ISOQualitas®

The Automotive PLM Company

ISOQualitas.PLM

Product Lifecycle Management

Software Data Sheet
Version 17

Introduction

ISOQualitas.PLM® is comprehensive and integrated software that optimizes all Product Lifecycle Management activities, from the Advanced Product Quality Planning (APQP), through the Process Production Part Approval (PPAP), and all the way to manufacturing, according to the requirements and standards of the automotive industry.

ISOQualitas.PLM® is a tool that will enable your company to fully comply with quality management standards IATF-16949, VDA, EAQF and their respective reference manuals APQP, PPAP, FMEA, SPC, MSA, VDA2, and others, as set out by the automotive industry.

Furthermore, **ISOQualitas.PLM®** will also enable your company to meet specific requirements from global automotive manufacturers.

Benefits and Advantages

⇨ Eliminate consistency errors. All product and process data are fully integrated in such a way that development data and reports are consistent with data and information used at the shop floor. Besides data integration, **ISOQualitas.PLM** automatically checks product characteristics, process parameters, process operations and all documents and reports for consistency.

⇨ Powerful planning tools. All planned activities such as APQP Planning, FMEAs, 8D, and others are centralized in a single management tool with automated notifications and alerts to keep track of activities and help manage deadlines.

⇨ All-in-one software. **ISOQualitas.PLM** comes with all features integrated into one software package to manage and develop requirements for product lifecycle from product concept to use. Software implementation and maintenance is simpler, faster and cheaper, and all development data across all modules and users benefit from the same user-friendly interface with full visibility of tasks on any ongoing project.

⇨ Advanced user management. In **ISOQualitas.PLM** the access privileges are set at the individual user level for each module to match their role and responsibility within your organization. A full audit trail tracks and logs changes by users.

⇨ Constantly updated to new requirements. Includes the new AIAG-VDA FMEA Handbook with an intuitive interface and easy migration from the outgoing 4th Edition. An intelligent FMEA Family approach helps optimize your analysis and actions.

⇨ Full reporting suite. Create, manage, archive, print (and batch print) all Core Tool and other management reports. All the data advanced analysis, and powerful reports to gain insight, meet all your customer document and reporting requirements, and pass audits.

Features

Project Planning & Management

The Planning and Management modules allow users to set, organize, and assign all project tasks, deadlines, and critical paths with real time alerts, progress reporting and monitoring, including:

▪ Configurable list of tasks.
▪ Automatic calculation task duration
▪ Group/ungroup tasks
▪ Determine "critical path" tasks
▪ Gantt diagrams based on tasks and deadlines
▪ Link tasks to ensure consistent deadlines
▪ Tasks status automatically updated based on activity completion
▪ Set follow up e-mail and popup alerts for tasks
▪ Set e-mail notification alerts for completed tasks
▪ Automatic task update across all modules and functions
▪ Automatic task status verification prior to project completion
▪ Tasks management report for individual user, for specific teams or general (all users)
▪ Management of changes that impact multiple products
▪ Layout inspections planning and management
▪ Dashboard with Planning KPIs

Product Data Management - PDM

The Product and Process Data Management modules stores and manages product and manufacturing process data. From these modules, users have robust control over any product or process data change at any time during the product lifecycle.

▪ Parts Management
▪ Product Characteristics / Process Parameters
▪ Manufacturing Process Operations
▪ Documents Repository (For each Part and Clients)
▪ Repository of Images and CAD/CAM/CAE data (including 3D) with viewing capabilities.
▪ Product Family Management
▪ BoM - Bill of Material
▪ ECR – Engineering Change Request with approval workflow.

Process Capability Studies

The Process Capability Studies module supports all studies required by the SPC Reference Manual 2nd. Edition, including:
▪ Process Stability Assessment (X-R Chart, X-σ Chart, Individual-Moving Range Chart)
▪ Samples Distribution Assessment: Normal, Lognormal, Exponential, Weibull and Real (Kernel)
▪ Process Capability Indexes: Cp / Cpk, Pp / Ppk; Cm / Cmk, PPM, etc.

PPAP and VDA2 Approval Processes

The Product Approval Processes modules support all requirements of the PPAP Reference Manual 4th Edition and the VDA Band 2 Version 2012, including:

▪ Dimensional, Material and Performance Test Results
▪ Part Submission Warrant – PSW - EMPB
▪ Product Structure - BoM (VDA)
▪ Report of Acquired Materials
▪ Appearance Approval Report

Product Development

The Product Development modules support product design requirements from concept to final configuration, including:

- Product/Process Data Management - PDM
- Design FMEA – (AIAG-VDA and 4th Edition)
- DVP&R - Design Verification Plan and Report
- Prototype Control Plan
- Definition of product special characteristics

Manufacturing Process Development

The Process Development modules support the product manufacturing process according to specific automotive industry requirements, including:

- Data Management Product/Process - PDM
- Manufacturing process operations management
- Process Flow Diagram
- Characteristics Matrix (Process/Product)
- Process FMEA (AIAG-VDA and 4th Edition)
- Pre-launch and Production Control Plans
- Process Reaction Plans
- Work Instructions, Visual Aids
- Setup Instructions of Manufacturing Process
- Setup and Inspection Reports

New AIAG-VDA FMEA Handbook

Seven step process with automatic AP definition, Actions Management and Reports to easily identify the Risks and Recommended actions.

