DataQI Use Cases

Use Case 1: Reducing Unplanned Downtime Through Real-Time Insight and Guided Resolution

What is the problem you're solving for?

Manufacturers face frequent unplanned downtime that is hard to predict, diagnose, and resolve. Machine alarms are often unclear, operators see symptoms rather than causes, and maintenance teams rely heavily on tribal knowledge. Issues are usually detected only after they have already affected output because teams depend on manual checks, walkarounds, or operator escalation.

Even when a problem is spotted quickly, identifying whether the root cause is mechanical, process-related, or upstream can take far too long. This leads to extended downtime, production delays, and inconsistent output. The absence of a unified view across machines, combined with limited access to relevant historical data or technical information, makes resolution slow and dependent on a small number of experts instead of a repeatable, data-driven process.

How are you solving this problem?

DataQI connects machine data in real time, highlights anomalies immediately, and surfaces potential causes before they escalate. DataQI Insights provides live visibility into performance metrics, availability drops, and alarm patterns. DataQI Assistant gives operators and engineers instant explanations pulled from manuals, maintenance logs, and historical incidents so they can understand not just what happened but why.

DataQI Agent continuously monitors conditions in the background, detects deviations as soon as they form, and proactively alerts the right teams. It can also trigger workflows that automatically escalate issues, ensuring a consistent and rapid response. Together, these tools reduce detection time, simplify diagnosis, and shorten the path to corrective action.

Which personas are you addressing?

VP of Production, Operations Managers, Maintenance and Reliability Teams, Plant Managers, Machine Operators

What are qualifying questions or "buzz terms" for sellers?

- How often do you experience unplanned downtime and how long does it typically take to identify the root cause?

- Are operators or technicians struggling to interpret machine alarms or logs?

- Are you relying on walkarounds or manual dashboard checks to detect issues?

- Do you have recurring stoppages where the cause is unclear or inconsistent?

- Is troubleshooting dependent on a few experts who hold most of the operational knowledge?

Use Case 2: Accelerating Troubleshooting and Knowledge Retrieval for Engineers and Operators

What is the problem you're solving for?

Manufacturers depend on large volumes of technical information, but most of it is locked in manuals, PDFs, shared drives, or in the heads of long-tenured experts. Engineers and operators often spend significant time searching for the right procedure, diagram, or instruction, and teams across different sites commonly work from different or outdated versions of documents. This slows down troubleshooting, increases the risk of errors, and makes operations dependent on a small number of people who know where information is buried.

When teams cannot easily retrieve the knowledge they need, they default to trial-and-error, guesswork, or waiting for an expert to become available. This delays problem resolution, extends downtime, and limits the organisation's ability to work consistently. It also creates hidden costs, such as duplicated effort in rewriting documents and inconsistent approaches to maintenance, safety, and quality tasks.

How are you solving this problem?

DataQI Assistant centralises and structures technical knowledge, making it instantly searchable through natural language questions. It retrieves accurate, contextual answers drawn from manuals, SOPs, safety documents, maintenance logs, and engineering files, ensuring users always access verified information. It can also generate documents and reports using existing content, reducing repetitive work and improving consistency across teams and sites.

Which personas are you addressing?

Engineers, Maintenance Technicians, Operators, Health and Safety Teams, Quality Managers, Technical and Commercial Teams

What are qualifying questions or "buzz terms" for sellers?

- Do engineers or operators struggle to find the right procedure or document quickly?

- Is critical knowledge held by a few experts or scattered across shared drives?

- Do you have inconsistent or outdated SOPs across sites?

- Are teams rewriting content that already exists elsewhere?

- Do you rely on manual searches through large volumes of documents?

Use Case 3: Automating Routine Monitoring, Reporting, and Escalation with Autonomous Agents

What is the problem you're solving for?

Manufacturing teams spend large amounts of time manually monitoring dashboards, reviewing KPIs, and watching for early signs of issues. Important signals are easy to miss, especially during busy periods or overnight, which means problems are often detected only after performance has dropped or quality has drifted. Daily reports, performance summaries, and routine checks also take skilled people away from higher-value work and create inconsistency in how information is captured and shared.

Because monitoring and reporting depend on human attention, responses vary between shifts and sites, and escalation steps are often handled informally. This makes it difficult to ensure that issues are addressed quickly and consistently. Repetitive tasks consume time, detection is slow, and small deviations can grow into larger problems before anyone is aware of them.

How are you solving this problem?

