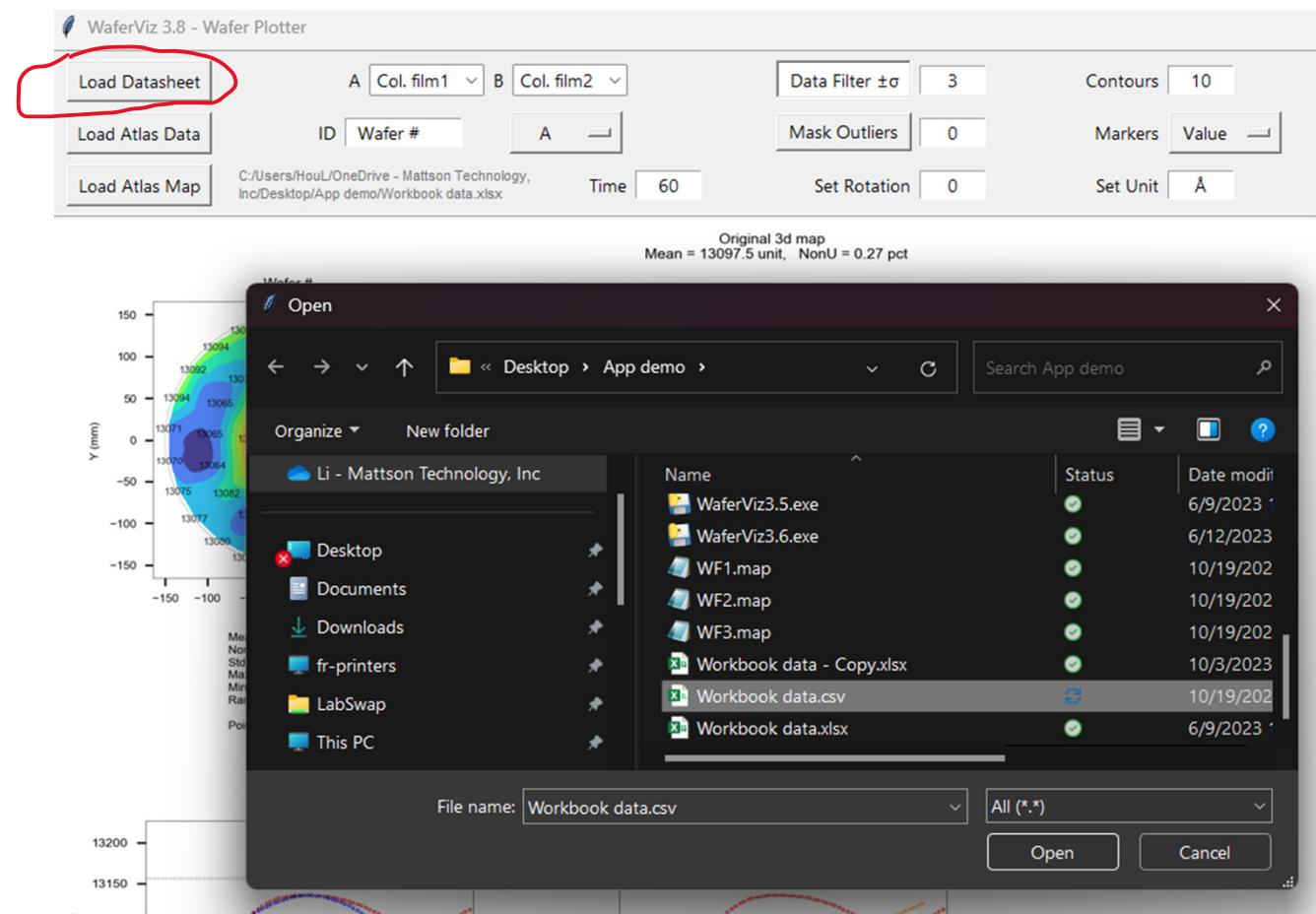


Step1: Loading Data from Datasheets You Prepared - Choice 1

- Copy and paste your raw data into Excel or CVS sheet with columns: x, y, data1, data2, ... , as shown below:
- Column A and B are reserved for (x, y) coordination. All other columns are for measurement data.
- The first row is for column labels as you can put notes there or leave it blank.
- Don't put anything on unoccupied cells to avoid errors.
- You must close the datasheet before loading otherwise it won't work.
- Click "Load Datasheet" to load.

