



digitalZ

Digital Services

THE KNOW-HOW FACTORY

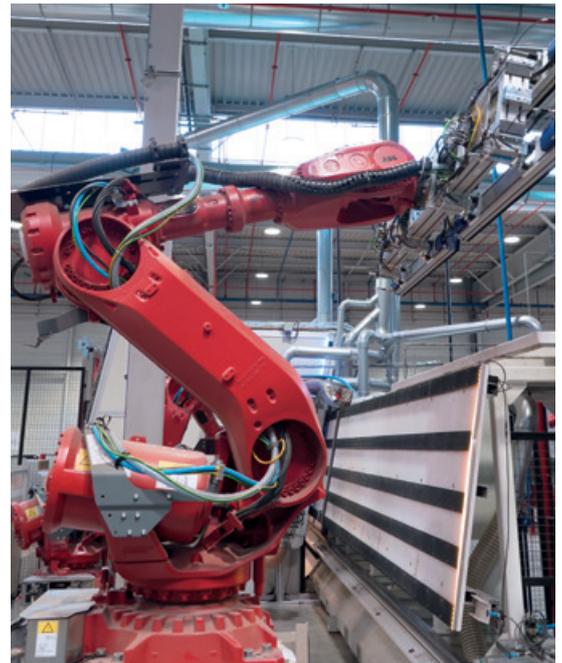
THE KNOW-HOW FACTORY

ZIMMER GROUP COMMITTED TO OUR CUSTOMERS

IN ORDER TO MEET THE STANDARD OF PROVIDING OUR CUSTOMERS WITH THE BEST TECHNOLOGY FOR EXTREMELY FAST INTEGRATION AND COMMISSIONING, MAXIMUM PRODUCT AVAILABILITY AND OPTIMAL PRODUCTIVITY; WE ARE COMBINING THE BEST FROM THE WORLD OF MECHATRONICS WITH THE MOST INNOVATIVE TECHNOLOGY FROM THE IOT. FOR YOUR SUCCESS WITHOUT COMPROMISES.

Digital transformation is on the rise around the globe. How do we meet the challenge of increasing global market flexibility, rapidly changing market conditions, heightened expectations, requirements of the world market – not to mention ever growing cost pressure in the future? There is only one way: networked machine and system configurations in conjunction with digital services in a Smart Factory.

Zimmer Group recognized this trend early on and, already offers a wide portfolio of mechatronic components and digital services.



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DIGITAL SERVICES

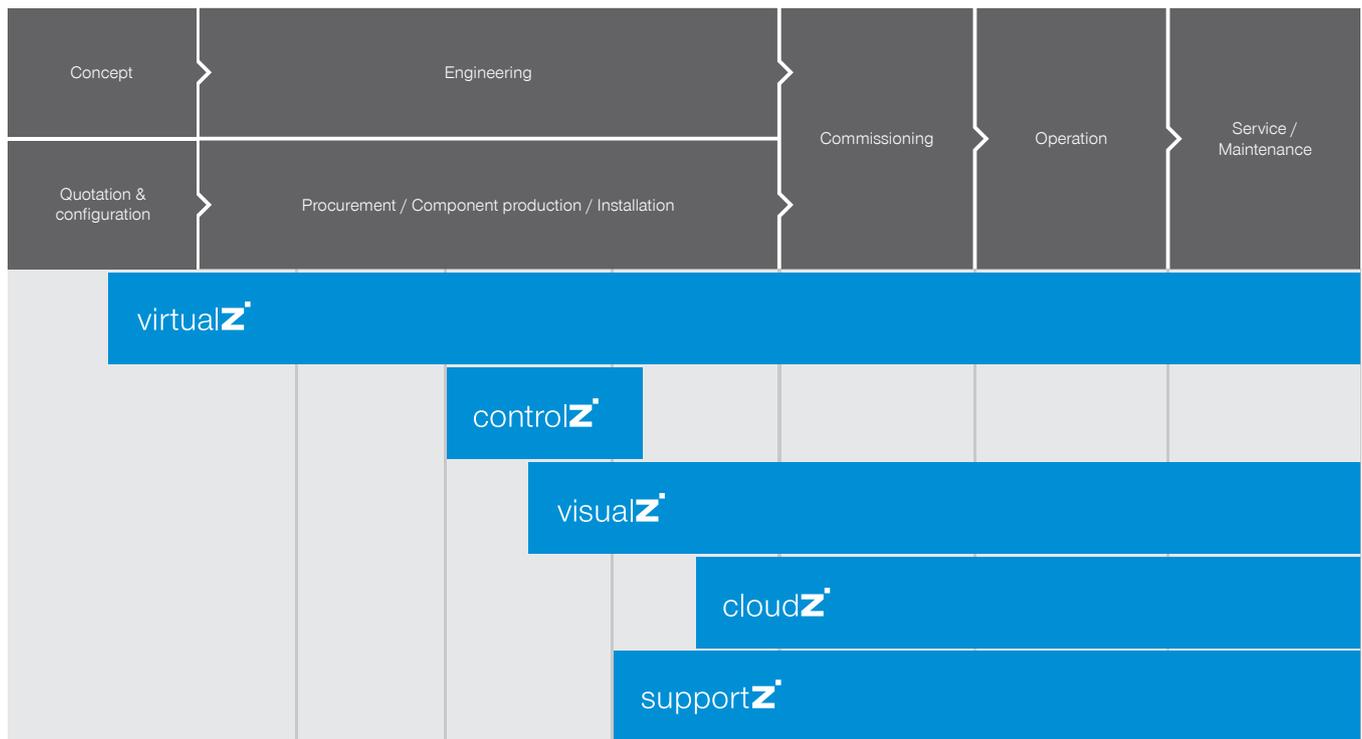
The future of automation and mechanical and systems engineering

