



RAILWAY  
SYSTEMS  
by voestalpine

# zentrak ASSET & MAINTENANCE MANAGEMENT

voestalpine

ONE STEP AHEAD.

voestalpine Signaling

[www.voestalpine.com/railway-systems](http://www.voestalpine.com/railway-systems)



# PERFORMANCE ON TRACK®

## WORLD-MARKET LEADER IN RAILWAY SYSTEMS

voestalpine Railway Systems, a subsidiary company of voestalpine AG, is the global leader for railway infrastructure system solutions, offering outstanding products, logistics and services for rails, turnouts, signaling and monitoring applications. As the global track technology company and full-range supplier, we offer our customers throughout the world fully integrated railway solutions for all types of rail traffic. Creating maximum customer benefit is the driving force behind all our activities.

With approximately 7,000 employees, we are committed to making an important contribution to the mobility of people and the transport systems all over the world. We have contributed decisively to the development of modern, digital railway systems by deploying modern signaling and monitoring technologies to increase existing capacity and safety as well as lower the costs.

# zentrak

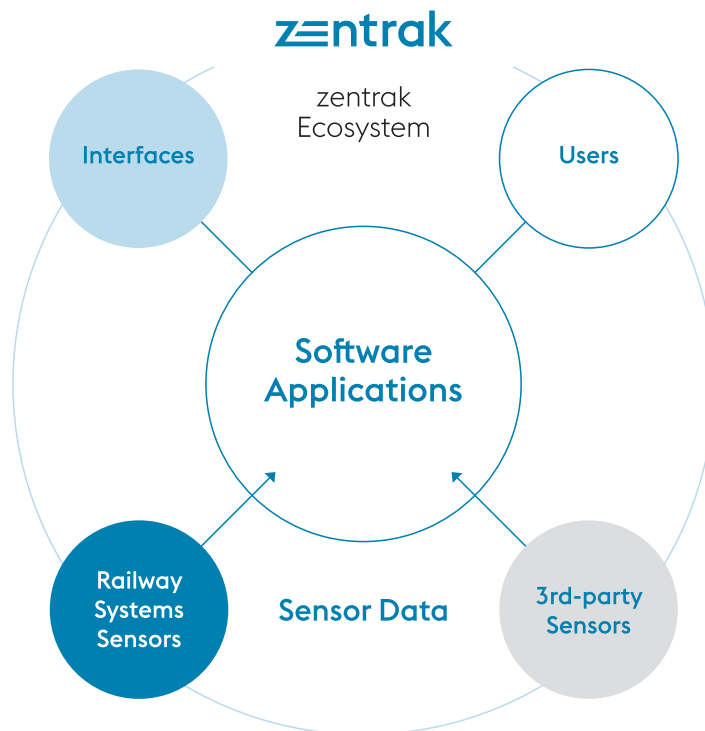
## CONNECTING EVERYTHING

### THE INTELLIGENT, CONSCIOUS AND LIVING RAILWAY ECOSYSTEM

Your railway network keeps the world moving forward: but your infrastructure is only as strong as the technology that holds it together. That's where zentrak comes in: our intelligent, living railway ecosystem enables you to create and manage the most efficient, reliable, and high performing railway track assets in the world.

zentrak's three modules Rolling Stock Monitoring, Infrastructure Monitoring, and Asset & Maintenance Management combine as a catalyst for cost effective digitalization and sustainable, long term growth: building a future in which your railway network thrives intelligently.

### zentrak ECOSYSTEM



# zentrak ASSET & MAINTENANCE MANAGEMENT

## TURN ASSET DATA INTO REAL VALUE

**zentrak Asset & Maintenance Management is your railway infrastructure's key to** a future proof, interconnected ecosystem. From the harmonization of unstructured maintenance data, to the upgrading of your asset management process, to support for track personnel; our cost effective solution ensures performance and reliability across your network. From a KPI driven dashboard, zentrak Asset & Maintenance Management integrates seamlessly not just to provide you with a 360° view of the past, present and future of railway infrastructure assets.

