

During the last years, huge call-back actions of the automotive sector made it more and more important to grant the traceability of safety relevant components, putting both car makers as their suppliers in front of a enormous challenge. In the future, most of the components will be controlled through a serial number and, frequently, a laser marked Datamatrix code, allowing the producer to keep full trace of the complete production cycle. Within this context, it is of utmost importance to

keep the results of the tests made for quality assurance of the products, storing them as retrievable quality data in a data base. For this purpose, leading car makers are implementing **AQDEF** as a standard for the data interchange, based on the server based software package **QS-STAT** from Q-DAS, which offers the market leading solution in collecting and evaluating quality data.

Eddy current testing is being used for the 100% control of a significant amount of safety relevant components. Considering this, as a first manufacturer worldwide ibg implemented the option of **AQDEF** test data export into in its digital eddy current testing instruments **eddyvisor**[®] and **eddyliner**[®]. After the completion of a test, the acquired data is send via Ethernet to a Windows-based PC which runs the tool **eddyQDAS**, which receives, sorts and prepares the data in AQDEF format for the **Q-DAS** interface.

The user may configure this software tool with his individual needs: which test data shall be stored for each test station, storage in K-field notation or with separators, in DFD/DXF or DFQ files, and free choice of the amount of tested parts in each file. The **eddyQDAS** software is capable to receive and to control simultaneously data of several ibg instruments connected to the Ethernet network, allowing one PC to support several eddyvisor[®] and eddyliner[®].



Before the tests starts, an alphanumeric serial number (part ID) is send via UDP to the test instrument, granting an unambiguous correlation between data and test part. During the test, **eddyQDAS** links this information with the test data in a Q-DAS file. For the transmission of the part ID, ibg may supply an optional standard program for Siemens Step-7 compatible PLC.



The program **eddyQDAS** supplied by ibg enables the parallel recording of the test results of any **eddyvisor**® / **eddyliner**® instrument in Q-DAS ASCII transfer format. In this format, individual data is “characteristic” and contains not only a simple value, but has additional attributes like time stamp, batch number or a physical value. The Q-DAS ASCII transfer format distinguishes the characteristics by their K-fields. If a certain characteristic is mentioned in this description, its K-field is also mentioned.

During storing, the characteristics are divided into a description part and a value part which are stored either together in one file (DFQ), or separately in two files (DFD / DFX). Afterwards, they may be statistically evaluated and used for the quality management, using the program qs-STAT, supplied by Q-DAS.

A selection of the characteristics, file formats, as well as all additional data to be logged can be made individually for each **eddyvisor**® / **eddyliner**®. Based on that selection, eddyQDAS creates the fields for the storage of the descriptions and the values, and stores them correctly the single or multiple files in the format specified by Q-DAS.

To activate data logging, the data-log in the **eddyvisor**® / **eddyliner**® menu „Setup → System Settings“ must be set to „is ACTIVE“ and the format to „Q-DAS“. The activation of this function demands an activation key, which can be purchased at ibg. After entering the activation key, inform the IP-address or the hostname of the logging PC. So all measuring results of the „Preventive Multi-Frequency Structure Test“ as well as results of the „Preventive Multi-Filter Crack Test“ will be send to the network PC.