Fast and flexible solutions are becoming increasingly important in automation. Mechanical and systems engineering is increasingly driven by software innovation. Here, web-based services help implement production reliability, productivity and cost reduction in a Smart Factory and enable them to be planned.

However, Digital Services are not only an additional service for the customer, but also intentional digital and technological evolutions of our products to meet the increasingly stringent requirements of the world market. We are implementing the

strategy of the digital transformation at all levels, in all functions and at all locations. Our objective is to significantly increase the digital portion of our products. Zimmer Group considers itself a nucleus for digital innovation and new, innovative, digital business models such as Product-as-a-Service. Digital Services open up new opportunities for growth, make complex processes manageable, enable greater transparency in control and maintenance and, not least, increase your company's market success. As we shape and drive the transformation forwards, we are your partner for all topics related to digitalization in the market.

Lifecycle of the system



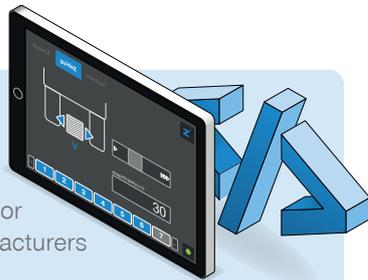
More information
can be found on
our website

The Digital Services of Zimmer Group

digitalZ helps you support quality, time management, productivity, efficiency and value creation and gives you the ability to make complex processes manageable and map transparency in control and maintenance.

controlz

- ▶ Platform-independent for all leading robot manufacturers
- ▶ Fast and easy programming
- ▶ Minimization of programming errors
- ▶ Programming and configuration can be carried out even by personnel without comprehensive programming knowledge



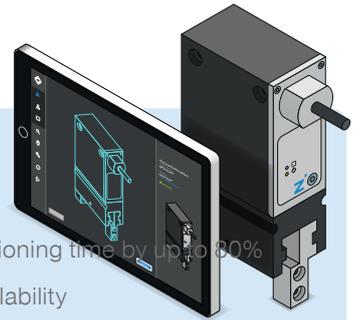
cloudz

- ▶ Provision of status process parameters
- ▶ Easier integration of components
- ▶ Basis for Condition Monitoring / Predictive Maintenance
- ▶ High level of flexibility and scalability
- ▶ Access from anywhere



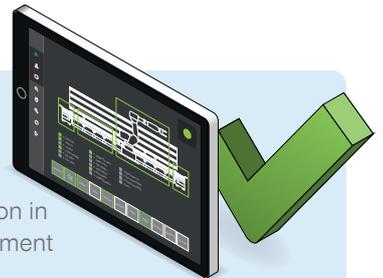
virtualz

- ▶ Reduction of commissioning time by up to 80%
- ▶ Higher production availability
- ▶ Shorter delivery times, higher quality
- ▶ Safe and efficient qualification of operating and service personnel
- ▶ Flexibility in the selection of simulation platform