### Increasing your asset performance

On a cost effective, Saas basis, **zentrak Asset & Maintenance Management** brings vital product information to where you need it most. With connected monitoring and analysis of fixed asset data, it enables data driven decision making for investments, improvements, and the implementation of a dynamic, paperless maintenance strategy.

The result: a minimization of operation costs, maximum availability, fewer failures, and a continual increase in maintenance efficiency. In short, zentrak Asset & Maintenance Management turns asset data into genuine value for your organization.





Scan for more information

# zentrak ASSET MANAGEMENT

Bridging the gap between traditional infrastructure management and cutting edge digital solutions, consistency and simplicity live at the core of zentrak Asset Management. This starts from a predefined asset and component structure: using our blueprint, you can map your entire track infrastructure accurately and digitally without the need to define and develop a system in house. As well as saving valuable resources in the creation of an asset management ecosystem, you can simply manage assets throughout their entire lifecycle, saving time and costs.

## The Building Blocks of Your Success

zentrak Asset Management has all the features you need to structure important infrastructure asset information and to ensure the effective distribution of data throughout your organization. Empower your operators and service providers with quick access to all asset related information, enhancing efficiency and reliability.

## Digital Asset Files

Outdated data structures, including paper checklists and decentralized information, can badly affect your efficiency. Digital Asset Files are the fastest way to manage product details, geometric parameters, component information, measurements, quality documents, acceptance protocols, and more.

## Customer Portal

Access and Download your Digital Asset File directly from the OEM – making paper files and e-mails a thing of the past. Using zentrak Asset Management, you can skip time-consuming manual entries and feed data directly into your zentrak system.

## Digital Touchpoints

Your track personnel is out in the field, but they shouldn't be out of the loop. Facilitate a seamless, real time connection between your digitized system and the physical inventory it catalogs. Digital Touchpoints reduce friction in the transfer of important data into the zentrak ecosystem: physical tags with unique ID numbers and a datamatrix code that links directly to the respective Digital Asset.

## Railway Content

Building your Asset Management system can be daunting, but zentrak does the hard work for you. Get access to tailored railway content, including industry specific templates, to ease system implementation. Benefit from predefined asset and component structures, complete with detailed components and defined properties, for streamlined operations.

## Asset Data Mapping

You need a system that can harmonize your asset management data: not one that reinvents the wheel. Integrate third party assets to the zentrak Asset Management system without the concern of data loss or manual work with Asset Data Mapping. This seamless compatibility streamlines operations, enhances data accuracy, and facilitates comprehensive insights.

## Linear Asset Management

Seeing the connections between your assets is essential to a data driven management approach. Visualize your linear assets effectively, including tracks, rails, and operational points with zentrak Asset Management. With information on track geometry, conditions, and work orders, as well as the linkage of kilometering with a Geo Information System, you gain an overview that shows the connections between your assets.





# MAINTENANCE STRATEGY

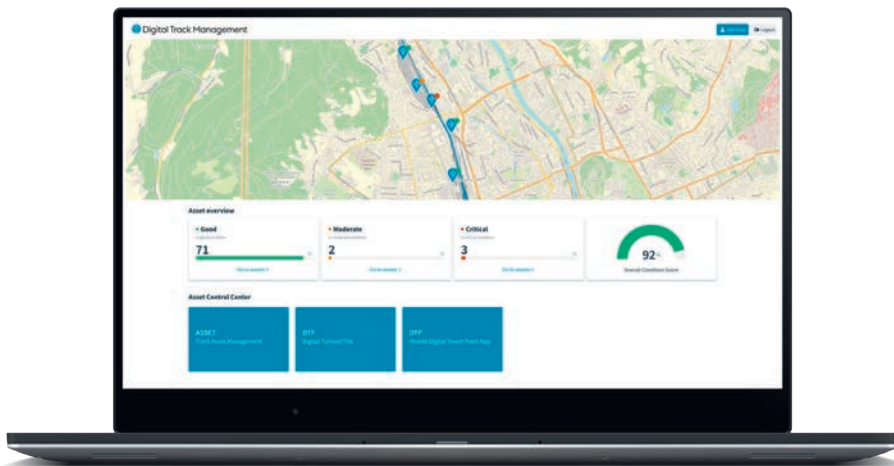
To optimize your resources and to invest your budget appropriately, maintenance needs clear guidelines that work in practice. Adopting zentrak's ecosystem enables you to define and implement corrective, preventive, predictive and prescriptive maintenance strategies: transforming your reactive legacy system and enabling the efficient management of railway track assets. Centralized data, with information from your network's data points added in real time, enables the creation of intelligent insights that can be used to understand historical events and prepare effectively for the future.

