Pulp and paper lab testing environments are tasked with providing quick and accurate reports on samples to ensure any process corrections can be made as soon as possible. ABB’s L&W Lab Management System is a software-based quality data management system that can considerably cut lab procedure time with accurate, automated lab reporting.

**Holistic view of quality information**

Manual entries can be monotonous and suffer accuracy and time-related challenges. ABB’s L&W Lab Management System helps improve the efficiency and correctness of lab results by automating routine and repetitive lab tasks to eliminate errors and expedite process corrections.

By automatically capturing sample measurements from lab equipment and delivering results into dashboards and reports, productivity is improved and focus on issues affecting quality can be increased.

Key system features like web browser access, limited hardware and scalable storage help papermakers take lab operations to the next level.

**Benefits**

- Considerably reduces overall lab procedure time
- Reduces time to issue identification
- Helps expedite process corrections
- Creates better lab process workflow
- Improves productivity and reduces error
- Helps reduce quality losses and increases profit potential
- Provides a holistic view of a lab’s quality data

**Features**

- Web-based application allowing access through any portable device connected to the same network
- Dashboards available for quick, easy, and holistic analysis of lab measurements
- Simple installation and commissioning
- Backwards compatible with older generations of L&W Autoline and stand-alone instruments
- Intuitive interface requires minimum training and configuration for paper testing lab environments
- Flexible data storage options to align to mill needs
- Data analysis compares up to four properties and plots trends/analysis with previous batches
- Historical database enables comparison on how the same grade performs throughout the year
- Available in multiple languages
- Integrates with extended ABB Ability™ offerings
- Database migration from older L&W Data Acquisition Workstation
- User accounts can be created, maintained, and given customizable permissions
- Full control over measured samples with possibility to approve, reject, edit, redo, skip, and much more
- Possibility of manually entered and calculated properties
Figure 1: Dashboard shows sample overview of key performance indicators

Alignment to paper lab preferences
Designed with the lab process in mind, personnel will have more time to increase the volume of tests and focus on overall quality management.

L&W Lab Management System automatically collects and reports on results obtained from standalone instruments (ABB or third-party) as well as ABB L&W Autoline. The actual workflow is built to align to the sequence of tasks laboratories follow when a sample is received for testing.

A sample is first identified in the system (via manual entry, bar code reader, production system, etc.). The selected test plan directs the user to carry out measurements in a planned order. The system offers two operating modes to align test plan preferences:

- **In Sample mode**, a sample is measured sequentially in all the required instruments with any measurement made on these instruments being automatically recorded against the sample.
- **In Instrument mode**, multiple samples can be measured on one instrument by choosing from a list of samples waiting to be tested.

In either mode, the measurement value is immediately compared against the respected target and limit sets with any values outside the limits highlighted in accordance to its severity.

Customizable dashboards, reports and analysis
The performance of the lab can be viewed with one glance at the dashboard, which is configurable by time range, grade, paper machine and instrument station.

The measured values are compiled, and the statistics analyzed, in real-time. The mean value of the completed measurements is always displayed and updated as more tests are run.

Historical sample analysis is also supported with the ability to see trend graphs on up to four properties simultaneously.

Different reports are available and can be exported in different templates and file formats.

Integration with mill systems
Measurement results can be exported as xml or AL1 files to mill data/ERP systems. Reports from the L&W Lab Management System can also be integrated with ABB Quality Data Management and/or ABB Ability™ Manufacturing Execution System to enable lab information to be included with other key process indicators.

Technical specifications

<table>
<thead>
<tr>
<th>Included</th>
<th>Lab Management System software delivered and installed in a server computer (customer supply or ordered from ABB).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument Interfaces</td>
<td>L&amp;W PF1, PF2, PF4, PF5 instruments and L&amp;W Autoline. For older and third-party instruments, contact L&amp;W technical support.</td>
</tr>
<tr>
<td>Minimum installation requirements</td>
<td></td>
</tr>
<tr>
<td>Hardware</td>
<td>CPU i5 / 1.8 GHz or better. 100 GB free Hard Disk space. 8 GB RAM. LAN network with static IP among instruments and server together with appropriate cables. Screen size of 10” or larger.</td>
</tr>
<tr>
<td>Software</td>
<td>Computer with Windows 10 OS/Windows server 2016 or above. Administrator rights.</td>
</tr>
<tr>
<td>Network connection</td>
<td>Web Interface should be opened in Google Chrome, Microsoft Edge, or Opera web browser.</td>
</tr>
</tbody>
</table>

For more information, please contact:

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The information provided in this data sheet contains descriptions or characterizations of performance which may change as a result of further development of the products. Availability and technical specifications are subject to change without notice.

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