

## Robotic Systems + Lumetics LINK™

### INTRODUCTION

LINK is the software solution for automated analytical data import, analysis, and reporting. LINK scans network locations for new measurement files, extracts all useful data, and copies this data directly to a centralized database. The powerful analysis user-interface allows datasets to be aggregated, grouped, and visualized in the form of charts/tables/images. User-customizable analysis templates deliver rapid and error-free data visualization, with the ability to be replicated across many studies and shared within your organization.

All instrument settings and parameters calculated by the instrument software are copied to the LINK database, including full underlying raw data curves. Sample metadata may be easily assigned and incorporated within the analysis to integrate various product/process variables. LINK has been demonstrated to deliver time savings more than 90% and provide a highly affordable fully automated data management and analysis solution.

LINK currently supports LEA Processed Data Sets for robotic systems.

### ROBOTIC SYSTEMS DETAILS & APPLICATIONS

A robotic system is an integrated system of devices that automate production and manufacturing. LINK may be utilized to assist directly in the following Robotic Systems application areas:

- Biologics formulation
- Small molecule pre-formulation
- Process chemistry

### INSTRUMENT SUPPORT DETAILS – LEA (UNCHAINED LABS)

LEA is an external database software compatible with systems from UNchained labs. LINK supports LEA data sets for instrument/analysis settings, parameters, calculations.

### VISUALIZATIONS – LINK ANALYSIS

LINK’s dynamic analytical suite will aggregate data and provide visualization tools to suit your specific needs. Imported Nephelometry Systems measurement data can be analyzed using the LINK platform’s customizable charts, tables, calculations, images etc. User-customized analysis templates deliver rapid and error-free data visualization with the ability to be exported as a word report to share across your organization.

