



An overview of QIS

Software for Quality, Process & Performance

QISOFT

Software to support real time manufacturing operations

Enabling digital transformation and data driven decisions



QIS is designed to collect, monitor, and provide visibility of real-time information at every stage of your process.

Capturing every single manufacturing event, QIS ensures your team has access to vital production, quality, and performance data whenever and wherever they need it most. Whether onsite, on the move or working remotely.

Utilized by hundreds of factories of all shapes and sizes and embraced by thousands of users across all industries. QIS is proven time-and-time again to reduce costs, improve productivity and most importantly ensure the quality and safety of your products.

Designed to be used by operators, quality teams and technical departments. QIS provides extensive capability and unsurpassed functionality. Available out-of-the box, this highly configurable solution is easy to use and quick to deploy across the factory floor, the laboratory and beyond.

- *Paperless Manufacturing*
- *Quality Control & Assurance*
- *Real-Time Process Monitoring*
- *Operational Equipment Effectiveness (OEE)*
- *Laboratory Information Management*
- *Raw Material Testing & Analysis*
- *Statistical Process Control (SPC)*
- *Enhanced Traceability and Auditing*
- *Analysis and Investigation*
- *Document Library*
- *Dashboards and Reporting*





Paperless Manufacturing

Supporting data driven decision making and paperless manufacturing

QIS is designed to allow factory floor operatives, supervisors, and management teams to easily record, visualise and share vital production, quality, and performance data with the wider manufacturing team.

Capturing every single manufacturing event, QIS ensures your team has access to the real-time intelligence they need to maintain a stable process, produce high quality product, and maximise performance.

Operators record and visualise real-time data via a single display. All quality results, process conditions and performance data is automatically aligned to each production step, product, batch and/or work order. QIS will prompt when checks are due and will alert the operator when process conditions change, or quality output varies.

Access to vital supporting documentation such as standard operating procedures, manufacturing specifications and even visual guidance is provided via the document library. Ensuring your team has everything they need to perform their role to the best of their ability.

Dashboards, Reports and Analysis tools allow production teams to track performance across the entire operation and deep dive into data to investigate and rectify immediate and longer-term issues.

- ❑ Ensure conformance to check and test schedules
- ❑ Provides a complete record of process, performance, and quality data
- ❑ Real time production dashboards and KPI's
- ❑ Monitor and trend high frequency process data from multiple sources
- ❑ Capture, monitor and analyze downtime and performance losses (OEE)
- ❑ Record, review and share operator feedback and corrective actions
- ❑ Utilize alarms and alerts, to communicate real-time concerns
- ❑ Guarantee access to current and relevant supporting documentation
- ❑ Improve data accuracy and eliminate duplication



Quality Control and Assurance

Ensure quality at every stage of your manufacturing process



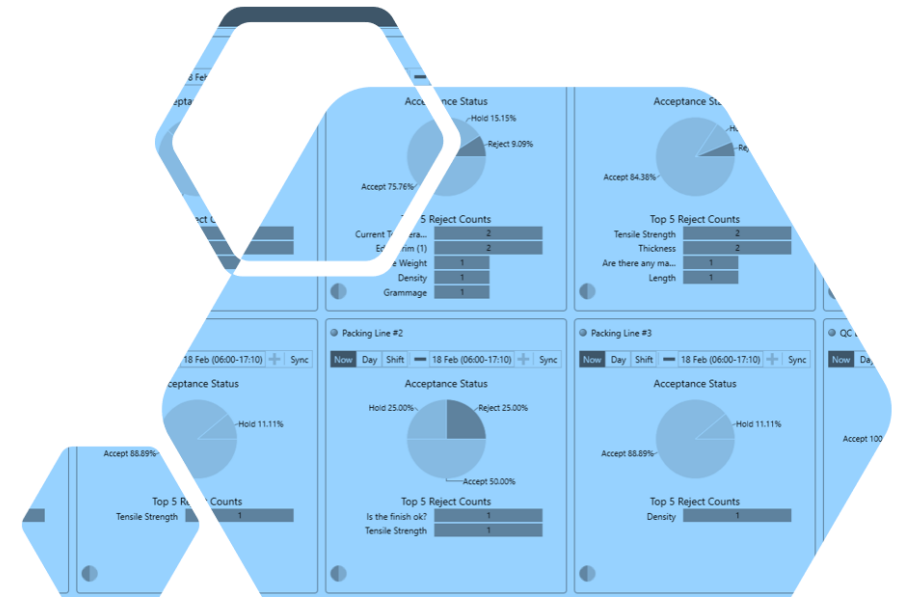
The development of QIS was driven by the concept of delivering end to end quality management. This was supported by a vision to build a software system that could provide “real-time” intelligence to operators, process engineers and quality teams.

