

WANDFLUH

PROGRAMMABLE MOBILE ELECTRONICS

Adapts the to required vehicle performance, thereby maximising value for the customer.

Modern mobile vehicles are made up of numerous functions that have to fulfil their tasks reliably.

The most important requirements are:

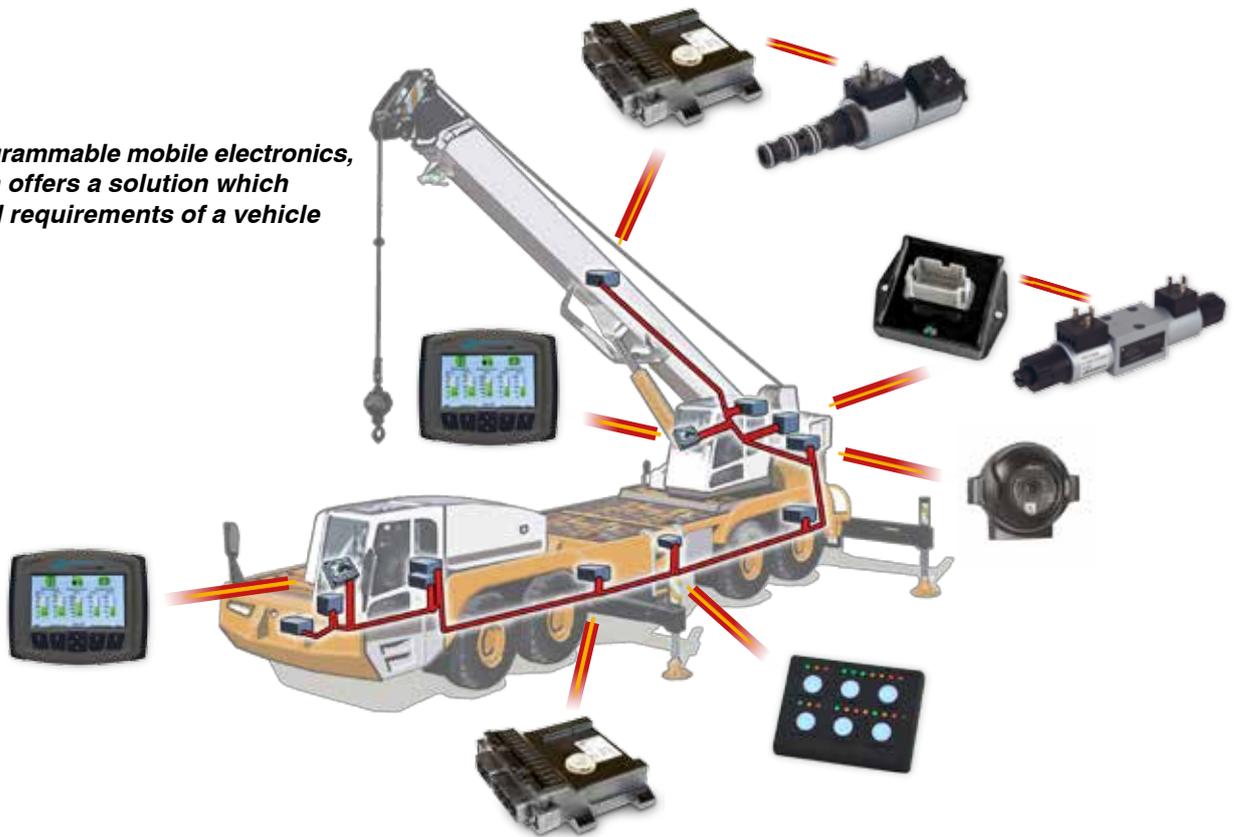
- ▶ Flexibility
- ▶ Simplicity
- ▶ Scalability
- ▶ Reliability

The programmable mobile electronics increases the overall performance and value of the system.

