

REAL-TIME. QUALITY. MANUFACTURING.

THE OPTIMAL SOLUTION FOR SOFTWARE DEPLOYMENT THAT IS CLOSE TO PRODUCTION.

If necessary, RQM transcends the process islands and provides an integrated overall solution for quality management, production management, and asset optimization - dynamic optimization of the deployment of people, machines, tools, inspection equipment, and material.

RQM is a continuous, uniform solution for all quality management tasks, from FMEA to outgoing goods, from production inspection on through to the company-spanning control loop.

RQM records and processes data, states, events, and decisions from all areas of production in real time. RQM steers production orders through the operation and plans the optimal use of resources.

RQM consolidates the software environment close to production if necessary and integrates the RQM functions efficiently and securely into the inventory systems.

Specification

- Integrated software solution for quality management and production management
- Modular standard software for the most various tasks and challenges
- Vertical integration (ERP, PPS, machines, systems)
- Horizontal integration (B2B, SCADA, measurement systems, logistics, messaging, online portals)
- Multilingual
- Multi-tenancy
- PC, browser, Citrix, mobile devices
- 5 to 1,000 simultaneous users
- Used worldwide:
 - 12,000 users
 - 20 countries

Maximum benefit

Integrated overall solution between ERP/PPS and the automation: modular, flexible, multilingual, and proven for many years.

Optimal functionality and practical user interfaces for all tasks, flows, functions, and areas.

Optimal support for all employees, quality management employees, shift managers, planners, and management.

Optimal combination and consolidation of the information streams.

Optimal embedding in comprehensive flows and processes.

More benefits due to optimized interfaces and flows, individualized displays and reports, and adapted functions and contents.

Thus far, RQM has been used to fulfill more than 1,500 requirements specifications precisely.

Production

management

Monitoring Planning
Tracking & Tracing
Application integration

Quality
management

Control

Events

Process integration

Interfaces

Control

Automation devices Assurance
Workflow management

QUALITY MANAGEMENT



RQM.QM – THE REAL-TIME QUALITY MANAGEMENT

EXTENSIVE CAQ SOFTWARE PROVEN WORLDWIDE. HIGH-CAPACITY, CONTINUOUS PROCESSES REDUCE QUALITY COSTS AND COMBINE QUALITY MANAGEMENT WITH PRODUCTION MANAGEMENT, MATERIALS MANAGEMENT, AND FINANCE MANAGEMENT.

RQM fulfills the specifications and conditions of many industries and companies.

RQM is a continuous, uniform solution for all quality management tasks, from project management and FMEA to incoming goods, from production on through to outgoing goods and complaint management.

RQM allows event-controlled and automated work processes and information streams between the QM areas, but also production management, resource management, and production planning.

With RQM, companies reduce scrap, they rationalize quality management, and reduce the follow-up costs from production defects.

With RQM companies plan and anchor their flows and actions, they detect defects and deviations in timely fashion, and they monitor the effectiveness of interception actions. They identify and evaluate risks and sources of defects, avoid breakdowns, and fulfill conditions and standards.

Specification

Functionality

Designed for automotive, aerospace, electric, metal, plastics, medical technology, power supply, etc.

Certification

RQM customers are certified according to:

- ISO9001:2008
- ISO TS 16949:2002
- QS 9000
- VDA 6.1
- VDA 6.4
- FDA 21 CFR 11
- EN 29001
- 9342 EWG
- ISO 13485
- EN 9001 Aerospace Series
- AQAP 2110
- among others

Quality management

RQM BASIC FUNCTIONS

RQM supports all QM tasks along the entire value chain in many industries.

RQM offers practical functions, views, and user interfaces. Behind these stand proven data models, software structures, and information streams.

RQM includes AIAG-, FDA-, ISO-, VDA-compliant flows, dialogs, functions, forms, exchange formats, safety concepts, history.

RQM assists with the adherence to, implementation and fulfillment of compliance & governance.

RQM controls all workflows, actions, projects, responsibilities, states, events, and scheduling via a central workflow management.

RQM includes interfaces for: measurement devices, measurement machines, CAD, PPS, ERP, MES, SCADA, timekeeping, Internet portals, automation devices, and process control.

Quality planning

Compliance &
Governance

Workflows & Projects

Monitoring & Tracing

Quality control

Resource & Deployment

FDA

Evaluation & Analysis

Events & Actions

ISO AIAG

Quality assurance

Conformity & Proof

Optimization

VDA

Complaint & Reaction

PRODUCTION MANAGEMENT

Conformity

EXCERPT

FMEA

VDA 4.2, VDA 4.3, QS 9000

Incoming goods inspection plans and dynamization

ISO 2859 and 3951

SPC

DIN ISO 21747, DGQ, VDA, QS 9000,
ISO 9001:2008, ISO TS16949:2002

Inspection equipment management

VDI/VDE/DGQ 2618, capabilities
according to MSA 1-3 (QS 9000),
Bosch, Ford

Fitting tables, inspection standards

DIN 286, DIN 862, DIN 863,
DIN 2768, DIN 7154/55, etc.

