Honeywell

BLENDING & MOVEMENT LIMS VIEWER

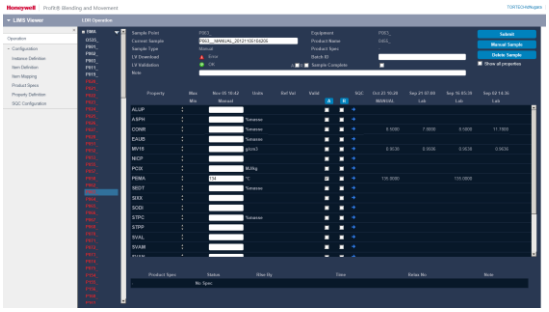
PRODUCT INFORMATION NOTE

Honeywell's LIMS Viewer (LV) provides an interface to lab data for operations personnel to manage critical quality information for use in blending, movement management, and process control.

Key Capabilities

LIMS Viewer is part of Honeywell's Movement Suite within the Blending and Movement Solution. It makes lab data available to operations personnel for review, approvals, and updates. Approved test results can then be downloaded for use in other applications and control systems. In addition, it can be used to view and download lab data from any Laboratory Information Management System (LIMS) application. LV performs the following key functions.

- Notification of sample Download Status
- View Property Information
- View Product Release Information
- View Validation Information
- Accept or Reject Lab Data
- Download Lab Data
- SQC Information



Detailed test result information for a selected sample can be easily viewed in LIMS Viewer.

Benefits

- **Secure and timely review and approval of quality data from a LIMS (Laboratory Information Management System) application.**
- **Accurate distribution of approved lab results within the control system for improved blending, movement management, and process control.**
- **Improved process performance by combining lab results with results from control applications, e.g. online blending systems, to ensure all available quality information is used for process improvement.**

A number of these key capabilities are described below:

Notification of Sample Download Statuses

When a sample or property requires acceptance by an operator, an alarm or a message is generated. This alarm or message is viewed in the Experion® PKS system from the Experion Alarm Summary display. The message or alarm indicates that a new sample has arrived and needs to be accepted and downloaded.

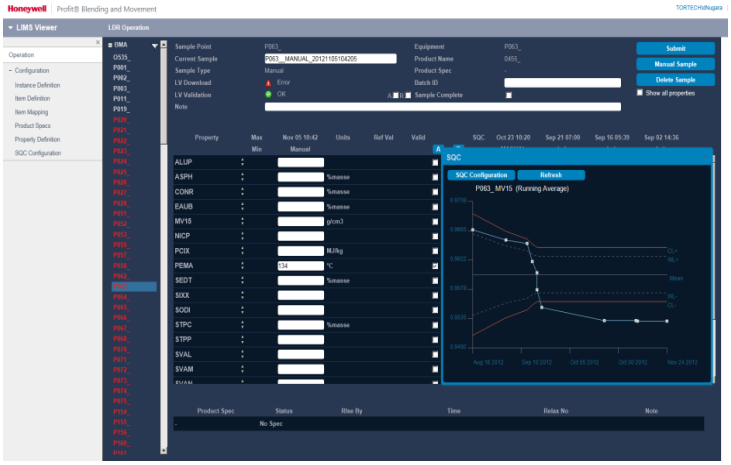
View Property Information

The samples collected in the lab are tested to determine their quality. The test results are then entered into the LIMS application.

These test results can be viewed in the Properties tab. When new test results are entered in LIMS, the results are automatically updated and displayed in LIMS Viewer.

View Validation Information

All lab data items defined are validated. When an error occurs during validation, the corresponding value of a sample's property is indicated in red color. The user can either accept or reject the error and download the lab data.



Statistical Quality Control (SQC) plots are available within LIMS Viewer

Accept or Reject Lab Data

Pending Lab data can be accepted or rejected manually from LIMS Viewer. The user can accept or reject test result data and the product release information of samples, ignore the other validations and manually download lab data.

Download Lab Data

During download, all the lab data details are automatically downloaded by LIMS Viewer to the final destination such as the blend control system. These details include sample header, status information, test result, and product specification details of samples. The lab data that is pending or includes an error can be manually downloaded if desired.

SQC Information

Each Critical Statistical Quality Control (SQC) information such as Shewhart and CUSUM plots are easily viewed by the Operator within LIMS Viewer.