- ▶ Increases the productivity and controllability of a vehicle
- ▶ Extends the vehicle functionality
- ▶ Expansion to include automatic functions
- ▶ Maximises efficiency by the coordination of various vehicle systems
- ▶ Simplifies diagnosis, error finding and error processing
- ▶ Increases vehicle availability by reducing error sources
- ▶ Reduces the total costs of the vehicle
- ▶ Makes important information available to fleet management



With programmable mobile electronics, Wandfluh offers a solution which covers all requirements of a vehicle control.



From small applications with one or two control modules to complex challenges involving many input and control devices distributed about the vehicle, everything is feasible. By the use of individual modules, adaptation to different vehicle sizes and functional scopes is made much more flexible. The modules are connected together by a single data line.

The system solution includes all products necessary for its realisation.

- ▶ Programming
- ▶ Visualisation
- ▶ Scalable number of inputs and outputs
- ▶ Flexible use of inputs and outputs
- ▶ Input devices
- ▶ Data recording
- ▶ Telemetry
- ▶ Remote access to the system

APPLICATIONS

With the programmable mobile electronics, a great number of different vehicles and work machines can be controlled.

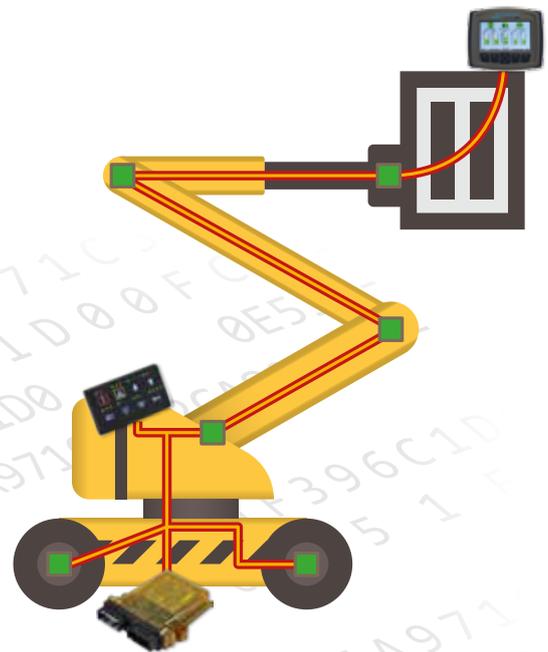
By using small and simple control units, the performance and costs can be precisely adapted to requirements, and additional flexibility for expansions is provided.

The benefits:

- ▶ Reduction of cabling complexity
- ▶ Easy installation of expansions
- ▶ Rapid expansion of new functions thanks to programmability
- ▶ Rapid introduction of new vehicle equipment with minimal hardware modifications
- ▶ Distribution of the inputs and outputs close to the sensors and actuators
- ▶ Greatly simplified maintenance and error finding

The graphical display in the vehicle cab provides simple and clear operating and diagnosis data and can also represent camera images on the screen at the same time.

Road-building machines are often offered with a wide range of options. These are very easy to install on the basic machine as the optional control section is simply connected to the existing network and automatically recognised there.



Elevating work platforms can be realised simply and with little cabling costs, which can also lead to a reduction of the number of contact rings on the lift arm. The control system can simply calculate load and movement limits and thereby guarantee the safety of the work device at any time.



PRODUCTS

Display device

- Versatile: 12 and 24 VDC applications
J1939 and CANopen compatible
Readable even in direct sunlight
- Tested: EMC and shock/vibration tested
- Robust: Waterproof IP67 touch screen
- Flexible: Function of the inputs and outputs programmable
Programmable in the field
Graphic display freely programmable
Video inputs



Keypad

- Versatile: 12 and 24 VDC applications
J1939 and CANopen compatible
- Tested: EMC and shock/vibration tested
- Robust: Sealed rubber IP69 push buttons
Long service life
- Flexible: Function of the inputs and outputs programmable
Programmable in the field
LED displays for each push button



