CAQ AG
Quality Born of Passion

Automotive
Quality Management Software
Quality in the Automotive Sector

Modular Quality Management Solutions

A car is made up of approximately 10,000 individual parts and round about 40 different materials. In order to ensure that both quality and safety are maintained throughout every assembly and all parts work together faultlessly, sophisticated quality management is an absolute necessity. It therefore comes as no surprise that probably no other industry has done so much for the evolution of quality assurance and the standardization of processes in the past century, as the automotive industry has.

- From APQP to SPC

This focus on quality led to the introduction of quality systems throughout the automotive sector which are primarily governed by quality standards such as ISO 9001 and IATF 16949. Maintaining these complex systems and their associated tools, however, is difficult with pen and paper or spreadsheet solutions alone. Our CAQ.Net® software is tailor-made to meet these requirements as it offers everything that is needed for sophisticated quality assurance and management from APQP, Control Plan, SPC, and inspection planning to initial sample inspections, gauge management, or the risk management tool FMEA.

- Software for More Efficiency

The automotive sector is subject to a number of strict market factors such as an ever more globalized theatre of production and distribution, rapid model changes, safety and environmental constraints, fuel efficiency efforts, and increasingly aggressive levels of international competition. All these factors create a global marketplace in which the quality of the finished product is of paramount importance. This is where our CAQ.Net® software comes into play and provides the perfect system with which to facilitate success in the difficult, highly competitive, and rapidly changing automotive environment. CAQ.Net®’s portfolio provides everything that is required for sophisticated quality management as well as the necessary tools to achieve and uphold pertinent certifications.
International Quality

Whether German VDA, US-American AIAG, or Japanese quality and production concepts such as Kaizen, whether VDA volumes, QDX file format, APQP, FMEA, production control plan, Ishikawa diagram, or 5-Why technique: practising quality management with CAQ.Net® essentially incorporates the best techniques and guidelines that the automotive world has to offer.

Most notably, CAQ.Net® facilitates perfect adherence to the IATF 16949 standard. This standard was born from the US-American QS 9000 and is structurally based on the ISO 9001. It harmonizes the individual regulations of the various international automobile organizations and is used by approximately 30 percent of all international carmakers, including all major German carmakers.

Control Plan Manager

Apart from facilitating the creation of IATF 16949 compliant control plans, the Control Plan Manager in CAQ.Net® also allows you to identify and define all relevant product/process characteristics that are to be monitored throughout the production process. For this purpose the manager allows you to consistently link the control plan, inspection plan and operating plan, and bidirectionally integrate the FMEA. In this step of the advanced product quality planning process (APQP), possible risks resulting from the product itself or its production process are analyzed and included in the control plan as characteristics that are to be supervised.

The consistent deployment of quality assurance measures throughout the production process brings together information which can be used to create a knowledge base that provides a clear overview of all processes from incoming goods inspection to production, assembly, final check, and shipping. Knowledge management with the Control Plan Manager is rounded off by the possibility to directly adopt characteristics from within the knowledge base, drawing (CAD), or external measurement software (e.g. QDAS).

Manage and Monitor Gauges

Gauge management with CAQ.Net® ensures that all employed devices are always correctly calibrated and in sound working order. The software furthermore organises the acquisition, application, and maintenance of all equipment. Apart from providing real-time monitoring and documentation of the state of equipment as well as its location of use and calibration

![Plan, manage, monitor, and calibrate all your gauges](image_url)

