



# QCC – Innovative tools for results in real time

By Moritz Fiedler, Technical Director, Formel D Group

As digitalization increases, Formel D constantly improves its Quality Confirmation Centers (QCCs) to help manufacturers safeguard the supply of parts for assembly lines. The service provider carries out the entire quality control process, from communicating with the relevant supplier and testing and reworking the parts to optimizing the workflow in a sustainable way. This enables Formel D to ensure that only zero-defect parts reach the assembly lines, and it makes for a trouble-free production process.



## Moritz Fiedler

is Technical Director of the Formel D Group. With his team, he constantly improves the event-oriented incoming goods check, especially with regard to digitalization.

Irregularities in production processes such as assembly line stoppages face companies with challenges in terms of finances and planning. These difficulties are usually caused by defective parts, and manufacturers and suppliers increasingly rely on integrated quality

assurance to identify problems at an early stage. As a service provider established worldwide, Formel D is a reliable partner to its customers in this endeavor. A number of the services provided aim to optimize the quality of products and processes throughout the automotive value added chain and prevent defects from arising or reduce the necessity for reworking. For this purpose, the service provider operates so-called Quality Confirmation Centers (QCCs) to safeguard and monitor the production lines.

If the customer identifies a deviation from the standard for a specific component, Formel D

goes into action as part of an event-oriented incoming goods inspection. In the course of the integrated quality assurance process, the service provider uses innovative tools and processes in the QCCs to evaluate the condition of the components and assemblies and sums up any deviations from the specifications in a detailed documentation.

## Prevention is better than cure

At the beginning of the project phase, the experts from Formel D in conjunction with the customer and his supplier elaborate an operating procedure for the precise testing

or reworking of the component in question. To ensure the supply of material from the outset, the subsequent sorting process begins in the immediate vicinity of the section of the assembly line in which the component in question is installed. At the same time, the Formel D employees remove the component from stock and transport it to the Quality Confirmation Center. Depending on the order, this is located on the customer premises or at special Formel D sites elsewhere. Here, the experts perform further reworking and sorting before transferring the faulty goods to a quarantine store and returning the parts to the customer's stock after testing and approval. The Formel D employees check the supply chain between warehouse and assembly line to make sure that zero-defect parts are the only ones to reach the assembly area. The tests are then carried out in the QCC only, and any activities are terminated immediately. The project team controls the subsequent goods flow for the relevant parts in a way ensuring that they are delivered directly to the analysis center. In this way, unchecked goods cannot find their way to the assembly line.

The time that Formel D invests in the quality assurance process varies depending on the order as well as the size of the group of components affected and can range from a few hours to several months.

### Digitalization made-to-measure

To meet the future challenges resulting from increasing digitalization, the summer of 2015 saw a Formel D project team start optimizing the procedures followed in the test centers. In conjunction with hardware and software experts, the team developed an

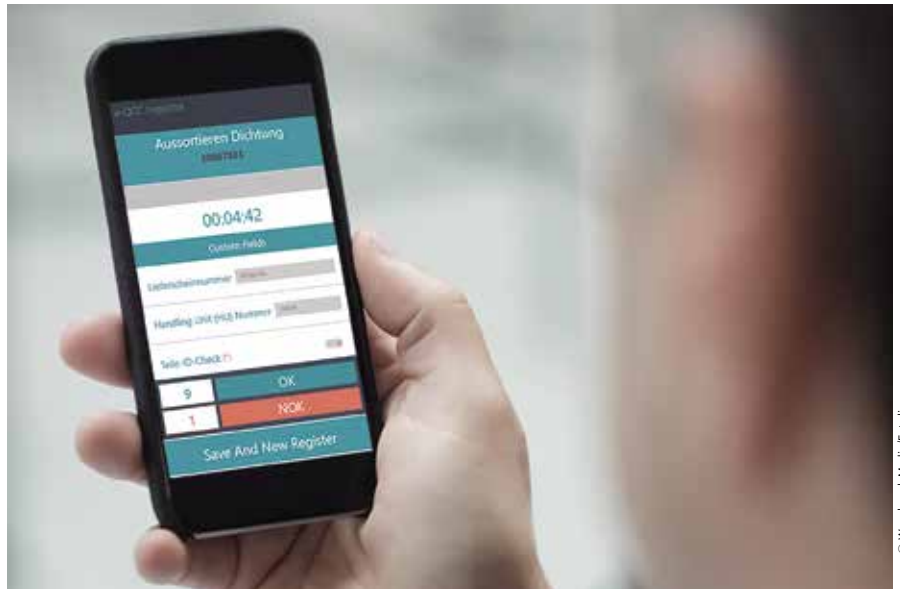


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overall package designed to meet customer requirements. Here, individual modules work together in an optimum way and allow more and more resources to be saved. New intuitive touchscreen computers lead the experts through test processes in a structured way and simplify the work sequences. In addition, ultra-modern scanning solutions help to rule out potential sources of error beforehand, for example by reducing the number of interfaces.

In addition, all evaluations of the data entered previously by the Formel D team are assessed using software assistance. This means that the customer can optionally access the results almost in real time with the help of software installed by the service provider or using his own system. The elimination of the conventional

documentation processes minimizes interfaces and ensures that the Formel D experts concentrate fully on the quality checks, allowing them to come up with a wider range of tests.

This maximum transparency allows the customer to influence the production line process much more rapidly than before. It enables him to take the necessary measures at once in order to prevent stoppages of the assembly line while still ensuring the supply.

### Constant improvement of processes

Formel D continually refines the processes and tools it uses. An increase in the QCC locations also allows the Group to seize on the advantages offered by digitalization when performing optimization measures. The additional consideration of customer requests enables Formel D to create a new and progressive solution for the international automotive and supply industry that can be adapted to different requirements depending on the demand using a flexible software architecture. Formel D is currently active at 54 QCCs worldwide and plans to go on expanding the range it offers in the future. The constant optimization and improvement of the process structures allows the service provider to go on ensuring the highest possible quality standards – and thus maximum customer satisfaction. ■



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