



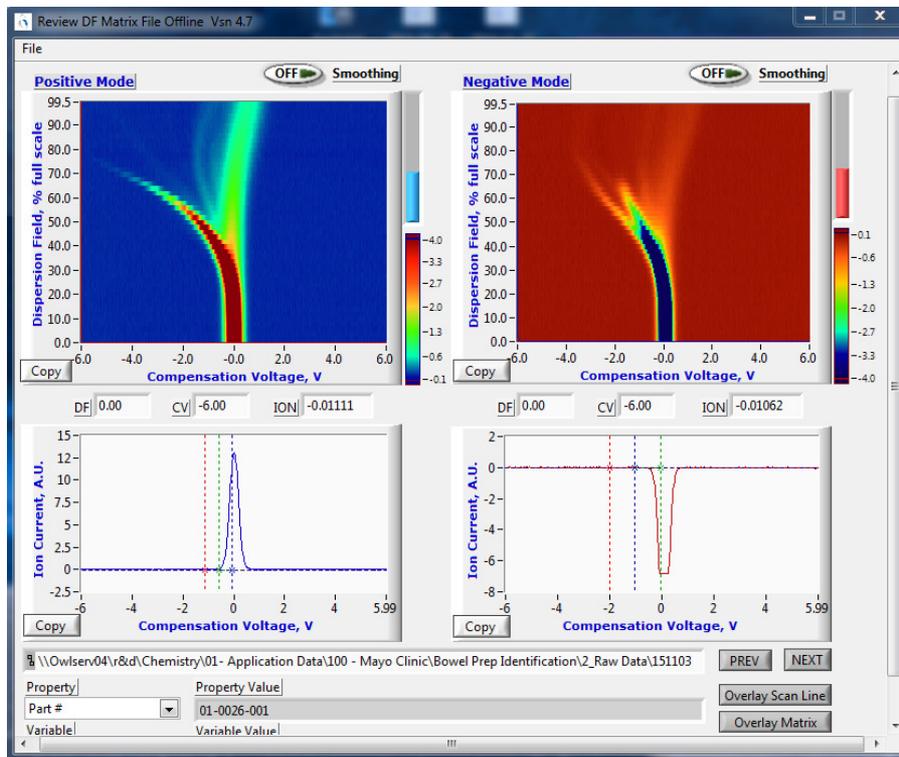
# Lonestar Data Export using the Advanced Matrix Viewer

Issue/Version	Date	Author	Details
001	07 Dec 2015	Aditya Malkar	The Original

The following document outlines the process for exporting DF matrix data using the Advanced Matrix Viewer into Microsoft Excel for further processing.

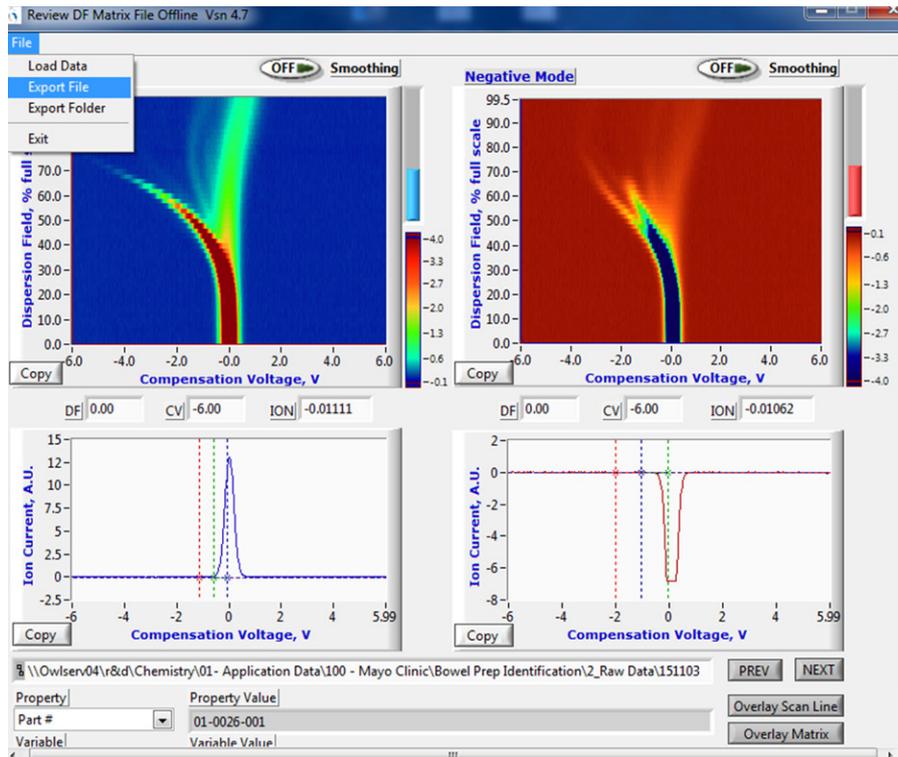
## Step 1

Open the DF matrix file using the Advanced Matrix Viewer.



