

railCTX Realtime Controller

EDGE-BASED REAL-TIME CONTROL AND ALERTING IN THE WHEEL-RAIL ENVIRONMENT

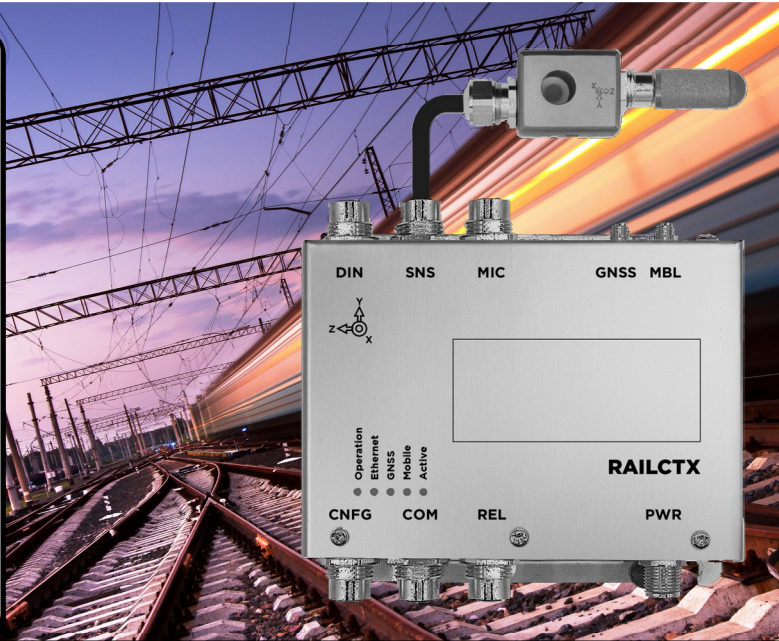
railCTX enables physical events in railway operations to be detected autonomously in the field and acted upon in real time. railCTX is installed at critical points on vehicles, where it records vibrations, impacts, acoustic spectra and environmental conditions. It evaluates this information locally and automatically controls alarms, measurement processes, pump valves or other external systems—deterministically and with full traceability.

DETECT

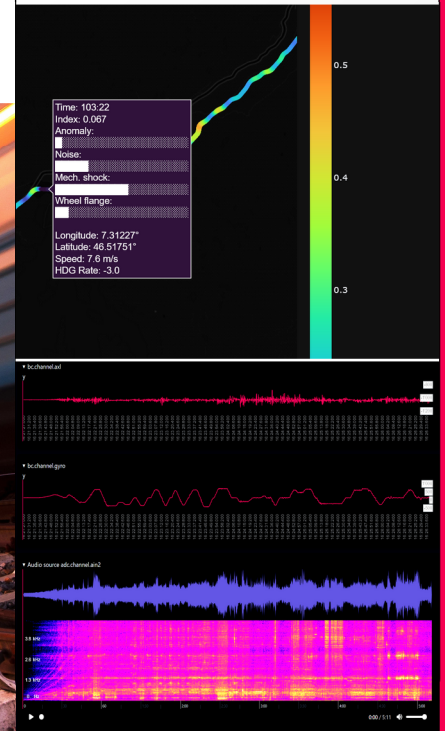
-  Noise
-  Impact
-  Acceleration
Vibration
-  Angular rate /
orientation
-  GNSS Position
Speed
-  Temperature
Humidity
-  Digital Inputs

CONTROL

-  Relay Outputs
-  Digital Outputs
-  Alarming
SMS / Cloud



LEARN | SIMULATE


1

MEASURE



The measurement system records and transmits relevant raw data during operation

2

SIMULATE



Action conditions can be configured precisely, and actions can be simulated over extended periods

3

MONITOR



Actions and contextual data are stored during operation

4

OPTIMIZE



The system can be tuned and optimised during operation to achieve maximum performance

TECHNICAL FEATURES

- Local deterministic logic
- Cloud-based configuration/monitoring
- Multi-channel audio in configurable frequency ranges
- Three-axis impact, acceleration and gyroscope measurements
- Local temperature and humidity measurement
- SMS alerts or EN IEC 61375
- Digital inputs and outputs and relays
- Integrated GNSS or NMEA interface
- Autonomous and independent of vehicle manufacturers

WHAT DO WE DELIVER



railCTX Device
for installation in the vehicle, with one or two ACSA bogie monitors



Analysis tool access
Cloud-based evaluation, filtering, configuration, monitoring and optimisation



Support from our engineers for consulting and integration into your vehicles

YOUR BENEFITS

Ultra fast implementation

Ideal for simple to moderately complex tasks

Reduced system complexity

No large data streams, while still allowing the system to be evaluated and tuned

Flexible integration

The solution can be used for applications ranging from simple alerts to the control of lubricant pumps or other control systems



Contact us for more information:
sales@parametric.ch