Highlights

- Certified compliance with ISO 9001, IATF 16949, AIAG, VDA
- Bidirectional integration into a vast variety of IT-systems
- APQP: production control plan with integrated FMEA, process flowchart, control plan, PPAP, and status report
- Automatic control plans based on the FMEA and inspection plan
- Standard compliant inspection plans for incoming goods, SPC, and outgoing goods
- Sample plans in accordance with e.g. ISO 2859/3951 or Skip-Lot
- Multi-language-capability for master and dynamic data
- Escalation management for action and due-date tracking
- SPC with machine and process capabilities (Pm/Pmk, Pp/Ppk, Cp/Cpk)
- Consistent implementation of PDCA and Kaizen in a cross-modular cycle of control
- Qualification matrix and e-learning for monitoring employee training measures
- Traceability down to the individual measurement value
- 8D-Reports including root cause analysis via Ishikawa diagrams and 5-Why method
- Integrated supplier management and web-based supplier evaluation functions
- Cross-modular linkage of articles, article groups, processes, documents, inspection plans, etc.
- Change management with cross-departmental change workflows
- Online data exchange via OEM supplier portals and VDA QDX-format
- Initial sample reports in accordance with QS 9000 (PPAP) and VDA (PPF)
- CAD inspection planning with automatic stamping of drawing characteristics
- Gauge capability examinations with MSA and VDA 5 proof of capability
- FMEA in accordance with VDA and QS 9000
- System, internal, customer, and supplier audits as well as process audits in accordance with VDA 6.3
- Control and monitoring of customer specific requirements
- And much more
status, CAQ.Net® ensures that only devices which are available and in sound working order are implemented in measuring processes – thus eliminating the possibility that faulty or unsuitable equipment is used.

- **Connected to the ERP-System**

With CAQ.Net® the idea of data transparency does not stop at the CAQ-system, as the CAQ-system is also connected directly to the ERP-system. A standard interface transfers master and dynamic data between the two systems. This means that all article master data is synchronized and that incoming goods inspections are automatically logged on in the CAQ-system as soon as new incoming goods are registered by the ERP-system. The direct communication between the two systems thereby greatly increases the overall process efficiency in the company.

- **Supplier Management**

The seamless interconnection of the various CAQ.Net® modules is a great advantage with regard to supplier management. In order to execute expressive supplier management it is necessary that one has direct access to all available data and can evaluate said data simultaneously.

The clear advantages of supplier management with CAQ.Net® lie in the fact that all data that is gathered and is relevant to the relationship between a company and its supplier – such as supplier self-evaluations, audits, complaints, CAPAs, risk-analyses or incoming goods inspections – can be analysed in one go and be used to achieve crystal clear supplier evaluations.

- **Decades of Experience**

CAQ AG has over thirty years of experience in the field of computer aided quality assurance and quality management. Our first customers included a variety of manufacturers from the automotive sector. Over the decades we have continued to support said customers in the implementation and maintenance of our standard-compliant software solution and many of these customer relationships have since developed into knowledge sharing partnerships. These partnerships allow us to continuously improve our product and rapidly adapt to changing industry demands.

The resulting target/actual comparison between CAQ.Net® and the most current requirements by manufacturers in the automotive sector means that our customers are always in command of a cutting-edge software solution that allows professional, efficient, and standard-compliant quality management.

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> **Online monitoring of all inspection orders with customizable QM control post**
Quality Management Software

CAQ AG Factory Systems has established itself as one of the worldwide leading providers of quality management software. We have over 30 years of experience in the development and distribution of modular, multilingual, and industry-specific management solutions for small and medium-sized enterprises as well as multinational corporations.

Our CAQ.Net® software suite covers every aspect of computer aided quality assurance and was designed with the highest degrees of adaptability and customizability in mind. Just like a construction kit, our system allows you to pick the most suitable building blocks and thereby create the perfect solution to your individual quality management demands.

First-Class References

Because no one else knows the detailed ins and outs of specific day-to-day business processes in their company better than our customers themselves, we continually focus on their individual requirements and always listen to what is needed “in the field”. These synergies allow us put theory into practice and provide standardized, yet highly customizable quality management solutions. Visit our website at www.CAQ.de and see how some of our most renowned customers describe their success stories. They are happy to serve as guarantor and reference for our powerful, reliable, and fair software solutions.