QIS is now used by hundreds of customers worldwide to improve product consistency, reduce quality losses, optimize process efficiency, and provide critical information to deliver improved performance across manufacturing operations.

QIS facilitates the collection, analysis and presentation of shop-floor production and laboratory data, giving complete visibility of real-time, actionable intelligence throughout the manufacturing process.

Providing users with the insight to support immediate in-line decisions, and the analytical tools required to drive longer-term strategic goals.

- ❑ *Easy and accurate data entry for all Laboratory / Quality test results*
- ❑ *Create tests and checks automatically to ensure conformance*
- ❑ *Real Time SPC Trending & Analysis*
- ❑ *Alarms and status alerts to ensure operator conformance*
- ❑ *Real-Time Feedback across the shop-floor and laboratory*
- ❑ *End to End Traceability of Quality & Process Data*
- ❑ *Design, distribute and collect Quality Assurance Checklists*
- ❑ *Full Audit History – who’s done what...when...why*
- ❑ *Analyse, Report and chart Quality KPI’s*
- ❑ *Design and distribute customer focused Certificates of Analysis*
- ❑ *Document Management (Specifications, Operating Procedures, Recipes etc.)*



Real Time Process Monitoring

Enhanced visibility of high-speed process data



Monitoring and controlling process parameters is key to ensuring consistent manufacturing operations and the production of high-quality products. Identifying and understanding how real time variation in your process affects quality output provides a huge opportunity to reduce risk, non-compliance, and waste.

However, just capturing and visualizing high-speed process data is challenging enough but aligning that vital information to production and quality events may seem like mission impossible!

QIS High Frequency enables you to capture rapidly changing time-based data outside of the standard QIS event-based structure. With the ability to handle data from multiple sources, HF is the perfect way to collect high-speed process values such as Temperature, Pressure, Speed and Flow Rates.

Once captured, this vital data is instantly and automatically aligned to a standard QIS manufacturing event and can be monitored and analysed through the Real-Time Display, Technical Analysis and High Frequency Charting. Enabling users to respond to any changes in process conditions throughout a production event or across a pre-determined time-period.

- ❑ *Capture hundreds of process values per event*
- ❑ *Ensure critical process parameters are met throughout a production event*
- ❑ *Align and visualize process values across an entire production event*
- ❑ *Scrutinize process conditions aligned to quality and performance*
- ❑ *Monitor multiple manufacturing processes in a single real-time display*
- ❑ *Display alarms and alerts if any process value falls out of specification*
- ❑ *Store and forward features mitigate lost connectivity*
- ❑ *Fast to implement, easy to manage and highly configurable*



Operational Equipment Effectiveness (OEE)

Capture, visualize and analyse downtime, performance and quality losses



To produce high quality products in the most efficient manner Operators need to be 100% focused on running their process, they do not want the distraction of paperwork and non-productive tasks!

That is why QIS works so well on the shopfloor because it makes it easy and quick for operators to record and respond to downtime incidents as they occur.

QIS collects downtime data from your shop floor in real-time and presents it instantly across your entire manufacturing operation via “real-time reports” and “live dashboards”. Having access to mission critical reports at the touch of a button reduces the time spent collating and manipulating data, allowing your team to focus on operational and process improvement.

QIS makes it easy to capture downtimes manually or automatically and provides powerful drill down performance dashboards to support and inform continuous improvement programs. It is simple and practical, taking indices for machine downtime, performance, and quality, providing a single OEE score that allocates a rating to the overall manufacturing efficiency.

