Zugkraft-kN

Digitalisierung nach Maß

"We digitise your company – just the way you need it!"

www.zugkraft-kn.at

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brochure to someone else?
Get you digital version here:

Our key focus areas

EU Directives place significant demands on railway companies, and these challenges often prove very difficult to surmount without digital support. Simultaneously, thanks to our experience in this particular discipline, we know that there is often a need to catch up in precisely these areas.

We have, therefore, set ourselves the task of supporting companies from different sectors with customised software systems.

ECM

The EU ECM Regulation places several requirements on all stakeholders involved with regard to the monitoring and documentation of all processes.

We have specialised in providing companies with the necessary digital tools to this end.

The previously-established working methods in companies are integrated into the system, and are expanded to include the additional functions as required.

ERP

It is the subtle differences in operating processes that render the introduction of many an off-the-shelf software solution an expensive dislocation.

This is why we offer our customers customised ERP systems – including the integration of the respective infrastructure as needed.

Procedures that have already been tried-and-tested and accepted by employees are now being adopted in the digital age.

Workshop management system

Production management

Workshop management system

Asset management

Workshop management system

Production management

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## By your side to develop your "special train"

We develop your customised software together with you!

Our proven core application acts as a type of "**traction engine**", and provides all the functions you'd expect from a state-of-the-art web application.

Of course, our locomotive is the subject of constant further development, so that individual function packages can be quickly adapted to new technologies if required.

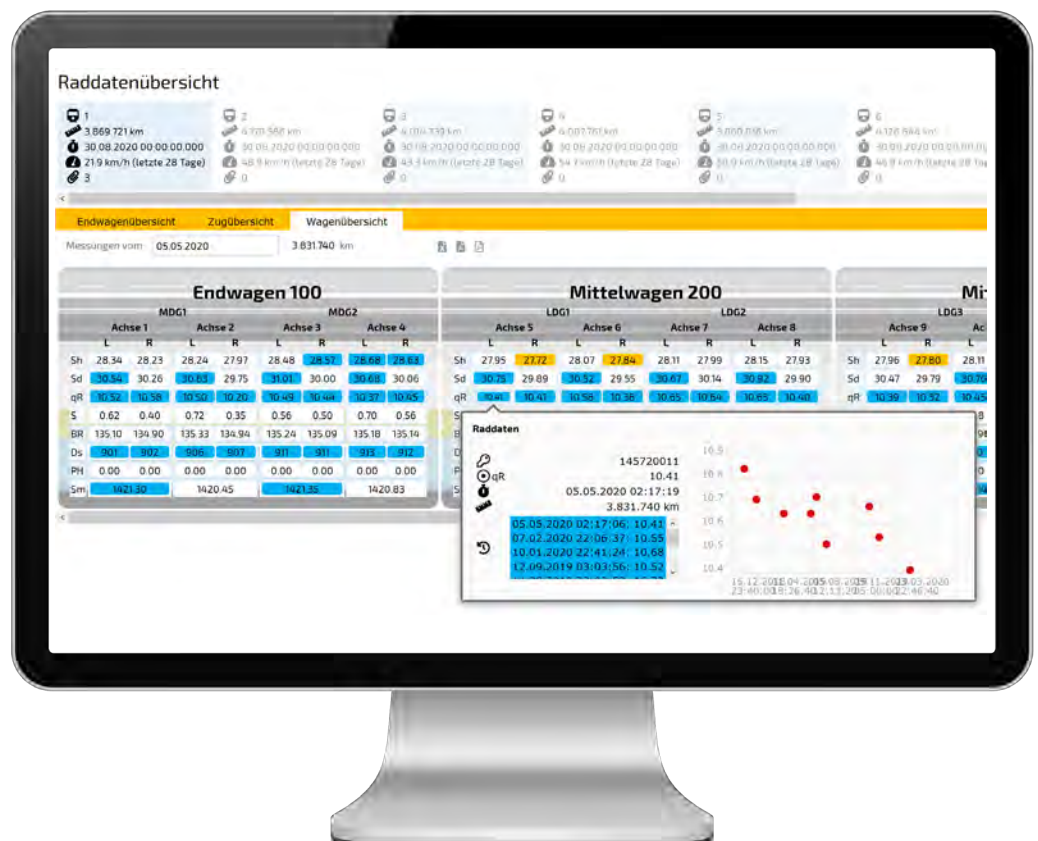We now attach the customised software modules – the "wagons" – to this locomotive.