LIMS Viewer on the Experion Platform

An Experion Station client is only required if LIMS Viewer is installed in an Experion environment and the LV displays will be accessed in Station.

LIMS Viewer on non-Experion Platforms

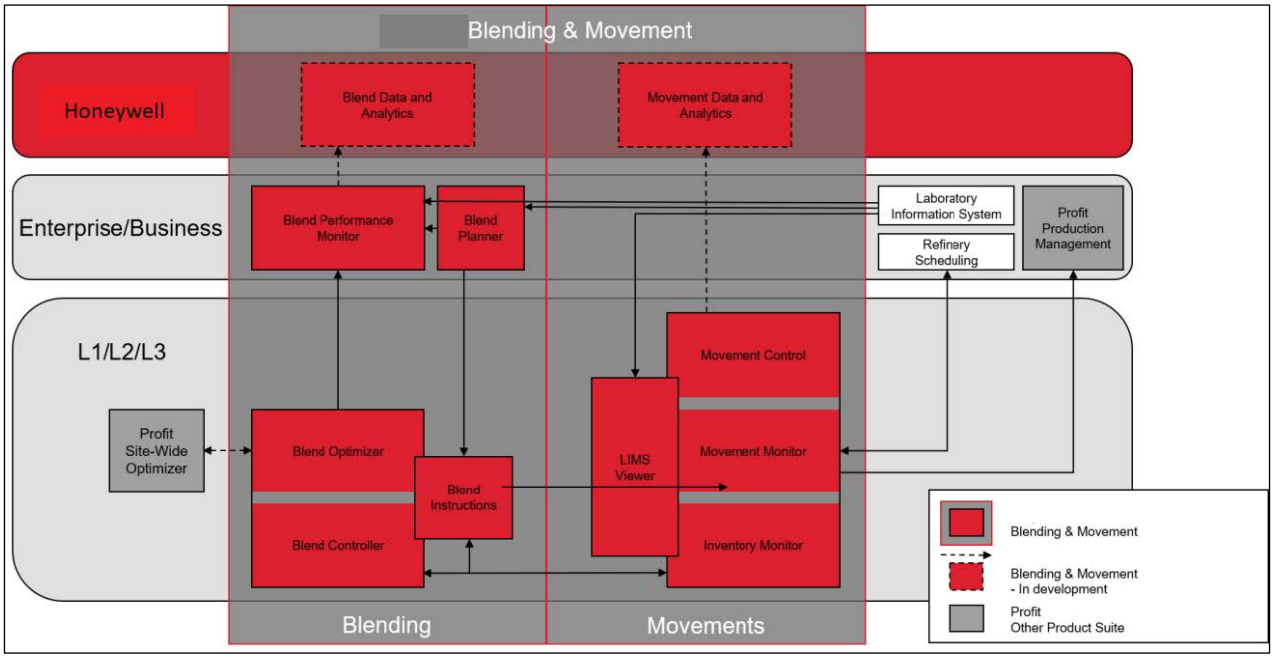
For non-Experion DCS, LIMS Viewer integrates easily through OPC connectivity between the LIMS Viewer Server and the non-Experion DCS.

Users can access the LV web-based displays from computers running a web browser

Integration with Honeywell Applications

LIMS Viewer can provide approved lab data to the Experion control system for improved blending, movement management and process control.

