

Prometheus – NanoTemper

NT.48, NT.Plex, NT.Plex plus NT.Robotic Autosampler

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.

Prometheus characterizes protein unfolding by monitoring the intrinsic fluorescence signal of proteins as a measure of its folding state. A ratiometric measurement of the fluorescent signal is plotted against increasing temperature or concentration of a chemical denaturant to determine the T_m of a protein.

DETAILS

LINK requires XLSX data files.

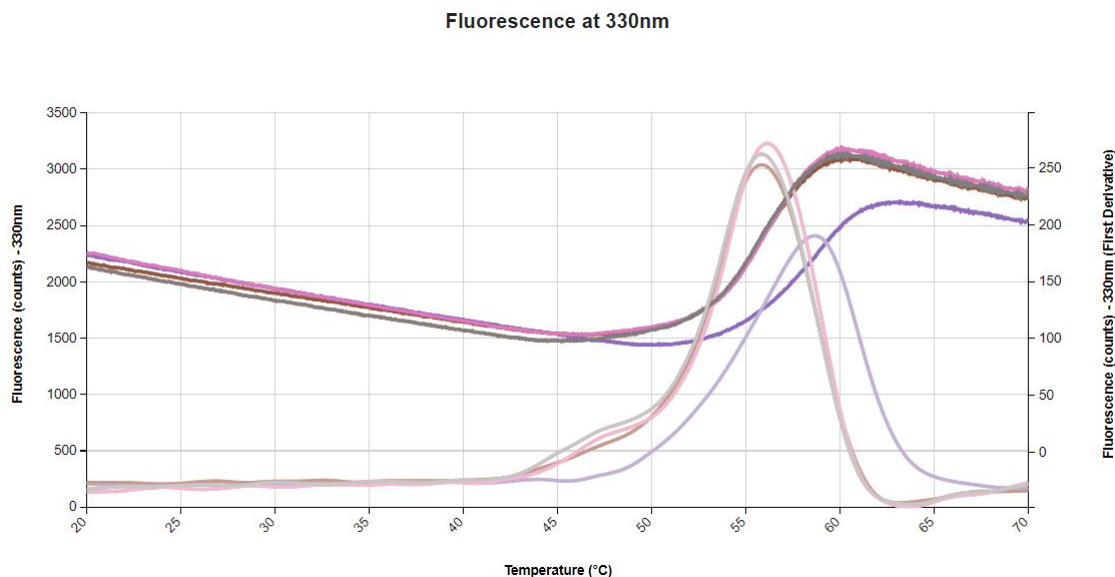
The following raw curve data may be imported, in addition to all available instrument/analysis settings and parameters calculated by the instrument software:

- Time/Temperature vs. Fluorescence 330 nm
- Time/Temperature vs. Fluorescence 330 nm (1st derivative)
- Time/Temperature vs. Fluorescence 350 nm
- Time/Temperature vs. Fluorescence 350 nm (1st derivative)
- Time/Temperature vs. Fluorescence Ratio
- Time/Temperature vs. Fluorescence Ratio (1st derivative)
- Time/Temperature vs. Scattering (mAU)
- Time/Temperature vs. Scattering (mAU) (1st derivative)