And with that, we create your very own **special train** that ultimately offers exactly what you really need. Without unnecessary ballast and overloaded user interfaces!
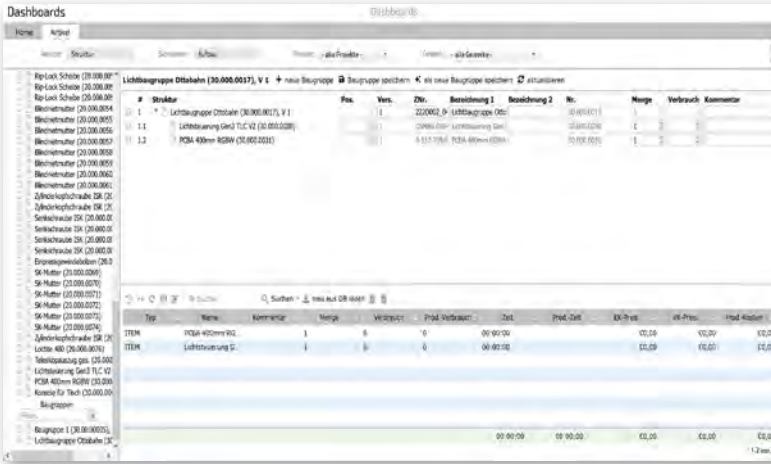
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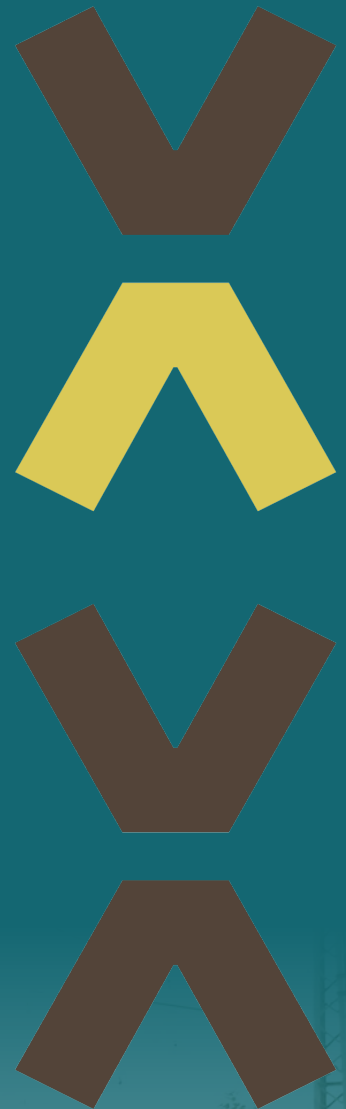
The traction engine you need

It forms the central element of all our software packages, and ensures the provision of all the basic functions.

- Graphical, web-enabled user interface
- Support for all common web browsers
- Interactive, bi-directional communication between client and server
- Runs on Linux and Windows systems
- On-premises operation, SaaS via a partnership with a data centre in Austria or in a Cloud environment
- Encrypted data connection
- Connection of different databases
- User interface customisable to customer designs
- User and role administration
- Flexible calendar
- Universal diagrams