- Fully compliant with the new handbook definitions
- Easy migration from outgoing 4th Edition FMEAs
- Severity, Occurrence and Detection Criteria
- Tips for each FMEA Column
- Automatic AP definition with easy access to AP Logic
- Powerful Family FMEA approach
- Structure Analysis Libraries for better consistency and productivity
- Ability to Copy Data between FMEAs
- Easy access to Non-conformities and Lessons Learned database
- Preventive and Corrective Actions with Task Management, Alerts and e-mail notifications
- Consistency between PFMEA, Control Plan, Flow Chart and Characteristics Matrix
- Print to Standard paper or Large paper for better viewing

APQP Requirements

ISOQualitas.PLM has everything to ensure compliance with IATF-16949 and the Core Tools requirements. All activities from product concept to end of life disposal are addressed in a logical, consistent, and user-friendly manner, including:

- APQP Planning
- Design and Process FMEA (as per FMEA VDA/AIAG)
- Team Feasibility Commitment
- Process Flow Diagram & Characteristics Matrix
- Control Plan
- Work Instructions
- Measurement Systems Analysis
- Statistical Process Control
- Dimensional/Material and Performance Results
- APQP Checklists & APQP Summary and Approval
- Production Part Approval Process (PPAP)
- VDA Requirements (German OEM Suppliers)

Measurement Systems Analysis - MSA

The Measurement Systems Analysis modules support all studies required by the MSA Reference Manual 4th. Edition, including:

- Measurement System Management
- Stability, Bias and Linearity studies
- R&R Study - Variables (X-R and ANOVA Methods)
- R&R Study - Attributes (Cohen Method and Gray Zones)
- Calibration Management

Production Execution Support

The Production Execution Support follows the product and process development phases and benefits from **ISOQualitas.PLM®**'s full integration by sharing the same database across different functions and phases in a consistent and reliable manner. The Production Execution Support modules include:

- Registration and management of Production Lots
- Inspection records with automatic SPC analysis
- Quality Certificates
- Layout Inspection
- Process Ongoing Monitoring - SPC
- Run@Rate and Time and Cost analysis
- Non-Conformance records
- CAPA - Corrective Action and Preventive Actions
- Full integration with ISOQualitas.ACT system to support the shop floor activities

CAPA and Global 8D

ISOQualitas.PLM has several Corrective and Prevention Actions modules as an integral part of the manufacturing support process. This enables management to implement and validate the problem-solving process and the recording of nonconformities throughout the product lifecycle. The following modules are included in the CAPA/8D modules:

NCR Modules
- Nonconformities Registration
- Powerful search for nonconformities
- Graphics history of nonconformities
- Management of corrective and preventive tasks and actions (popup and e-mail alerts)

Global 8D Modules
- Registration and Management of 8D Solving Problem Process
- Searching with filters of 8Ds
- 8Ds History
- Management of corrective and preventive tasks and actions (popup and e-mail alerts)

Incoming Materials Management

The Incoming Materials Management modules records and shares data of received materials, which avoids duplication of data entry later in the process, while also ensuring that data is consistent and reliable. The Incoming Materials Management modules include:

- Registration and Management of Incoming Materials
- Skip Lot sampling plans (Configurable by users)
- Inspection instructions
- Receiving Inspection Records
- Record of non-conformities and CAPA
- Direct integration with the ISOQualitas.ACT software to support control of incoming materials

Easy and Fast Configuration

ISOQualitas.PLM has a simple, fast, and easy configuration and installation requiring only a small investment in time and resources:

- Organization information (including multi-plant in the same corporation)
- Users registration with access level definition to each module.
- Customer registration.
- Suppliers registration.
- The configuration of favorite modules set by each individual user.

Full Production Support

ISOQualitas.ACT® is an add-on module that extends **ISOQualitas.PLM®** to the shop floor for those companies seeking a truly integrated and automated paperless solution for increased productivity and quality assurance. With **ISOQualitas.ACT®** shop floor operators and quality inspectors receive instructions directly at their workstations and have a range of tools to support and provide immediate feedback during the manufacturing process. With **ISOQualitas.ACT®** the data defined within **ISOQualitas.PLM®** during APQP is captured effortlessly at the shop floor by operators and inspectors through a user-friendly interface.