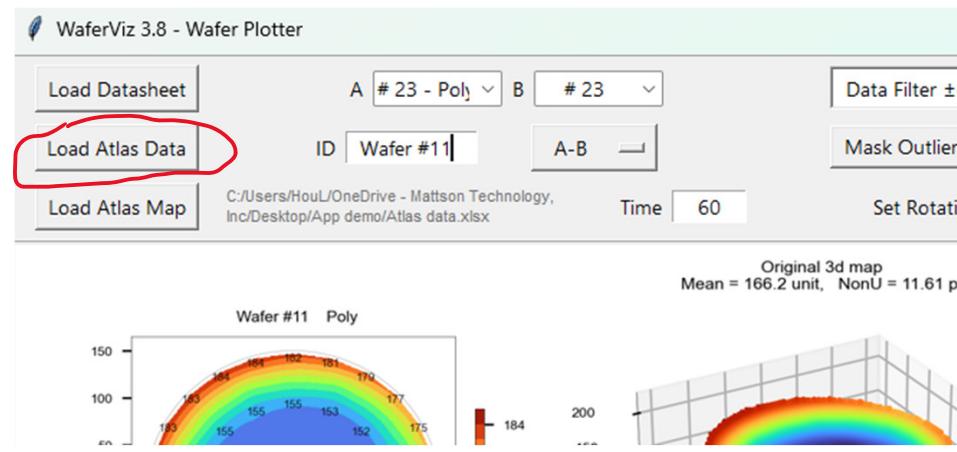
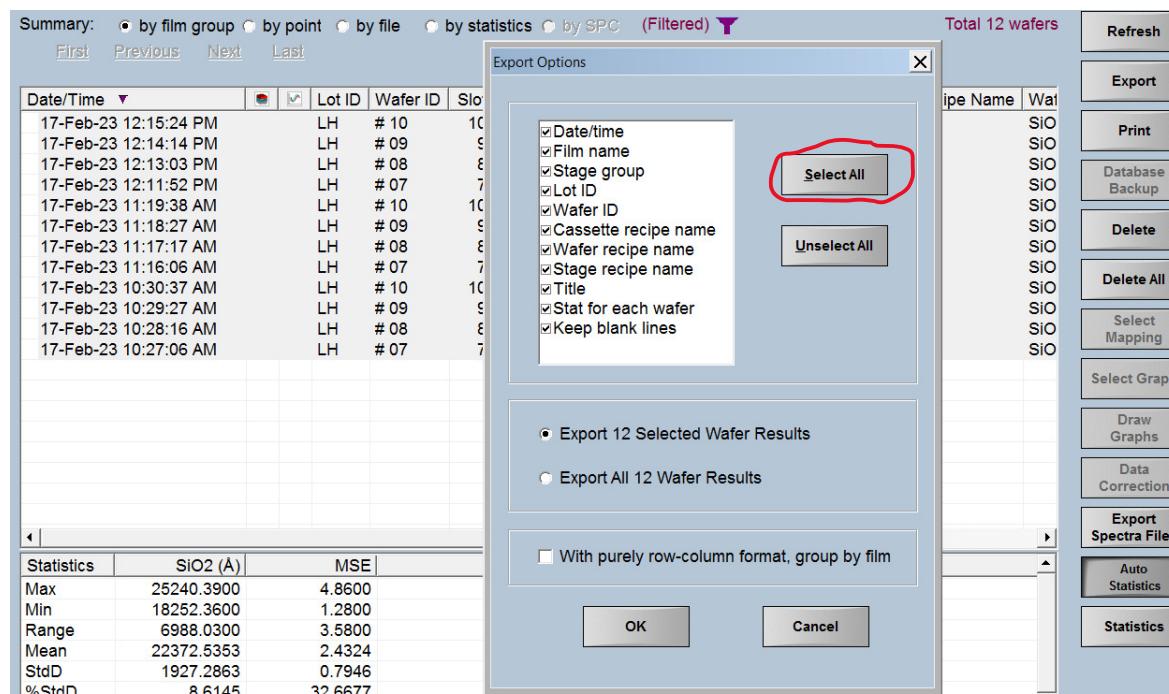
A	B	C	D	E	F	G	H	I
1 X(mm)	Y(mm)	film1	film2	film3	film4	film5		
2 0	0	13135.69	2079.12					
3 5.972	48.635	13111.55	2294.179					
4 38.613	30.167	13116.88	2278.79					
5 48.635	-5.972	13120.88	2246.208					
6 30.167	-38.612	13113.9	2265.52					
7 -5.971	-48.635	13114.53	2246.741					
8 -38.612	-30.168	13118.67	2253.023					
9 -48.635	5.971	13115.66	2288.533					
10 -30.168	38.612	13113.75	2285.452					
11 11.943	97.27	13079.07	2480.762					
12 48.257	85.295	13084.27	2452.029					
13 77.225	60.335	13096.35	2457.121					
14 94.436	26.189	13099.27	2466.867					
15 97.27	-11.943	13091.73	2407.786					
16 85.295	-48.257	13090.14	2453.966					
17 60.335	-77.225	13088.93	2446.428					
18 26.19	-94.436	13082.76	2473.871					
19 -11.943	-97.27	13087.95	2401.834					
20 -48.257	-85.295	13070.16	2437.254					
21 -77.225	-60.335	13082.41	2501.554					
22 -94.436	-26.19	13063.96	2611.412					
23 -97.27	11.943	13064.91	2661.207					
24 -85.295	48.257	13065.05	2624.74					
25 -60.335	77.225	13076.72	2540.244					

