ConnAct®

Detect Malfunctions – Increase Availability.

HANNING & KAHL

ConnAct® is a system for remote monitoring and diagnosis of vital infrastructure components. Variances and potential malfunctions on your equipment can be detected in good time; corresponding measures taken and maintenance work minimised. By recognising critical states in good time you increase the availability of your infrastructure and your rail vehicles.

ConnAct® consists of a controller (HLUmulti) and a professional connection management module. With ConnAct®, signalling installations at important traffic hubs and brake components in rail vehicles can be continuously monitored. Malfunctions can be quickly identified with the process and status data received from the controller.

The HLUmulti Controller
The HLUmulti Controller which is installed in the point controllers and signalling installations performs continuous monitoring. The HLUmulti is a compact controller with network and fieldbus interfaces. The two ETHERNET interfaces and the integrated switch enable wiring in line topology. The mobile phone module can transmit and receive information and, together with the connection management, it provides a safe VPN connection. The controller can also be subsequently installed in existing equipment. Depending on operating mode, the HLUmulti controller continuously transmits the data of the event recorder, process or status data via the mobile telephone network to the operator, to HANNING & KAHL and/or to Verkehrsautomatisierung Berlin.

In mobile version, the controller is installed in a transportable case for immediate connection to the brake control unit (BCU) in the vehicle if required. This configuration enables error messages to be directly transmitted to the operator and/ or HANNING & KAHL. Event recorder entries can also be read out remotely.

HLUmulti Controller

Connection Management
Professional connection management ensures connectivity to the system. Machine-to-machine (M2M) is used. With our mobile services, you ensure the best conditions for your M2M communication. We offer multiSIM cards in different networks, national and international tariffs for varying volumes with extensive monitoring and control functions. These functions are visualised on an online monitor to quickly identify connectivity to each installation.
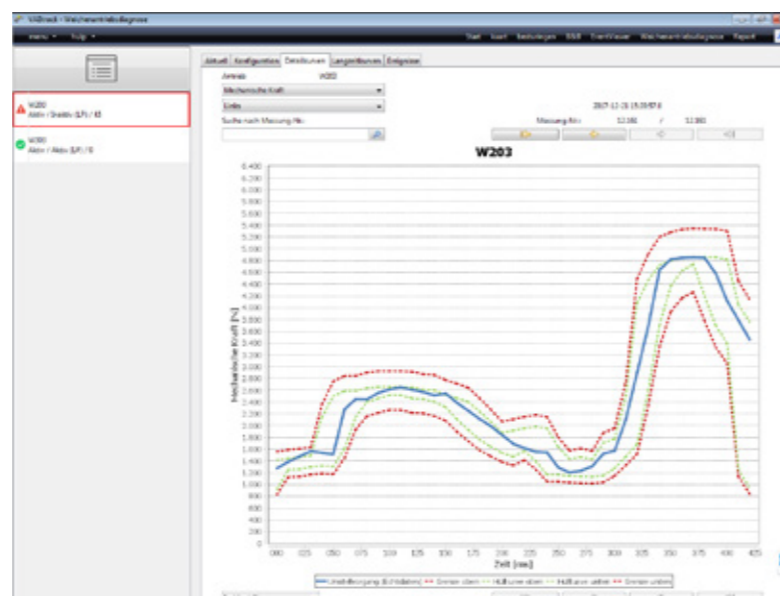
ConnAct®-service.
In this basic function, the data transmitted by HANNING & KAHL's event recorder is analysed with diagnostic software. Following analysis, contact is made to the operator to provide technical support or enable him to remedy the problem himself. We arrange an individual service package taking your wishes and needs into consideration. This can be a hotline on workdays (8:00 am – 5:00 pm), a 24/7 hotline with on-call service or a guarantee that a member of H&K staff will be on site within 36 hours. HANNING & KAHL can act immediately and remedy the malfunction with technically substantiated assistance.

ConnAct®-diagnosis.
Continuous real-time monitoring (online monitoring) of infrastructure takes malfunction management in maintenance operations to new quality heights and thus creates the decisive basis for increased system availability and further cost reduction. ConnAct® continuously monitors point machines and point controllers, signalling installations as well as level crossing installations, communication systems and rail lubrication equipment. Malfunctions are automatically identified and forwarded in regulation-based manner to the processor in the control centre, the workshop, the on-call service or the mobile unit.

These possibilities offer advantages for tram and light rail vehicles and also metro systems. BCU information can be read out, conveyed and evaluated faster, allowing appropriate repair measures to be planned and performed without delay.