Traceability

VDA 5005, VDA 5510, VDA 4902,
Odette, GTL Standard

RQM.PM – THE REAL-TIME MANUFACTURING

FOR MORE TRANSPARENCY AND BETTER DECISIONS: RESOURCES, MATERIAL,
FINE PLANNING, DISPOSITION, AND MACHINE DATA BELONG TOGETHER.

RQM records the production flow from incoming goods to production on through
to outgoing goods in real time.

RQM assists the shift manager and employees in fulfilling the production plan.

RQM connects production to suppliers, customers, and locations.

RQM connects the automation devices to the planning level.

RQM connects quality and production management to the other IT solutions.

RQM enables employees and shift managers to make optimal decisions.

RQM allows the rapid implementation of the right actions.

RQM allows the optimal use of material, machines, tools, and people.

Production planning

Control panel

Order & Reporting

Resources &
Disposition

Machine data terminal

Monitoring & Tracing

States &
Quantities

Production steering

Process data

Events & Actions

Information &
Decision-making

Automation devices

Production control

Production management

RQM BASIC FUNCTIONS

RQM records and documents the actual state from the automation devices to the
control panel in planning, production, and quality assurance.

RQM Traceability locates the affected customers, products, batches, containers,
machines, tools, inspection equipment, pre-products or suppliers with a clarity and
precision that was not previously possible.

RQM combines all data, states, and information about material, machines, processes,
quality, and people in a central control panel.

RQM sequences the production and quality processes with real-time analysis and
evaluation of states, results, events, and decisions, and it enables rule-based, work-
flow-controlled reactions and information.

RQM steers information to the decision-making point: forwarding of order data,
quantities, batches, reporting of production output, events, inspections, use of the
tools and inspection equipment.

RQM reduces the work: automated recording of idling, setting up beginning/end,
order beginning/end, first part inspection, production, malfunction (unacknowl-
edged/acknowledged), SPC inspection, batch change, container change, tool change,
employee log-in/log-out.

FLEXIBILITY



Configuration by the user

Workflows, catalogs, approvals, mandatory fields, documents, display, operation, roles and rights.

Operation

Easy, intuitive, and fast via Windows application, browser access, mobile devices and online data takeover of the quality, process, and machine data. Log-in of the employees via manual login, transponder, RFID, etc.

Process management

PDCA control loop through takeover of FMEA into control plan, use in production and return flow from complaints into the planning. Events, status transfers, plausibility checks.

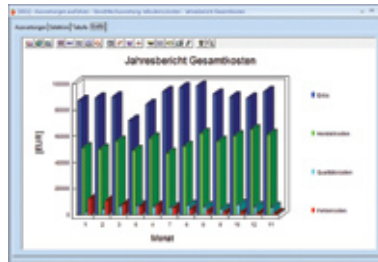
Function

Rational and continuous processes across the entire value chain. Functions and modules for all requirements of quality and production management. Synergies between the modules with active data exchange, reports, and online information.

Actions

Project management, tasks, actions, and ToDo list, reminder functions, delegation, reporting back, effectiveness check.

BUSINESS INTELLIGENCE



Production – in real time

Order progress, output, runtime, quantities (goods, scrap, reworking), machine status, malfunctions, maintenance, quality data, process data, complaints, etc.

Traceability – in real time

Batch and serial numbers, inspection equipment, employees, machines, status, events, complaints, causes, actions.

Quality – in real time

Inspection results, statistics (cpk values, run, trend, middle third), violation of the control limits and tolerances. Information about defects, complaints, events in all modules. Catalog-based evaluation on various levels and degrees of detail. Determination of focal points (top 10), critical products, processes, events, etc.

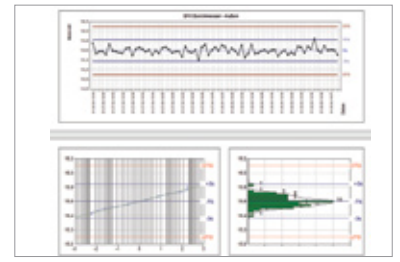
Monitoring – in real time

Monitoring of systems and processes. Dashboards and cockpits for key figures, states, events and processes (evaluation, statistics, etc.). Information and reporting through the system, triggering of follow-up events, reporting to interfaces, etc.

Networked processes

Approval process across all modules and functions, PCDA messages across all modules, learning from the quality history through analysis and takeover of the data, active control of the flows through actions management. Approval inspections, batch change.

