

HMI DEVELOPMENT

OPERATE THE MACHINE LIKE A SMARTPHONE

CONTROL PANEL EXPECTATIONS INCREASE

The Human Machine Interface (HMI), as the central operating interface between machine and user, is responsible for essential functions during commissioning, operation and maintenance. Future machine operators belong to the smartphone generation and have correspondingly high expectations of the operating devices and their ergonomics.

Do you want to increase overall productivity?

Based on the consumer industry, operating philosophies and demands have changed drastically in recent years. This has a major influence on the design and development of the HMI, which, as the central operator interface, makes a decisive contribution to the ergonomics of the overall machine.

In addition, the integration of other mobile devices such as smartphones or barcode scanners offers the opportunity to support activities that do not take place directly on the machine. The classic HMI can thus be expanded and other processes can be automated and digitized. This leads to a lower error rate and increases the overall productivity of the machine.



Established tools and motivated developers

Thanks to a modular software architecture, HMI applications are created from individual components with clearly separated responsibilities and few interdependencies.

When developing HMI projects, we use established procedure models such as SCRUM, Extreme Programming (XP) and Software Kanban, as well as techniques such as pair programming and code reviews.

Regular releases allow reliable statements to be made about the status of the project. The developers are more motivated thanks to their responsibility.



APPROACH

Structuring sustainably and flexibly

We support you in the implementation of your HMI projects in all phases, from brainstorming to the finished product. The central starting point is the collaboration of various disciplines from the areas of usability and software engineering in modern, agile development teams. Based on your product vision and company situation, we support you in the

selection of suitable technologies, tools and procedures. When implementing your product, we always pursue modular approaches to ensure long-term flexibility despite the usual requirement for a short time to market. Your HMI can be implemented remotely or at your location with the support of our experienced HMI developers.



"An easy-to-use HMI increases customer acceptance of the machine enormously."

Karl-Heinz Wind
Member of Management
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BENEFITS

The advantages of modern HMI development

- Modular approach in all areas enables easy exchange of components or technologies
- Modern appearance and modern devices through the use of the latest technologies
- High maintainability through the support of experienced project team developer
- Short time to market and short release cycles through the use of the latest quality assurance tools
- Regular usability checks increase acceptance of the end customer

SERVICES

We support you in all phases

- **Before the start of the project**
 - Analysis of existing HMI solutions
 - Development of requirements and boundary conditions for a new user interface
 - Comparison of the hardware, technologies and possible modern alternatives used
- **In early project phases**
 - Support in joint development teams with experienced software/UI experts
- **Development of subcomponents through ITQ training courses on usability, implementation, procedures, technologies, quality assurance**
- **Automated toolbased testing of quality standards**
- **In late project phases**
 - Support with subsequent code reviews or restructuring measures
 - Development of automated deployment strategies