

ABB ABILITY™ ADVANCED DIGITAL SERVICES

ABB Ability™ Performance Optimization for QCS Transitions

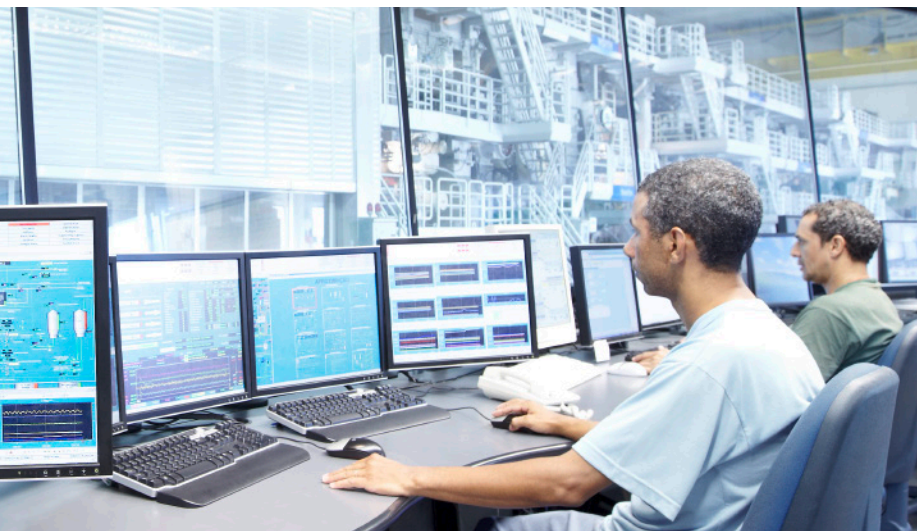


ABB Ability™ Performance Optimization for QCS transitions identifies, classifies and prioritizes opportunities to optimize transition times controlled by the Quality Control System (QCS). The service uses automated data collection and analysis to quickly identify issues and ensure optimal transitions, such as product grade changes.

Benefits

- Continuous data analysis for faster optimization
- Cost savings through remote diagnostics
- Faster problem identification
- Reduced product rejects
- More efficient transitions
- Decreased disturbances
- Quicker grade changes
- Fewer sheet breaks
- Higher availability
- Consistent quality

Features

- Biannual analysis by ABB experts to identify issues and recommend improvements
- Automatic, non-invasive gathering and statistical analysis of
- QCS transition data
- Configurable alerts (via email or text) when KPIs are outside
- set thresholds
- On-site or remote access for customer and ABB service personnel
- Consolidation and long-term storage of QCS transition data

- Remote diagnosis and proactive support from ABB experts
- Continuous performance monitoring
- Secure communications

Overview

The ABB Ability™ Performance Optimization for QCS Transitions is a monitoring and diagnostic service that tracks the health and performance of papermaking transitions or grade changes. ABB Ability™ Performance Optimization for QCS Transitions collects data from paper machines (transition times, sheet breaks, weight, moisture and speed, and additional DCS and QCS control loop parameters), and calculates Key Performance Indicators (KPIs) that measure times and conditions. These KPIs can then be addressed by mill or ABB service people to optimize transition times, resulting in higher production.

Scheduled monitoring and analysis to quickly diagnose performance issues

ABB Ability™ Performance Optimization for QCS Transitions conducts automatic, periodic calculation of KPIs and transition data for analysis to greatly reduce the time and effort needed to identify performance issues. Data is classified based on specific KPIs to provide a list of potential problems that are then