CONFORMITY



Evaluation

Standard-compliant proof, calculation of key figures (e.g. OEE, cpk, cmk, cgk, QN, RPN, ppm, etc.). Capability analyses (machines, processes, inspection equipment), distribution analyses (normal, logarithmic normal, amount 1st type, amount 2nd type, Weibull, mixed distribution).

Reporting

All standard reports, e.g. FMEA and initial sampling forms according to VDA and QS9000, control plan, project and action plans, capability analyses, sample analyses, 8D reports, audit reports, inspection reports. Report editor for preparation of the customer reports.

IMPROVEMENT

Analyses

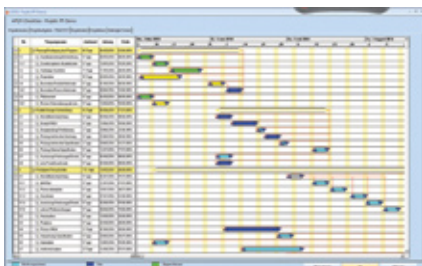
Standard reports, self-definable evaluations and ad hoc queries, interactive drill-down.

Evaluation

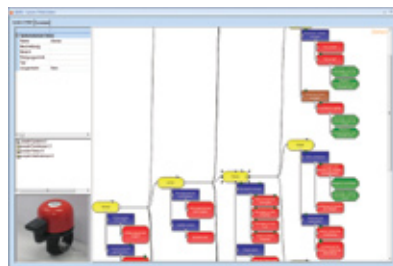
Focal points (top 10), benchmarks, key figures; defects, causes, actions, performance (ppm, %), status, order data, samples, original values, defect collector card, machines, responsibilities, customers, suppliers, complaints, batches, serial numbers, costs, times, efficiency, production figures, degrees of fulfillment, and much more.

Document management

Paperless management of the production documents, drawings, images, instructions, production control plans, etc.



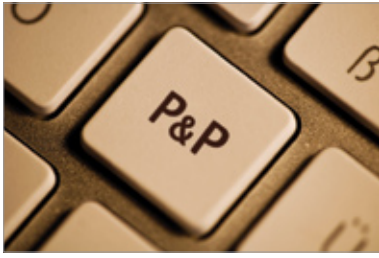
Start in project management



Product and process FMEAs

Control plan and inspection planning

INSTALLATION



Integrated solution

Server database, RQM server, Windows-based RQM clients with optional, local database for system stability, application server for browser technology, process integration with ERP/PPS.

Several plants

Multi-level hierarchical multi-tenancy or separate databases with combination and consolidation of the data (ETL).

Access

Windows client, Citrix client, hardware terminals.

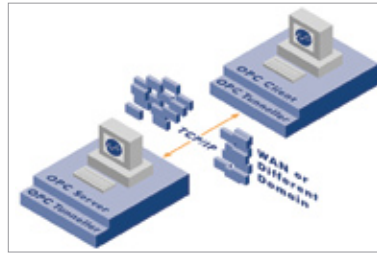
Browser for evaluations, actions, documents, and complaints.

With mouse, keyboard or touch screen operation, mobile devices (tablet PC, PDA, mobile phone, netbook).

Configuration

System settings, main data, catalogs, workflows, rights, responsibilities, global options, workstation options, user options, actions, etc.

INTEGRATION



ERP/PPS

SAP, abas, infor, BaaN, Bäurer, PSI, Navision, XPPS, and many more.

Own developments

Special solutions for materials management, production, automation.

Communication

HTTP, SOAP, E-Mail (MAPI, SMTP, Notes), SMS, TAPI, Web 2.0, Twitter.

File formats

XML, CSV, XLS, PDF, HTML, RTF, any graphic formats, Office, etc.

Databases

SQL Server, Oracle, DB2.

Measurement devices

Steinwald, ibrIT, Marposs, Fluck, Bobe, Brecht, Mahr, Mitutoyo, TESA, etc.

Measurement machines

Faro, Helios, Hexagon, Hommel, Steinheil, Wenzel, Zeiss, etc.

Automation devices

OPC, OPC UA, fieldbus, Profibus, MPI-Bus, SPS, S5, S7, concentrators, counter modules, Euromap 63, two-wire technology.

Hardware terminals

IPCAS, Noax, Kienzle, etc.

Scanners, printers

Bar code, DMC, RFID, needle, label printers, laser marking devices, etc.

PROCESSES



Data

Transfer of the main data and order data from ERP/PPS (incoming goods, production outgoing goods), acknowledgement of intermediate messages, order end, results, quantities, commercial and technical decisions.

Plausibility checks

Machines, suppliers, customers, workstation, order, operating sequence, employees.

Events

Due dates for inspection and maintenance through interval monitoring, approval inspection, batch change, tool change, malfunctions, set-up, orders, calibrations; internal and external complaints, actions, malfunctions, plausibility violations.

