

NanoSight – Malvern Panalytical

NS300, LM10

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.

NanoSight instruments utilize Nanoparticle Tracking Analysis (NTA) to characterize nanoparticles in solution. They provide high resolution nanoparticle size, count-based concentration and aggregation measurements while a fluorescence mode provides specific results for suitably labelled particles. With real time monitoring, subtle changes in the characteristics of particle populations are provided with all of these analyses confirmed by visual validation.

DETAILS

LINK requires the Batch/Experiment Summary.CSV data file. The *.CAP used in older versions of NTA software (might contain sample name and analysis date) is optional. The Particle Count/Intensity CSV data file is optional. The AVI video file is not utilized. The NTA software generates all required files 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
- Particle Count vs. Normalized Intensity, Take Length, Start Frame, or Diffusion Coefficient

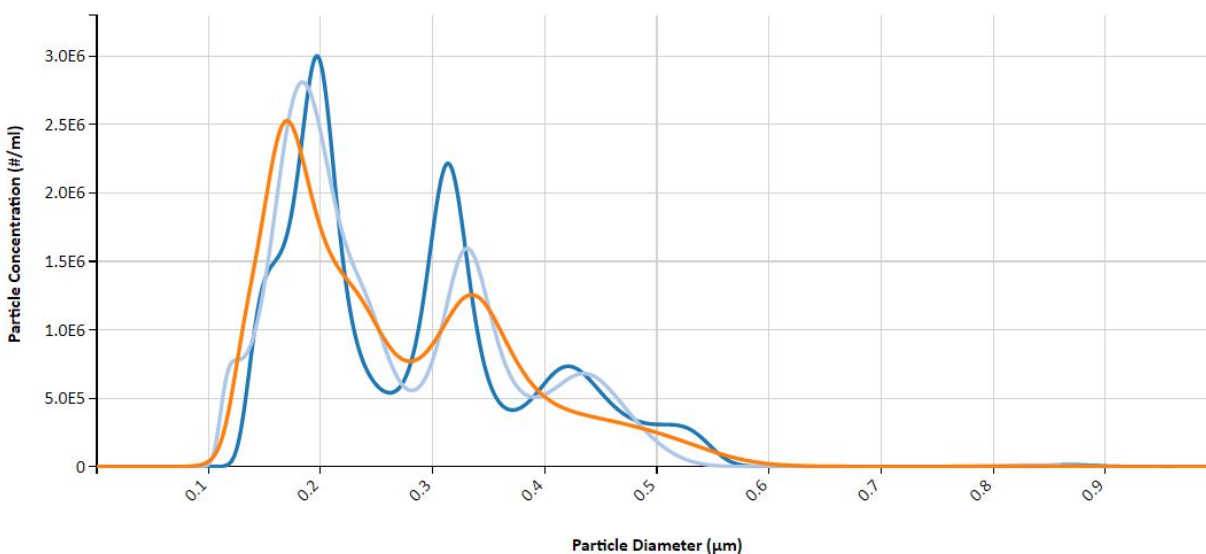
Particle Concentration data MUST be present in the CSV file for successful Import. If the same measurement exists in the Summary CSV and ExperimentSummary CSV files, LINK will ignore the redundant data. Each measurement in an ExperimentSummary CSV file is treated as a unique measurement. Each will be assigned the same Sample Name but will have a different File Name based on the Capture timestamp.

EXAMPLES

Included below is an example dashboard from NanoSight measurement files:

1. Line chart plotting raw data curves for Particle Parameters

Particle Diameter vs. Concentration



2. Tabular Summary examples

Measurement Summary Table – Instrument Settings

LINK Record ID #	InstrumentName	Sub-Population	Sample Name	Blur Size	Weighting	Version	Total frames analysed - AVG	Total Frames - AVG
58	NanoSight	Total Population	Sample 1	Auto	Number	NTA 3.2 Dev Bui...	749	1500
59	NanoSight	Total Population	Sample 2	Auto	Number	NTA 3.2 Dev Bui...	749	900
60	NanoSight	Total Population	Sample 3	Auto	Number	NTA 3.2 Dev Bui...	749	1000
66	NanoSight	Total Population	Sample 4	Auto	Number	NTA 2.3 build 0...	749	1499

Measurement Summary Table – Measurement Results

LINK Record ID #	Sample Name	Vibration detected	Viscosity (cP) - AVG	Volume (%) (Particle Diam. (µm) <=1) - AVG	Particle Conc. (#/ml) (Particle Diam. (µm) <1) - AVG
58	Sample 1	No	0.88	100.00	1268142878
59	Sample 2	No	0.88	100.00	1437700967
60	Sample 3	No	0.88	100.00	1439394116
66	Sample 4	No vibration detected	0.87	100.00	196717900

DASHBOARD DOWNLOADS

Included below are the links to downloadable dashboards for NanoSight measurement files:

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

CONTACT LUMETICS

For direct assistance, please contact Lumetics LINK™ Support:

E-mail: support@lumetics.com

Phone: 1.613.614.874

Website: <http://lumetics.com/>