### Step 2

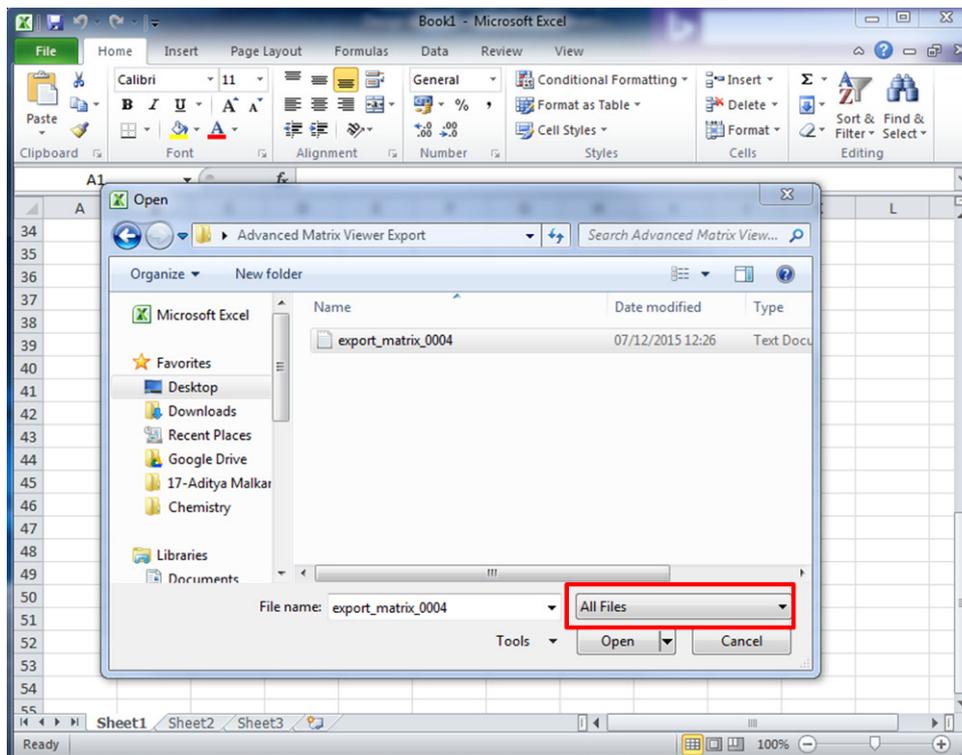
Export the DF matrix file using File>Export File. This will save the DF matrix file as a .txt file at a selected destination.



### Step 3

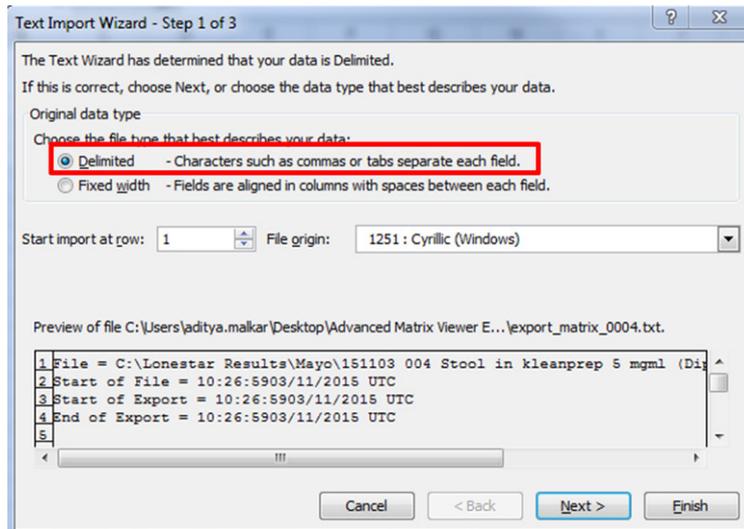
To open the exported .txt file, click File>Open in Microsoft Excel. Navigate to the destination folder where the exported DF matrix file was saved. Select the desired .txt file and click "Open"

N.B. Ensure "All Files" under the file types dropdown menu is selected.