ISOQualitas.ACT® has specific modules to register and report quality control events and results as required during manufacturing by worldwide automotive standards. Additionally, **ISOQualitas.ACT®** makes all manufacturing process execution documents created by the APQP teams through **ISOQualitas.PLM®** available on the shop floor, assuring full consistency with planned activities.

System Requirements

Hardware

Processor: 1Ghz Minimum, 4Ghz recommended
RAM Memory: 1Gb Minimum, 4Gb recommended
HD available space:
Workstation: 2Gb Minimum
Server: 4Gb Minimum
Display Resolution: 1280 x 768px minimum

Software

Our products are tested to ensure stable operation in the following operating systems:

Workstation:
Microsoft Windows 7 or later.

Server:
MS-Windows Server 2008/R2 or later.
- If you opt for the Cloud Database on MS Azure, no Server requirements apply.

ISOQualitas.PLM is not compatible with Windows 3.1, 3.11, XP or Workgroups®, Windows emulators that run under systems OS/2®, UNIX or Macintosh.

ISOQualitas.PLM only works on computers compatible with the Microsoft .Net Framework 4.6.

Databases

- Microsoft SQL Server Version 2008R2 or later, including Microsoft SQL Server Express and Microsoft Azure Cloud Environment.

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Some Companies using the ISOQualitas.PLM

We have over 300 customers currently using **ISOQualitas.PLM**. Below is a short list of some of our customers taking their Product Lifecycle Management to the next level with our software and seeing a dramatic improvement in business performance with **ISOQualitas.PLM**.

Organization	Products	Automotive Customers
ADHEX – PLASTO Design and Manufacturing	Adhesive components	Delivers engineered adhesives for Automakers and their supply chain.
ALLEVARD REJNA Design and Manufacturing	flexible suspension components Suspension Helicoidal Springs Spring beam	General Motors Ford Motor Company Renault Peugeot Citroën Volkswagen FCA - Fiat Chrysler, LLC
ARITA MACHINING Manufacturing and Services	Machined parts for several application	Delivers plastics components for Tier 1 and Tier 2 within the automotive supply chain.
AUTOPLAS Manufacturing	Lighting components Trim components Plastic components for air conditioning systems	Delivers plastic components for Automakers and their supply chain.
BENTELER Design and Manufacturing	Chassis and Modules Structures (Steel and Aluminum)	Peugeot Citroën MAN Volkswagen
BLEISTAHL LTDA. Design and Manufacturing	Valve seat inserts valve guides	Delivers engine components for Automakers and their supply chain.
BOLLHOFF SERVICE Design and Manufacturing	Engineered Fasteners Special Nuts Blind Rivets Plug In connections	Delivers wide range of fastening components for Automakers and their supply chain.
BREMBO Design, Manufacturing and Services	Braking Systems Brake Components	Delivers braking systems and components for several Automakers in the world.
CAST FUTURA S.p.A Design and Manufacturing	Lighting and Heating Components	Delivers Lighting and Heating components for Automakers and their supply chain.
CHEMETALL Manufacturing	Surface Treatment (Chemical Products)	Delivers wide range of products for surface treatment for the automotive supply chain.
CINPAL LTDA. Manufacturing	Forging components for Powertrain Machining parts for Powertrain and suspension.	Delivers forged parts and machined components for Tier 1 and Tier 2 within the automotive supply chain.

Some organizations using ISOQualitas.PLM (Cont.)

Organization	Products	Automotive Customers
DAYCO Design and Manufacturing	Timing belts V-Belts Tensioners and Pulleys	Mercedes Benz Cummins Scania Volvo MAN
FAGOR EDERLAN Manufacturing	Machined Steering Knuckles Calipers Brake Supports Carriers and Diff-Cases.	Renault General Motors Ford Motor Company Toyota Volkswagen
FEDERAL MOGUL Design and Manufacturing	Lighting components	General Motors Ford Motor Company Hyundai Motors Mercedes Benz Volkswagen Honda Yamaha
FERKODA LTDA Manufacturing and Services	Aluminum housing for fuel filter Mufflers for air conditioning line Connectors for cooling line	Delivers engineered aluminum parts for the automotive supply chain.
FREUDENBERG GROUPE Design, Manufacturing and Service	Cabin Air Filters Engine Intake Air Filters Diesel Exhaust Filters	Delivers Filtration systems to automakers and their supply chain.
GDE LIGHTING Design and Manufacturing	LED technology for lighting systems	Delivers LED lights to the automotive supply chain.
GGB BEARINGS Design and Manufacturing	Metal-Polymer Bearings Engineered Plastics Bearings Bushing Blocks Bearing Assemblies	Delivers engineered bearings and bearing assemblies for the automotive supply chain.
GVS FILTER TECHNOLOGY Design, Manufacturing and Services	Injector Filters ABS Brake filters Steering and Transmission Filters Fuel Filters Butterfly Body / Drive by Wire	General Motors FCA - Fiat Chrysler, LLC Volkswagen Mercedes Benz Mitsubishi Motors
HUF GROUP Design and Manufacturing	Driver Authorization Systems Passive Entry Systems Door Handle Systems Power Tailgate Systems Mechanical Locking Systems	General Motors Ford Motor Company Fiat Chrysler, LLC Volkswagen and AUDI Mercedes Benz
ITALTRACTOR S.p.A	Track Chains Track Rollers Undercarriage Systems	Volvo CNH John Deere Hyundai Komatsu JCB Liebherr
ITW – ILLINOIS TOOL WORKS Design and Manufacturing	Interior and Exterior Components Engineered Fasteners	General Motors FCA - Fiat Chrysler, LLC Ford Motor Company Scania Trucks International Trucks Peugeot Citroën Renault Nissan Honda Motors Toyota