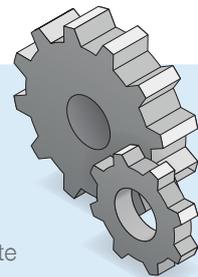
visualz

- ▶ Fast and easy interaction in the application environment
- ▶ Display of process parameters relevant to the application
- ▶ Increase in efficiency
- ▶ Minimization of input errors



supportz

- ▶ Pre-sales support
- ▶ After-sales support with on-site service over the entire lifecycle
- ▶ Online support for commissioning and optimization
- ▶ Product finders / product configurators
- ▶ Spare parts service
- ▶ Extensive training programs



virtualZ

DIGITAL SERVICES

Faster projects thanks to the digital twin

The digital twin is revolutionizing processes along the entire value creation chain. It gives you a virtual image of the product, production or performance, which allows you to seamlessly link the individual process steps. It increases efficiency overall, minimizes the error rate, shortens development cycles and also opens up new business models.

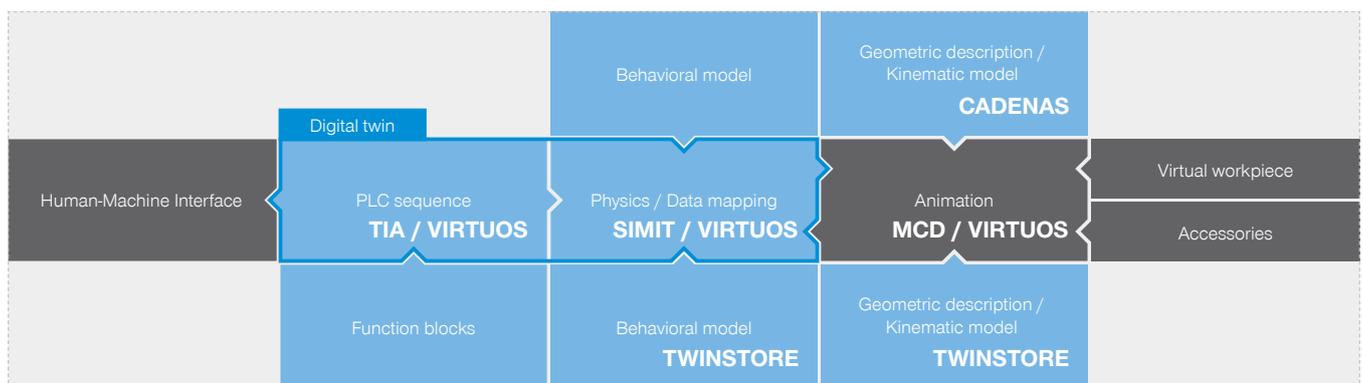
Zimmer Group offers support for engineering and virtual commissioning through movable 3D models for almost all CAD systems. Furthermore, Zimmer Group offers intelligent digital twins for the leading VIBN systems (ISG Virtuos including TwinStore and Siemens MCD). These already contain the physical behavioral models and communication

INFORMATION

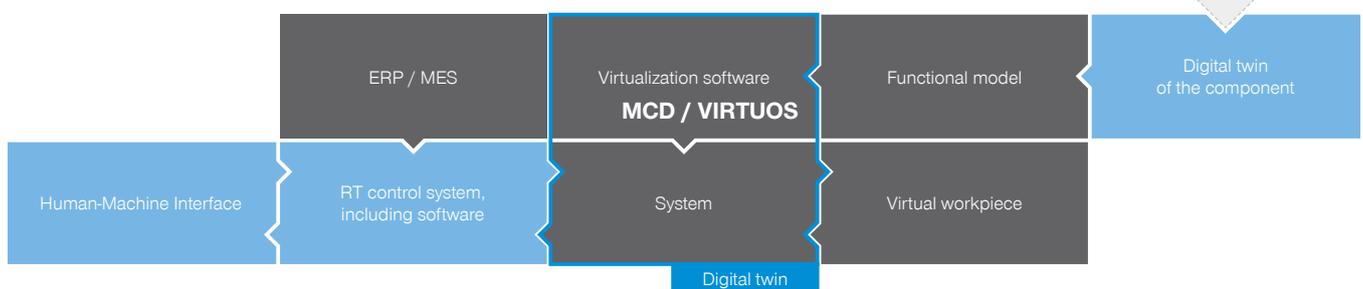
- ▶ Provision of 4D models of our components for setting up digital twins via CADENAS for Siemens MCD and via the TwinStore for ISG Virtuos (a)
- ▶ Creating digital twins for complex installations and systems (b)