## zentrak Ecosystem

Asset management doesn't exist in isolation: it needs to be fed with real data and expert insights, forming part of a holistic system. The all in one zentrak ecosystem is based on vast amounts of data, technologies, and the holistic digitalization of assets to make data a relevant and intelligent management tool for creating sustainable, profitable, safe and flexible railway ecosystems.

## KPI Dashboard

Each of your railway assets has a purpose: which is why you need a way to measure performance across your network. Get real time insights into the most relevant metrics with the KPI dashboard for maintenance strategy and asset operation. This comprehensive tool enhances decision making by providing a clear overview of maintenance effectiveness and asset performance.





# zentrak MAINTENANCE MANAGEMENT

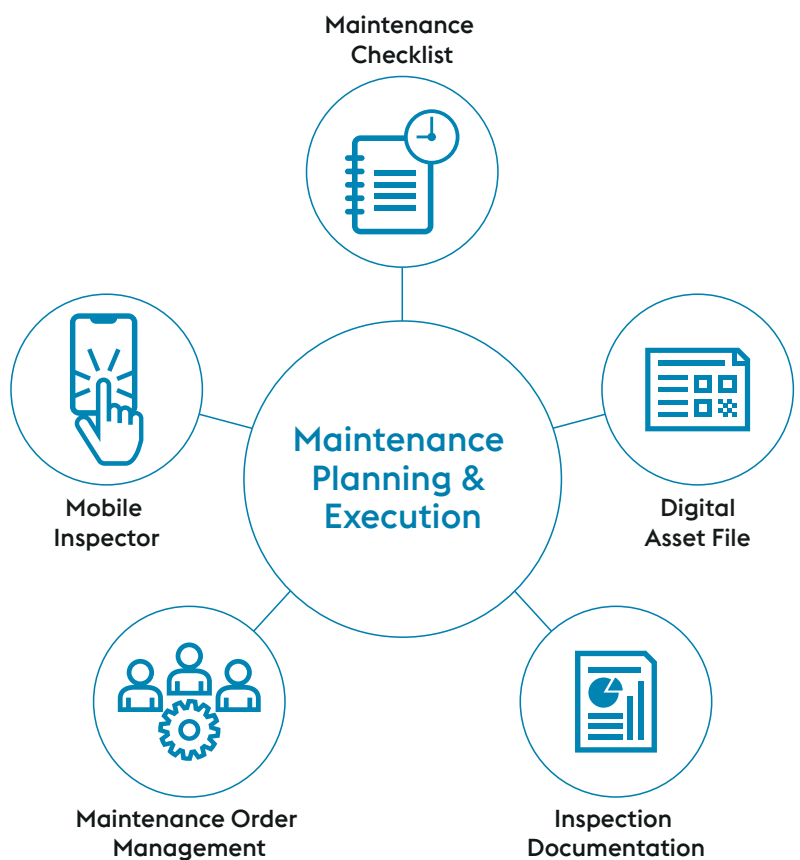
Your track assets are at the core of your operations and when it comes to maintaining your most important hardware, who better to trust than the global leader in rail infrastructure systems? zentrak Maintenance Management by voestalpine Railway Systems, ensures the seamless planning and execution of maintenance strategies. Our product utilizes best in class features, including best practice inspection checklists for track superstructures and switches, giving you ultimate peace of mind. zentrak means a smarter way to ensure meticulous maintenance protocols: whatever the specifications of your network, whatever the conditions you operate in. With insights on upcoming tasks and maintenance history you'll be in the driver's seat to meet deadlines and execute your strategy. Likewise, when conditions change, our continuous monitoring can help you make dynamic adjustments to maintenance schedules, ensuring your network achieves maximum efficiency and reliability.