- Chat functionality
- Video support
- E-mail dispatch and automatic e-mail import
- Document management
- Management of any attachments to data records
- Creation of digital signatures
- Logging of all database transactions
- Multi-factor authentication upon request
- Various interfaces (PDF, XML, CSV, MS Excel via web interface, FTP, e-mail), can be expanded as needed
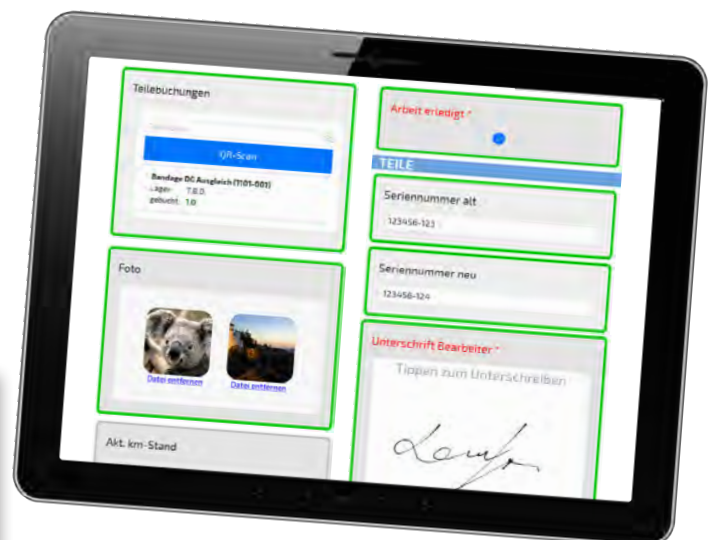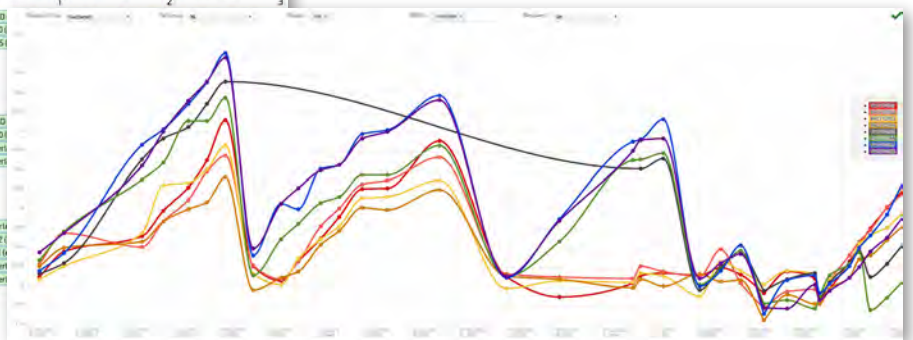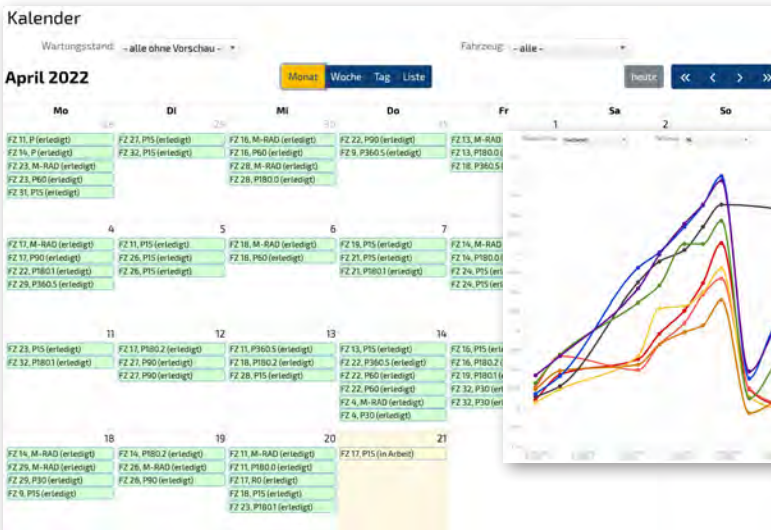
Visualisation

User interfaces and visualisations tailored to your requirements

Also available as a web application on mobile devices with Android and iOS

Security & Quality

Confidentiality and integrity are essential values for us! In order to keep your data secure, we are committed to protecting all information using appropriate technical methods.