Example



Step1: Loading Data from Exported Atlas Data - Choice 2

- On Atlas tool screen click “Export” and “Select All” button as shown below.
 - Click “Load Atlas Data” to select exported files from the server.
 - Keep the data file closed otherwise it won’t work.
 - The exported raw data are shown in far right.



The screenshot shows a Microsoft Excel spreadsheet titled "Wafers_short". The top menu bar includes File, Home, New, Insert, Draw, Page, Form, Data, Review, View, Help, New, and xlwin. The "Home" tab is selected. On the ribbon, there are icons for Clipboard, Font, Alignment, Number, Conditional Formatting, Format as Table, Cell Styles, and Cells. The active cell is L23. The spreadsheet contains two main sections:

Wafer Data:

Date/Tim	7/16/2021 11:13
Film nam	oxide on Si
Stage grc	25PT 3EE 4X
Lot ID:	LH NEW WAFER
Wafer ID:	# 10
Cassette	SemiAuto -
Wafer rec	SiO2 25Pt
Stage rec	25PT 3EE 4X
Title:	Point#

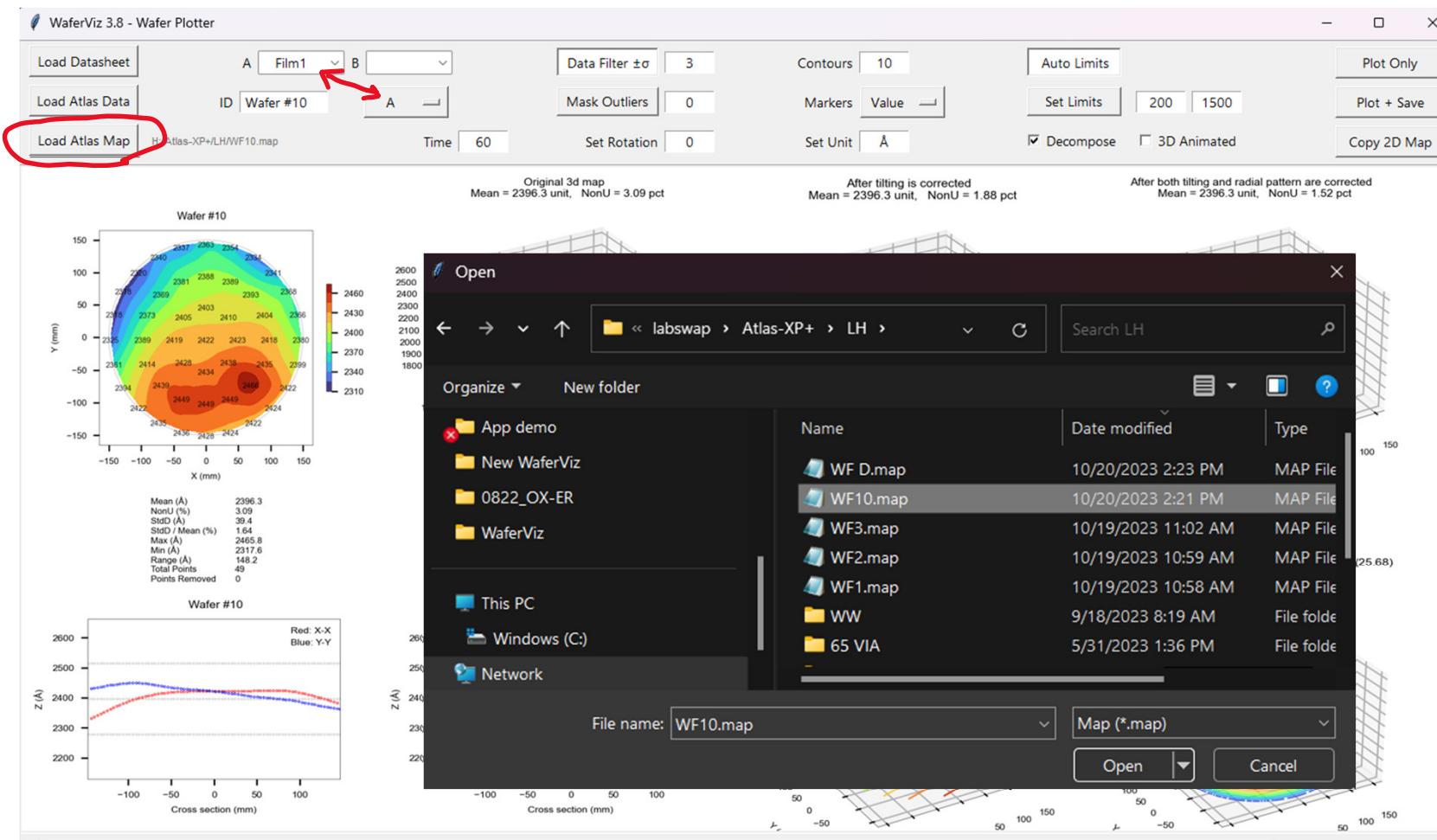
Wafer Points:

	SiO2 (Å)	MSE	X(mm)	Y(mm)
1	2379.82	3.94	0	0
2	2393.89	2.55	15.281	71894
3	2400.88	4.21	61642	40.031
4	2388.44	3.59	71894	-15.281
5	2410.42	5.12	40.031	-61642
6	2372.24	2.36	-15.281	-71894
7	2394.98	3.54	-61642	-40.031
8	2375.63	1.28	-71894	15.281
9	2379.37	3.08	-40.031	61642
10	2345.56	6.1	30.563	143.788
11	2349.85	6.0	83.262	121.147
12	2374.85	4.48	123.285	80.062
13	2399.12	3.21	145.538	26.789
14	2398.01	0.4	143.788	-30.563
15	2392.94	0.91	121.147	-83.261
16	2375.82	0.5	80.062	-123.28
17	2342.77	1.63	26.789	-144.54
18	2335.98	0.55	-30.563	-143.789
19	2322.77	1.91	-83.261	-121.145
20	2329.29	2.83	-123.28	-80.062
21	2326.61	2.87	-144.54	-26.789
22	2311.6	3.62	-143.789	30.562
23	2311.77	4.06	-121.147	83.261
24	2341.91	3.73	-80.063	123.284
25	2322.35	3.52	-26.789	144.538
36	Max	2410.42	6.1	
37	Min	2311.6	0.4	
38	Range	98.82	5.7	
39	Mean	2363.19	3.0412	
40	StdD	31.3	1593	
41	%StdD	132	52.3813	
42	%NonU	2.09	93.713	
43	CTE	N/A	N/A	
44				
45	Date/Tim	7/16/2021 11:12		
46	Film nam	oxide on Si		
47	Stage grc	25PT 3EE 4X		
48	Lot ID:	LH NEW WAFER		
49	Wafer ID:	# 03		
50	Cassette	SemiAuto -		
51	Wafer rec	SiO2 25Pt		
52	Stage rec	25PT 3EE 4X		
53	Title:	Point#		
54				
55				
56				
57				
58				
59				

A large orange watermark "Example" is overlaid across the sheet.

Step1: Loading Data from Atlas Map Files - Choice 3

- Click “Load Atlas Map” and select map files from the server.
- Since there is only one dataset involved so select “Thickness” for “A” and select “A” from dropdown button (or “A/t” if you want to calculate the rate).
- The map file looks like in left when it is opened by Notepad.