Controls and input/output modules

- Performance: 32-bit and 16-bit freescale processors
- Versatile: 12 and 24 VDC applications
Up to 4 CAN ports
5 VDC sensor power supply
J1939 and CANopen compatible
- Tested: EMC and shock/vibration tested
- Robust: Waterproof IP67
- Flexible: Function of inputs and outputs programmable
Programmable in the field
LED diagnosis



Products for the data recording in the vehicle and data transmission via GSM and Wi-Fi enable:

Vehicle and fleet management functions:

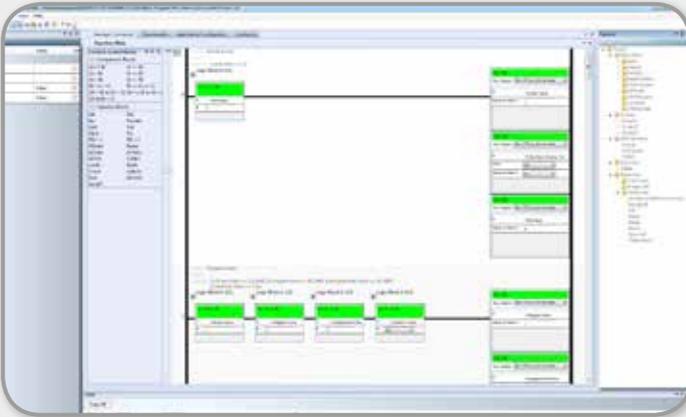
- ▶ Vehicle tracking
- ▶ Remote diagnosis
- ▶ Remote control
- ▶ Anticipatory maintenance forecasts

This results in:

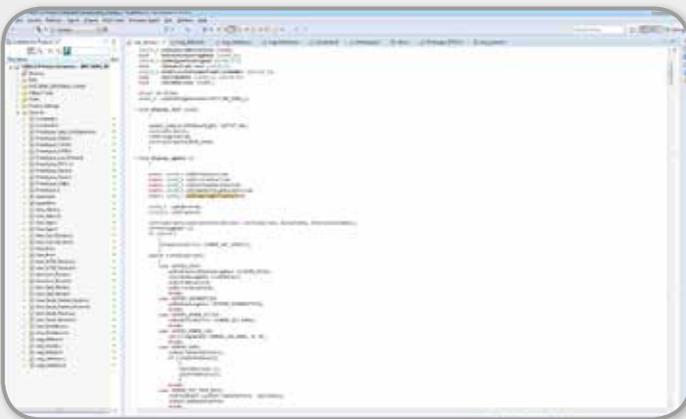
- ▶ Maximum availability of the system
- ▶ Low total costs
- ▶ Precise resource management
- ▶ Increased productivity



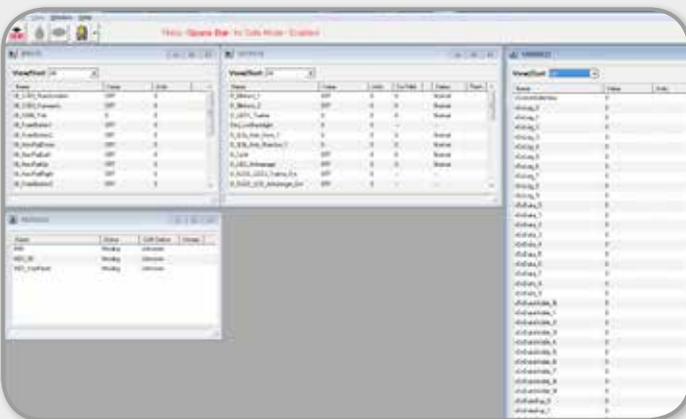
PROGRAMING TOOLS



Simple program generation using graphical logic elements



or in a C programming environment (CodeWarrior)



For the commissioning of the system, a diagnosis and analysis tool is available



Maximum freedom when creating the graphical user interface



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