

## One platform, many opportunities

At the Hannover Messe 2019, Grenzebach showcases just how many added values the company's own digitization platform can bring to the table; an all-rounder for efficient development of modern IIoT applications and for use of Augmented Reality applications for maintenance work.

At the Hannover Messe from April 1 – 5, 2019 Grenzebach will emphasize its own digitization platform, offering processes for visualization and analysis of tomorrow's production. Visitors will learn how Grenzebach generates added values by usage of the digitization platform and how it facilitates developing customerspecific applications for a digitization ecosystem. Furthermore, the platform is capable of turning the traditional approach to software development in mechanical engineering upside down. Grenzebach's showcase at booth B42 in hall 17 highlights the most critical advantages of the IIoT platform: Connectivity, modularity, data management and analysis.

### Expandable for further machinery and interfaces

This year's motto for the Hannover Messe is "Integrated Industry – Industrial Intelligence". Grenzebach will show a series of scenarios how the company's own digitization platform facilitates an intelligent and integrated approach to the Factory of Tomorrow. "Our digitizing application helps to visualize complex production processes. Furthermore, data for process monitoring as well as further development of machinery and recipes can be gathered and managed. The overall system has a modular structure so that machinery and interfaces – including third party providers – can be integrated at any time. This way we are able to offer a development platform to manufacturers and distributors of system solutions who are open to new applications we don't even know of yet", says Dr. Clemens Weis, responsible for the Grenzebach Digital GmbH. (For further information about this new company, please refer to a separate paragraph at the end of this press release.)

### First-hand experience

With the showcase at the Grenzebach booth, visitors will have a first-hand experience: Personalized giveaways that are produced at the booth for those who are interested. After the order is generated on the tablet, it is sent to the digitization platform. The platform processes the order and controls all of the equipment. First, an automated guided vehicle L1200S sets out to deliver the raw materials to a transmission station, the mobile robot MR10s. The robot takes the raw materials off the vehicle and transports it to the next station (machine-machine-cooperation). A Grenzebach employee selects the respective order via an app on the IIoT platform and initiates the production process. At the end the visitor receives the giveaway.

#### Intuitive and effortless gathering and use of data

Throughout the entire process, the visitor can experience first-hand the added values of the central digitization platform. Non-stop practical use: Whether central order data management, accurate information about the condition of the machinery (e.g. charging status or running efficiency of the automated guided vehicle) or production process parameter – everything is readily available on an intuitive basis of the IIoT platform provided by Grenzebach. This is how monitoring works. Weis: "Our platform allows for structuring high-complex processes. Visualization, connec-

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tion, tracking and extension of process steps: All this is possible thanks to the IIoT platform." The process data that is consolidated and evaluated with the digitization platform creates a real value added: The technical departments within the company can use the statistics, analysis and reports as a basis for their projects and continuous process improvements. Gathering data records and making them actually useful – this is what matters!

## Tomorrow's applications

"Our IIoT platform is available to our customers to also further develop their systems and processes, specifically tailored to their branch of today and tomorrow", says Dr. Clemens Weis. A particular strength is that at any given time customers can efficiently develop additional applications. These applications are available via the app store for all production facilities at the customer site. Another benefit of the Grenzebach IIoT platform is the flexible integration of new machinery and interfaces, including third party providers. The connectivity of the platform allows simple and quick integration of different machines on the shop floor and superordinate systems, such as the customer's ERP system. Highest data safety is just as critical as the visualization of basic configurations. The platform is continuously being developed with a large network of partners. New functions can be easily integrated thanks to the progressive software architecture and made available for practical application by the user community. "For example, our platform opens the option to integrate Augmented Reality applications to support service or even the operation of equipment", explains Clemens Weis.

#### Virtual reality for conception, simulation and maintenance

At the Hannover Messe, Grenzebach experts will demonstrate what all digitization is capable of in today's and tomorrow's industry. The spectrum reaches from the conception and design of production equipment with virtual reality support to the simulation of complex process chains. Thanks to the Augmented Reality, Grenzebach service experts can support customers all around the globe with complex maintenance work and are able to simplify and accelerate them.

#### Quantum leaps in service

The last one is an example of how digitization generates quantum leaps within the service sector. Thanks to predictive maintenance, the Grenzebach digitization platform helps to avoid equipment failures and minimizes the time for planned and unplanned maintenance activities. This is how customers are able to visualize the lloT platform with their everyday maintenance work. Should there be a need for maintenance, the predictive maintenance application recognizes this early on with integrated sensor technology, generates a task for the maintenance staff and informs the person in charge about the status change. Further information about the maintenance work, such as machine manuals can also be organized via the platform, e.g. necessary spare part deliveries or the use of the Grenzebach expert remote or on site. Spare parts are identified either via the bar code, the QR code or with image vision and can be requested or ordered in the electronic spare parts catalog. These values help the customer to reach highest availability and maximum output over the complete life cycle of the equipment and machinery.

### Grenzebach Digital GmbH

With the newly founded Grenzebach Digital GmbH Augsburg (January 2019), the Grenzebach group gathers the basic development activities for the digitization



platform collaborating with a large network of partners. This new company uses the competitive advance with the Company's own IIoT platform – and the customers, as well as the business units and partners will profit from the technological leadership. Furthermore, the business partners always care to bring in new business connections. Since the start of the Grenzebach Digital GmbH, Grenzebach and its partners have acquired more than 50 experts. "Grenzebach is well on its way to the digital future. We are looking forward to continuing courageously", says Renato Luck, CEO of the Grenzebach Group.



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This Automatic Guided Vehicle (AGV) of Grenzebach, the L1200S, transports up to 1.2 tons lengthwise or crosswise – and can also turn on the spot. Thanks to the very low height, the L1200S can go under most load carrier (tables, trolleys, racks, shelves), lifting it and transporting it to the specified



destination



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Grenzebach is a world-wide leader specializing in the automation of industrial production lines. By providing services encompassing the entire life cycle of a project, Grenzebach's tailor-made automation solutions have a positive impact globally in glass and building material manufacturing as well as intralogistics. Many years of experience, continuous development, and sustainable support services are what makes Grenzebach one of the most preferred partners world-wide. 3000 installed lines in 55 countries prove that the Grenzebach name stands for quality and reliability. Amazingly, 90 percent of Grenzebach's products are for export which reflects that the medium sized family-owned company from Hamlar is a global player in the industrial automation.