EXAMPLES

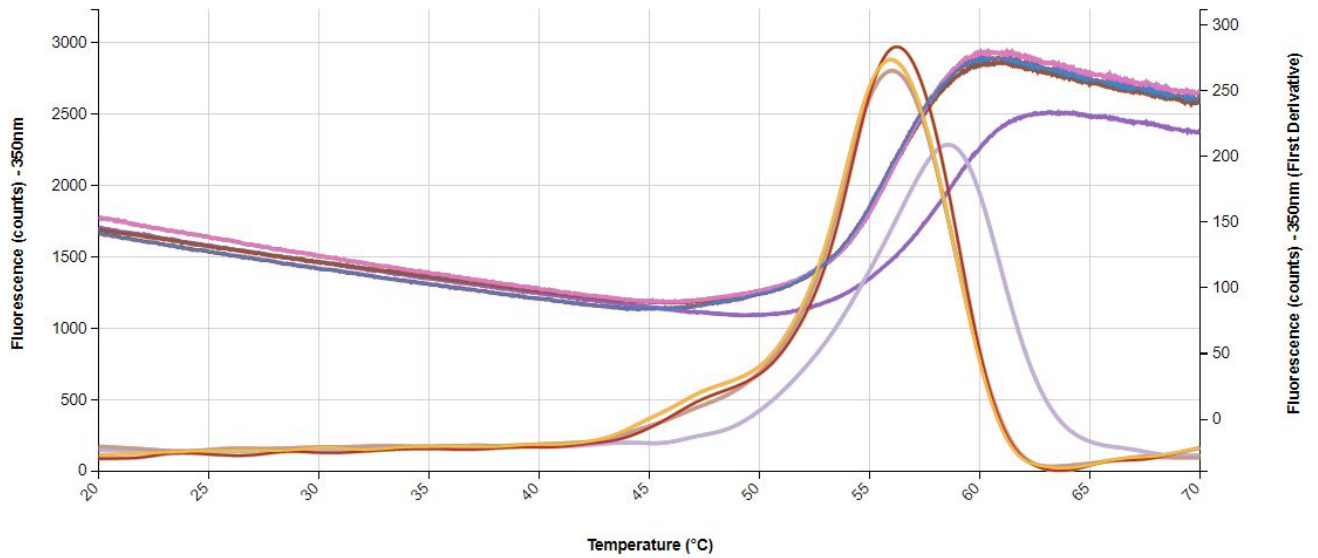
Included below are example dashboards from Prometheus measurement files:

1. Line Chart raw data curves for Fluorescence 330nm vs. Temperature



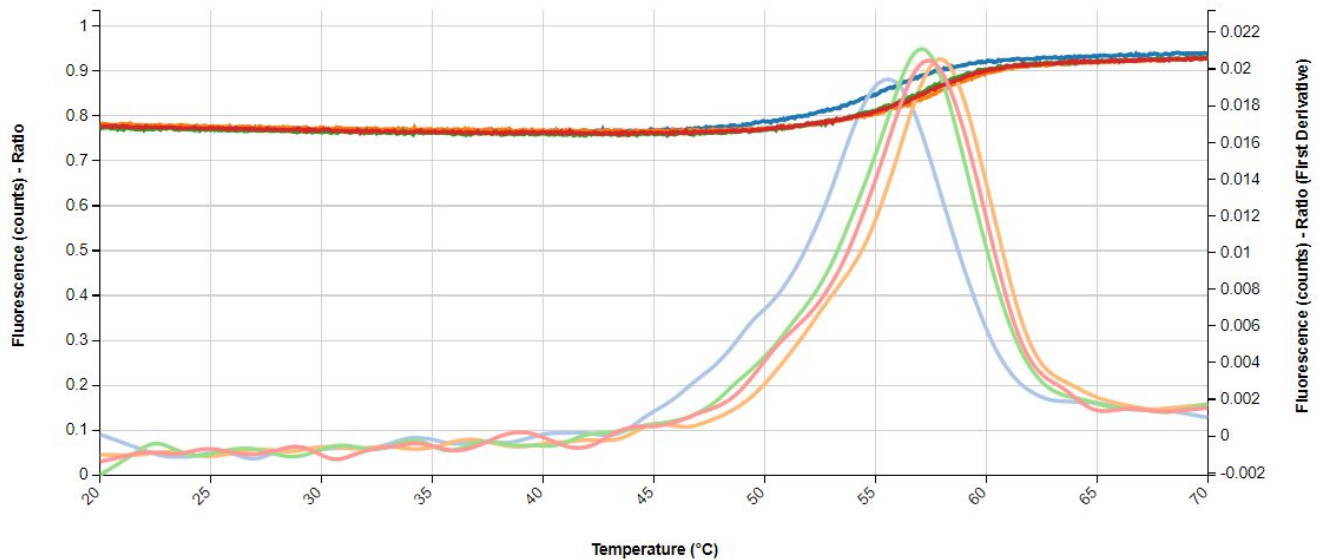
2. Line Chart plotting raw data curves for Fluorescence 350nm vs. Temperature