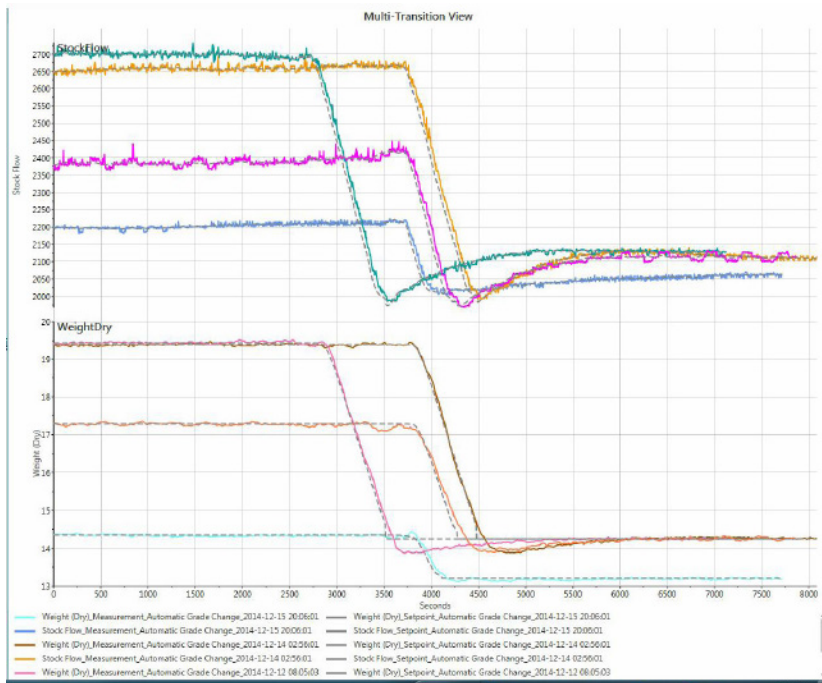


ABB service engineers and mill personnel use QCS Transition Performance Service data to analyze conditions such as stock flow and weight (dry) measurements during grade changes.



ServicePort Explorer provides different views of data to help ensure accurate analysis. For example, as shown above, users can view reel moisture KPIs during grade changes to more closely analyze the results.

prioritized based on severity, process area, criticality and/or financial impact. This analysis helps find the root causes of problems and trend performance history more accurately, leading to information that can be acted upon by customer or ABB service people to speed transition times.

More accurate troubleshooting with configurable KPIs

ABB Ability™ Performance Optimization for QCS Transitions analyzes these KPIs to accelerate problem solving and speed transitions:

- Excessive Transition Time
- Sheet Break
- Weight Ramp Rate Under Limit
- Excessive Weight Deviation
- Excessive Moisture Deviation
- Speed Ramp Rate Under Limit

Clear view of data and analysis

Access and visualization of KPIs is provided through ServicePort Explorer. This easy-to-use interface offers three separate views of the data:

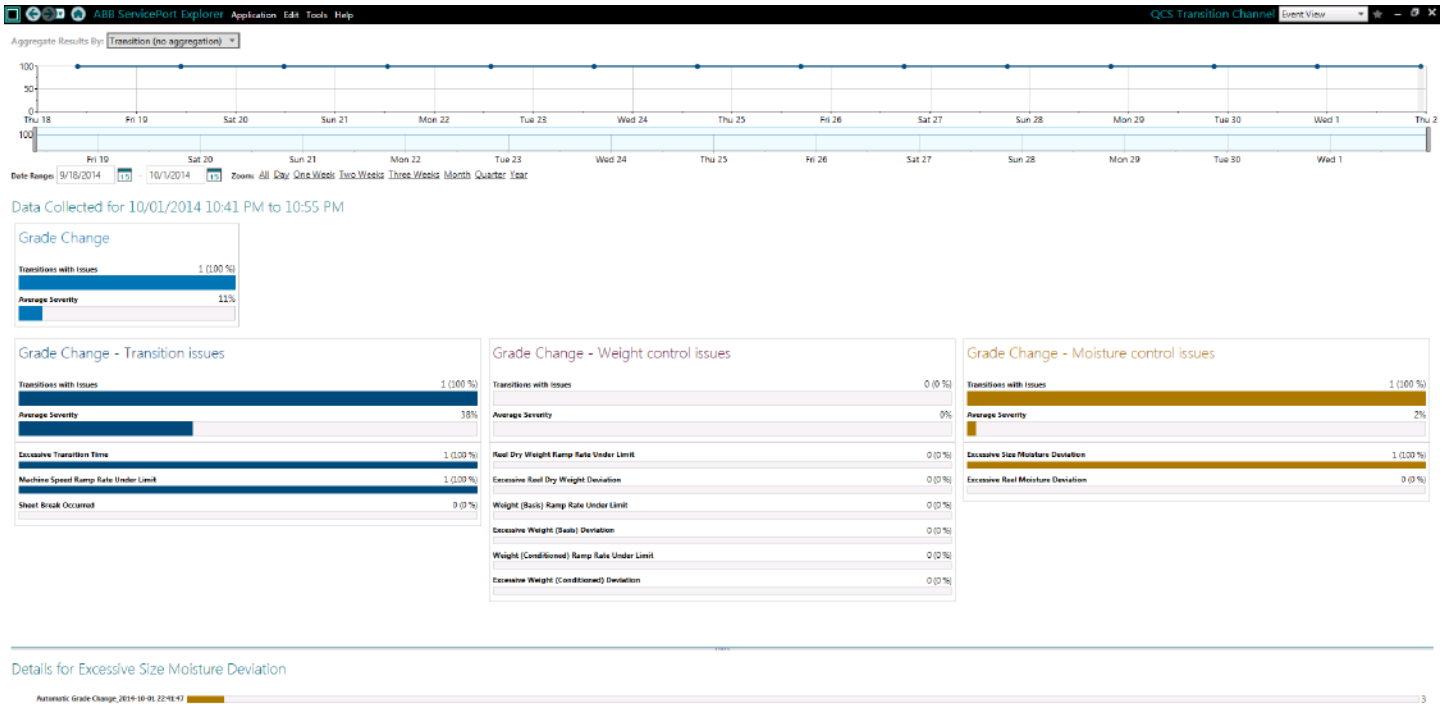
- **View:** Raw data allows customer and ABB service personnel to view actual controller data that can be associated with machine health and performance, collected before, during and after the transition period, for further analysis
- **Scan:** Automatic KPI analysis presents a summary of KPIs, ranked by severity, that are outside set limits, so that users can begin addressing issues in order of priority
- **Track:** Users can specify sets of rules for KPIs and display each occurrence that falls outside a threshold, so that users can be proactively notified to address issues