Fig 1. Raw Curve Data – Viscosity

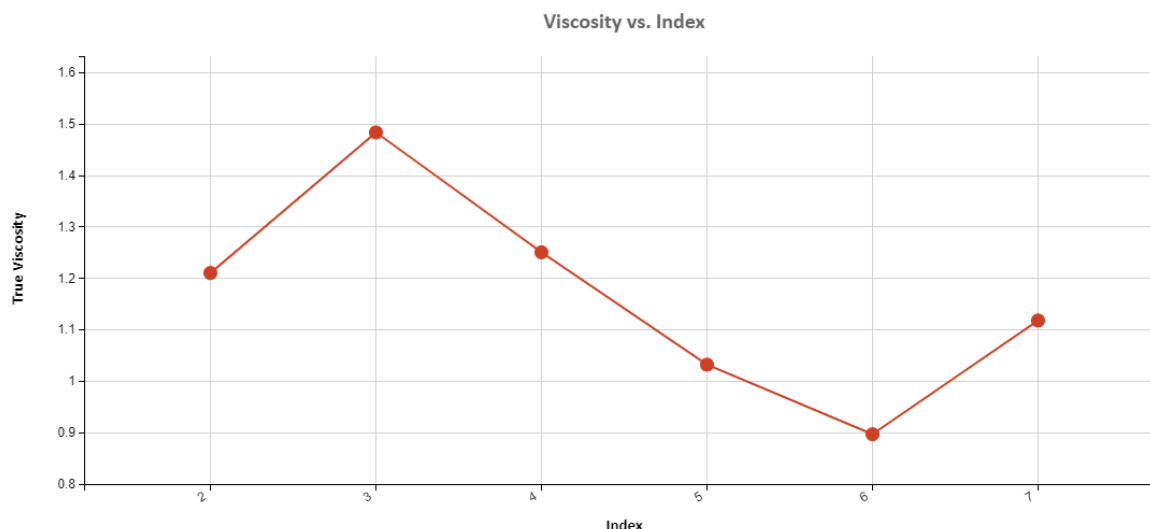


Fig 2. Raw Curve Data – Buffer Exchange

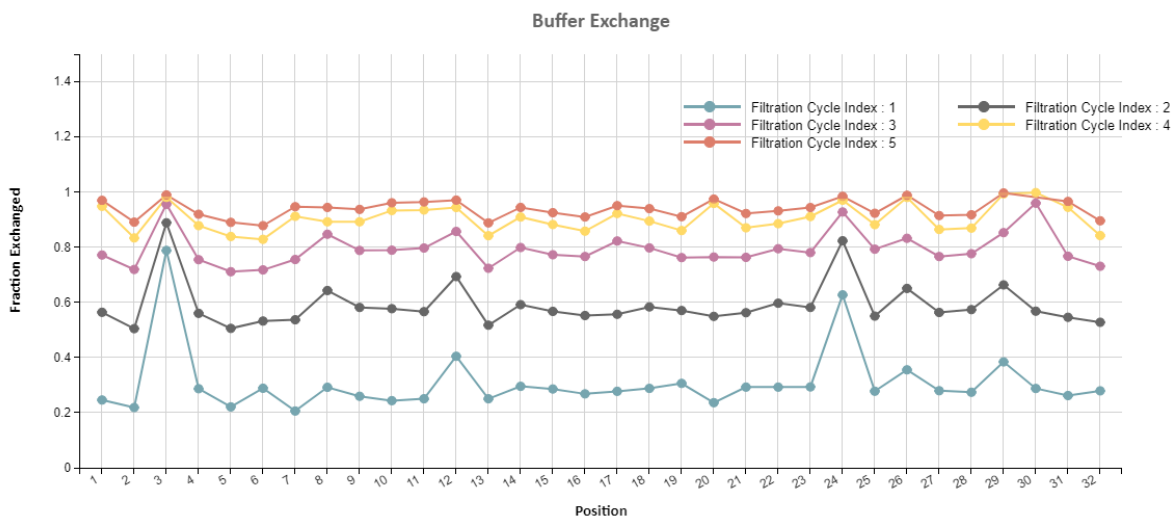


Fig 3. Tabular summaries

Measurement Summary Table – Viscosity

InstrumentName	Position	Library Name	Lib Position	Lib ID	Lib Cols	Lib Rows	Index	Pressure Profiles	Temperature	Flow Rate	Shear Stress - AVG	True Shear Rate - AVG
LEA	1	Plate1	1035760001	103576	6	4	2	47257, 47258	20.00	10	5.56	4590.56
LEA	1	Plate1	1035760001	103576	6	4	3	47275, 47276	20.00	10	6.81	4590.56
LEA	1	Plate1	1035760001	103576	6	4	4	47283, 47284	20.00	10	5.74	4590.56
LEA	1	Plate1	1035760001	103576	6	4	5	47301, 47302	20.00	10	4.74	4590.56
LEA	1	Plate1	1035760001	103576	6	4	6	47313, 47314	20.00	10	4.12	4590.56
LEA	1	Plate1	1035760001	103576	6	4	7	47331, 47332	19.99	10	5.13	4590.56

Measurement Summary Table – Buffer Exchange

Chemical Name	Library Name	Position	Volume After Fill	Volume After Filtration	Volume Removed	Volume Measurement Failure	Max Well Volume	Unexchanged Volume	Filtration Cycle Index	Filtration Vortex Rate	Stalled Filtration	Avg Filtration Pressure	Filter Failure	Cycle Duration	Pressurevs Time	Well Status	Over Concentrated	Fraction Exch Pool Incl Stalls	Fraction Exch Pool Excl Stalls	Fraction Exchanged
1-Octene	Plate1	1	436.08	325.46	110.62	no	325.46	339.38	1	875	no	60.20	no	14.98	631526	Pass	no	0.25	0.25	0.25
1-Octene	Plate1	1	436.08	246.23	189.84	no	325.46	196.21	2	875	no	60.14	no	24.91	631528	Pass	no	0.56	0.56	0.56
1-Octene	Plate1	1	436.08	221.70	214.37	no	325.46	102.74	3	875	no	60.13	no	29.46	631530	Pass	no	0.77	0.77	0.77
1-Octene	Plate1	1	436.08	87.76	348.32	no	325.46	23.21	4	875	no	60.12	no	28.79	631532	Pass	yes	0.95	0.95	0.95
1-Octene	Plate1	1	436.08	248.63	187.45	no	325.46	13.54	5	875	no	60.13	no	26.67	631534	Pass	no	0.97	0.97	0.97
1-Octene	Plate1	2	429.54	331.17	98.37	no	331.17	351.63	1	875	no	60.20	no	14.98	631526	Pass	no	0.22	0.22	0.22
1-Octene	Plate1	2	429.54	264.81	164.73	no	331.17	222.91	2	875	no	60.14	no	24.91	631528	Pass	no	0.50	0.50	0.50
1-Octene	Plate1	2	429.54	234.55	194.98	no	331.17	126.32	3	875	no	60.13	no	29.46	631530	Pass	no	0.72	0.72	0.72

## DASHBOARD DOWNLOADS

These downloadable Analysis Dashboards are tailored to meet the most common needs of scientists using Nephelometry System applications. If assistance is required, please contact LINK experts to assist in dashboard modifications or development of new dashboards of interest.

- LEA Dashboards: <http://lumetics.com/dashboards/LEA/LEA.zip>

## CONTACT LUMETICS

For direct assistance, please contact Lumetics LINK™ Support:

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