interfaces for carrying out your automation in advance using a virtual PLC in addition to the normal engineering process. This makes it possible to create and test large parts of the PLC program in the virtual environment at an early stage.

Digital twin of the component (a)



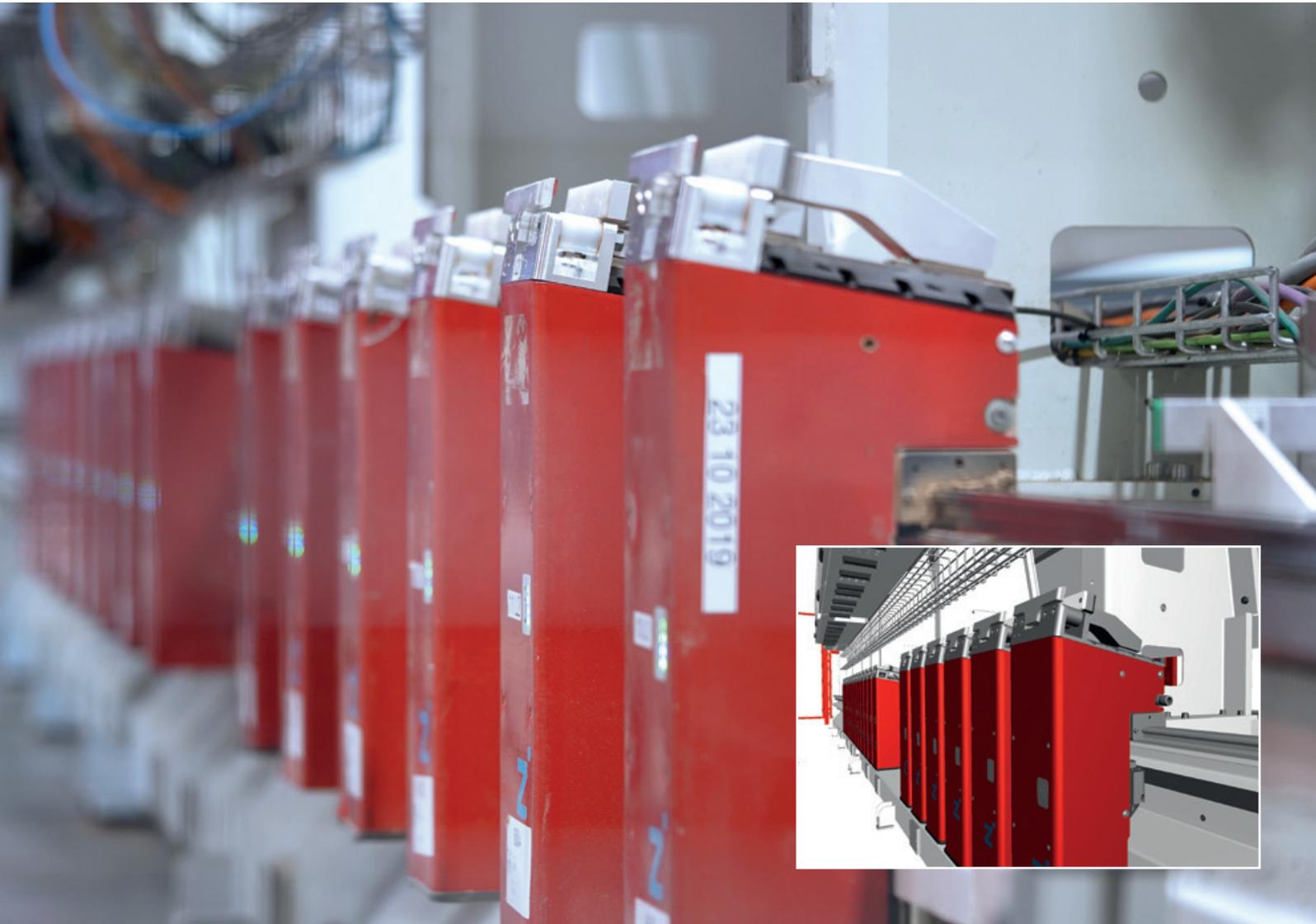
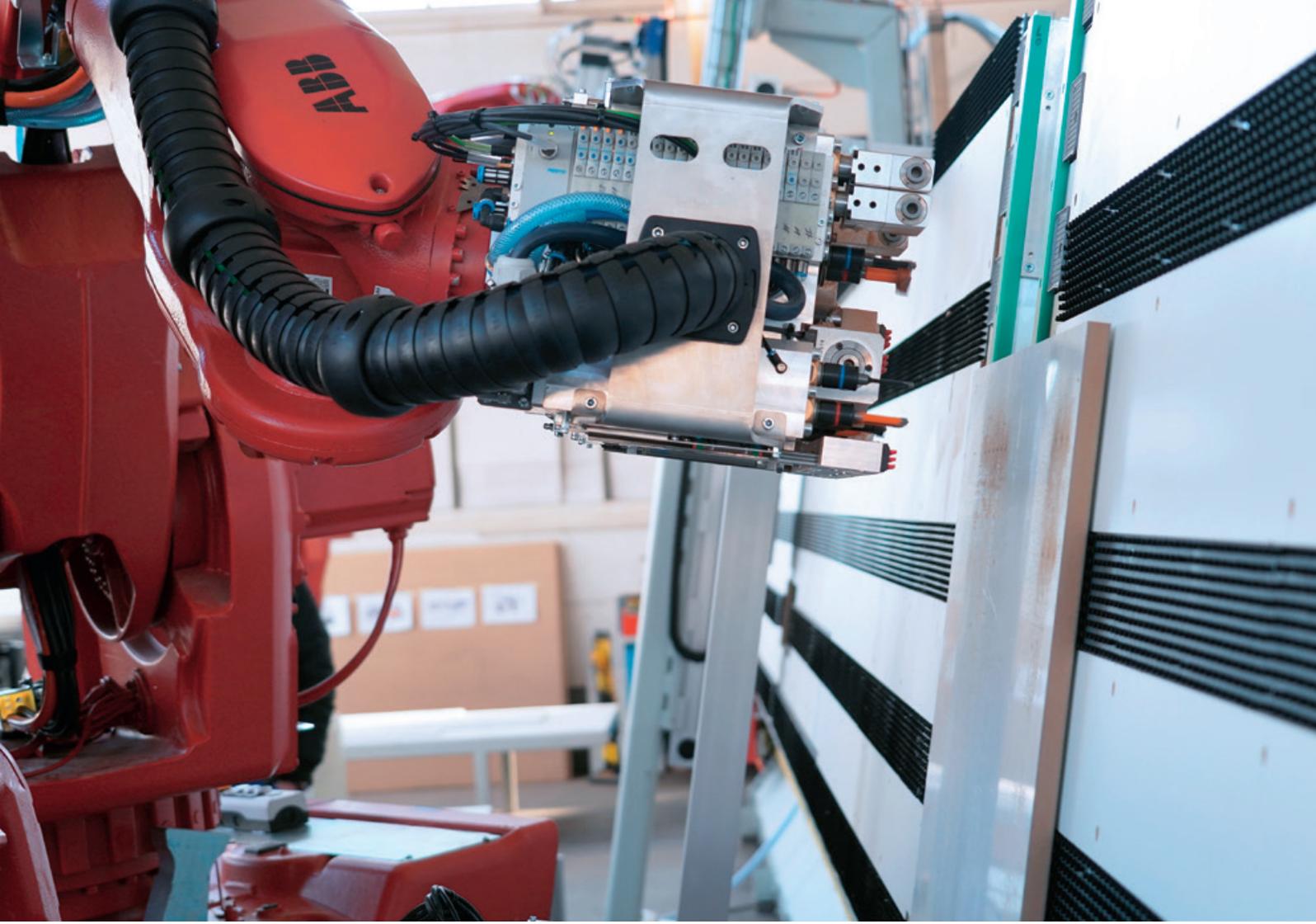
Digital twin of the system (b)



