

Empower Processed Datasets

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.

Empower is a chromatography data software (CDS) package for advanced data acquisition, management, processing, reporting, and distribution.

DETAILS

LINK requires a TXT data file (field/peak information). A corresponding ARW data file (chromatogram data) is optional. If a PDF instrument report is present, it will be imported to LINK and be available as a Measurement Series Attachment.

The following raw curve data may be imported, in addition to all available instrument/analysis settings and parameters calculated by the instrument software:

- Absorbance Units vs. Retention Time
- PDF reports (if included in export method) will be imported as measurement attachments

An Empower-specific import method includes setting a noise floor factor. The default is 0.01 as this will improve the performance of Line Chart dashboards by removing small fluctuations below the noise flow and reducing the resulting size of the chromatogram's data set.

An export method must be created within Empower, to generate the TXT and ARW files. To create an Select the Empower Export Method Editor option and:

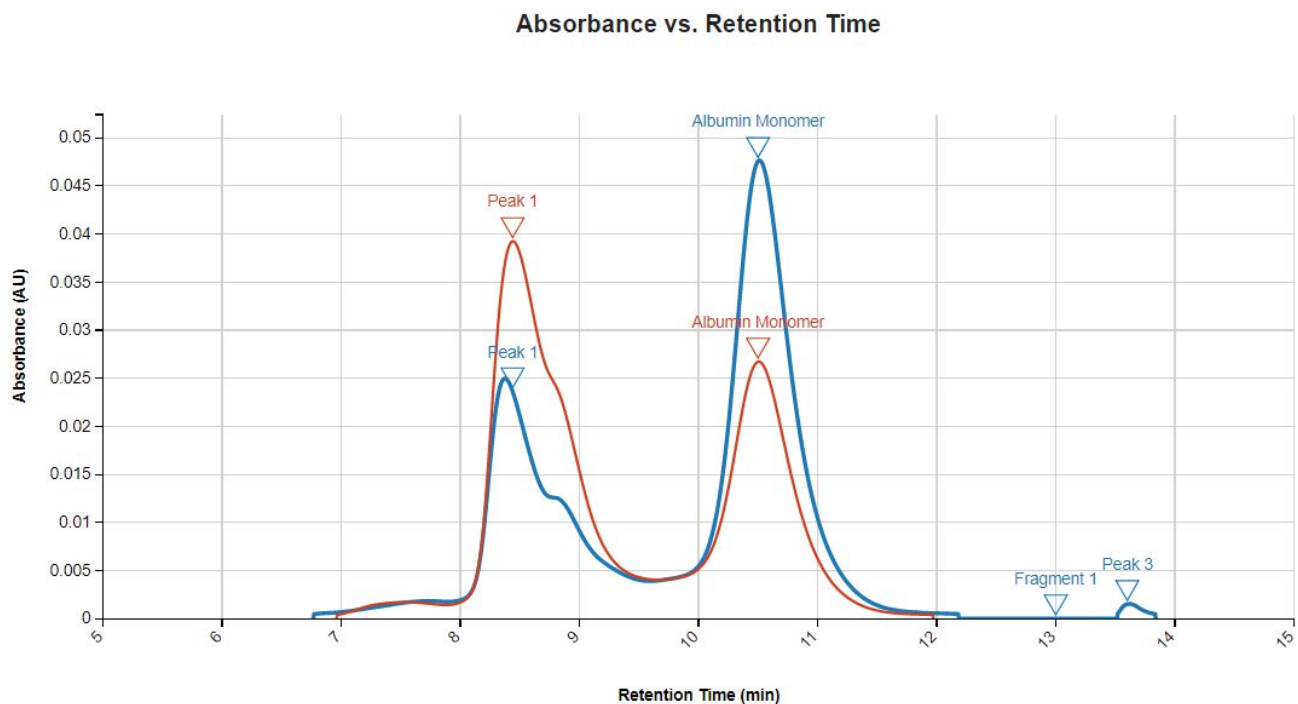
- a) Select the Fields tab
 - Select a root Filename (e.g. Lumetics Empower Export)
 - Select File and ASCII
 - Select the Summary by Individual for the Report Type
 - Select tab for the Column Delimiter
 - Select Fields First for the Export Order
 - Select Include Table/Export Table Data and Include/Export Row Number
 - Select Edit Table and beginning with the first column in the table, add these parameters: Peak Name, Injection ID, Date Acquired, Channel, Vial, Sample Name, and Retention Time (please ensure Peak Name is present in the first column). Add peak integration parameters of interest in the remaining table columns (e.g. % Area etc...).
 - Select Export Fields/Export Field Data and Row for Label Orientation
 - Select desired instrument/analysis metadata fields of interest. Ensure that Injection ID, Date Acquired, Sample Name, Channel, and Vial are included.

- b) Select the Raw Data tab
- Select a root Filename (e.g. Lumetics Export)
 - Select File and ASCII
 - Under X-axis Data, select Export Time Column
 - Select tab for the column delimiter
 - Select the **Export Fields** checkbox
 - Select **Injection ID, Date Acquired, and Channel**.
- c) OPTIONAL - Select the **Report** tab
- Select the PDF report for a given processing method

EXAMPLES

Included below is an example dashboard from Empower measurement files:

1. Line Chart plotting raw data curves for Absorbance vs. Retention Time



2. Tabular Summary examples

Measurement Summary Table – Measurement Results

LINK Record ID #	Sample Name	Absorbance (AU) (Retention Time (min) >=1) - AVG	Total % Area	HMW % Area	HMW Area	LMW % Area	LMW Area	LMW Retention Time	HMW Retention Time
101	Sample A	7.48	100	3.20	94955	0.35	10314	11.94	7.72
102	Sample A	7.27	100	3.20	92910	0.43	12329	11.86	7.73
103	Sample B	7.21	100	2.96	85559	0.47	13567	11.69	7.54
104	Sample B	7.17	100	2.91	83957	0.44	12754	11.73	7.53
105	Sample C	6.87	100	2.87	79077	0.48	13135	11.72	7.55
106	Sample C	6.86	100	2.88	79151	0.42	11658	11.77	7.53

Measurement Summary Table – Instrument Settings

LINK Record ID #	InstrumentName	Sample Name	File Name	Injection Id	System Id	Vial Id	# of Results Stored	Sample Set Start Date	Sample Set Finish Date
101	Empower (ASCI...	Sample A	Lumetics Empo...	6946	EM1234	245	2	11-01-2019	11-27-2019
102	Empower (ASCI...	Sample A	Lumetics Empo...	6952	EM1234	245	2	11-01-2019	11-27-2019
103	Empower (ASCI...	Sample B	Lumetics Empo...	6735	EM1234	765	5	11-01-2019	11-27-2019
104	Empower (ASCI...	Sample B	Lumetics Empo...	6741	EM1234	765	5	11-01-2019	11-27-2019
105	Empower (ASCI...	Sample C	Lumetics Empo...	6749	EM1234	832	3	11-01-2019	11-27-2019
106	Empower (ASCI...	Sample C	Lumetics Empo...	6759	EM1234	832	3	11-01-2019	11-27-2019

DASHBOARD DOWNLOADS

Included below is a link to downloadable dashboards for Empower measurement files:

<http://lumetics.com/dashboards/Empower/Empower.zip>

CONTACT LUMETICS

For direct assistance, please contact Lumetics LINK™ Support:

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