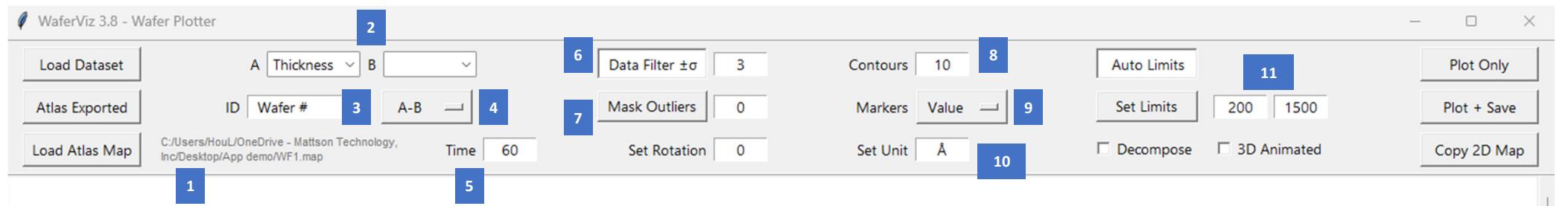
WF10.map

File Edit View

MAP_DATA_9x00
Lot ID: LH 63VIAS DATA COLL
Wafer ID: # 10
Wafer Size: 300.00000
Edge Exclusion: 3.00000
Edge Clip: 3.00000
Rectangle MinX: 0.00000
Rectangle MaxX: 0.00000
Rectangle MinY: 0.00000
Rectangle MaxY: 0.00000
Film Program: Oxide on Si
Data Type: SiO₂
Data Unit: Å
Display Format1: %%.%df
Display PrecisionDigits1: 2
Display Format2: %%.%df
Display PrecisionDigits2: 2
User ID: eng
Date Created: 10/13/23 08:36:12 AM
Wafer Type: Notched
Shape Type: Round
New System Model: Atlas XP+
Display Settings:
Mean: 1
Max: 1
Min: 1
StdD: 1
%StdD: 1
Range: 1
Interval: 1
%Interval: 1
NonU: 1
Map Type: 1
Map Style: 2
X Rotate: 30.00
Y Rotate: 0.00
Z Rotate: 0.00
Data Section:
Number of Points: 49
0 0.000000 0.000000 2421.940000
0 0.000000 49.000000 2403.430000
0 34.648209 34.648255 2410.310000
0 34.648209 34.648255 2412.300000

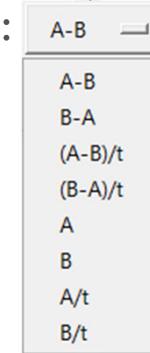
Ln 20, Col 21 80% Windows (CRLF) ANSI

Step2: Configuring Settings.

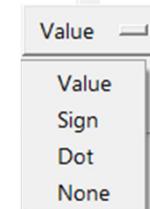


1. The path to files.
2. A, B can be two films of pre-process and post-process.
3. You can enter the ID.
4. Operators, see right side.
5. You can enter process time to get rates but need to select $(A-B)/t$ or $(B-A)/t$ to be effective.
6. Default “Data Filter $\pm\sigma$ ” is set $\pm 3\sigma$. Beyond that the data points will be excluded. The number of excluded points is shown in the contour map.
7. If “Mask Outliers” is pressed, you can find sigma value in the contour map according to the number of points you’ve removed.
8. You can enter the number of contours from 1 to 100 for the contour map.
9. Marker choices for the contour map, see right side.
10. The default unit is Å. You can change it to any physical units such as °C, Ohm/sq, etc.
11. If “Set Limits” is pressed, You can define lower limit and up limit.