Since July 2022, we have held an ISO27001 certificate (Information technology – Security techniques – Information security management systems – Requirements) and are, therefore, familiar with the management of security risks and measures to ensure information security.
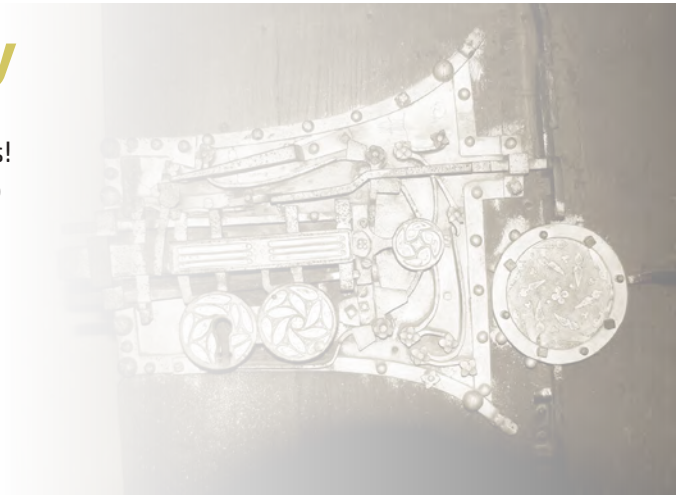
Digitisation support

We do not see digital technologies as a universal remedy. In many areas, however, they can contribute to the achievement of corporate goals.We remain on hand and support you in the implementation of your digitalisation projects. With the aim of facilitating a transformation without "collateral damage", we pursue a cautious and gradual changeover of operational processes during ongoing operations.

As needed, your existing infrastructure (e.g. established software systems, production machines, measuring devices or sensors) can be integrated into the software.
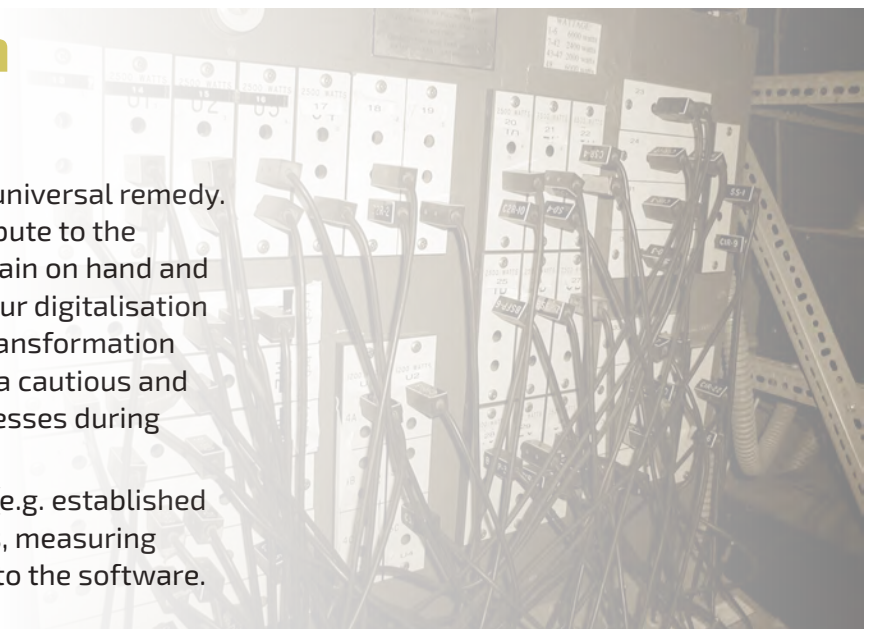
Research and development

We also have researchers who are passionate about what they do!In order to offer our customers innovative solutions, we regularly work on new ideas with partners from research and development.
Together with the "VRVis Research Institute", we are currently developing both software for use in the field of augmented reality and hardware for quality assurance in the railway maintenance segment (vehicle scanners).

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How we make our customers happy...

Salzkammergutbahn GmbH

Software for workshop management and organisation

The traditional operation behind the "Schafbergbahn" with its historic locomotives was supported with our **workshop management and organisation tool** as part of a comprehensive digitalisation process.

The **handover book** – which was previously kept in analogue form – is now available to all employees in digital form. **Vehicle availability, maintenance schedules** and **documentation** of the work carried out are now managed in a centralised tool. Now that the remodelling of the valley station has been completed, an **employee information system** is being developed, and warehouse management is now also being put on a new footing.

