

PRESS RELEASE

Dürr makes paint shop smart with digital innovations

Bietigheim-Bissingen, January 30, 2019 – Dürr has developed two innovations for the Industrial Internet of Things (IIoT) to expand its range for smart painting processes. The software products EcoScreen Maintenance Assistant and EcoScreen Equipment Analytics offer customers new possibilities for maintenance, quality assurance and process analysis in paint shops. This involves large amounts of data from all the production stations being collected and analyzed. The technological highlight is a Streaming Analytics application for real-time data analysis.

The two new applications were developed in Dürr's Digital Factory. In addition to the ADAMOS IIoT platform, they form another milestone in the digitization of production processes. Says Dürr CEO Ralf W. Dieter: "Our digital innovations are turning paint shops into smart factories. The new products include both current software technologies and Dürr's special expertise in the painting process. This is how we are offering efficient solutions for the smart networking of the painting process."

The **EcoScreen Equipment Analytics** software seamlessly records all data from the painting process. Based on this, a 'digital fingerprint' is created for every painted car body. It contains information, for example, on the robots' movements, on paint consumption, and on the exact position of the car body during painting. If a quality problem occurs, the cause can be determined immediately using the recorded data. The plant operator can perform analyses for any painted car by projecting the path taken by the painting robot onto the CAD model of the car body on the screen.

The Streaming Analytics function of **EcoScreen Equipment Analytics** is used, for example, for online quality control during the painting of cars. Here, in real time,

Dürr Aktiengesellschaft
Corporate Communications & Investor Relations
Carl-Benz-Str. 34
74321 Bietigheim-Bissingen
Germany

Phone +49 7142 78-1785
Fax +49 7142 78-1716

corpcom@durr.com
www.durr-group.com

algorithms analyze data from the painting process, such as paint flow, and show anomalies. This enables the operator to react immediately, thus preventing further car bodies from being painted incorrectly. The algorithms can easily be created by means of a graphic user interface – without any programming knowledge.

The Streaming Analytics application is already being used in the paint shop of a German automaker. It is based on a software module from the ADAMOS IIoT platform. Dürr is currently working on the integration of a Batch Analytics function in **EcoScreen** Equipment Analytics. Here, the software analyzes historical data, detects trends, and uses artificial intelligence to develop predictions and recommended actions.

The second new application, **EcoScreen** Maintenance Assistant, supports customers in their maintenance activities. In large automotive paint shops, there are thousands of components to be serviced, such as pumps, valves, filters or sensors. The **EcoScreen** Maintenance Assistant keeps a record of every component. It shows maintenance dates, provides access to instructions, prompts completed work acknowledgement, and prepares a maintenance history. One unique selling point is that the software not only signals fixed maintenance intervals, but it also works on a cyclical basis. This means it counts how often a component has been used and calculates the remaining operating time. For this purpose, it accesses the controls in the paint shop to retrieve usage data.

The **EcoScreen** Maintenance Assistant is already being used in several automotive paint shops. Going forward, the application should also indicate predictive maintenance requirements. To this end, it will be linked to the **EcoScreen** Equipment Analytics software. This uses special algorithms to check for wear and tear of components, and transmits the result, along with a relevant maintenance task, to the **EcoScreen** Maintenance Assistant.

The two new applications are products developed by the Digital Factory. Founded at the beginning of 2018, this organization has cross-departmental software experts working on solutions for the digitization of production processes.

Dürr Aktiengesellschaft
Corporate Communications & Investor Relations
Carl-Benz-Str. 34
74321 Bietigheim-Bissingen
Germany

Phone +49 7142 78-1785
Fax +49 7142 78-1716

corpcom@durr.com
www.durr-group.com

Pictures for this press release can be found [here](#).

The Dürr Group is one of the world's leading mechanical and plant engineering firms with extensive expertise in automation and digitization/Industry 4.0. Products, systems and services offered by the Group enable highly efficient manufacturing processes in different industries. Dürr supplies sectors like the automotive industry, mechanical engineering, chemical, pharmaceutical and woodworking industries. The Group generated sales of € 3.71 billion in 2017. In October 2018, Dürr acquired the industrial environmental technology business of US-based company Babcock & Wilcox, comprising the MEGTEC and Universal brands. Since then, the company has over 16,000 employees and 108 business locations in 32 countries. The Group operates in the market with five divisions:

- ***Paint and Final Assembly Systems:*** *paint shops and final assembly systems for the automotive industry*
- ***Application Technology:*** *robot technologies for the automated application of paint, sealants and adhesives*
- ***Clean Technology Systems:*** *air pollution control systems and noise abatement systems*
- ***Measuring and Process Systems:*** *balancing equipment as well as assembly, testing and filling technology*
- ***Woodworking Machinery and Systems:*** *machinery and equipment for the woodworking industry*

Contact:

Dürr AG

Günter Dielmann / Mathias Christen

Corporate Communications & Investor Relations

Phone +49 7142 78-1785 / -1381

Fax +49 7142 78-1716

E-Mail corpcom@durr.com

Dürr Aktiengesellschaft
Corporate Communica-
tions & Investor Relations
Carl-Benz-Str. 34
74321 Bietigheim-Bissingen
Germany

Phone +49 7142 78-1785
Fax +49 7142 78-1716

corpcom@durr.com
www.durr-group.com

This publication has been prepared independently by Dürr AG/Dürr group ("Dürr"). It may contain statements which address such key issues as strategy, future financial results, events, competitive positions and product developments. Such forward-looking statements are subject to a number of risks, uncertainties and other factors, including, but not limited to those described in Dürr's disclosures, in particular in the chapter "Risks" in Dürr's annual report. Should one or more of these risks, uncertainties and other factors materialize, or should underlying expectations not occur or assumptions prove incorrect, actual results, performances or achievements of Dürr may vary materially from those described in the relevant forward-looking statements. These statements may be identified by words such as "expect," "want," "anticipate," "intend," "plan," "believe," "seek," "estimate," "will," "project" or words of similar meaning. Dürr neither intends, nor assumes any obligation, to update or revise its forward-looking statements regularly in light of developments which differ from those anticipated. Stated competitive positions are based on management estimates supported by information provided by specialized external agencies.

Our financial reports, presentations, press releases and ad-hoc releases may include alternative financial metrics. These metrics are not defined in the IFRS (International Financial Reporting Standards). Dürr's net assets, financial position and results of operations should not be assessed solely on the basis of these alternative financial metrics. Under no circumstances do they replace the performance indicators presented in the consolidated financial statements and calculated in accordance with the IFRS. The calculation of alternative financial metrics may vary from company to company despite the use of the same terminology. Further information regarding the alternative financial metrics used at Dürr can be found in our financial glossary on the Dürr web page (<https://www.durr-group.com/en/investor-relations/glossary/>).

Dürr Aktiengesellschaft
Corporate Communica-
tions & Investor Relations
Carl-Benz-Str. 34
74321 Bietigheim-Bissingen
Germany

Phone +49 7142 78-1785
Fax +49 7142 78-1716

corpcom@durr.com
www.durr-group.com