One-glance machine operation

Attractive design, intuitive navigation and state-of-the-art touch screen technology can make a machine both more valuable and easier to use. Weber certainly took this idea to heart when it developed its new user interface, Weber Power Control, and has been awarded for the accomplishment several times over. At its core, the HMI solution features a high-performance PC and operator panel from B&R.

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Weber's new HMI solution, Weber Power Control, has received several awards for its outstanding design.

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Spacious, stylish and straight-to-the-point. That's the impression you get the first time you see Weber's new HMI solution. With its 18.5" diagonal, the display would offer plenty of space to cram in loads of information. Yet the designers deliberately chose a minimalist design in order to focus the operator's attention on the system's most significant parameters. They eliminated distractions – and all but the most essential lines of text – relying instead on large, self-explanatory graphical elements. At a glance, and from a distance, operators can quickly assess the status of the system's vital processes.

Hidden around the edges of the central dashboard are additional panes containing more detailed information and parameter settings. These panes can be viewed by tapping or swiping, so no important setting is more than a single touch away. By allowing users to customize the selection and arrangement of parameters and integrating help tools that provide assistance for diagnostics and troubleshooting, the developers of Weber Power Control were able to minimize the number of steps required to perform any given operation.

Managing complexity

"As an innovative company, we're constantly improving the performance of our solutions to match our users' needs," says Alexander Burk, manager of software and electronics development at Weber. "This inevitably makes the system more complex. But if we do our job right, the operator will never even notice – and can continue to work without distractions. With Weber Power Control, we relied on B&R hardware to create a clearly structured, intuitive user interface that accomplishes this like no other solution on the market."

The members of the Red Dot Design Award jury agreed with Burk's assessment and awarded the HMI solution with the coveted prize

in the Communication Design category. Weber also received the iF Communication Design Award in 2014 and was nominated for the 2015 German Design Award.

The software structure was programmed using web technologies and also uses OPC UA as middleware. This allows it to be connected effortlessly to all types of machine and line control systems.

B&R delivers all-round performance

Considering the amount of thought and attention to detail that Weber put into designing its HMI software, the company was equally meticulous when it came to selecting a hardware platform to go along with it.

After looking intensively at what the market had to offer and evaluating solutions from a number of providers, B&R came through as the clear winner. "It was really the total package that convinced us," explains Burk. "Particular highlights included the performance of B&R's Industrial PC, their large portfolio of suitable multi-touch panels and the way B&R designs all of its hardware to be absolutely scalable."

Combined with a responsive software design, this scalability is what enables Weber to adapt its HMI solution to machines in a wide variety of market segments with minimal effort. The Weber group has already capitalized on this feature by adapting the new solution to machines built by its subsidiary TEXTOR.

Scalable in every way

Instead of the 18.5" displays used for Weber Power Control, TEXTOR machines use a 12" variant. Decisive for Weber was that the panels are available in 16:9 format and suitable for use in the food industry. To accommodate Weber's specifications, B&R custom-

Alexander Burk

Software/Electronics Development Manager, Weber Maschinenbau GmbH

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ized a Power Panel 900 with an IP69K-rated stainless steel housing that is free of dirt-collecting edges, easy to clean and meets the highest hygiene standards.

While Weber Power Control is designed for swing arm mounting and features a grip that allows the operator to position it as needed, the TEXTOR variant is designed to be mounted directly on the machine. B&R also overlaid the glass plate of the projected capacitive multi-touch screen with a shatter-proof membrane to meet food industry requirements.

Yet customizing its already extensive range of displays isn't the only way B&R makes managing machine options painless for its customers. The same level of scalability also exists when it comes to PC technology. "Since every B&R PC in a given generation or family uses the same chipset," says Burk, "you can swap out the hardware and still use the same software image."

Abundant computing power

Weber Power Control places heavy demands on computing performance with state-of-the-art HMI features such as gesture control. That's why Weber's engineers opted for an Automation PC 910 featuring a Core i7 processor. In spite of its unmatched performance, this robust cabinet-mounted industrial PC has no need for active cooling.

The new HMI solution was unveiled at IFFA 2013 in Frankfurt, and Weber plans to introduce it successively on all of its slicers and infeeders at all Weber group locations. The first step was made early in 2014 with the high-performance Slicer 906. "The positive feedback from customers has even motivated us to offer an upgrade version for systems already available on the market," Burk adds contentedly. ←

Weber Power Control gives machine operators a one-glance overview of vital process parameters. The interface owes its exceptional responsiveness to a powerful industrial PC from B&R's Automation PC 910 series equipped with a Core i7 processor.

The customized operator panel, based on a B&R Power Panel 900 with an IP69K rating, meets the most stringent hygienic requirements.

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