

PAMAS

4132, AS3, FastPatch 2 GO, FSA-2002, OLS4031, OLS50P, S40, S40 ACTUR, S40 GO, S40 GO AVTUR, S4031, S4031 GO, S4031 GO WG, S50, S50DP, S50P Fuel, SBSS, SBSS WG, SVSS & WaterViewer

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.

PAMAS particle counters measure solid particulate contamination of liquids and control the efficiency of filters and the cleanliness of liquids. Particles circulating at high speed and pressure in the liquids of turbines, power plants, gearboxes and offshore applications are capable of damaging mechanical parts of the system. Particles affect both the quality of liquids and the connected components and machines.

DETAILS

LINK requires the MES or CSV data files. Data files must be exported from the PAMAS software. PAMAS **PMA** and PAMAS **USP** software exports are supported.

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

- Particle count/concentration vs. Particle Size

Particle Volume % for the number of particles in each channel is calculated automatically and imported to LINK. (Particle Volume % = volume of particles in a given size range bin divided by the volume of particles in all bins, assuming particles are spherical in volume).

Lumetics LINK™ bins data such that an ECD bin edge must be $\geq x$, as opposed to $>x$. Therefore, values from the PAMAS file that are displayed as $>x \mu\text{m}$, will be automatically converted to $\geq x \mu\text{m}$ when imported to the LINKdb (e.g. $>2 \mu\text{m}$ will be converted to $\geq 2 \mu\text{m}$).

Import Method options can be defined and calculated each measurement during import if it is first created/defined and then requested within an Import Method. The default PAMAS-specific import method settings are:

- Exclude Runs: **None**
- Automated Metadata Extraction: **None**
- Dilution Factor: **1 (no dilution)**

Exclude Runs: Specify if LINK should generate its own Average based on excluding the first and/or last few replicate runs.



Automated Metadata Extraction

Specify criteria for automated metadata extraction from measurement file fields (e.g. Comments, File Name, Import Path etc...) utilizing specified delimiters. Both metadata name and value may be extracted or only the value only.

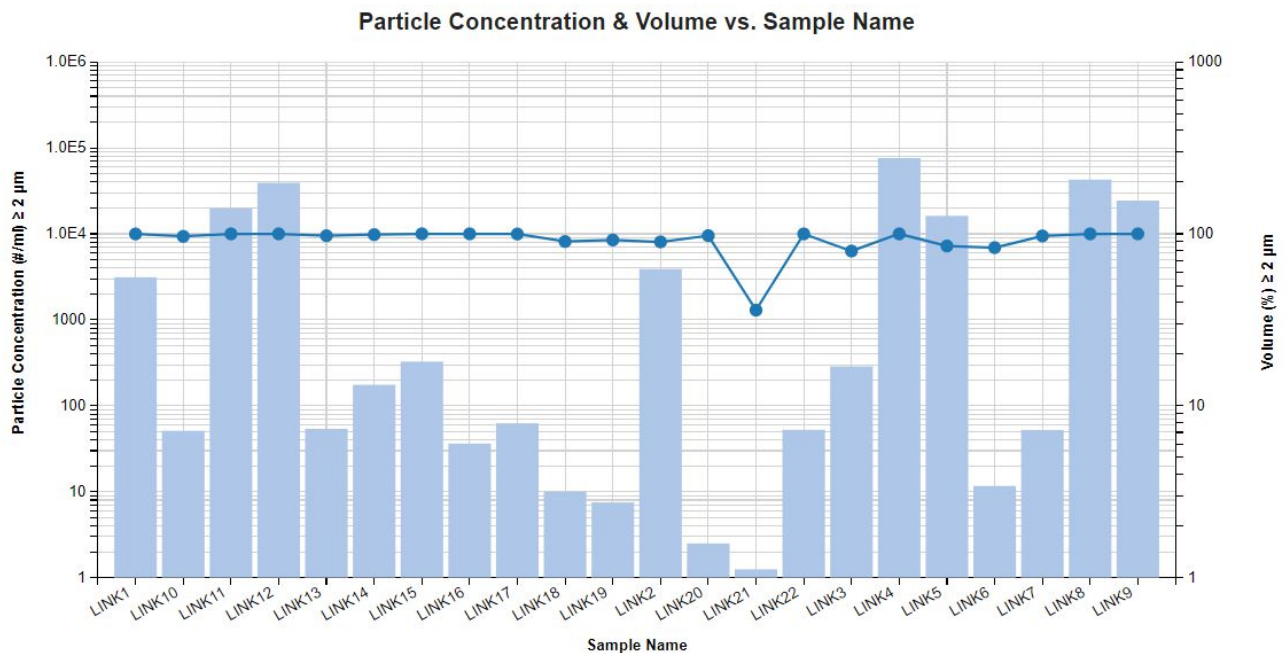
Dilution Factor

Specify a dilution factor for automated particle count/concentration data adjustment. This selection applies to the total particle population and all defined sub-populations. A LNK_Dilution_Factor may also be applied after import, utilizing the Add/Edit LINKdb Fields feature.