Integration with timekeeping, forming of time pairs, takeover of the events, information of responsible people via e-mail or SMS.

States

Machine state, malfunction or breakdown detection thanks to malfunction clocks and timeouts (counter contacts, concentrators, SPC, controllers).

Traceability

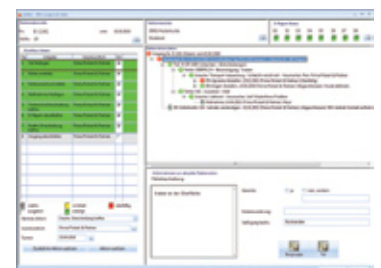
Serial numbers, batch numbers, third-party batches, own batches, components, containers, inspection equipment, employees, machines, tools, status.



Control panel for monitoring



Execution of the inspections



Internal and external complaints

RQM software

Properties

- Modular standard software
- Great integration capability
- Multilingual, multi-tenancy
- PC, browser, Citrix, mobile devices
- 5 to 1,000 simultaneous users
- 12,000 users worldwide

Components

- Quality management
- Production management
- Resource management
- Process optimization
- Traceability
- Project management/APQP
- FMEA, control plan
- Inspection plan, initial sampling
- Inspection: Incoming, Production, SPC, Outgoing
- Machine data recording
- Maintenance
- Audit management
- Parts management
- Document management
- Event monitoring

Tracing

- Serial numbers
- Batch numbers, machines, containers
- Assembly, product audit
- Capability monitoring
- Actions management
- Complaint management
- Inspection equipment management

Manufacturing intelligence

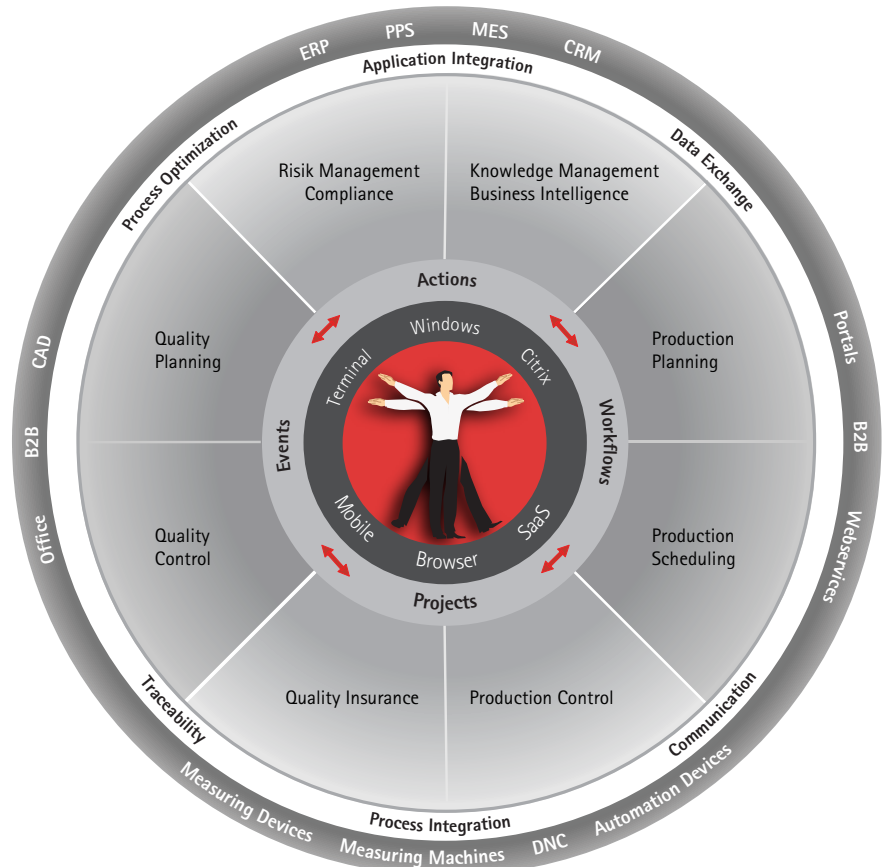
- Control panel, evaluations
- Reporting, dashboards
- Visualization, key figures (KPIs)

Integration

- All interfaces in the standard
- All common ERP/PPS
- Main data, transaction data and events
- Measurement devices, measurement machines
- Automation devices
- Automotive portals
- CAD, timekeeping, qs-STAT, QDX

Technology

- Windows XP, Vista, 7
- Parallel browser technology
- Citrix-capable
- Autonomous systems
- SQL Server, Oracle, DB2



Synergies

Within a software solution, it is much easier to establish the processes and information streams continuously, adapt to changing requirements quickly, and optimize continuously.

Standardized interfaces connect RQM to ERP, PPS, and other systems. This allows continuous, event-controlled workflows.

CONTACT US

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