

nCS1™ - Spectradyne

INTRODUCTION

The Lumetics LINKTM 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.

The Spectradyne nCS1 employs a novel implementation of the resistive pulse sensing method to count and size nanoparticles quickly and with high resolution. Sizing precision of $\pm 3\%$ is typically achieved, with measurement rates up to 10,000 particles/s.

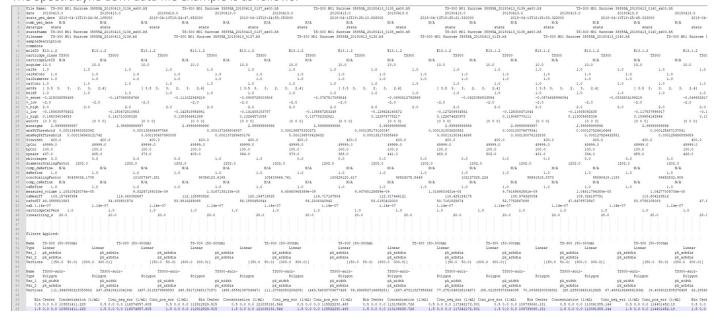
DETAILS

LINK requires the LUM data file to import nCS1 data. The nCS1 software may generate this file automatically.

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 (at 5nm bin widths)

The Spectradyne LUM data file example is as follows:





Included below are sample dashboards from Spectradyne nCS1 measurement files:

1. Radar Chart plotting multiple measurement results with limit lines/acceptance mask

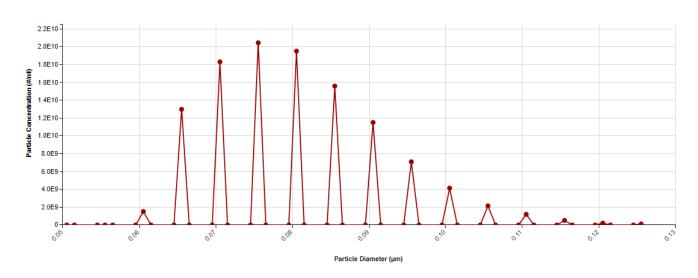
Multiple Measurement Results



Spectradyne nCS1, Total Population

2. Line Chart pliotting raw data curves for Particle Concentration vs. Particle Diameter

Particle Concentration vs. Particle Diameter



3. Tabular Summary examples

Measurement Summary Table – Measurement Results

LINK Record ID #	Sample Name	Total Particle	Particle Conc. (#/ml)	concScalingFactor -	calPs - AVG	calConc - AVG	calDiameter - AVG	diameterScalingFacto	measured_volume -
		Concentration (#/ml)	(Particle Diam. (µm)	AVG				r - AVG	AVG
		- AVG	<=1) - AVG						
1	Lumetics 1	113697674279.19	113697674279.19	1	1	1	1	1202	0.30
2	Lumetics 2	116960526919.49	116960526919.49	1	1	1	1	1202	0.80



Measurement Summary Table – Instrument Settings

LINK Record ID #	Sample Name	Analysis Date	npeaks - AVG	Filter 2 - Type	Filter 2 - Name	Filter 1 - Type	Filter 1 - Name	File Name	datatype	cartridgeCalVers - AVG	acqtime - AVG
1	Lumetics 1	2018-04-27 00:	52192	Polygon	TS-300 1000f	Linear	TS-300 (50-300	TS-300 144947	comb	1	140
2	Lumetics 2	2018-04-27 00:	45333	Polygon	TS-300 1000f	Linear	TS-300 (50-300	TS-300 144947	comb	1	140

SPECTRADYNE 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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