Using a dedicated real-time Downtime Tracking system is an essential tool for achieving your operational excellence goals. Removing the errors and delayed feedback inherent in paper-based systems are key steps in eliminating waste and proactive process improvement.

- ❑ *Ensure downtimes are captured quickly and easily*
- ❑ *Real time OEE dashboards and KPI's*
- ❑ *Easy to implement, set-up, train and utilize*
- ❑ *Downtime alarms delivered to your desktop, email or sms*
- ❑ *Seamless connection to plant systems for automatic downtimes*
- ❑ *Improve the speed and accuracy of data captured on the shop-floor*
- ❑ *Perform root cause analysis in seconds to drive process improvement*
- ❑ *Real-Time visibility of downtime, performance and quality issues*



Laboratory Information Management

Paperless lab testing, analysis and investigation



QIS is designed to enable laboratory technicians to easily manage day to day laboratory functions.

From product quality test results, to microbiological analysis, to asset management. QIS is designed to capture, present and analyse all critical laboratory data.

As checks are completed in the Laboratory, QIS provides instant confirmation and visual feedback to both Lab Technicians and operators on the line. Whilst document library ensures that those completing the testing have access to vital test methods and standard operating procedures.

QIS allows you to control what information gets collected and exactly when it needs to be recorded, ensuring all checks and tests are completed on time, every time.

Built in alarms, alerts and notifications automatically inform the user if something is wrong or requires closer inspection or more detailed investigation.

- ❑ **Asset Register**, provides the ability to log instrument details and manage calibration requirements
- ❑ **Calibration Calendar**, track all calibration events and subscribe to notifications and reminders
- ❑ **Gage R&R**, define and measure instrument variation
- ❑ **ANOVA reports**, estimate repeatability, reproducibility, and part to part variation
- ❑ **Tablet Interface**, delivers mobility and easy access to critical data throughout the lab
- ❑ **File Interface**, connection and management of file enabled laboratory instruments





Raw Material Testing and Analysis

Manage quality from supplier to customer and everything in between

QIS allows you to quickly and easily formalise the recording of all raw materials that enter the factory gates.

From supplier records, vehicle details, to quality test results, QIS is designed to record all vital data associated to raw material deliveries.

As checks are completed, QIS provides instant visual feedback to confirm that the materials you ordered meet the standard you expect. Ensuring that only good materials go into your manufacturing process.

In addition, you can quickly attach any supporting documents to the raw material delivery record such as a supplier certificate or perhaps photographic evidence of non-conforming product or poor packaging.

Once the data is recorded advanced analytical tools can be utilised to interrogate and investigate your supplier quality data over a longer period, helping you to identify any changes in the quality of your raw materials.

- Easy and accurate data entry for all Raw Material quality tests
- Capture and store supporting documentation and certificates
- Create tests and checks automatically to ensure conformance
- Real Time Data Analysis and Investigation
- Monitor both supplier and material quality standards
- End to End Traceability from raw material to final product
- Capture visual / physical evidence of non conformance

Event Details		
Event	DNT0006	
Event Date	14/01/20 10:13	
Event Type		
Event Qty	1000	
Process	Milk Intake	
Product (long)	Milk	
Product (short)	Milk	
Batch	DEL #204	

Vehicle Information		
DK08 NBV	SW08 JDE	DS12 NHG
16:30	16:45	17:00
Average	Good	Good
Good	Good	Good

Vehicle Unload		
Bay 2	Bay 3	Bay 3
16:45	17:20	17:20
Not applicable	Not applicable	Not applicable
1004.9	1008.2	3
Complete	Not started	Complete
17:05		17:50

Quality Tests (Raw Materials)		
Good	Good	Good
4.48	4.43	
1.3	1.2	
3.4	3.3	
4.90	4.74	
0.71	0.75	
6.6	6.7	
3.3	3.4	
8.18	8.19	
0.002	0.003	
49.21	49.11	
0.07	0.09	