4. Operators:

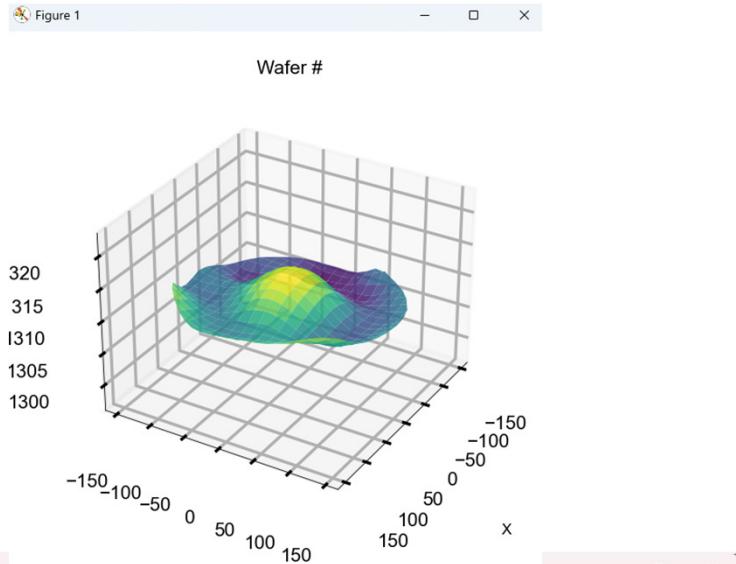