Expert analysis helps predict potential failures

To ensure that transitions are optimized, ABB provides periodic performance analyses called "Scans." In a Scan, ABB experts evaluate gathered data to assess the health and performance of the transition situation of the Quality Control System, determine the statistical accuracy of the KPIs, and find trends that predict potential performance degradation. After diagnostic data is collected and evaluated, the resulting expert performance report (Scan Report) lists recommended actions to optimize transition performance.

Critical notification when it matters most

To prioritize issues that require immediate action, site-specific rules can be applied to targeted KPIs. Any KPI that tracks outside customizable, pre-determined parameters triggers an instant alert via email or text message. This quickly notifies users about issues that can compromise transitions, so they can



Different views of KPIs are accessed through the ServicePort Explorer to analyze grade change details. The above example shows the KPI analysis view for transition, weight control and moisture control issues. The display only shows the KPIs that are outside their threshold and prioritizes them: the bigger the bar, the greater the need to address the KPI.

be addressed as soon as they are detected.

ABB ServicePort

ABB ServicePort is a remote-enabled service delivery platform that provides a secure connection to ABB services and experts. Deployed at customer locations, ServicePort enables delivery of local and remote services, and provides both customers and ABB service experts a real-time view of KPIs, and diagnostic and system data. Data collected through the QCS Transition Performance Service is highly secure as it remains on-site and requires user identification to view. Choose from ServicePort (integrated workstation), ServicePort Rack, ServicePort Mobile, ServicePort Mini or ServicePort Virtual.

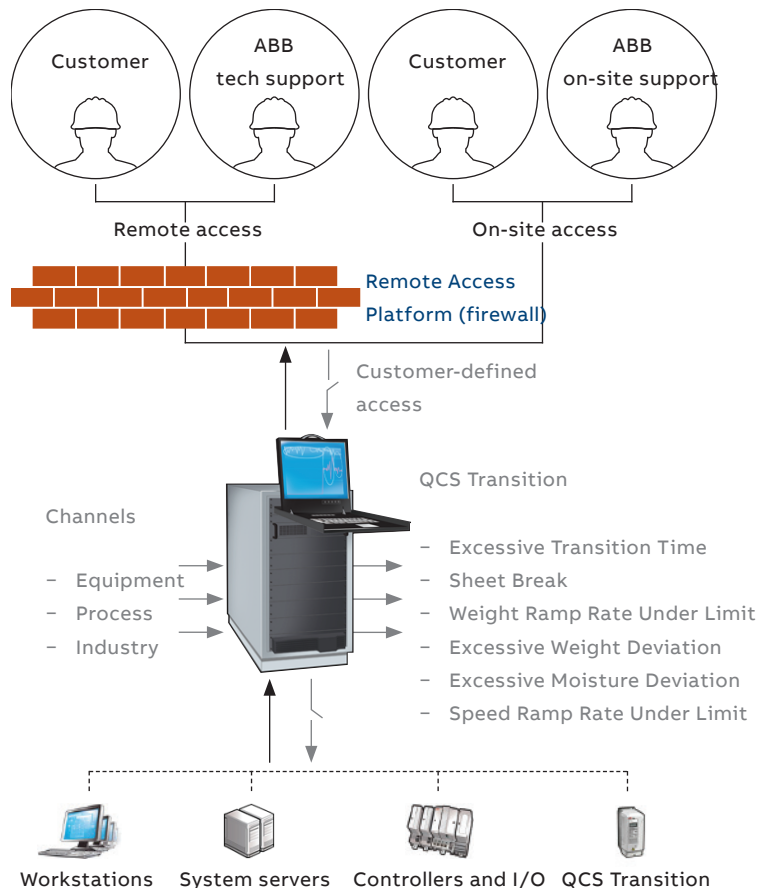


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