

axxon
railway **Intellect**TM

Software module for railroad monitoring
running with Intellect Enterprise.



Being able to monitor and manage railway cars and tracks in real-time is critical to a successful transportation operation. **Axxon Intellect** automatically controls trains and railway car traffic, visually monitors your cargo and alerts you to any that are unaccounted for, and controls clearance and gauge limits. All events and data are logged for further analysis. Operators can request detailed information on trains and railcars, view relevant video archives, and print reports.

Railway Intellect tracks and manages rolling stock and cargo at industrial enterprises: oil refineries, chemical plants, sea ports, logistic centers, custom terminals and other major industrial facilities and transportation sites. It gives your corporate security departments the power to discover cargo loss and theft. It gives your logistics departments the advantage of reliable and convenient traffic registering. And it gives your IT departments easy integration capability with your existing business management software.

Railway Intellect protects and monitors your railcar/container operations by continually monitoring tracks via video surveillance and automatic recognizing, recording and storing information about train number and direction.

Axxon Intellect is able to recognize in real-time railcar and/or tank-car serial numbers – even hard-to-read numbers – through multiple cameras and heuristic analysis. With connection of additional thermal sensor it is possible to automatically measure liquid levels in tank-cars. Monitoring railcars via video allows to control cargo clearance and seamless integration with external databases makes possible matching train schedules to consignor lists.

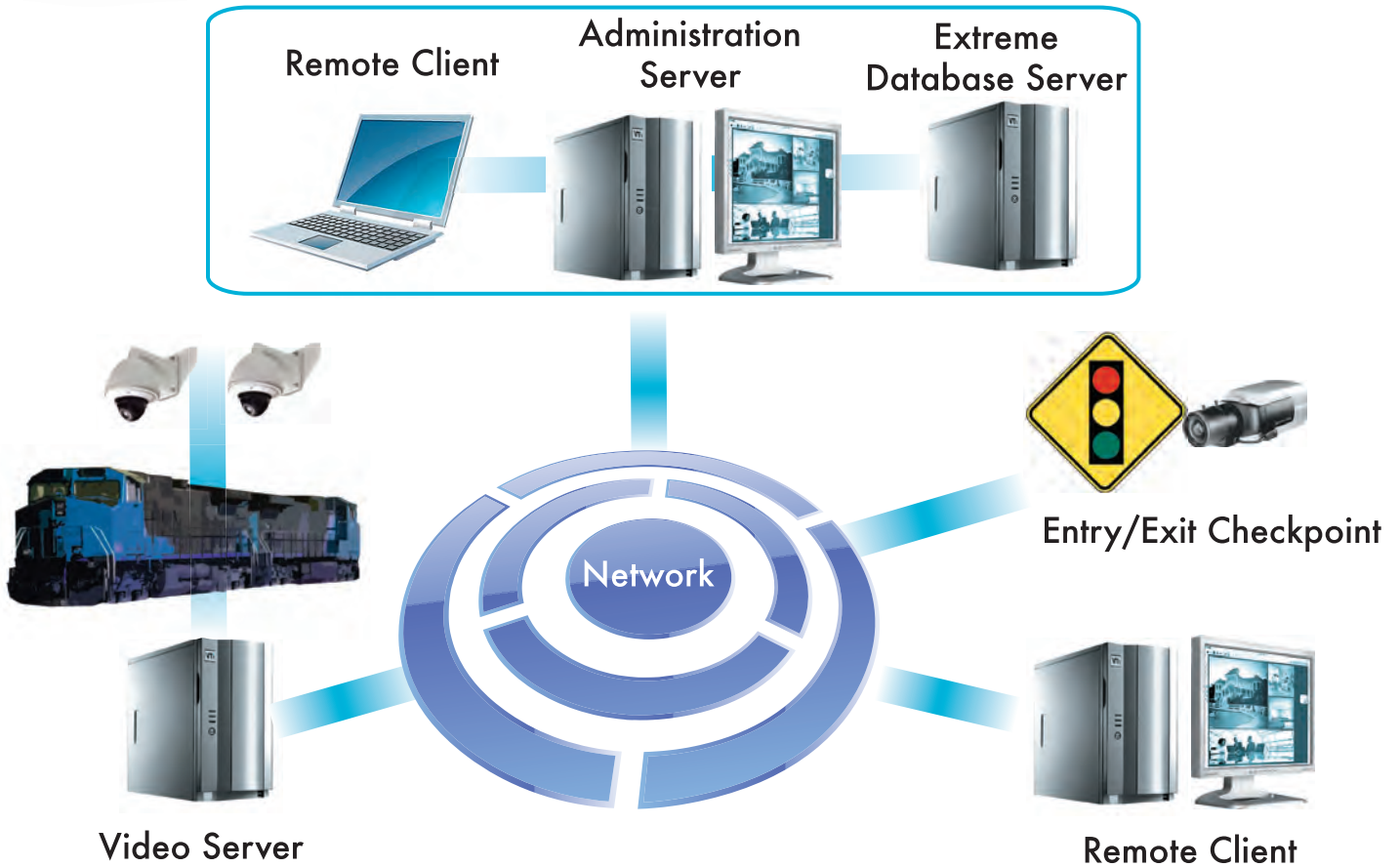
The system logs all events and data, so your records are always up-to-date and pin-point accurate. You can request detailed information on rakes and railcars, view relevant video archives, and print comprehensive reports.

Highlights

- Automatically recognize, record and store wagon and container numbers
- Count railcars within a train.
- Automatically measure liquid levels in tank-cars using thermal cameras
- Control railcars and containers via video.
- Control cargo clearance
- Match train schedules to consignor lists
- Accuracy - above 96%

Railway Intellect Diagram

Administration and Monitoring Server



Railway Intellect Video
Technical Specifications

Accuracy	Day - 96% Night - 90%	Control Area Width	5-10m
Maximum Train Speed	60 km/h	Number of Cameras Supported per Track	1 or 2
Camera Alignment Angle	Up to 10 degrees	Checksum verification	Yes
Type of recognized Container Code	<ul style="list-style-type: none"> • ISO 6346 (=BIC code) • UIC code • MOCO code • Recognize horizontal and vertical text, two or three row codes 	Checksum verification	XML Interface Support
		Output	<ul style="list-style-type: none"> • Container (railcar) Code in ASCII • Best image (on which the reading is most reliable) • Code position • Confidence level • Checksum