

LEA Processed Datasets – Unchained Labs

INTRODUCTION

The Lumetics LINK™ software platform scans network locations for new measurement data files, copies data directly to a centralized database, and provides a powerful user interface for rapid multi-measurement multi-technique data aggregation, visualization, analysis, and reporting. LINK employs a client/server-based architecture where the LINK server hardware is provided by the end user and resides on the end user's network. The LINK client is a portable web-based application that may be placed on any computer with network connectivity to the LINK server. For successful import, the LINK webserver requires read access to the folders where user data resides.

LEA is an external database software compatible with systems from Unchained labs for biologics formulation, small molecule pre-formulation and process chemistry.

DETAILS

LINK requires XML data files. Currently only supporting files exported from the Unchained Labs buffer exchange instrument and viscosity. The synthesis file is optional, and the buffer exchange is tied to the synthesis by "lib position" values.

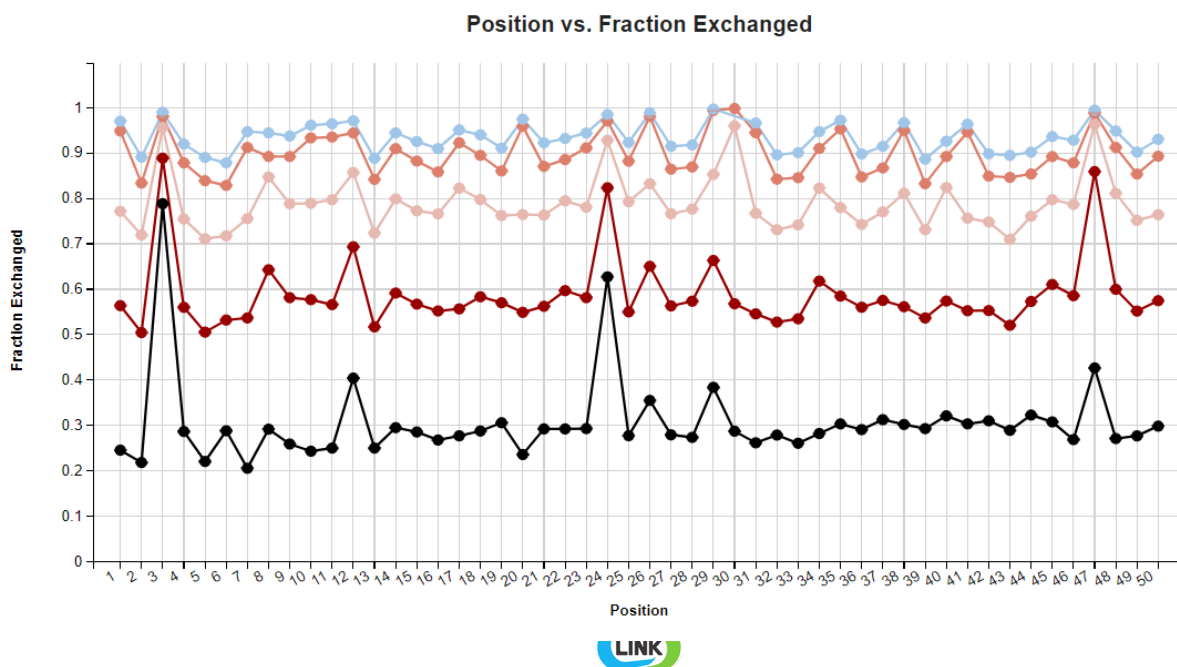
The LEA XML data file example is as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC		
1	<Synthesis ID="15891" ConCheck="1" LinkID="DEV2" PersistState="0"><SynthesisElements><SynthesisElement ID="311942" ConCheck="1" LinkID="DEV2-99d70ffd-2a15-4e48-b890-b08d94d87352" PersistState="0"><Position>1</Position><Step>1</Step><Name>1-Octene</Name><Amount>12.0</Amount>																														
2	ement<<SynthesisElement ID="312016" ConCheck="1" LinkID="DEV2-bcb7bf0d-82ac-4a66-8045-6e8790677eec" PersistState="0"><Position>75</Position><Step>1</Step><Name>1-Octene</Name><Amount>12.0</Amount><Units>513</Units><Flags>0</Flags><Status>0</Status><LibID>103671</LibID><Lib																														
3	dff03dd-f71a-44db-b56b-af569b91ec6" PersistState="0"><Position>55</Position><ChemicalName>1-Octene</ChemicalName><Role>Monomer</Role><Micromoles>76.45695954375334</Micromoles><Milligrams>8.579999999999998</Milligrams><Microliters>12.0</Microliters><Status>0</Status><Flags>																														
4	10033</LibPosition><Status>0</Status><Flags>0</Flags><ChemicalName>1-Octene</ChemicalName><TypeGroup>Equivalents</TypeGroup><TypeName>Monomer</TypeName><Milligrams>8.579999999999998</Milligrams><Micromoles>76.45695954375334</Micromoles><Microliters>12.0</Microliters>																														