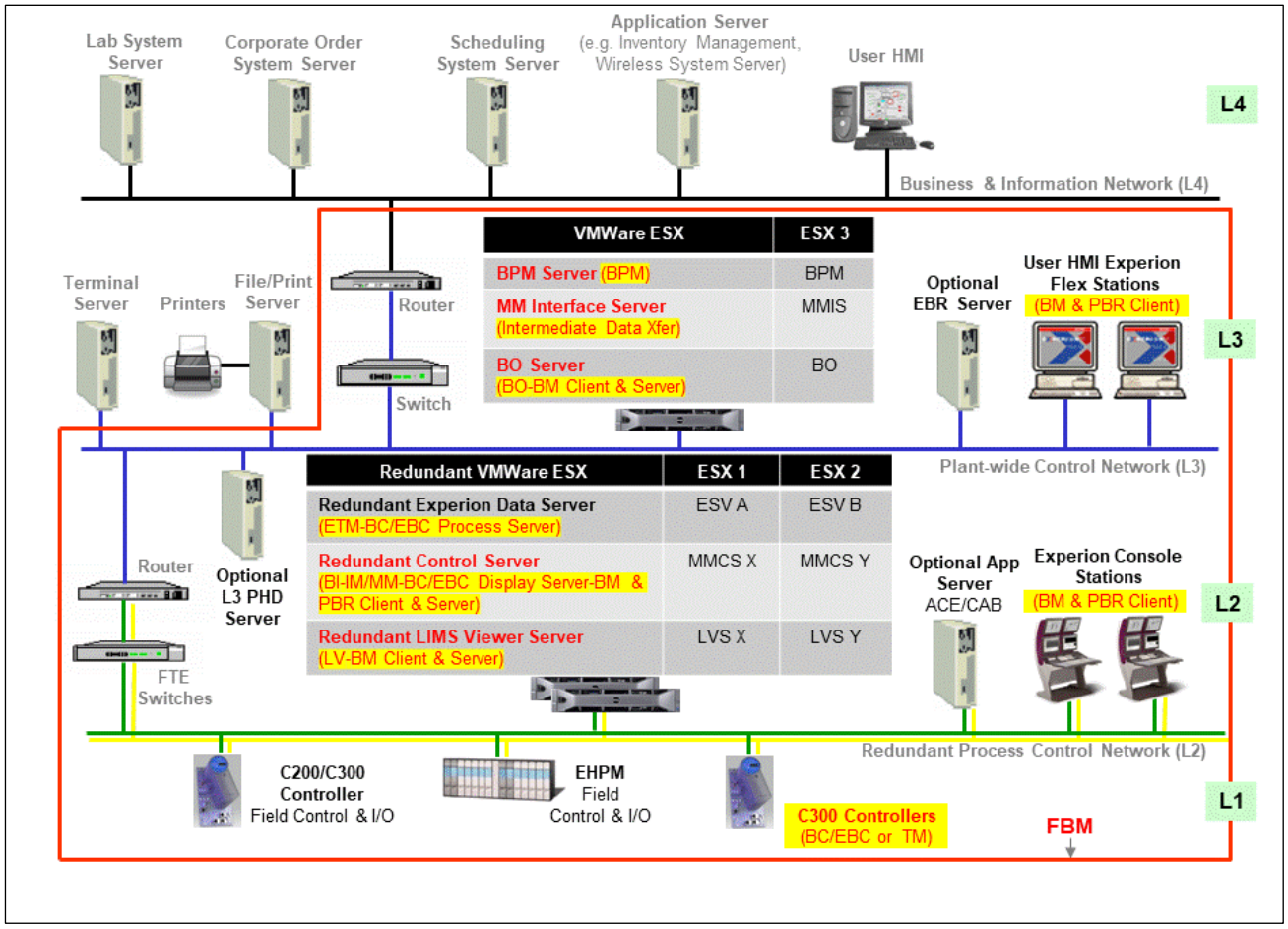
The relationships between LIMS Viewer and the remaining components of the Blending & Movement applications are shown below



LIMS Viewer is a key component of Honeywell's Movement Suite and integrates with other Honeywell applications

System Requirements and Architecture

The following illustration shows a sample Blending and Movement system architecture where LIMS Viewer is installed in the context of a combined Experion PKS and business information system in a virtualized environment.



Sample Blending and Movement System Architecture

LIMS Viewer is installed on the LIMS Viewer Server as illustrated. This server runs Windows Server 2019 (64-bit) and SQL Server 2019 (64-bit). The LV Server typically requires one Intel Xeon E-2124, 3.3GHz, 4 Core or faster processor with at least 16GB RAM and 2 x 1TB hard disk space. For specific Honeywell computer platforms and supported software that meet these requirements, please contact your Honeywell representative.

Support Services

This product comes with worldwide, premium support services through our Benefits Guardianship Program (BGP). BGP is designed to help our customers to improve and extend the usage of their software and the benefits they deliver, ultimately maintaining and safeguarding their advanced software.

Training Services

Training courses addressing LIMS Viewer implementation, use and maintenance are available through Honeywell's Automation College (www.automationcollege.com). On-site courses are also offered upon request.

For More Information

Learn more about Honeywell's LIMS Viewer can improve your blending and movement operations, visit https://process.honeywell.com or contact your Honeywell Account Manager.

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