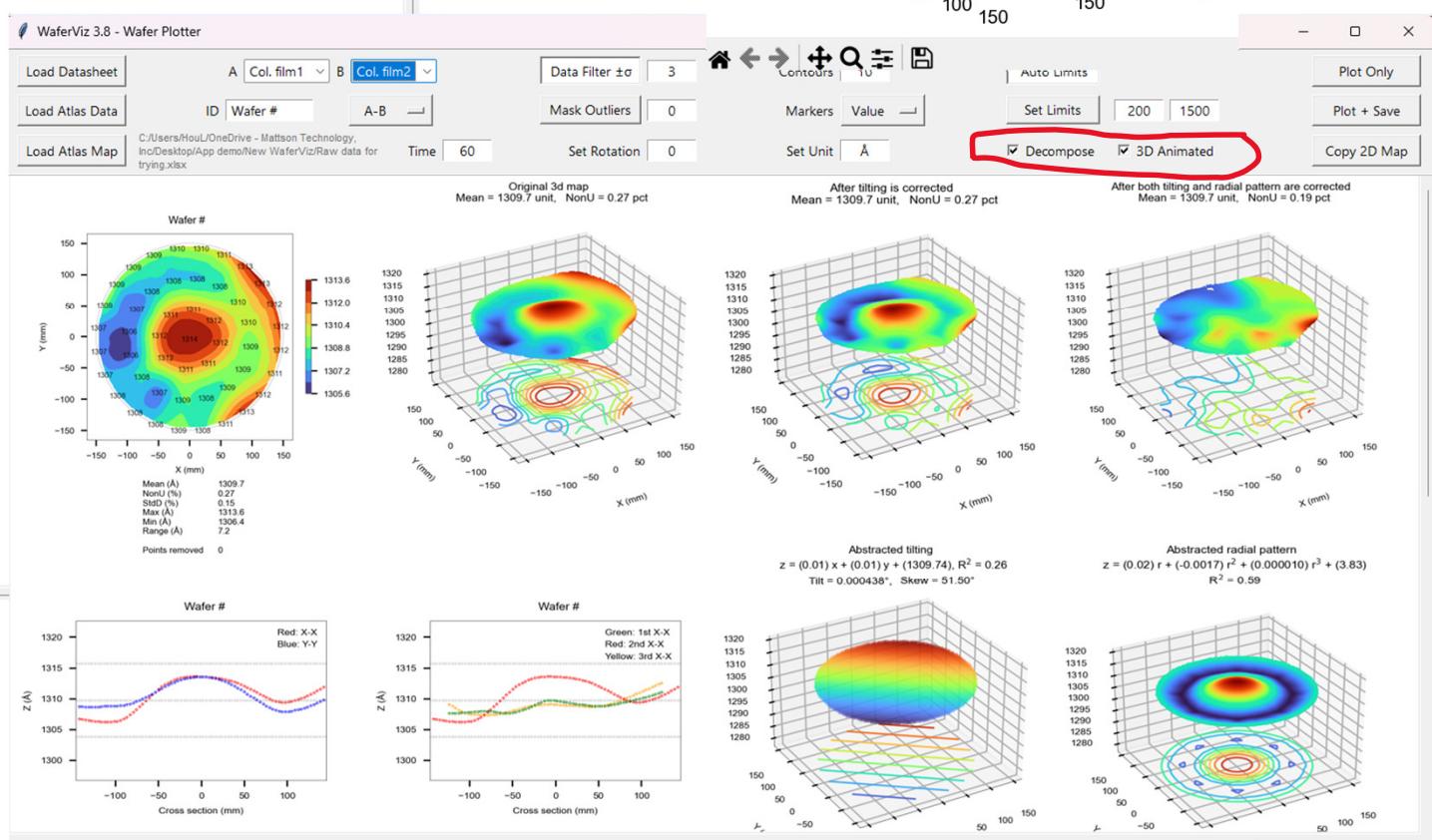
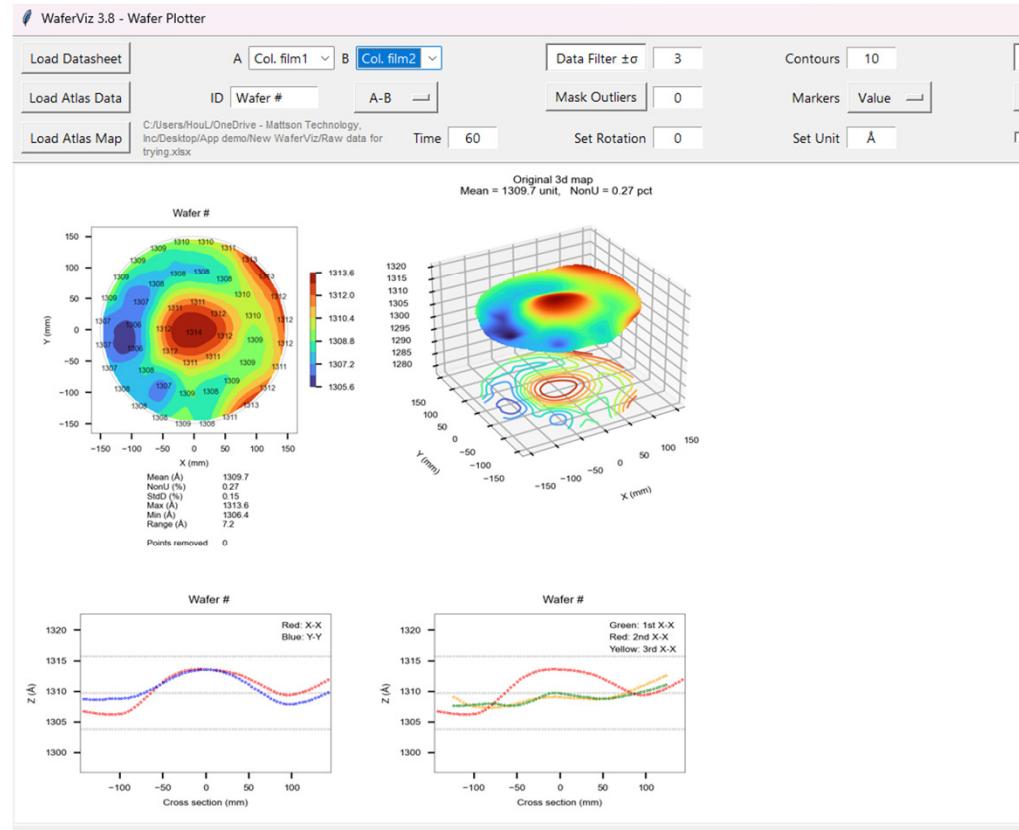