Continuous system monitoring

Continuous system monitoring is the pre-condition for timely detection of anomalies and thus for needs-based maintenance. Apart from the bespoke diagnostic possibilities of HANNING & KAHL products, further products and systems from external suppliers can be integrated and monitored.
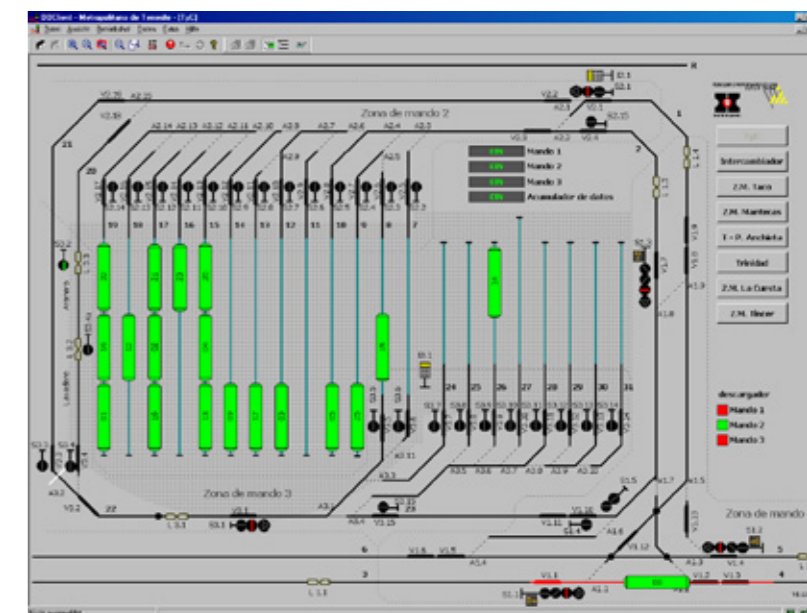
ConnAct®-operation.
These software modules enable real-time detection of process states of the proven HANNING & KAHL infrastructure and the visualisation of the process sequences in particular on signalling installations and complex depot controllers.

Apart from this observation process, at the same time, the setting of routes and diverse further (auxiliary) operating actions are enabled via the operating channel. This means that as human-machine interface, the system often forms the basis of the operating workstation of depot controllers or the basis for operations monitoring in LRT systems as control centre workstation.

ConnAct®-application.
The HLUmulti forms the technical basis for non-safety relevant applications. These can be applications like interfaces to traffic signalling installations or gate controllers, switch-on of signals (request signals, matrix signals), setting-command processing by communication systems, point heating, time synchronisation via radio-controlled GPS clock, processing of substitute requests, such as key switches, pushbuttons and formation of a route manager. It enables rapid and economically-efficient software maintenance without intervention in existing safety-relevant software
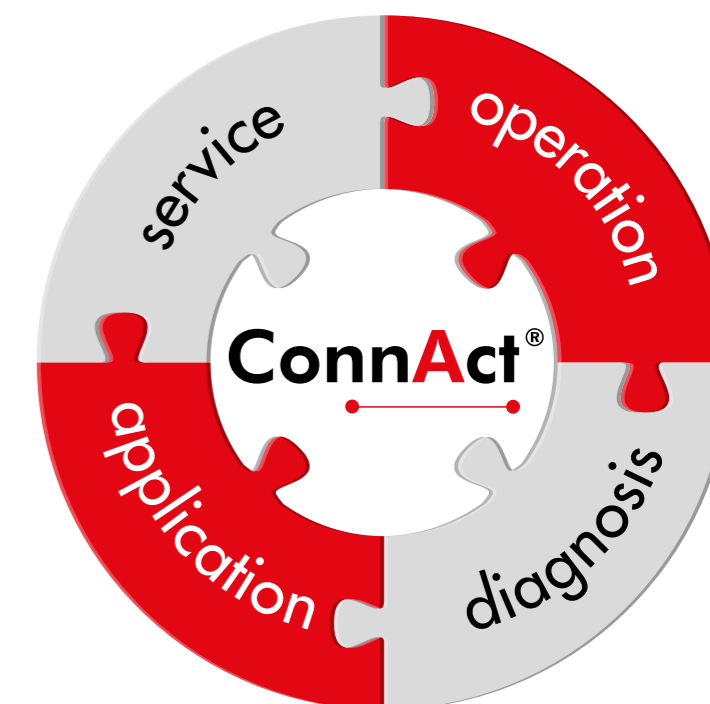
For us, ConnAct® means connecting and acting – active cooperation with our customers to detect malfunctions immediately and increase availability.

Visualisation of the process sequences

Mobile version built into transportable case

ConnAct®