Digitisation of the Z12 steam locomotive

A refreshing (and somewhat greasy) change from everyday screen time:

Together with **optiMEAS GmbH** and **Alpha Diagnostics**, we launched a pilot project to **digitise** one of the Schafbergbahn's venerable steam locomotives, which has been transporting passengers up the Schafberg for 130 years.

Fourteen built-in sensors provide us with various operating data in near-real-time, which is processed, analysed and visualised with the help of our site management software.

The knowledge gained from this is intended to increase the service life of this heavily stressed machine, on the one hand, and to optimise the operation of the steam engine and render it more sustainable, on the other.

"Digitising our company with its historic vehicles and the work processes tailored to them is only possible with customised software and a great deal of expertise from railway operations. The guys from Zugkraft-kN have done just that!"

Mario Mischelin
Managing Director Salzkammergutbahn GmbH and Salzburg AG Tourismus Management GmbH

Watch video on Youtube

VRMS Vienna Railway Maintenance Support GmbH

Software solution in the areas of maintenance and servicing

VRMS was equipped by us at the Inzersdorf site with ECM-compliant, customised **workshop management software**. The system currently deployed in the back office will be supplied with processed data from the workshop operations and integrated into the new software landscape.

In addition thereto, and as part of a test project together with our hardware partner **optiMEAS GmbH**, selected **passenger coaches** are being fitted **with measuring equipment**, in order to collect and analyse operating and position data from the vehicles and transmit it to the maintenance software. This makes it possible for owners and maintenance staff to plan **vehicle maintenance** based on measurement data and keep a constant eye on the **vehicle's overall condition**.

"Thanks to the ECM software and the active support of Zugkraft-kN, we were able to digitalise our processes and documentation within a very short space of time and thus successfully pass the audit. Many thanks to the Zugkraft-kN team!"

Willibald Maier
Managing Director – VRMS

DPB Rail Infra Service GmbH

Software solution within maintenance and servicing, ECM audit support

DPB Rail Technical Service is a railway company specialising in the maintenance and repair of a wide range of rail vehicles.

In view of an upcoming **ECM audit**, which is accompanied by high-level demands on quality management and the documentation of all activities throughout railway companies, we were able to "make DPB happy" with **software that supports workshop organisation**.

OptiMEAS GmbH was once again involved as a partner: passenger coaches were equipped with sensors to record various operating data.

Now we can devote ourselves to the finer points of **operational process optimisation**: our software is constantly being adapted even more precisely to the company's operating processes, **interfaces to various measuring and testing devices** are being created, and a **mobile version** will also soon be available to employees.

"The flexible software solution from Zugkraft-kN allows us to fulfil the different requirements stemming from vehicle maintenance clients, and all in an ECM-compliant manner. Thanks to the rapid implementation of change requests and short communication channels, we as a company can react quickly to customer requests or changed framework conditions."

Manfred Karolyi
Operations Manager DPB

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# Beep Mobility GmbH

Development of a customised ERP system

As a young production company, BEEP Mobility produces highly innovative and customised products in the railway interiors sector – including for customers such as Stadler Germany and Skoda.

We succeeded in developing a **customised ERP system** that has gently grown into the company and can continue to grow with it. Employees who will ultimately work with the system were involved in the implementation and design of the new software solution from the very outset.

Adjustments and enhancements to the system were made **alongside ongoing operations** in order to minimise disruption to operational processes.

