

All Automotive Core Tools Integrated in Just One Software



ISOQualitas CoreTools

ISOQualitas.CoreTools® is a complete and comprehensive software that meets all Core Tools required by the global automotive industry, such as IATF 16949 standard and AIAG reference Manuals (APQP, PPAP, FMEA, MSA, SPC), in addition to VDA2, dedicated to German OEMs.

It has a series of simple to use, but powerful tools, that improve the productivity, planning, control, and connectivity between engineering and the shop floor through work instructions linked to APQP documents and data generated during the product and manufacturing process development.

ISOQualitas.CoreTools® is user-friendly and intuitive, so multidisciplinary teams can focus on content instead of spending time formatting documents and templates. Intelligent data sharing and the ability to reuse existing information means that there are no more double entries, which allows for a productivity gain of up to 80% compared to manual generation, management and control in products development intended for the global automotive industry.

Advantages and Benefits



All requirements in just one software

ISOQualitas.CoreTools® addresses all automotive requirements through integrated functions in the planning and control of activities throughout the product development. The implementation of the software is simple and fast, with a maintenance investment that is very accessible to all sizes of companies. Project data is maintained in modules, and users benefit from an easy-to-use interface with full visibility into the activities of all ongoing projects.



Eliminate consistency errors

All product and process data is fully integrated, which ensures that engineering information is connected among the Core Tools documents. ISOQualitas.CoreTools® automatically analyzes the consistency of product characteristics, process parameters, operations, and all documents and reports to ensure the reliability of information throughout the entire product lifecycle.



Powerful planning tools

All planned activities, such as APQP, FMEAs, PPAP Approval and others, are centralized in a single planning, management and control tool with automatic notifications and alerts to ensure compliance with established deadlines and real-time information on the evolution of each project in progress.



Constant updating of requirements

ISOQualitas keeps all its systems up to date on the latest versions of the various standards and requirements of the automotive industry, which ensures that all our customers always meet the demands of the sector. The current version includes the following Manuals:

- FMEA - AIAG-VDA – 1st Edition
- APQP - 3rd. Edition
- Control Plan 1st Edition.

Need more power?

Fast and direct upgrade to ISOQualitas.PLM® for those companies that wish to go beyond the requirements of Core Tools, such as: Global 8D, Non-Conformance Management, Customer Specific Requirements, Engineering Change Management, Quality Management in Production, Management of Purchased Materials and others. ISOQualitas.PLM® is a perfect solution for companies that want to manage all quality requirements throughout the product lifecycle.



Quick and simple setup

The installation and configuration of ISOQualitas.CoreTools® is simple and fast, as it requires only a small investment of time and resources and parameterization of some modules, such as:

- Company information (including multiple plants in the same corporation).
- User registration with definition of access level for each module.
- Registration of customers and suppliers.
- Insertion of a new project.

Feasibility and Risk Analysis

The feasibility and risk analysis module covers all supply risks, as well as offers a tool for the feasibility decision addressing supply risks.

- Checklists with various perspectives of risks associated with developments.
- Individual analysis of each risk perspective.
- Totalization of all risks of a supply for feasibility decision.
- Analysis and graphs of Feasibility X Risks

Project Planning and Management

The planning, management, and control modules allow users to configure, execute, and assign all activities, assignees, and deadlines, with real-time alerts, progress reports, and monitoring, including:

- Configurable list of activities.
- Determination of the "critical path" of the project.
- Gantt charts based on project activities, assignees, deadlines, and progress.
- Link between preceding activities to ensure consistency of delivery dates.
- Automatic update of each activity, including notification of completion.
- Sending email notification alerts for each completed activity.
- Automatic task update in all modules and functions.
- Automatic verification of the status of activities before the completion of the project.
- Activity management report for each individual user, members, or teams.

Product and Process Data Management

The modules of Product and Process Data Management store and manage all engineering data for each project. From these modules, users have consistent control over any engineering data changes throughout the product lifecycle.

- Parts and Parts Family Management.
- Product Characteristics/Process Parameters.

Product Development

The product development modules support all project requirements throughout the product lifecycle, including:

- PDM – Product Data Management.
- Design FMEA – according to the FMEA AIAG/VDA Handbook, including FMEA-MSR (Monitoring System Response)
- DVP & R – Design Verification Plan & Report.
- Prototype Control Plan.