- Specific to the customer
- Zimmer Group scope of delivery
- Digital twin



More information
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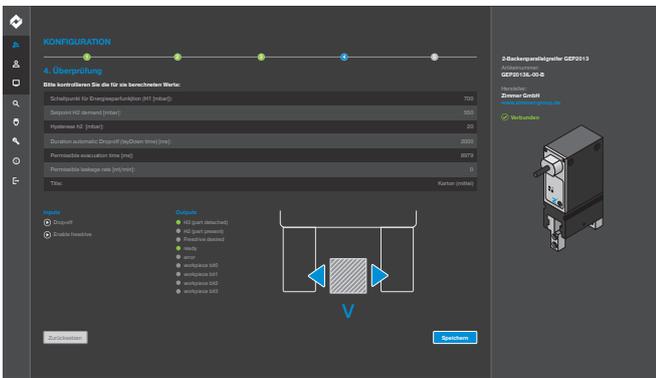
controlZ DIGITAL SERVICES

Software components for your robots and control systems

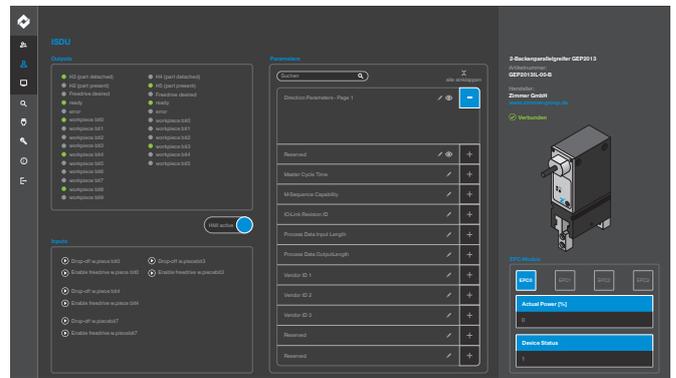
Use Zimmer Group's platform-neutral, web-based programming tools to commission your robot application – no matter which platform. It is fast, easy and requires no in-depth programming knowledge. As a supplement, Zimmer Group also provides Comfort apps for the hardware platforms of the most common robot manufacturers. It makes commissioning and operation fast and easy. Zimmer Group also provides downloadable function blocks for all the most common manufacturers for direct programming in the PLC.

YOUR BENEFITS

- ▶ Platform-independent for all leading robot manufacturers
- ▶ Fast and easy programming
- ▶ Minimization of programming errors
- ▶ Programming and configuration can be carried out even by personnel without extensive programming knowledge



Guided mode



Expert mode

Comfort app

The Comfort app, coordinated to the robot manufacturer, makes it possible to actuate and operate the gripper conveniently and directly using the respective robot control panel. The app provides all necessary commands for hitch-free automatic mode. Setup mode and the automatic robot sequence are combined in one solution.

Other advantages include:

- ▶ Manual setup mode
- ▶ Automatic operation with integrated function blocks
- ▶ Easy programming
- ▶ Fast implementation
- ▶ Low risk of errors thanks to defined functions



Robot control panel

visualZ

DIGITAL SERVICES

Visualization for components

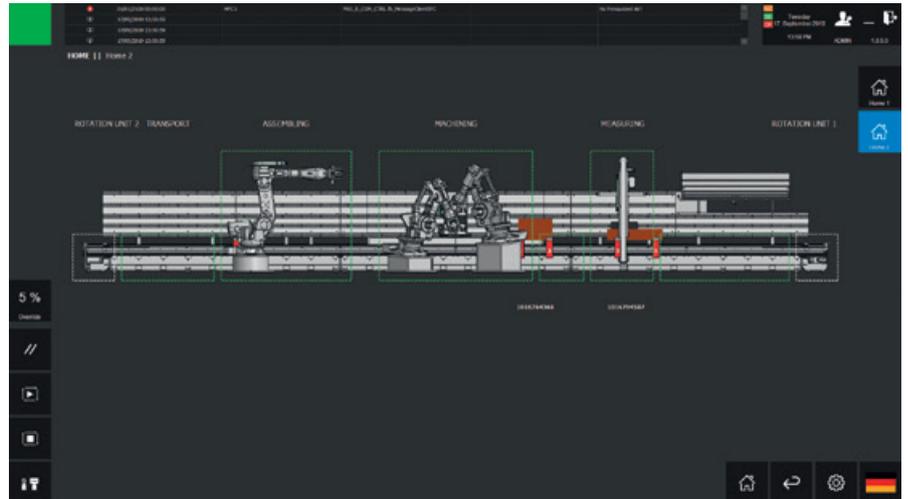
In visualZ, Zimmer Group is offering a proprietary specialized, convenient and user-friendly Human Machine Interface (HMI) for installations and systems in order to simplify the process of installing components, for example in the robot control system, and to simplify the operation of systems.