The "BEEP" ERP system leaves nothing to be desired:

> Management of customer and supplier data, enquiries, quotations, orders

> Order confirmations, delivery notes and invoices (incl. creation of PDF files)

> Management of article, product and assembly groups

> Creation of assembly structures for design, production and post-calculation

> Generation of production orders

> Creation of material requirement overviews

> Modern warehouse management – including QR code creation for simple warehouse bookings with mobile devices

> Document management

> QC measure management and supplier evaluations
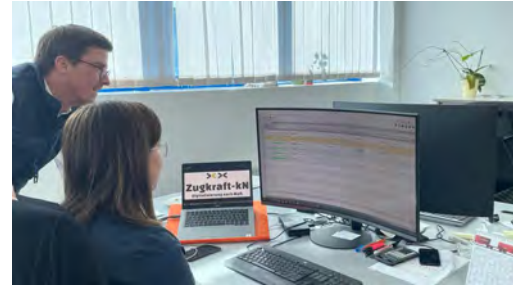
"The Zugkraft-kN team is characterised by its flexibility, vision and experience – meaning that no wish or need on our part remains unsolved. We have gone beyond simply achieving our goal of having an ERP system that is tailored to our business processes, thereby providing us with optimum support, thanks to our cooperation with Zugkraft-kN."

Reinhard Entner
Managing
Partner
Beep Mobility GmbH

SWS Power Solutions

After sales ticket system, research collaboration on the topic of "augmented reality"

We are currently working on a customised **software solution for product and order management** for SWS Power Solutions, which, at present, is revolutionising rail refrigeration logistics with its SWS-PowerBox® and can supply refrigerated containers on freight wagons with climate-neutral energy.

In order to ensure that the exchange of information between SWS Power Solutions, its customers and the production and maintenance companies is simple, smooth and efficient, particular attention is paid to the **flexible and generic structure of the software** , which can also keep pace with the dynamic development of the company.

In an additional step, we are working with SWS Power Solutions and the University of Applied Sciences Upper Austria (Fachhochschule Oberösterreich) to develop a solution for the **use of augmented reality** under difficult environmental conditions, such as those that prevail in **the railway sector**.

MBM Industry & Rail Tech GmbH

Workshop management system

MBM Industry & Rail Tech GmbH is a true specialist when it comes to innovative products in the rail and rail vehicle sector. MBM Industry & Rail Tech GmbH also offers its customers economically viable and simple solutions in the field of solenoid, measurement and control technology.

We have set ourselves the task of homogenising what is currently a very heterogeneous software landscape in the company with the help of our **workshop management system**. From **item management** and **digital checklists** to the **creation of shipping labels** – all the necessary functions will be available in a single tool in future.

Special Operations

Do you have a challenge for which there is no "off-the-shelf" solution?
And even then, you need someone who can really "get stuck in" and get the best out of it for you? This is where our "Special Operations" come into play: be it in engineering, training systems or hardware, we will fulfil your wishes!

MM-ZT GmbH

Development of a customised software solution for calculating cable car structural loads

The existing software (programmed in APL in the 1990s) was to be revolutionised. For example, a new web application was created that summarises calculation processes that were previously carried out individually and manually, and visualises their results.

> Transfer of calculation flows from APL to Java

> Management of different calculations and calculation runs

> Configurable data input

> Data import from MS Office

> Configurable data output (incl. filling of templates)

> Flexible creation of diagrams

> Customised software interfaces

ÖBB-Stadler

Interfaces, training system, hardware

As part of the workshop operation, we not only support our customers in terms of software – for example, with a customised training system or the creation of various interfaces during operation – we also take care of the appropriate hardware.

Our partner, Johannes "Kerschi" Fuchsluger, takes care of the "hard" things for ÖBB-Stadler Service GmbH: bearing systems for safety-critical components, engine overhauls, customised products in stainless steel, hydraulic systems and much more are produced by his experienced team.With its customised storage systems, even bulky structures can be stored safely and neatly.

Partners & Cooperations

IoT and sensor technology

www.optimeas.de

Metal construction, special constructions

fuchsluger-landtechnik.at

3D scans and reconstructions

www.vrvis.at

Exchange of experience

www.c-na.de

IT system support

www.imc.at

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Our promise to you

Together, we develop the software that precisely meets your requirements. This is done **during operation**.

Our developers will familiarise themselves with the client's operations and thus gain a deep **understanding** of the company's problems and goals.

Together, we will find ways to realise **your wishes** in terms of software technology and achieve **your goals**.

By involving all users, a **broad acceptance** of the new software is then established.

Room for ideas

Let's stay in touch!

LinkedIn

Website