Quality Control System 4.0
Make every day your best day of quality production
A Quality Control System (QCS) is a critical asset for any paper or flat sheet manufacturer. Honeywell QCS 4.0 is a significant advancement in quality control technology for all types of pulp, paper, and continuous web operations.

Honeywell QCS 4.0 provides the ability to fully capture information from an on-premises QCS and deliver it to the Honeywell Sentience Cloud. Through comprehensive analysis and reporting of a broad spectrum of process operation and quality data, this solution delivers actionable insights to improve system reliability, sensor accuracy, control performance, and overall product quality.

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How Productive is Your Paper Mill?

For paper producers, keeping production assets in top operating condition is always a challenge. Technology obsolescence is an ever-growing concern for all manufacturers. The cost of replacing existing control systems is a worry for some companies, while availability of skilled resources to run the plant at peak performance is the challenge for others.

A solution lies in new intelligent services that preserve existing assets, provide step-by-step upgrades, and are backed by fast Return on Investment (ROI), with improved productivity and throughput. Key Performance Indicators (KPIs) are vital to measuring and evaluating the success of control system installations, technology upgrades, and service/support solutions.

With all the hype surrounding the Industrial Internet of Things (IIoT), digital transformation and Industry 4.0, it’s easy to miss the real value that can be realized from these technologies. The benefits of connected manufacturing include standardization across multiple manufacturing sites, baselining and benchmarking machine performance, achieving quality goals and minimizing losses, and reducing operations costs.
Honeywell is the Partner You Need

As a leading global technology supplier, Honeywell recognizes paper, tissue, board and other flat sheet producers are looking for a process optimization solution that delivers peak performance with reduced effort and cost.

With over 50 years of experience in measurement and control of flat sheet manufacturing processes, and hundreds of patents, Honeywell is uniquely positioned to extend the value its quality control systems deliver to customers.

Honeywell QCS 4.0 extends and enhances our proven QCS solutions, leveraging the latest digitization and Industry 4.0 technologies. At the core of this solution is the Honeywell Sentience IoT platform, which provides robust and secure big data capabilities for all connected solutions.

QCS 4.0 is part of Honeywell Connected Plant strategy, an innovative offering transforming businesses through innovation, experience, and technology. The main pillars of this approach are: Connected Process, Connected Assets, and Connected People. The Connected Plant redefines optimal performance and integrates advanced software solutions spanning the entire enterprise.
Elevate Your QCS Performance

Honeywell QCS 4.0 transforms data into actionable insights for improved process quality and production performance. This cloud-based offering enhances quality control with 75% less support cost than traditional solutions. Unlike systems where manual data collection, analysis and tuning are required, QCS 4.0 connects the paper machine, scanners and other crucial assets in the paper production process. Data are transferred to the secure Honeywell cloud for analysis based on performance parameters. The cloud-based analytics engine delivers valuable control insights in real-time, presented to process owners in the mill via intuitive QCS performance dashboards.

Get the most out of paper machine controls:

Machine Direction (MD) and Cross Direction (CD) controls are critical to maintaining high standards of production. At the same time, they have a major impact on product quality.

Plant employees can utilize QCS 4.0 dashboards to obtain a quick view of the state of production – from their office or off-site location. The system’s analytic engines continuously monitor, detect, and alert on potential issues. Honeywell experts can also engage with this information to help customers realize higher quality, fewer rejects and less frequent downgrades.

The latest Honeywell QCS 4.0 solution addresses:

- Long term sensor performance, repeatability, static accuracy and dynamic correlation
- Process performance variation in MD and CD
- Quality performance sheet breaks and off-spec production
- Grade change and machine speed change transitions
- Multi-site visibility and performance comparisons

Monitor performance against key benchmarks:

Pulp, paper and flat sheet processes can degrade naturally due to transient and environmental issues. In addition, changes in raw material properties, weather, equipment conditions, and operator preferences/skills can introduce process variations.

Honeywell’s advanced QCS solution makes it easier to analyze a wide range of quality and performance parameters, and define and measure critical KPIs. Plant/mill employees and any other authorized personnel can access system health and performance data – anytime, anywhere – using any smart device with browser support.

Paper mills and flat sheet manufacturers can utilize QCS 4.0 features such as:

- Drill-down dashboards and KPI monitoring
- Process/loop performance targeting
- Cause and effect analysis
- Reports and notifications
- Condition-based alerting
Detect problems that can cause downtime:

In paper industry operations, electromechanical and set-up issues are often to blame for unplanned downtime. Operators and maintenance personnel are under pressure to predict these and other problems, focus their QCS maintenance tasks, and resolve issues faster.

With Honeywell’s cloud-based QCS offering, maintenance technicians and site support specialists can:

• Leverage robust scanner/sensor-level fault detection logic and diagnostics
• Respond to automatically sent maintenance alerts
• Plan maintenance activities on components that truly need attention
• Implement asset management strategies for continued reliability
• Reduce Operating Expenses (OPEX) associated with QCS maintenance and support

Push control strategies for maximum yield:

All-too-often, mill control strategies are overly conservative, sacrificing yield for “safe” running conditions. Operators may even “detune” the process or turn-off controls entirely – limiting expected yields. What’s needed is a solution for continuously evaluating process performance, identifying improvement opportunities, and ensuring high control utilization and peak production performance.

QCS 4.0 helps make every day the best day of your quality production. With this solution, you are able to:

• Address low control utilization, poor performance, and process variation
• Benchmark paper machine performance against peer machines
• Respond to timely notifications on performance deviation
• Sustain overall performance through process changes and disturbances
• Improve Overall Equipment Effectiveness (OEE)
• Lower Specific Energy Consumption
Benefits of a Connected Solution

By deploying a cloud-enabled offering for QCS systems, flat sheet manufacturers can meet their most important operational and business objective: optimizing the entire production process for higher product quality while maximizing financial results.

Pulp, paper and flat sheet manufacturers installing Honeywell QCS 4.0 can standardize operations across production lines and multiple sites throughout the enterprise. They can take advantage of proactive early warning alerts to avoid problems that impact quality or production. Moreover, they can utilize system performance management dashboards and visual analytics to improve reliability.

Thanks to the QCS 4.0 solution, mills are able to increase production capacity with control optimization, and at the same time, reduce energy and raw material costs, and minimize expenses for replacement parts. They can expect to:

- Maintain QCS system availability at +99.95%
- Resolve problem up to 70% Faster
- Reduce MD and CD variation by 40% or more
- Reduce sheet break by 10% or more
- Minimize downgrades by 5% or more
Why Honeywell?

As a major industrial technology provider, Honeywell delivers best-in-class control systems to process industry companies around the world. We integrate comprehensive project execution methodologies with local resources offering expert product service and repair, as well as immediate spare parts availability.

Honeywell’s proactive lifecycle support services, powered by QCS 4.0, enable crucial production assets to deliver peak performance, maintain reliability, and avoid potential failures and downtime.