9. Marker choices for the contour map:



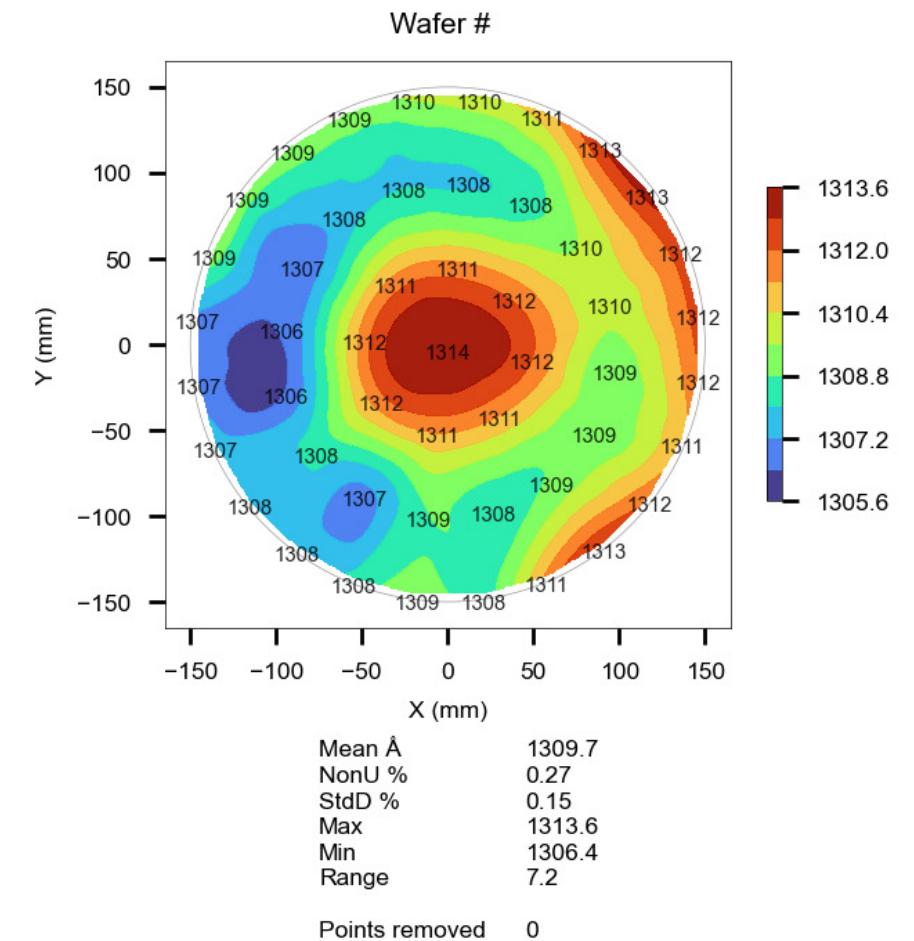
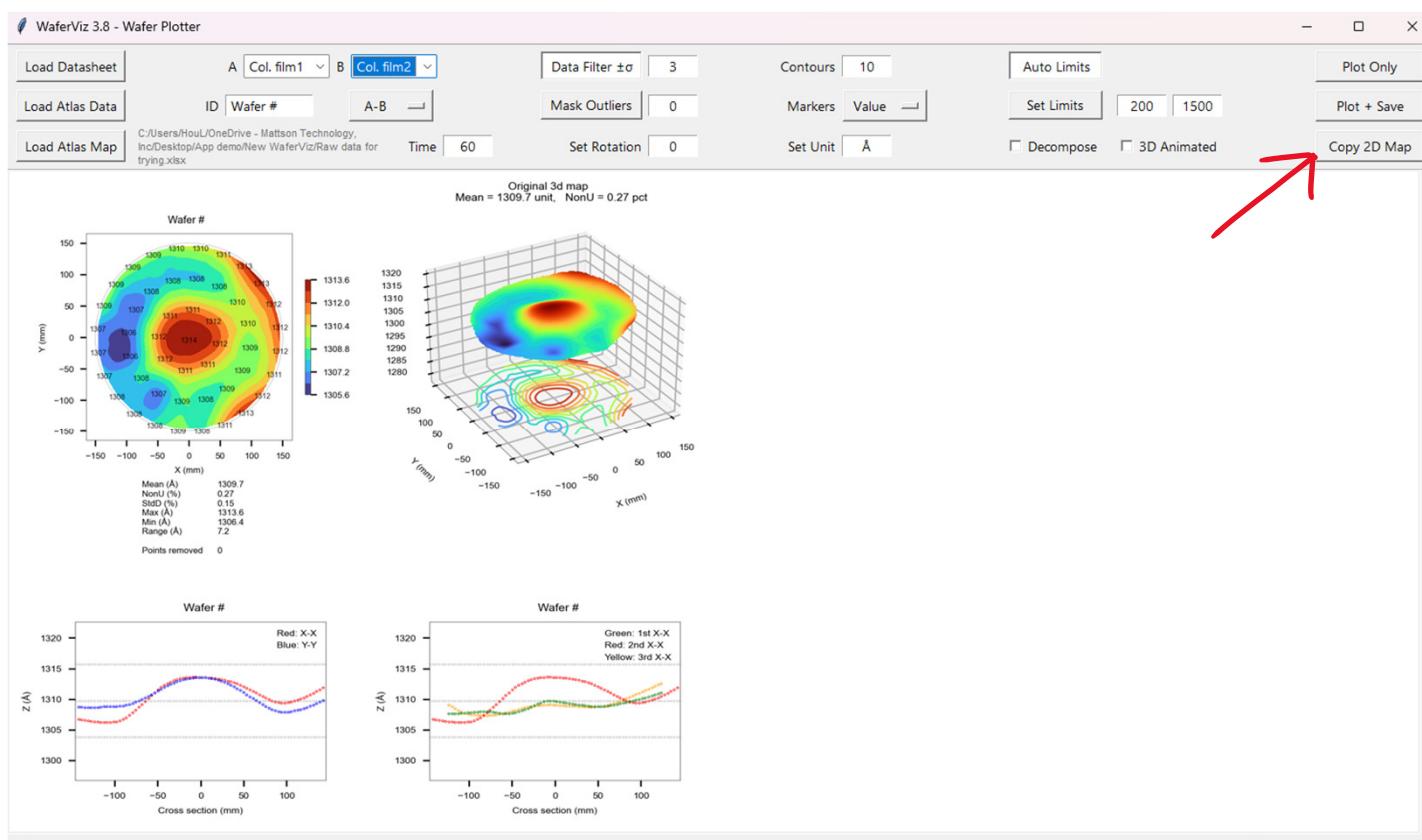
Step3: Plotting.

- By clicking on “Plot” it only takes few seconds to produce the minimal graphs.
 - Selecting “Decompose” and/or “3D Animated” and “Plot” will take 22s.



Step3: Copy / Paste the Graph with One Click.

- This is a convenient shortcut.
- After graphs are plotted, clicking “Copy Map” will copy 2D contour map into Windows’ clipboard which allows you to paste it to other apps.



Step4: Saving Graphs.

- Clicking “Plot + Save” instead of “Plot Only” adds an Excel summary sheet in auto-generated folder “Saved Graphs”.
- The folder is in the same directory where you have dropped this app into.