DataQI Agent continuously monitors production data, identifies anomalies, and takes action without waiting for someone to check a dashboard. It can trigger alerts, start workflows, notify the right people, and automatically generate daily or weekly reports. By automating routine monitoring and escalation, DataQI Agent ensures consistent detection, faster response times, and efficient handover between teams and shifts.

Which personas are you addressing?

Operations Leadership, Continuous Improvement Teams, Plant Managers, Production Supervisors, Maintenance and Quality Teams

What are qualifying questions or "buzz terms" for sellers?

- Are teams manually checking dashboards or KPIs throughout the day?
- Do you have delays in detecting issues that impact performance or quality?
- Are daily or weekly reports created manually by supervisors or engineers?
- Do escalation steps vary depending on who is on shift?

- Do you want to reduce repetitive monitoring and free people for higher-value work?

Use Case 4: Enhancing Planning, Forecasting, and Commercial Responsiveness with AI-Driven Insights

What is the problem you're solving for?

Planning and commercial teams often work from static spreadsheets, disconnected systems, and incomplete information about current capacity, machine health, or material availability. Lead times vary from one order to the next, customer commitments are made with limited confidence, and production schedules are regularly adjusted when reality does not match the plan. These gaps create friction between sales, planning, and operations, and force teams to make decisions based on assumptions rather than live data.

When planners and commercial teams cannot see the real-time state of production, they rely on manual checks, tribal knowledge, or conservative estimates that slow responsiveness. This leads to overpromising, underutilised capacity, and unnecessary firefighting when customer expectations shift. Without a clear, up-to-date view of constraints and opportunities, organisations struggle to respond quickly to market changes or new demand.

How are you solving this problem?

DataQI combines live production data, structured knowledge, and automated workflows to give teams accurate and dynamic visibility of capacity, constraints, and lead times. DataQI Insights provides real-time information on throughput, machine health, and availability. DataQI Assistant retrieves relevant technical or process knowledge that influences planning decisions. DataQI Agent automates checks across data sources and generates realistic forecasts or customer-ready responses. Together, they allow planning and commercial teams to work from a single version of the truth and act quickly with confidence.

Which personas are you addressing?

Sales and Commercial Leadership, Production Planners, Supply Chain Teams, Operations Directors, Customer Service and Order Management Teams

What are qualifying questions or "buzz terms" for sellers?

- Do you struggle to provide accurate lead times based on current capacity?

- Are sales and production working from different data sources or assumptions?

- Do planners rely on manual checks of stock, schedules, or machine availability?

- Do customer delivery dates frequently change during the order lifecycle?

- Do you need faster, more confident responses to customer or market changes?

Use Case 5: Improving Quality Issue Root-Cause Analysis and Traceability

What is the problem you're solving for?

Quality issues are often discovered only after products have moved downstream, creating firefighting, rework, and uncertainty about the true cause. Operators and quality teams typically have limited visibility into the full context surrounding a deviation, such as upstream machine conditions, changes in run speed, alarm histories, or operator interventions. As a result, problems are investigated one machine at a time, making it difficult to understand the chain of events that led to a defect or to see whether similar patterns have occurred before.

Because data, documents, and past incidents are scattered across systems, teams rely heavily on experience and manual cross-checks to find potential causes. This slows down investigations, leads to inconsistent conclusions, and makes it hard to prevent issues from recurring. Without the ability to quickly correlate live and historical data with the relevant procedures and past quality events, organisations struggle to identify root causes with confidence or put preventive actions in place at the right moment.

How are you solving this problem?

DataQI Insights links machine data, production flow, and historical trends so teams can see exactly where and when deviations begin. Users can trace issues back to upstream conditions, compare similar incidents, and identify recurring patterns that affect product quality. DataQI Assistant provides instant access to past investigations, SOPs, and technical documents that explain expected behaviour or known failure modes. DataQI Agent can monitor for significant drifts, flag early warning signs, and trigger alerts or workflows for quality teams before defects accumulate.

Which personas are you addressing?

Quality Managers, Production Managers, Continuous Improvement Teams, Process Engineers, Operators and Shift Supervisors

What are qualifying questions or "buzz terms" for sellers?

- Do quality issues take too long to diagnose or repeat without a clear root cause?

- Do teams struggle to trace defects back through upstream conditions or machine behaviour?

- Are quality investigations dependent on manual data gathering or expert memory?

- Do similar issues recur across shifts or sites without a consistent explanation?

- Would early detection of quality drift reduce rework, scrap, or customer complaints?