Variables	
Milk Intake - Full Record	
Unloading (Milk Intake)	
Unload Start (Unload Start)	18:40
Finish Unload (Finish Unload)	19:05
Unloading Status (Unload Status)	Complete
Quantity - Litres (Quantity(L))	
Unloaded to Silo (Silo Number)	Tank #4
Temperature Cooling (TempCooling)	
Pressure Difference (PressDiff)	
QA Checks (Milk Intake)	
Fat Content % (FatContent%)	
Protein Content % (ProteinCont%)	
Solids % (Supp_MilkSolids)	
Density (g/ml)	
Inspection time	12:50

Real Time Statistical Process Control (SPC)

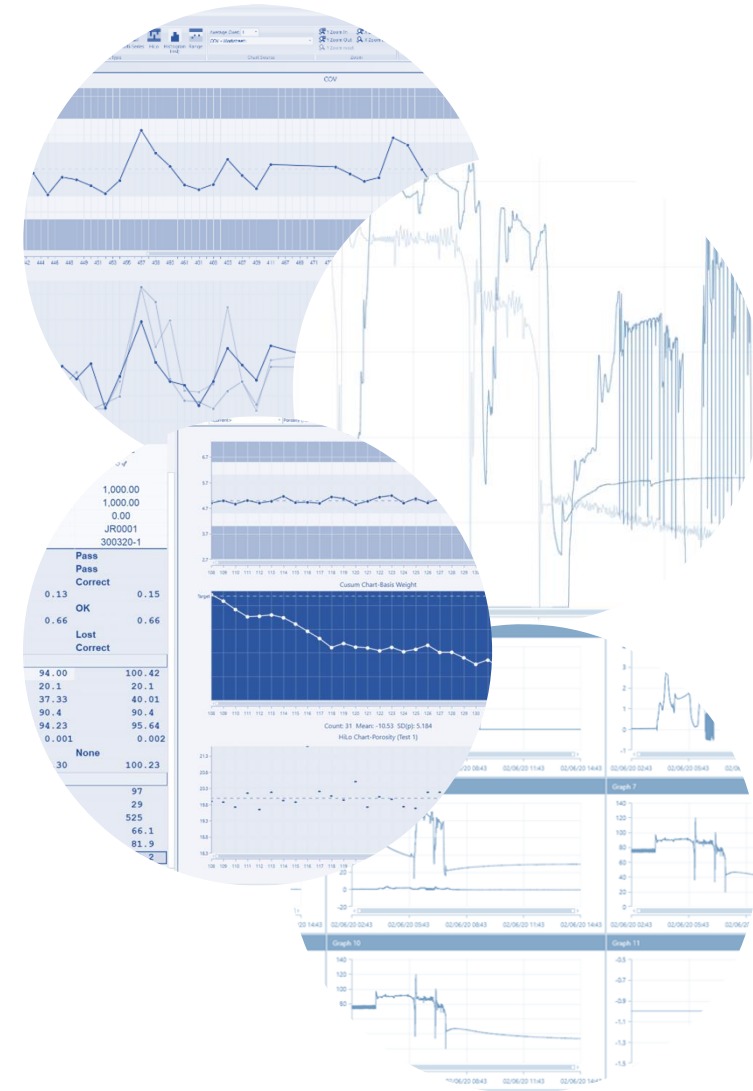
Instant visibility of trends and relationships between process and quality conditions



QIS is founded on the principals of Statistical Process Control, and helps you transform your data into actionable intelligence, supporting fact-based continuous improvement decisions.

Manufacturing processes produce huge volumes of data, QIS helps you to easily collate, visualize and analyze this data in seconds. Helping you unlock the secrets of your process whilst reassuring your customers of your ability to produce high quality products.

Real-time charts, provide instant visibility of trends and relationships between process conditions and quality output, whilst powerful but easy to use statistical tools enable you to drill deep into your data to confirm capability and adherence to specification.



Enhanced Traceability and Auditing

Expedite investigation and recall protocols



In the event of a quality failure or product recall, how quickly could you trace all product and alert affected customers?

