



Display with diagnostic function

Sontheim has been offering end-to-end system solutions for mobile machinery since it was founded in 1996. The new 5-inch display expands the portfolio and, in addition to numerous interfaces, offers completely new possibilities for manufacturers in combination with the Modular Diagnostic Tool Chain 2.0. Thus in-house development know-how can be strengthened through the reuse of source code and resources can be conserved - single source of truth.

When introducing a new display for their machines, manufacturers of mobile working machines are unlikely to be thinking of actively counteracting the shortage of suitable software developers and at the same time creating the opportunity to build up their own in-house system developers. The development expertise of the company's own employees can be expanded enormously through Sontheim's system solutions, which have been tested in the market and go beyond pure diagnostics and display applications. The skills of the system developers can be adapted to global topics such as off-board and IoT applications.

Machine complexity

Construction machinery, heavy equipment, generators and pumps

often operate 24/7 under the harshest and most demanding conditions, bringing with them an increasing number of parameters and sensors to be monitored. In order to guarantee continuous, efficient and robust operation, constant monitoring of the machines' operating status is required. The new multifunctional 5-inch display from Sontheim is the perfect solution for OEMs here thanks to the use of standard interfaces such as CAN and J1939. In addition, it also enables simple retrofitting of older machines.

Intuitive operation

The 5-inch display enables the user to monitor his machine holistically, based on open standards and diagnostics. It features IP67 protection, meets the highest environmental requirements and can be operated intuitively via 5 illuminated buttons.

The OEM can configure the operating concept as he wishes. With 16 million colors, the display enables visualization of all system data, from simple error messages to detailed analyses of the machine and individual alarm messages. The special coating of the display foil ensures good readability even in difficult lighting situations. Analog and digital I/Os ensure easy connection of customer-specific legacy systems such as switch contacts, sirens or signal lights.

Nevertheless, Sontheim meets the constantly changing technology with its in-house Lifecycle System. The display software can be updated in the field at any time via the customer's own diagnostic interface. The OEM has full LifeCycle Management for the product in his control without having to resort directly to Sontheim resources. This is achieved by using open standards and the modular diagnostic tool chain 2.0.

Diagnosis tools

The visualization of the graphical user interface (GUI) of the display is based purely on diagnostic data and thus automatically includes an integrated standard-compliant diagnosis. The same code, based on ODX data and OTX sequences, is used to create graphical interfaces as is used in the diagnostic application itself. As a result, the system offers, for example, very fast and simple integration of multilingualism, which makes it extremely easy to use the display worldwide. The reusability of the source code in various diagnostic, automation, IoT and cloud application in particular provides the overall system with clear added value.



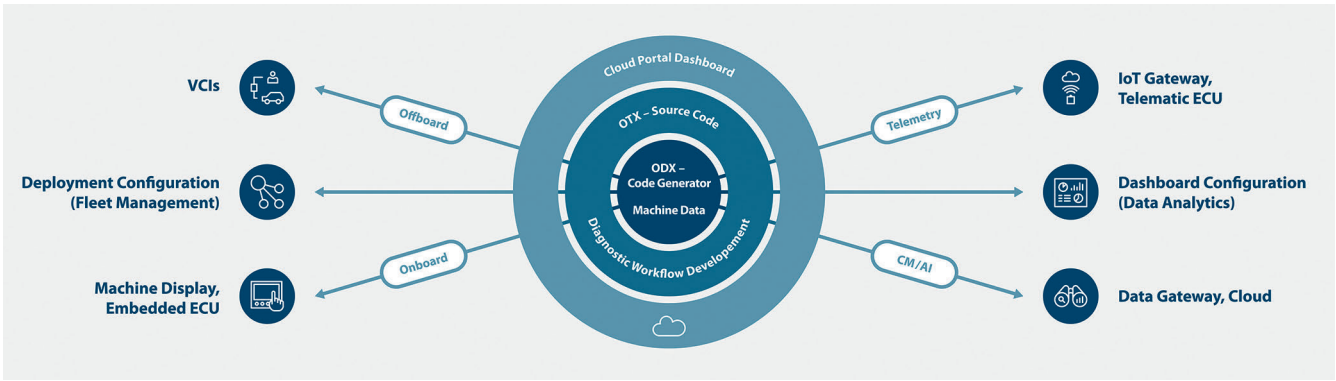


Image 1: Holistic system solutions from Sontheim based on standards. © Sontheim Industrie Elektronik

Build expertise

The system solution concept across a wide range of platforms offers the OEM even more advantages. This allows the manufacturer to build up a consistent competence matrix in-house. They no longer need specific developers for the display application, but can rely on their own diagnostic developers.

He does not have to leave his familiar environment, consisting of ODX data and OTX sequences, and can bring his system knowledge deep into the application. Both the modular diagnostic tool chain (MDT) and the hardware solutions from Sontheim have long been established on the market and, in their latest version, offer manufacturers of mobile machines integrated system solutions for automation, diagnostic and connectivity tasks. Due to the simple compilation

of diagnostic software code in embedded and cloud solutions, new product solutions are created for OEMs while at the same time strengthening their own know-how and saving resources through reusability. ■

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