

WHO WE ARE

Futures Tech BSN is engaged in the design and production of electronic materials, diagnostic tools, and monitoring equipment for the railway sector.

Continuous research and a strong commitment to improvement are the strengths of this young and forward-looking company – driving innovation, station after station.

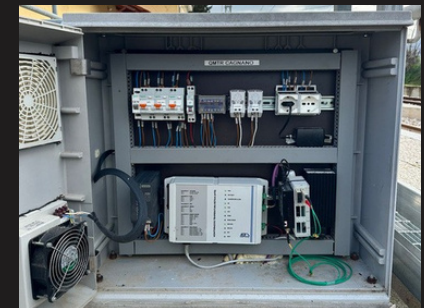
Our work is made possible thanks to our team: Giandomenico Buchagiar, CEO and Co-founder; Andrea De Gregorio, Commercial Director and Co-founder; and Spiro Buchagiar, Chief Operating Officer and Consultant, with over 30 years of experience in electronic materials for railway safety.

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RCE

Registratore Cronologico di Eventi
(Chronological Event Recorder)

Chronological Event Recorder (RCE)

The Chronological Event Recorder (RCE) is the system dedicated to the acquisition, synchronization and storage of events coming from railway signalling systems. Its function is to record continuously and reliably all the state changes that occur in the monitored equipment, creating a complete time record of the system's activity.



System Features

Thanks to high-precision time stamping and permanent data storage, the RCE can reconstruct the sequence of events that have affected an installation, supporting operation, maintenance, diagnostics and post-event analysis activities.

The availability of reliable historical information reduces the time needed to identify anomalies and improves the efficiency of maintenance activities.

Configurability and Integration

The system is available in different configurations to suit the characteristics of the monitored installation. Its modular architecture can manage different acquisition capacities and different integration modes with supervision, diagnostic and remote-control systems.

The platform can be customized according to the specific requirements of the project, maintaining compliance with railway requirements and ensuring full interoperability with existing infrastructure.

Event Acquisition and Recording

The RCE monitors in real time the inputs coming from signalling equipment and records every significant state change together with a high-precision time stamp. The events typically acquired include:

- relay and contact state changes;
- commands sent to trackside equipment;
- track circuit occupation and release;
- railway signal states;
- position and control of railway switches;
- activation of alarms and diagnostic signals;
- changes in the installation configuration;
- events from auxiliary and supervision systems.

Time Accuracy and Analysis Capability

One of the key aspects of the system is the ability to associate an accurate time reference with every record. This makes it possible to analyze both phenomena that unfold within a few milliseconds and events spread over much longer periods. The system is able to record:

- very short impulsive events;
- state changes on the order of milliseconds;
- sequences of closely spaced events;
- permanent or prolonged conditions;
- historical event logs available for later analysis.

The precision of the time stamp makes it possible to faithfully reconstruct the dynamics of the installation and to identify correlations between events that, without accurate recording, would be hard to detect.

Maintenance and Diagnostics Support

Thanks to the availability of a detailed, time-synchronized history of events, the RCE can immediately reconstruct the behavior of the installation, making it easier to identify the causes of possible anomalies and to verify that the equipment is working correctly.

The recorded information supports maintenance, technical analysis and audit activities, reducing fault-finding times and contributing to higher availability and reliability of the railway infrastructure.