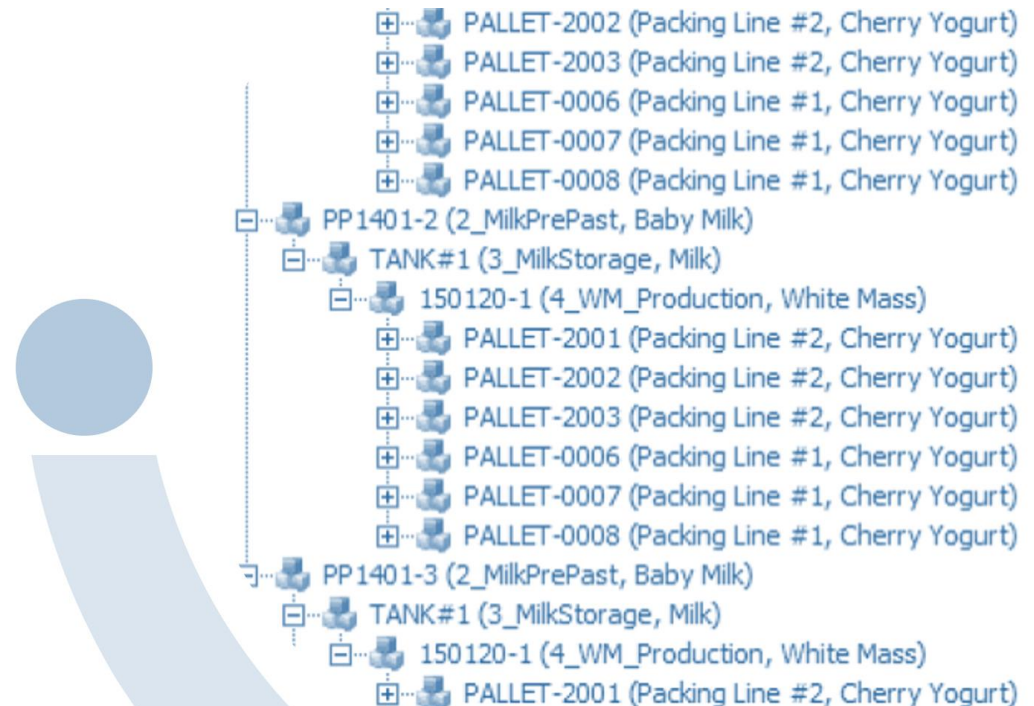
If the answer is hours or even days, don't worry you're not alone but perhaps now is the time to make some improvements before it's too late! For many companies, putting their hands on the necessary data in a timely manner still poses a huge challenge. Due mainly to the fact that the information you need is often filed away in cabinets or exists in a plethora of spreadsheets and disparate IT systems.

QIS allows you to collect, track and present every vital piece of information across your entire manufacturing operation. From the raw materials you consume, to work in progress, through to finished products, QIS makes it easy to find, collate and share the necessary data in seconds!

So if a problem occurs you know you'll be able to determine what and who has been affected and begin the preventative action required to limit risk and your reputation!

Using a dedicated real-time data collection system is an essential tool for achieving your traceability goals, removing the errors and delayed feedback inherent in paper-based systems are key steps in reducing quality failures and supporting continual process improvement.

- ☐ Identify potential quality failures before they occur
- ☐ Utilize parent / child relationships to enhance genealogy
- ☐ Alerts, alarms and notifications instantly raise awareness of risk
- ☐ Step through your process to quickly identify affected products
- ☐ Front to back and back to front traceability trees and reports
- ☐ Identify and investigate root cause
- ☐ Build in safeguards, workflow and stringent checks



Analysis and Investigation

Improve your Manufacturing IQ



Defining, measuring and controlling key process data is critical; if your process is not predictable your customers are at risk – as is your bottom line.

Investment of effort in control of the process affects the product and output yet to come. Attention to the causes of quality reduces the risk of errors, limiting the need for inspection and selection. For dependable output of the right quality, we need to operate a stable and consistent process.

Having immediate access to key information across your operation can help you to determine what your process can do – in real-time! Armed with this critical information you can make the right changes to your process, at the right time.

QIS is founded on the principals of SPC in order to help you monitor and control your process so that it operates at its full potential. But best thing? You don't need to be an expert in statistics to truly realize the benefits!