With its fast and intuitively operated interface, the HMI gives users the maximum level of flexibility when creating, storing and restoring device parameters. It also provides assistance during diagnostics and preventive maintenance. The HMI provides the user with security (0% error rate during operation) and the greatest possible variability in creating and managing application-specific profiles.

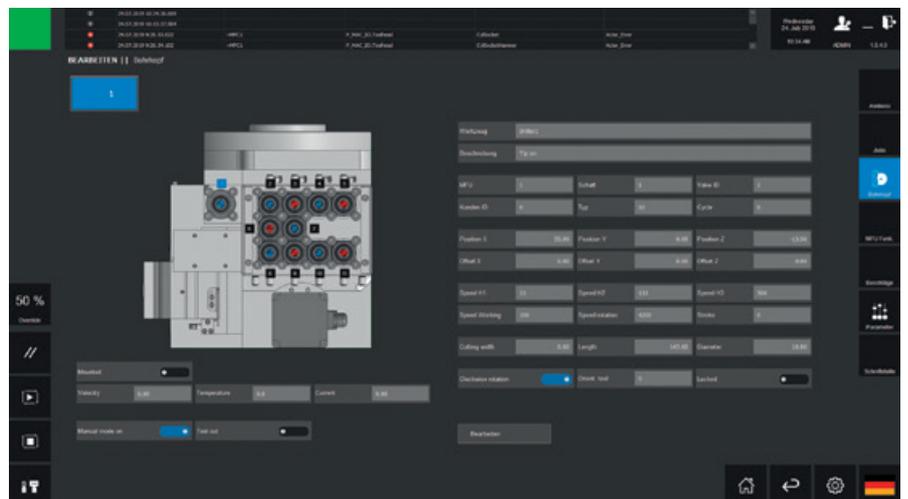
▶ YOUR BENEFITS

- ▶ Fast and easy interaction in the application environment
- ▶ Display of process parameters relevant to the application
- ▶ Increase in efficiency
- ▶ Minimization of input errors

User interfaces provide clear organization and a graphic display of the individual function areas of the system. Direct access to the event log and order management improve convenience and efficiency while reducing operator errors and increasing workplace safety.



All units and stations installed in the systems can be configured and operated by means of the HMI. Various user roles also enable service access to the system.



cloudZ

DIGITAL SERVICES

cloudZ

cloudZ enables the connection of Zimmer Group components to the cloud and its vertical, location-independent communication. The advantages of a connection to cloudZ are as versatile as they are self-evident. Starting with the convenient and clear read-out of product IDs and serial numbers, through the visualization of status and process parameters at a central control point, to the maximization of OEE in the individual application and collecting it for reports or even creating statistics, whether on-site or thousands of miles away. The cloudZ user interface has been developed for fast, secure and convenient browser-based operation and is compatible with any Internet-capable computer, tablet or smartphone.