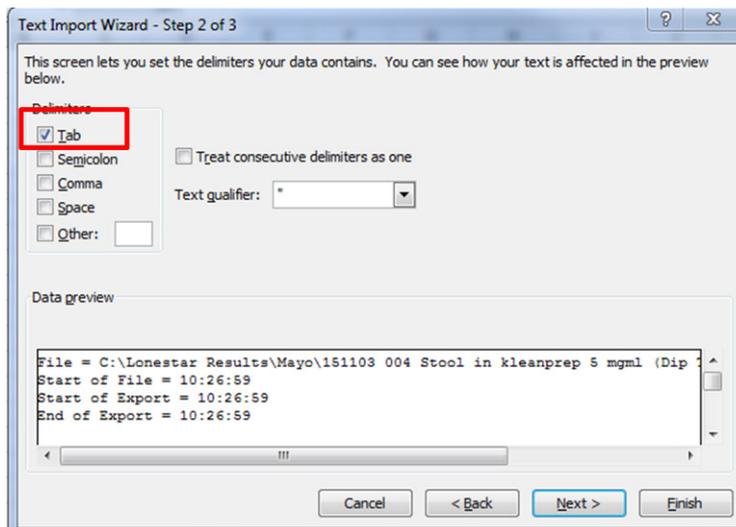


**Step 4**

Select "Delimited" button in the subsequent dialogue box which appears. Click "Next".

**Step 5**

Select "Tab" as the delimiter in the next dialogue box. Click "Finish" to complete the import into Excel.

**Step 6**

The resultant Excel file should have the data for CV values, plus Positive Ion Current and Negative Ion Current along with the metadata for the DF matrix file.

The CV values can be found in the "//CV Measurements" section of the Excel file (as shown below, in this case on row 39).

37	25	25								
38										
39	// CV measurements									
40	-6	-5.97653	-5.95306	-5.92959	-5.90613	-5.88266	-5.85919	-5.83572	-5.81225	-5.78878
41										
42	// Process Updates p Record every Nth sweep									
43	1	2.15E+09	1							
44	// Positive model parameters:									
45	// Trained ion current									
46	// Weighting Factor endpoint positions									
47	// Weighting Factors									
48	// Amber Red Threshold									
49	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50	-6.00E+00	0.00E+00	6.00E+00							
51	1.00E+00	1.00E+00	1.00E+00							
52	0	0								

Scrolling past the metadata, the ion current at the corresponding DF values can be found. Each row corresponds to a different DF value, with column corresponding to the CV value.

In this example, data corresponds to 0-100 % DF in 51 Steps i.e. 0, 2, 4 %.. till 100%.

Row 117 is 0%, line 118 is 2%, line 119 is 4% etc.

In this example, there is an ion current of -4.09E-03 at a DF of 0% and a CV of -5.95306 V.