QIS does all the hard work in the background, so you don't have to. With the advanced yet easy-to-use analytics of QIS you will have the tools to examine your process and any sources of variation within that process using objective analysis – or facts – for confident decision making

- ❑ *Examine your process so that it operates at its full potential*
- ❑ *Utilize tools that give weight to objective analysis*
- ❑ *Ensure your process behaves predictably*
- ❑ *Quickly assess when to take-action and when to leave things alone*
- ❑ *Identify and investigate root cause*





Document Library

Let documentation be your guide

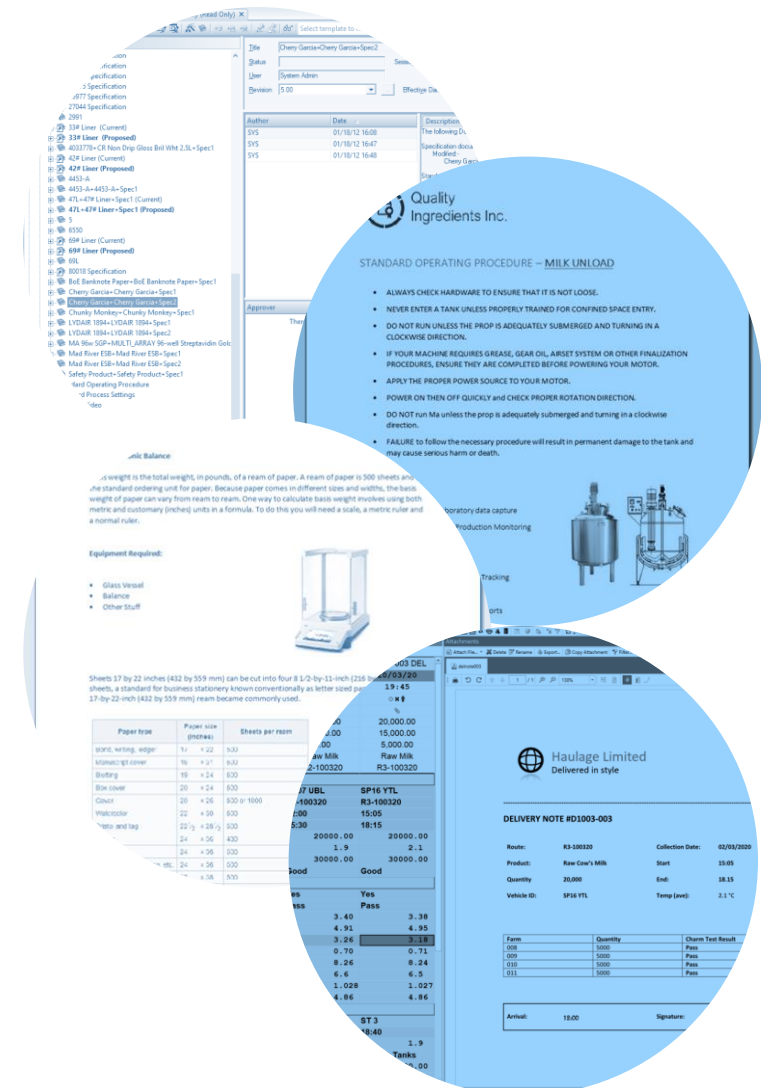
Ensuring operators and technicians have visibility of and access to accurate reference materials and supporting manufacturing documentation is key to maintaining an efficient and safe operating environment.

The QIS Document Library ensures your team always have the most up to date information at their fingertips. Through the QIS display a user can capture, trend and analyze real time manufacturing data whilst reviewing and adhering to all relevant guidance through a single window.

Reducing paper and eliminating the risk of inaccurate information you can be sure your team have everything they need to do their job to the best of their ability and have the support required to respond to unforeseen challenges.

