

## zentrak SYSTEM SUPERVISION

### Overview and monitoring of the connected systems

#### Description

System Supervision provides a detailed overview of all trackside measurement systems at any time, thus supporting the monitoring of the infrastructure and the identification of critical events. Technical changes and defects in the installed hardware can be detected quickly, enabling rapid intervention and improved support for service and maintenance.

Individual control points can be selected separately, so that their status, the associated measurement functions and the stored monitoring functions can be shown in detail.

The user is thus provided with a deep insight into the system: critical notifications such as alarms and pending faults, but also information about the last train runs are displayed in an intuitive dashboard. A high adaptability of the system to the corresponding customer



requirements, e.g. the possible grouping into regions and control points, guarantees a permanent overview of the entire infrastructure.

#### System advantages

- » Overview and diagnosis of the connected systems
- » Visualization of control points and status display on a geographical map
- » Flexible e-mail notification of critical events
- » Intuitive display of fault and train running history for each system
- » Individual reports with Excel export function

- » System snapshot provides valuable context for alarm evaluation
- » Granular track evaluation by showing detailed system-related values
- » Self-diagnostics for monitoring the the software services
- » Visual feedback when systems are in a deviating state





# MAIN FUNCTIONALITIES

#### **Diagnostics of Connected Systems**

The geographic map visualizes the status of connected systems and allows system managers to monitor status and plan preventive or corrective actions in case of deviations. Connection states and operating modes are displayed to the user.

#### Self-Diagnostics

Self-diagnosis is used to monitor services and displays hardware utilization and geo-redundancy status.

#### **Email Notification**

Sends notifications via email, e.g. in case of system errors or technical status changes.

#### System Snapshot

Provides valuable context for alarm assessment and supports a clear historical view of the situation.

#### **Error History**

Granular logging of error events showing which errors were fixed and how long they were present in the system.

#### **Trackside Details**

Display of system-related values such as quiescent currents, serial numbers and supply voltages, but also display of performance indicators and configuration parameters.

#### System Error Listing

Connected systems trigger errors. In most cases, they indicate that the system may no longer provide (reliable) measurements.

#### Reports

Allows the user to track system performance. For example, shows the most severe failures with Pareto charts.