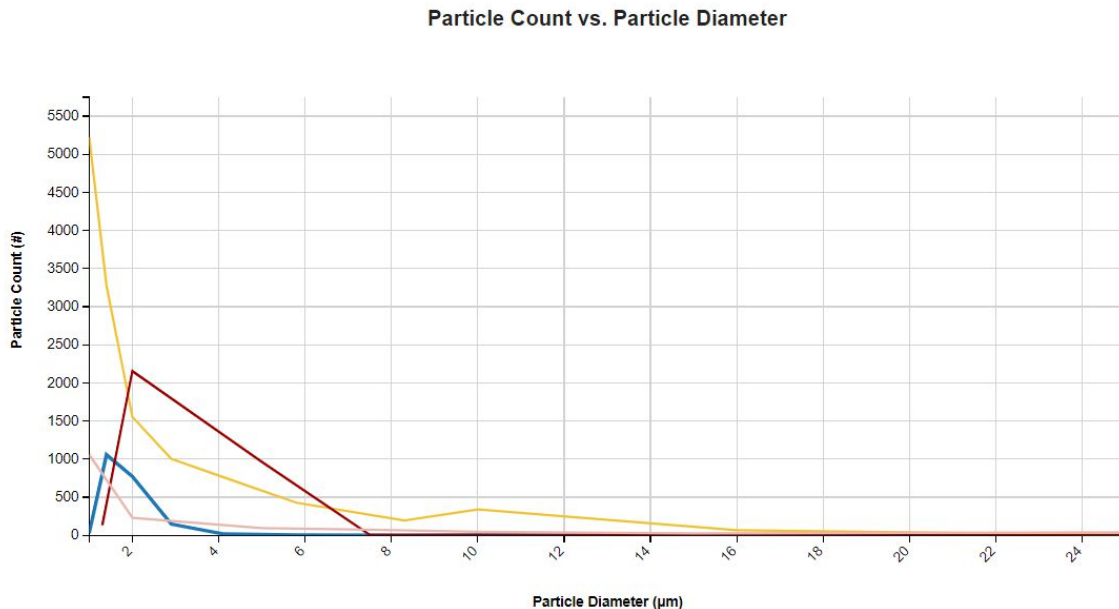
EXAMPLES

Included below are sample dashboards from PAMAS measurement files:

1. Column Chart plotting raw data curves for Particle Concentration & Volume vs. Sample Name



2. Line Chart plotting raw data curves for Particle Count vs. Diameter



3. Tabular Summary examples

Measurement Summary Table – Instrument Settings

LINK Record ID #	Sample Name	File Name	Analysis Date	Software Version	Serial Number	File Dilution Factor - AVG	Counter S/N
3	LINK1	Sample_2017-12-0...	2017-05-12 11:06:12	4.0.1		1	350-97
6	LINK2	20120113_SZ001_...	2012-01-13 00:00:00	4.0.1	R35-FD3066100000	1	350-97
8	LINK3	20120113_SZ001_...	2012-01-13 00:00:00	4.0.1	R35-FD3066100000	1	350-97
10	LINK4	20120113_SZ001_...	2012-01-13 00:00:00	4.0.1	R35-FD3066100000	1	350-97
14	LINK5	20120403_1-062-2...	2012-04-03 00:00:00	4.0.1	R35-FD3066100000	2	350-97
27	LINK6	20130606_1-15_00...	2013-06-06 00:00:00	4.0.1	R35-FD3066100000	2	350-97
29	LINK7	20130606_1-15_00...	2013-06-06 00:00:00	4.0.1	R35-FD3066100000	2	350-97
32	LINK8	20130606_1-15_00...	2013-06-06 00:00:00	4.0.1	R35-FD3066100000	2	350-97
36	LINK9	20130606_1-15_00...	2013-06-06 00:00:00	4.0.1	R35-FD3066100000	2	350-97
37	LINK10	20130606_1-15_00...	2013-06-06 00:00:00	4.0.1	R35-FD3066100000	2	350-97
40	LINK11	20130606_1-15_00...	2013-06-06 00:00:00	4.0.1	R35-FD3066100000	3	350-97
46	LINK12	20130606_1-15_00...	2013-06-06 00:00:00	4.0.1	R35-FD3066100000	3	350-97

Measurement Summary Table – Measurement Results

LINK Record ID #	Sample Name	Total Particle Count (#) - AVG	Total Particle Concentration (#/ml) - AVG	Volume (%) (Particle Diam. (µm) >=1) - AVG	Particle Count (#) (Particle Diam. (µm) >=1) - AVG	Particle Conc. (#/ml) (Particle Diam. (µm) >=1) - AVG	Count (Particle Diam. (µm) >=1) - AVG
3	LINK1	3258.30	3258.30				
6	LINK2	4374.33	14581.11	100.00	4374.33	14581.11	1.57
8	LINK3	9157.00	30523.33	100.00	9157.00	30523.33	1.09
10	LINK4	26921.67	89738.89	100.00	26921.67	89738.89	5.99
14	LINK5	21940.67	73135.56	100.00	21940.67	73135.56	1.50
27	LINK6	6.67	33.33	100.00	6.67	33.33	1.68
29	LINK7	37.89	189.44	100.00	37.89	189.44	1.70
32	LINK8	14169.00	70845.00	100.00	14169.00	70845.00	1.96

DASHBOARD DOWNLOADS

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

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

CONTACT LUMETICS

For direct assistance, please contact Lumetics LINK™ Support:

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