Providing strict document management, revision history and a stringent approval process, QIS manages all your document needs. Including but are not limited to:

- ☐ Bill of materials and recipes
- ☐ Standard Operating Settings and Procedures
- ☐ Process Set-points
- ☐ Manufacturing and Product Specifications
- ☐ Health and Safety Guidance
- ☐ Test Methods and Procedures
- ☐ Customer Order Instructions



Dashboards and Reporting

Paperless lab testing, analysis and investigation

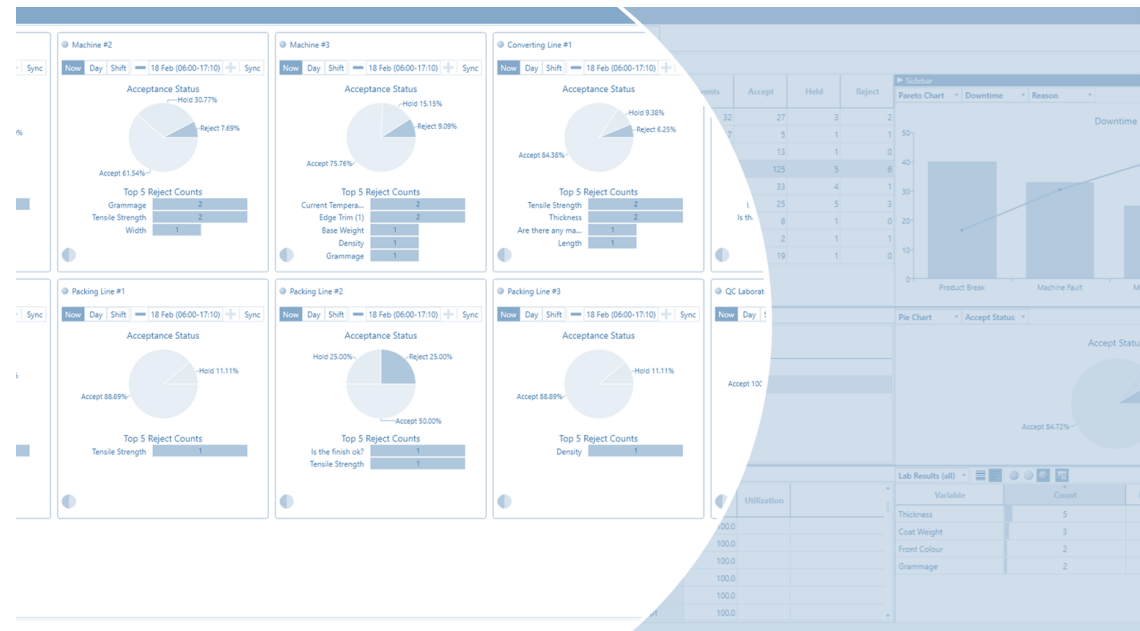


The data in QIS belongs to you...so we don't keep it locked away! We make it easy for you to access and visualize your quality, process and performance data whenever and wherever you are.

Real-time displays, in-built dashboards, mobile apps and a **simple report writer** help you transform your data into real-time actionable intelligence.

Furthermore, we make the data readily available for your business intelligence platforms. Allowing you to combine QIS data with information from across your enterprise.

.....and of course, you can export to Excel!



Operational Benefits

Why do manufacturers use QIS?

There are many benefits to using QIS which include but are not limited to:

- ❑ *Standardized approach and working practices*
- ❑ *Improved data accuracy, validation and reconciliation*
- ❑ *Local, regional and global analysis and reporting*
- ❑ *Stop poor quality materials entering your supply chain*
- ❑ *Quickly identify and address quality and process issues*
- ❑ *Manage your process to handle raw material variation*
- ❑ *Remove paperwork and duplication of data*
- ❑ *Reduce waste, rework and raw material losses*
- ❑ *Enhanced traceability throughout the process*
- ❑ *Respond faster to your customers needs*



Commercial Benefits

Why do manufacturers choose QiSOFT?

There are many benefits to using QIS which include but are not limited to:

- ❑ *Quick and easy to implement*
- ❑ *Customizable and configurable by the end user*
- ❑ *Low annual support fees*
- ❑ *Expertise across multiple industries*
- ❑ *Fast return on your investment*
- ❑ *Flexible and Scalable*
- ❑ *Out-of-the box integration with 3rd party systems*

