

## UV-Vis Spectrophotometer 8453 - Agilent

### 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.

Agilent 8453 is a highly productive UV-Visible Spectroscopy System with diode-array technology.

### DETAILS

LINK requires the TXT results data file. The CSV spectrum data file is optional. Required data files must be exported from the 8453 UV-Vis software using the Print to File option for the TXT file, and the Export Selected Spectrum option for the CSV file.

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

- Absorbance vs. Wavelength

The Agilent 8453 TXT file example is as follows:

```

1
2 Method file : LINK01.M      Last update: Date 18/02/2019   Time 09:10:46
3 Information : Default Method
4 Data File   : C:\Chem32\1\DATA\Lumetics.SD   Created : 2/18/19 11:45:18
5
6 Overlaid Spectra:
7
8
9 Equation : Concentration = (WL1-WL2)/1.42
10 Where   : WL1 = Abs(280nm), WL2 = Abs(310nm), WL3 = Abs(250nm), Wt = Weight, V = Volume
11
12
13 # Name          Dilut. Factor    Concentration    Abs<280nm>      Abs<310nm>
14 -----
15 1 2_LINK01      200.00000       156.07000       1.11420         6.1283E-3
16 2 3_LINK01      100.00000       163.75000       2.35350         2.8234E-2
17 3 4_LINK01      100.00000       148.09000       2.12900         2.6170E-2
18 4 5_LINK01      100.00000       166.16000       2.38790         2.8407E-2
19 5 6_LINK01      100.00000       171.24000       2.46560         3.4068E-2
20 6 7_LINK01      100.00000       139.14000       1.99700         2.1148E-2
21 7 8_LINK01      100.00000       129.60000       1.86180         2.1465E-2
22 8 9_LINK01      100.00000       155.05000       2.22580         2.4044E-2
23 9 10_LINK01     100.00000       151.31000       2.17360         2.4980E-2
24 10 1_LINK01     100.00000       159.29000       2.28680         2.4874E-2
25
26 # Name          Abs<250nm>
27 -----
28 1 Sample A      0.38089
29 2 Sample B      0.83320
30 3 Sample C      0.74241
31 4 Sample D      0.85158
32 5 Sample E      0.88654
33 6 Sample F      0.69419
34 7 Sample G      0.64766
35 8 Sample H      0.77747
36 9 Sample I      0.75751
37 10 Sample J     0.79867
38
39
40 Report generated by : Lumetics                               Signature: .....
41
42 -----
43 *** End Ratio/Equation Report ***
44 -----

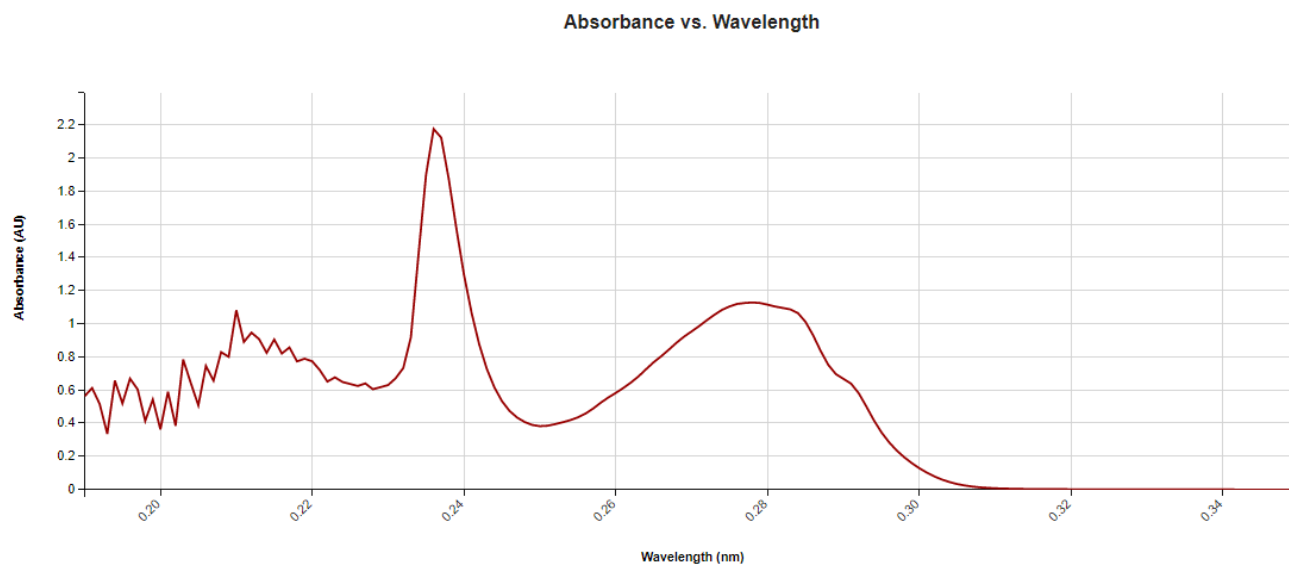
```



## EXAMPLES

Included below is a sample dashboard from Agilent 8453 UV-Vis measurement files:

### 1. Line Chart plotting raw data curves for Absorbance vs. Wavelength



### 2. Tabular Summary examples

Measurement Summary Table – Measurement Results

LINK Record ID #	Absorbance (AU) (Wavelength (nm) <=2) - AVG	Dilut. Factor - AVG	Concentration - AVG	Abs<250nm> - AVG	Abs<280nm> - AVG	Abs<310nm> - AVG
1	78.07	200	156.07	0.38	1.11	0.01
2	0.00	100	163.75	0.83	2.35	0.03
3	0.00	100	148.09	0.74	2.13	0.03
4	0.00	100	166.16	0.85	2.39	0.03
5	0.00	100	171.24	0.89	2.47	0.03
6	0.00	100	139.14	0.69	2.00	0.02
7	0.00	100	129.60	0.65	1.86	0.02
8	0.00	100	155.05	0.78	2.23	0.02
9	0.00	100	151.31	0.76	2.17	0.02
10	0.00	100	159.29	0.80	2.29	0.02

Measurement Summary Table – Instrument Settings

LINK Record ID #	File Name	Overlaid Spectra	Method file	Measurement Index - AVG	Last update	Information	Equation
1	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	1	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
2	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	2	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
3	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	3	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
4	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	4	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
5	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	5	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
6	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	6	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
7	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	7	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
8	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	8	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
9	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	9	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...
10	REPORT.TXT	{E:\MEDIMMUNE\AGILENT...	NIP109.M	10	Date 18/02/2013 Time 09:...	Default Method	Concentration = (WL1-WL...

## AGILENT 8453 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

---

For direct assistance, please contact Lumetics LINK™ Support:

**E-mail:** [support@lumetics.com](mailto:support@lumetics.com)

**Phone:** 1.613.417.1839

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

