### **Convincing arguments for**





Safety system for small- and mediumscale maintenance workshops

Safety system for large-scale maintenance workshops

- → Controlling and recording of train operations for train entries and exits with logical checking of entry and exit criteria
- → Adherence to industrial safety regulations by controlling safety technology
- → Access control and monitoring of activities in the track area via BDE terminals
- → Interfaces to superior systems
- → Video monitoring of track areas within and in front of the hall
- → Logbook for all actions, messages and malfunctions with selective evaluation possibilities
- → Control of hall and pit lighting as well as heating, ventilation, climate
- → Central disposition of all safety-relevant processes inside the hall by one dispatcher
- → Determination of the condition of electrical and machine-related systems



# **Berghof | Location Mühlhausen** Any conception and any idea can be the beginning of something great. Your think tank in Mühlhausen. I look forward to hearing from you. Jürgen Feja Sales Manager International Railway | Logistics T +49 3601 4777-22 F +49 3601 4777-10 juergen.feja@berghof.com **Berghof Automation GmbH** Langensalzaer Landstraße 23 | 99974 Mühlhausen | Germany T +49.3601.4777-0 | F +49.3601.4777-10 processmanagement@berghof.com | www.berghof-processmanagement.com



#### Always keeping an eye on machine conditions and maintenance processes

#### **Little causes - Significant effects**

Every year, high financial damages are caused by failures of rail vehicles with their complex mechanical systems that are composed of many subsystems. In this case, little causes are the reason for significant effects. If an application is geared to availability, vehicle failures can entail serious consequences.







Extensive data collections help avoiding expensive repairs or downtimes of vehicles and make it possible to initialise preventive measures in time.

The replacement of components exactly before critical signs of wear occur reduces the number of failures. However, this can only be achieved with a well-coordinated maintenance concept.

This saves money by avoiding unnecessary downtimes and brings vehicles back on the rails faster.

## **Everything in perfect order**

Making complexity easy to handle, using technical possibilities optimally, supporting employees in an intelligent way

#### Ready, set, safe!

With IBIS FLEX and IBIS PRO, Berghof Automation is presenting an innovative operation and maintenance concept for small-, medium-, and large-scale maintenance workshops while meeting the latest safety directives for man and machine.

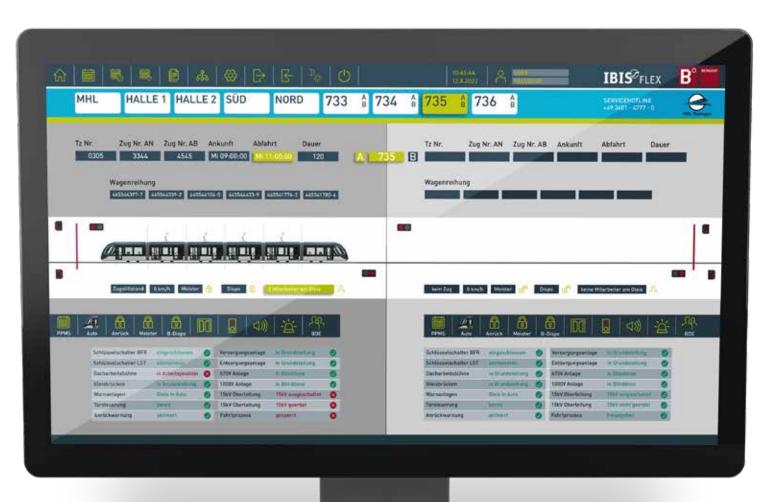
The great advantage: IBIS can be configured for any area of application.



This modular maintenance, operating management, information and safety system optimises the maintenance and servicing works of trains by optimally using all available resources of technology, tracks, and personnel.

Simultaneously, the system exactly meets all safety regulations of the Eisenbahnbundesamt (EBA). In this way, decentrally distributed systems can centrally be monitored by one supervisoring system without high staff expenses.

In addition to a higher degree of automating processes, the operating management system also ensures the best possible level of industrial safety on all tracks.



#### Visualisation system

- → Client-server application
- → Server provides visualization
- → Process visualization "AVEVA InTouch"
- → Login with user profiles
- → Assignment of rights for profiles
- $\rightarrow$  Track magnifier shows exact vehicle position
- → Current wagon order is displayed in the track magnifier
- → Info button displays more detailed vehicle information
- $\rightarrow$  Video monitoring via track magnifier
- → Control of travel processes via track magnifier
- → Monitoring of system on the track
- → Planning of future travels
- $\rightarrow$  Track occupancy of all tracks