, shape, customer logos and color schemes. In some cases, such as the multi-functional terminal, Breitenbach embarks on completely new developments. "We can fall back on a wide range of components such as motherboards, displays, keyboards and power supply units developed and produced in-house at Beckhoff. This not only reduces the costs for our customers, it also means that we are able to supply identical or equivalent spare parts over many years," said Roland van Mark.

One terminal – many functions

The multi-functional MF1065 terminal is a true all-in-one device. Applications include time recording, access control and management of applications for leave, duty schedules and time logs. The terminal can also be used to manage cafeteria operations. In addition it can be used to process operational data – for example, relating to orders, order backlog or overheads – and information from weather stations, which is important for printing. Finally, the MFT is also suitable for operation and status display of building functions such as lights, doors, roller blinds or ventilation components.

On the hardware side a compact Beckhoff Panel PC forms the basis of the multi-functional terminal. The device is equipped with cutting-edge Beckhoff motherboard technology, a high-performance Intel® Atom™ 1.60 GHz CPU and a 6.5-inch display with touchscreen and integrates all control and operating functions. Its stainless steel housing makes it suitable not only for office environments, but also for harsh industrial environments. Optional special seals between the touchscreen and the housing and the flush touchscreen meet the IP-65 standard and protect the interior of the multi-functional terminals from ingress of dust and spraywater, so that it can also be used in the food industry, for example.

Users can register via optional integrated RFID or fingerprint readers to gain secure access to operating functions and information. In this way, company staff can use the terminal to register their work and travel times and use the self-service-functions to submit applications for leave and retrieving their own time logs.

Breitenbach Software Engineering GmbH

Breitenbach Software Engineering GmbH was founded 1980 and is among the leading providers of software solutions for personnel management. It has 40 staff members at its head office at Möhnesee in North Rhine-Westphalia, Germany and its two branches at Erlangen and Tiefenbach (near Landshut), 10 of whom work in development. Around 80 percent of sales are generated in Germany, although the company is also active abroad with projects in England, the United States, Poland and China, for example.



While the complete application software was developed by Breitenbach, the company uses Linux as the operating system. A client-server version is available for Windows. The dialog and menu interfaces developed by Breitenbach enable fast adaptation to specific customer requirements.

Interface for the I/O level

The multi-functional terminal features an Ethernet port (10/100 Mbit/s) for connection to the company network; a further port enables connection of an external Modbus module, which was also developed by Beckhoff. In this way, the terminal can also communicate with the I/O level. "This is a big step forward for us," said Wolfgang Breitenbach, "because in the past we were unable to make our devices fit for the field level at a justifiable cost." From Roland van Mark's perspective the automation interface is the icing on the cake of this jointly developed project: "It enables a wide range of factory and building automation applications such as door operation via fingerprint or RFID readers." This interface is currently configured for the Modbus protocol. In principle, all common fieldbuses can be connected without having to change the terminal hardware.

Form and function combine in one flexible unit

"With its compact dimensions of 210 x 170 mm (H x W), its slender design and its elegant stainless steel surface, the MF1065 terminal is suitable for the foyer of any corporate building," said managing director Wolfgang Breitenbach. "On the other hand, the robust finish also makes the multi-functional terminal suitable

directly next to a steel press, for example."

"The wide range of applications for the terminal helps reduce the running costs for the users," said Wolfgang Breitenbach. "If a company has to use different terminals for different ambient conditions, it also needs to keep replacement devices for each type. This costs money, and in many cases the devices go out of date during storage," said the Breitenbach director. With the new multi-functional MF 1065 terminal, such a scenario is less likely thanks to the state-of-the-art hardware from Beckhoff.

Breitenbach Software Engineering GmbH www.bb-sw.de

Beckhoff Industrial PC

www.beckhoff.com/IPC