Prometheus - Fluorescence at 350nm

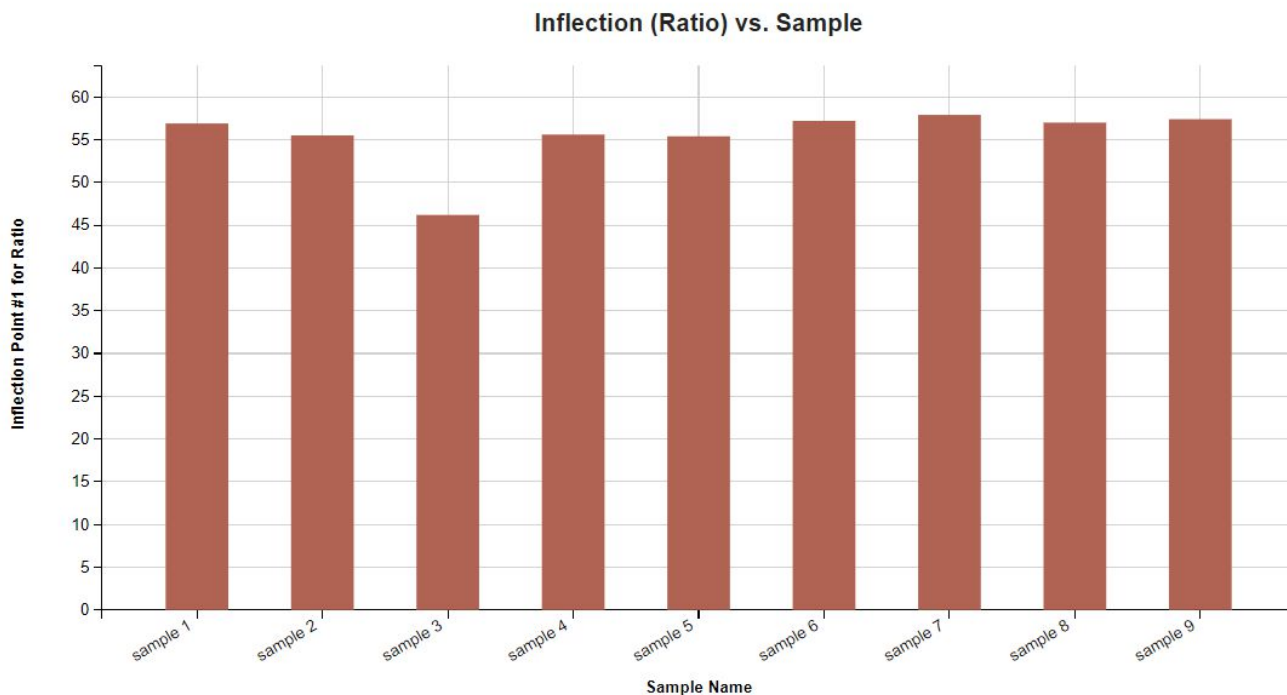


3. Line Chart plotting raw data curves for Fluorescence Ratio vs. Temperature

Fluorescence Ratio



5. Column Chart plotting raw data curves for Inflection Point vs. Sample



6. Tabular Summary examples

Measurement Summary Table – Instrument settings

Sample Name	Capillary	Folding Type	Analysis Date	Excitation Power (%)	Start Temperature (°C)	End Temperature (°C)	Temperature Slope (°C/min)	Duration
sample 1	1		2016-12-21 09:57:09	3	20	70	1	1899-12-31 00:50:00
sample 2	2		2016-12-21 09:57:09	3	20	70	1	1899-12-31 00:50:00
sample 4	4		2016-12-21 09:57:09	3	20	70	1	1899-12-31 00:50:00
sample 5	5		2016-12-21 09:57:09	3	20	70	1	1899-12-31 00:50:00

Measurement Summary Table – Measurement Results

Sample Name	Capillary	Folding Type	Custom Marker #1 for Scattering - AVG	Custom Marker #1 for Ratio - AVG	Onset #1 for Ratio - AVG	Inflection Point #1 for Ratio - AVG
sample 1	1		5	3	46.80	56.90
sample 2	2		7	4	42.30	55.50
sample 4	4		8	5	43.30	55.60
sample 5	5		9	6	42.50	55.40

DASHBOARD DOWNLOADS

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

<http://lumetics.com/dashboards/Prometheus/Prometheus.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/>