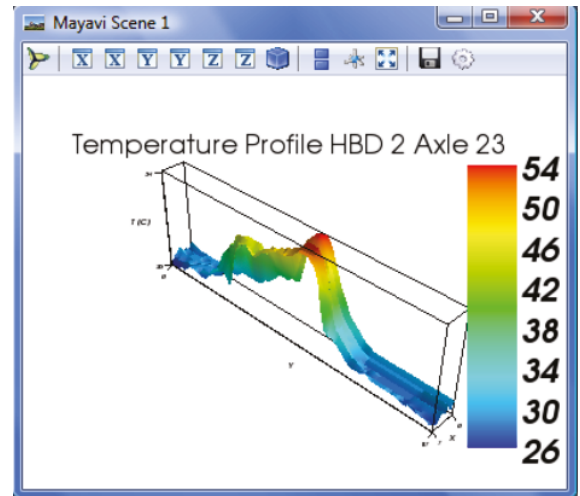


HBD/HWD System

Marini's HBD/HWD system is a SIL2 complete and scalable Hot Box Detector and Hot Wheel Detector system which allows the monitoring of temperatures of axle bearings (HBD), wheels and brake disks of railway coaches (HWD). Temperature measurements are executed by infrared scanners, installed in a dedicated sleeper and if a temperature exceeds the preset threshold an alarm is generated.

The configuration of the sleeper can be customized for customer's needs and for each monitored track may include:

- Only two HBD scanners;
- Two HBD scanners and one HWD scanner;
- Two HBD scanners and two HWD scanners.

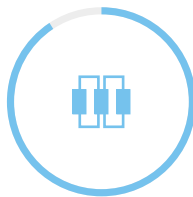


Features:



MULTI-BEAM SCANNERS

The system scans the axle box across a total width of 140mm using a 10-channel scanner to reliably identify all hazard conditions in all standard axle box types.



REDUNDANT AUTO CALIBRATION

Temperature monitoring sensors in the reference element is designed as a fail-safe system (two redundant temperature sensors in the reference system monitor each other). As a result, false alarms due to faults in the reference elements are avoided.



EASY MAINTENANCE

All sensor modules of the system are integrated into a sleeper. They are precisely positioned with the help of pre-adjusted guides in the sleeper and can be replaced in only a few minutes without changing the alignment geometry.



VIBRATION MONITORING

Scanner vibration is monitored by special acceleration sensors, thanks to which premature ageing of sensors can be almost eliminated, which in turn results in significant reduction of maintenance overheads.