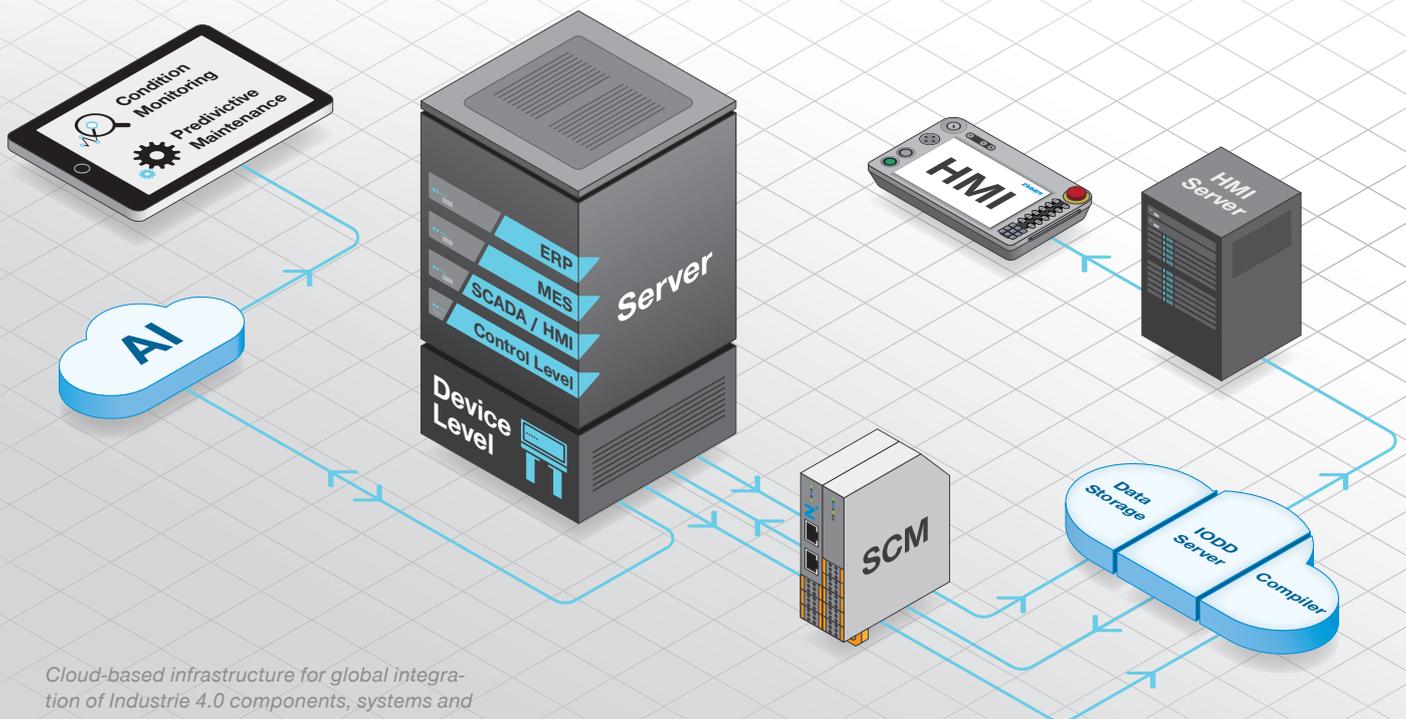
▶ YOUR BENEFITS

- ▶ Provision of status process parameters
- ▶ Easier integration of components
- ▶ Basis for Condition Monitoring / Predictive Maintenance
- ▶ High level of flexibility and scalability
- ▶ Access from anywhere

Your connection to the cloud

SCM, the master gateway for all IO-Link components from Zimmer Group, features two channels for connecting two components to the cloud or connecting to a higher-level edge structure and enables the direct implementation of the digital bus protocol to IO-Link and vice versa. The module thus makes it possible to integrate IO-Link components into a

digital infrastructure and utilize almost the entire extended functional range of IO-Link components. To ensure maximum flexibility in the operating environment, the SCM is available in two versions – for control cabinet installation (protection class IP20) or for end-of-arm installation on the robot (IP54).



Cloud-based infrastructure for global integration of Industrie 4.0 components, systems and installations.



supportZ DIGITAL SERVICES

Online services from Zimmer Group – professional, reliable and effective

In state-of-the-art automation, the quantity of networked machines, systems, robots and components will increase dramatically. With this the amount of communication will grow significantly. New business models will emerge, traditional markets will be divided up differently and global competition will be fiercer than ever before. By providing

supportZ, Zimmer Group offers services that go far beyond online product support and a hotline. These include setup service for machines and cells, on-site service over the entire system lifecycle, online support and a hotline, product finders / product configurators, spare parts service, test devices and comprehensive training programs.