112	10:29:49	#####	710.2	96	0.00E+00	0.00E+00	0	0	45.4	101.2	60.6	60.2	
113	10:29:52	#####	713.8	98	0.00E+00	0.00E+00	0	0	45.3	101.3	60.5	60.3	
114	10:29:56	#####	717.3	100	0.00E+00	0.00E+00	0	0	45.3	101.3	60.5	60.3	
115													
116	// Positive Ion Current												
117	-1.11E-02	2.46E-02	-2.87E-03	-4.09E-03	2.01E-03	-2.73E-02	3.13E-02	-9.89E-03	6.90E-03	2.62E-03	-2.45E-02	1.21E-02	7.93E-04
118	-5.11E-03	-1.15E-02	2.82E-03	1.78E-02	1.38E-02	7.63E-05	6.87E-04	-4.50E-03	9.23E-03	-8.39E-04	-1.85E-02	6.79E-03	1.23E-02
119	-7.87E-03	4.64E-03	8.00E-03	5.86E-03	-1.46E-02	-4.21E-03	2.63E-02	-2.08E-03	1.75E-02	2.20E-03	-2.16E-02	5.55E-03	3.42E-03
120	1.43E-02	1.73E-02	-1.16E-02	1.22E-02	-1.41E-02	-4.93E-03	1.43E-02	-6.45E-03	-4.62E-03	1.31E-02	-1.07E-02	-5.84E-03	5.45E-03
121	4.26E-03	-6.26E-04	-1.07E-02	7.00E-03	1.34E-02	-1.44E-02	9.14E-03	1.51E-03	-1.68E-02	5.78E-03	1.68E-02	-1.25E-02	9.45E-03
122	1.47E-02	-2.40E-02	-1.03E-02	1.66E-02	1.01E-03	5.58E-03	-7.54E-03	-5.40E-03	-4.18E-03	-2.14E-04	-6.32E-03	1.02E-02	9.16E-05
123	-1.89E-03	-7.69E-03	-3.72E-03	-8.61E-03	3.29E-02	-3.42E-03	2.44E-04	4.52E-03	7.57E-03	-9.77E-04	-1.89E-03	1.12E-02	-2.33E-02
124	6.10E-05	5.49E-04	1.52E-02	1.35E-02	-4.33E-03	1.32E-02	-2.60E-02	2.13E-02	4.03E-03	2.38E-03	2.08E-03	-1.78E-02	5.74E-03
125	-4.78E-03	8.65E-03	7.17E-04	3.16E-03	-1.42E-03	-9.66E-03	-2.95E-03	-5.69E-03	-5.69E-03	9.87E-03	-1.52E-02	1.08E-02	-1.42E-02
126	-1.21E-03	-1.82E-03	-6.70E-03	1.85E-03	2.66E-02	-9.14E-03	4.90E-03	3.98E-03	-1.62E-02	2.17E-02	-1.19E-02	-1.01E-02	5.20E-03
127	-5.13E-03	-1.52E-02	1.50E-02	-8.79E-03	-2.08E-03	-7.57E-03	-1.37E-02	3.82E-02	-1.67E-02	7.39E-03	1.53E-02	-2.08E-03	1.81E-02
128	-9.00E-04	1.77E-02	1.04E-02	-3.65E-03	-1.04E-02	-1.46E-02	-4.56E-03	-8.53E-03	-1.31E-02	1.34E-02	-2.93E-02	-1.82E-03	1.95E-02
129	-4.41E-03	1.54E-02	4.44E-03	5.66E-03	-2.58E-03	-1.14E-02	2.91E-03	3.83E-03	-7.48E-04	1.33E-02	-1.63E-02	8.10E-03	-1.20E-02
130	7.46E-03	4.10E-03	2.88E-03	1.20E-02	-1.12E-02	5.33E-03	-1.76E-02	-4.75E-03	4.72E-03	-8.71E-03	1.54E-02	1.14E-02	-8.10E-03
131	1.96E-02	-1.50E-03	-3.63E-03	-8.82E-03	-9.74E-03	1.50E-02	-1.03E-02	2.17E-03	2.08E-02	3.39E-03	1.28E-02	9.46E-04	-1.10E-02
132	-6.12E-03	1.37E-02	1.68E-02	-1.77E-02	-1.07E-02	3.04E-03	-7.95E-03	1.65E-02	3.65E-03	7.92E-03	1.82E-03	-1.54E-03	4.56E-03
133	1.08E-03	5.66E-03	1.82E-02	-5.63E-03	-1.23E-02	1.94E-02	-1.69E-02	8.10E-03	1.30E-02	-3.19E-03	-6.24E-03	7.19E-03	-2.24E-02
134	1.18E-02	2.32E-03	-3.78E-03	2.32E-03	-2.26E-03	1.67E-02	-2.26E-03	-3.17E-03	1.15E-02	-8.36E-03	-2.56E-03	-4.39E-03	-1.65E-03
135	-5.74E-03	-2.38E-03	-6.35E-03	-6.35E-03	6.16E-03	5.25E-03	-3.91E-03	5.86E-03	-1.15E-02	1.23E-02	-6.65E-03	8.00E-03	-5.74E-03
136	1.41E-02	-6.93E-03	1.60E-02	-4.49E-03	1.92E-03	9.16E-05	-8.15E-03	1.05E-02	8.33E-03	5.58E-03	3.75E-03	-2.04E-03	-1.74E-03
137	1.83E-02	6.65E-03	-8.00E-03	6.96E-03	-6.78E-03	4.52E-03	-1.29E-02	-6.71E-04	7.87E-03	-1.07E-02	-3.12E-02	1.67E-02	-6.10E-05

This data can be copied into a suitable layout and CV versus ion current plotted for a particular DF.