Some organizations using ISOQualitas.PLM (Cont.)

Organization	Products	Automotive Customers
JOHNSON ELECTRIC - GATE Design and Manufacturing	Powertrain System Cooling HVAC - Climate Control Actuators Electric Steering Systems Drivelines Doors locking Systems	General Motors Ford Motor Company Fiat Chrysler, LLC Volkswagen and AUDI Mercedes Benz
KATHREIN AUTOMOTIVE Design and Manufacturing	Rod Antenna Shrak fin Antenna Window Antenna Body Integrated Antenna	General Motors FCA - Fiat Chrysler, LLC Volkswagen Daimler Benz BMW Mitsubishi Motors Hyundai Motors KIA Motors Honda Motors Toyota
KNNOR BREMSE - NFP	Braking Systems Dampers Electronic Systems Steering Systems Valves Disc Brakes Drum Brakes	Volvo Mercedes Benz MAN Ford Motor Company Scania
MAGNETI MARELLI Design, Manufacturing and Service	Lighting Systems Powertrain Systems Suspension Systems Exhaust Systems	Fiat Chrysler, LLC Jeep General Motors Ford Motor Company Volkswagen Several automotive customers around the world.
MANGELS GROUP Manufacturing	Wheels Rear Axles Engineered Steel Parts	Delivers engineered steel parts for Automakers and their supply chain.
NORGREN IMI PRECISION Design and Manufacturing	Fuel System Components CAB Controls Air Management	Delivers engineered steel parts for Automakers, Truck makers and their supply chain.
NOVELIS Design and Manufacturing	Aluminum for several applications	Delivers engineered aluminum for Automakers and their supply chain.
PARKER HANNIFIN Design, Manufacturing and Services	Hose piping and tubing Pneumatic Valves Hydraulic Pumps Motors and Rotary Gearheads	Volvo Trucks Mercedes Benz Ford Motor Company - Truck Division MAN Trucks Scania Trucks
PETRONAS - Petroliam Nasional Berhad Manufacturing and Retail Sales	Petroleum Based Functional Fluids Automotive Lubricants	Delivers petroleum based products to automakers and aftermarket around the world.
SAINT GOBAIN Design and Manufacturing	Automotive Glasses	General Motors Ford Motor Company FCA - Fiat Chrysler, LLC Peugeot Citroën Hyundai Motors KIA Motors Volkswagen and AUDI

Some organizations using ISOQualitas.PLM (Cont.)

Organization	Products	Automotive Customers
SOGEFI GROUPE Design, Manufacturing and Service	Oil, petrol, diesel fuel, air and cabin air filters Suspension Helicoidal Springs Spring beam	General Motors Ford Motor Company FCA – Fiat Chrysler, LLC Mercedes Benz Volkswagen
TI AUTOMOTIVE Design and Manufacturing	Fuel Tank & Delivery Systems Brake & Fuel Lines Injectors Fuel Pipes System Thermal Systems Pipes	General Motors Ford Motor Company MAN Trucks Peugeot Citroën Volkswagen Hyundai Motors KIA Motors Honda Motors
TOYOTA BOSHOKU Design and Manufacturing	Seat Interior & Exterior Components	Toyota General Motors
U-SHIN Design and Manufacturing	Door Handles Lock Sets Door Latches	General Motors Peugeot Citroën Honda Motor Volkswagen Ford Motor Company Renault Nissan Motor
WABTEC CORPORATION Design and Manufacturing	Freight Rail Sector: Deep Drawn Brake Cylinder DJ Slack Adjuster Coaming Rings Valve Mounting Gaskets	Corporations in the freight rail sector