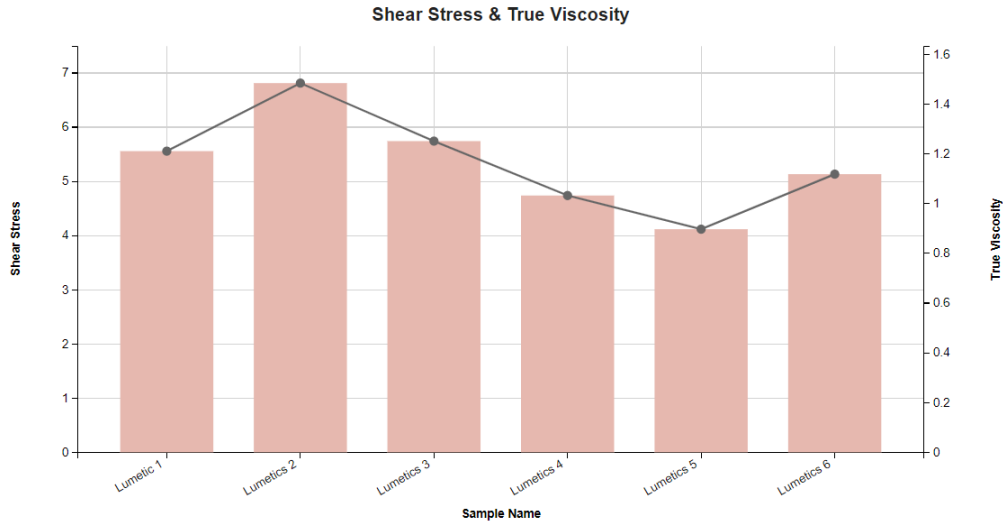
EXAMPLES

Included below are example dashboards from LEA measurement files:

1. Line Chart plotting measurement parameters with a split by fraction exchange



2. Column Chart plotting measurement parameters for Shear Stress and True Viscosity vs. Sample Name



3. Tabular Summary examples

Measurement Summary Table – Measurement Results

Sample Name	Volume After Fill - AVG	Pool Volume After Fill - AVG	Cycle Duration - AVG	Average Filtration Pressure - AVG	Filtration Vortex Rate - AVG	Volume After Filtration - AVG	Volume Removed - AVG	Unexchanged Volume - AVG	Pool Volume After Filtration - AVG	Max Well Volume For Pool - AVG	Fraction Exch Pool Incl Stalls - AVG	Fraction Exch Pool Excl Stalls - AVG	Fraction Exchanged - AVG
Sample 1	446.80	450	24.87	60.15	875	242.84	203.96	124.34	450	296.01	0.72	0.72	0.72
Sample 2	440.67	450	25.04	60.14	875	267.50	173.17	143.42	450	326.61	0.68	0.68	0.68
Sample 3	452.38	450	24.91	60.15	875	256.80	195.58	137.46	450	324.53	0.69	0.69	0.69
Sample 4	468.02	450	24.96	60.15	875	280.97	187.05	138.54	450	341.30	0.69	0.69	0.69
Sample 5	467.07	450	24.72	60.15	875	253.40	213.67	125.30	450	318.15	0.71	0.71	0.72
Sample 6	475.48	450	24.96	60.15	875	294.02	181.46	139.63	450	344.04	0.69	0.69	0.69
Sample 7	474.29	450	24.96	60.15	875	283.67	190.63	131.86	450	333.65	0.71	0.71	0.71
Sample 8	464.90	450	26.07	60.14	875	285.05	179.85	124.01	450	334.78	0.72	0.72	0.72

Measurement Summary Table – Instrument Settings

Sample Name	Filtration Cycle Index	Position - AVG	Lib Design ID - AVG	Chemical Name	Class Name	Wells Per Pool - AVG	Max Well Volume For Pool - AVG	Well Status	Library Name
Sample 1	Multiple (5 Values)	2.42	1893	1-Octene	BufferExchangeExpe...	1	296.01	Pass	Plate1
Sample 2	Multiple (5 Values)	6.38	1893	1-Octene	BufferExchangeExpe...	1	326.61	Multiple (2 Values)	Plate1
Sample 3	Multiple (5 Values)	11.91	1893	1-Octene	BufferExchangeExpe...	1	324.53	Pass	Plate1
Sample 4	Multiple (5 Values)	19.30	1893	1-Octene	BufferExchangeExpe...	1	341.30	Pass	Plate1
Sample 5	Multiple (5 Values)	27.55	1893	1-Octene	BufferExchangeExpe...	1	318.15	Pass	Plate1
Sample 6	Multiple (5 Values)	35.79	1893	1-Octene	BufferExchangeExpe...	1	344.04	Pass	Plate1
Sample 7	Multiple (5 Values)	44.20	1893	1-Octene	BufferExchangeExpe...	1	333.65	Pass	Plate1
Sample 8	Multiple (5 Values)	49.56	1893	1-Octene	BufferExchangeExpe...	1	334.78	Pass	Plate1

LEA DASHBOARDS

LINK contains an extensive built-in dashboard library from LINK version 2.4.0.210401 and later. This function contains specific pre-created dashboards for all instruments and application groups.

CONTACT LUMETICS

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