## Maintenance Planning

Your approach to maintenance should enable you to invest in the improvements that maximize availability and minimize failure. zentrak Maintenance Management is a powerful tool: offering a comprehensive suite of features to streamline preventive activities. Our simple interface helps your operators and service providers to easily record time or counter based maintenance tasks assigning resources to each order. Likewise, you can attach relevant documents directly to the order, ensuring even more efficient execution. You'll also benefit from predefined railway content and the ability to customize the system with customer specific checklists, enhancing adaptability and effectiveness in maintenance planning.

## Maintenance Execution

Once your maintenance activities are planned, your track personnel needs the right toolkit to complete their work. zentrak Maintenance Management streamlines maintenance execution with its intuitive mobile app, facilitating on site checklist completion and error reporting directly from the track. Users can easily attach photos, voice memos, and more, enriching orders with comprehensive documentation. With the flexibility to complete checklists on mobile devices, orders can be efficiently fulfilled from the asset location. Accessing maintenance history for facilities is made seamless through the app, empowering users with valuable insights for informed decision making and the performance of optimized maintenance strategies.





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**zentrak in action:**  
**High Speed Rail System, Egypt**

**zentrak Asset & Maintenance Management** is an important pillar in Egypt's plans for its first high speed rail network.

Across the 660 km and 21 stations from Sokhna to Marsa Matrouh and Alexandria, voestalpine Railway Systems is supplying 256 high speed turnouts and 144 rail expansion joints to compensate for temperature related length changes, affecting tracks on bridges and viaducts. On the software side, the implementation of zentrak is pivotal to the digitization of the network, which will conform to stringent European standards. Our ready to use zentrak Asset & Maintenance Management software has already reduced project effort for our customers, while the integration of maintenance software reduces operating costs, with no separate software fee needed.

Over time, the investment in zentrak Asset & Maintenance Management will continue to show its advantages. The ongoing documentation effort will be reduced with the elimination of paper checklists, ensuring maximum efficiency for further ambitious infrastructure projects.



Scan for the whole  
success story



Railway  
Systems  
Hardware  
Sensors

SENSOR  
data

SOFTWARE  
applications

Interfaces

# SERVICES

## More Than Just Technology.

At voestalpine Railway Systems, we understand that the route to effective railway digitization is more than just technology. That's why, on top of our cutting edge zentrak Asset & Maintenance Management solution, we strive to be a holistic technology provider and a reliable partner to you.

- » **Training.** With tailored sessions that match your organization's exact requirements, we can quickly onboard users and ensure rapid proficiency with our system.
- » **Data Migration.** Swiftly transfer your data with our expert support, minimizing downtime and ensuring a smooth transition.
- » **Installation.** Our efficient installation process ensures rapid deployment, getting you up and running for immediate productivity.

Our services go beyond software solutions and are designed to support your operations at every step. From personalized training with our Railway Systems academy, to expert data migration to seamless installation and continuous software support, we ensure your success.

- » **Software Support.** Enjoy continuous software support with our maintenance contract, ensuring prompt assistance and uninterrupted operations.
- » **Hosting services.** Host your data securely in the voestalpine Cloud, ensuring optimal performance, scalability, and compliance with local and international regulations.
- » **Personalized Apps.** Benefit from personalized apps for maintenance execution, including customized checklists, dashboards, reports, and asset trees.

## PIONEERING NEXT-GENERATION RAILWAY SOLUTIONS



### Our Joint Venture.

The Joint Venture voestalpine Digital Track Management, formed by voestalpine Railway Systems GmbH and Boom Software AG brings together the expertise of two industry leaders to shape the future of rail transportation. While Boom Software AG contributes its outstanding competence in developing software solutions for rolling stock infrastructure, voestalpine

Digital Management GmbH offers comprehensive intelligence in railway infrastructure, including data analysis, switches, rails and signaling technology.

This collaboration allows both companies to jointly develop systems that enhance efficiency, safety and reliability of rail transportation worldwide.

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