FMEA Handbook - AIAG/VDA

Seven-step approach with automatic definition of AP (Action Priority), action management and reporting to easily identify risks and recommended actions for development DFMEA, PFMEA and FMEA MSR:

- Full compliance with the current requirements of the FMEA AIAG/VGA Handbook.
- Easy migration of FMEAs developed according to the AIAG 4th Edition to FMEA AIAG/VDA.
- It includes the new criteria of Severity, Occurrence and Detection
- Help system for the inclusion of data in each column of the AIAG/VDA FMEA.
- Automatic AP definition (Action Priority)
- Robust and consistent approach to FMEAs by Foundation, Family or Specific Parts
- Structure analysis library (Step 2) for better consistency and increased productivity
- Capability to copy data between FMEAs already developed to new FMEAs
- Direct access to the database of non-conformities and lessons learned (NCRs and Global 8D)
- Preventive and corrective actions with task management, alerts and email notifications.
- Analysis of consistency between FMEAs, Control Plan, Flowchart and Characteristic Matrix.
- Support for RFMEA (Reverse FMEA) in manufacturing processes implemented in production
- Task management report for individual users, for specific teams, or all users.
- AIAG/VDA FMEA forms printed on standard or large size paper for better viewing.

Manufacturing Process Development

The modules of manufacturing process development support the product production according to the specific requirements of the automotive industry, including:

- Management of product/production process data
- Process Flow Diagram
- Characteristics Matrix (process parameters/product characteristics and interactions).
- Control Plan (Prototype, Pre Launch, Safe Launch and Production).
- Reaction Plans, Setup Instructions, Work Instructions, Quality Alerts and Visual Aids.
- Setup Records, Inspection Records and Statistical Process Control.

APQP Requirements and Core Tools

ISOQualitas.CoreTools® has several modules to ensure compliance with the IATF-16949 standard and the automotive Core Tools requirements. All activities, from product concept to the end of its useful life, are addressed in a logical, consistent and easy-to-use way, which includes:

- APQP Planning (Phases, Activities, Responsible and Deadlines).
- Project and Process FMEAs (according to the FMEA VDA/AIAG Handbook 1st Edition)
- Team Feasibility Commitment.
- Process flow diagrams and Characteristic matrix.
- Process Control Plan (Phases: Prototype, Pre-Launch, Safe Launch and Production).
- Work instructions with production alert within the Safe launch deadline.
- MSA - Measurement Systems Analysis (Stability, Bias, Linearity, R&R variable and attribute).
- Statistical Process Control and Preliminary Process Capability.
- Dimensional/Material/Performance and Appearance Inspection Results.
- Gated Management including APQP phases checklists.
- Production Parts Approval Process - PSW (According to PPAP Manual 4th Edition).
- Specific requirements of the VDA2 Manual - PPA - 2020 Edition.

MSA – Measurement System Analysis

Management and execution of measurement system studies, according to the MSA - Measurement Systems Analysis manual:

- Management of control systems including the calibrations management according to the ISO-17025 standard.
- Stability, Bias and Linearity Studies.
- R&R Study – Variables (X-R and ANOVA methods).
- R&R Study – Attributes (Cohen Method and Gray Band).

Process Capability Study

The capability and process studies module meets the requirements of Statistical Process Control (SPC) Reference Manual - AIAG, which includes

- Evaluation of process stability (X-R Chart, X- σ Chart, and X-MR).
- Evaluation of the Sample Distribution: Normal, Lognormal, Exponential, Weibull and Real (Kernel).
- Process capability indexes: Cp/Cpk, Pp/Ppk; Cm/Cmk, PPM, etc.

Production Part Approval Process PPAP e VDA2

The product approval processes modules include all requirements of PPAP 4th Edition, and the VDA2-PPA 2020 Edition, including:

- Dimensional Inspection Results, Material and Performance (and Other tests for VDA2).
- Part Submission Warrant – PSW and VDA2 – PPA according to the 2020 Edition.
- Appearance Approval Report.

System Requirements and Implementation Options

Hardware e Software - Server

- Processor: 1x8Gb - 3.2 Ghz recommended
- RAM: 8Gb minimum, (16Gb recommended)
- HD set space: 5Gb minimum, (10Gb recommended)
- Operating System: Microsoft Windows Server 2008R2, 2012, 2016,2019 and 2022.

Hardware & Software - Workstation

- Processor: Intel / AMD - minimum 3.20 Ghz - 32/64 bit (64 bit recommended)
- RAM: 4Gb minimum (8Gb recommended)
- Screen resolution: 1280 X 768px minimum
- Operating System: Microsoft Windows 7, 8, 8.1, 10 and 11 – 32/64 bit - Microsoft .NET Framework 4.8
- Lower than recommended settings may affect processing performance.

Server-side Deployment (On-Premise or Cloud)

- Database Server: MS-SQL Server 2008 or higher, including MS-SQL Server Express, installed on the local or cloud server (Microsoft Azure recommended).
- ISOQualitas.CoreTools® installation application in the Server option and ISOQualitas.SQLAdmin, included in the installation package for the configuration of the MS-SQL Server database.

Workstation Installation

- ISOQualitas.CoreTools® installation application in the Workstation option.

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