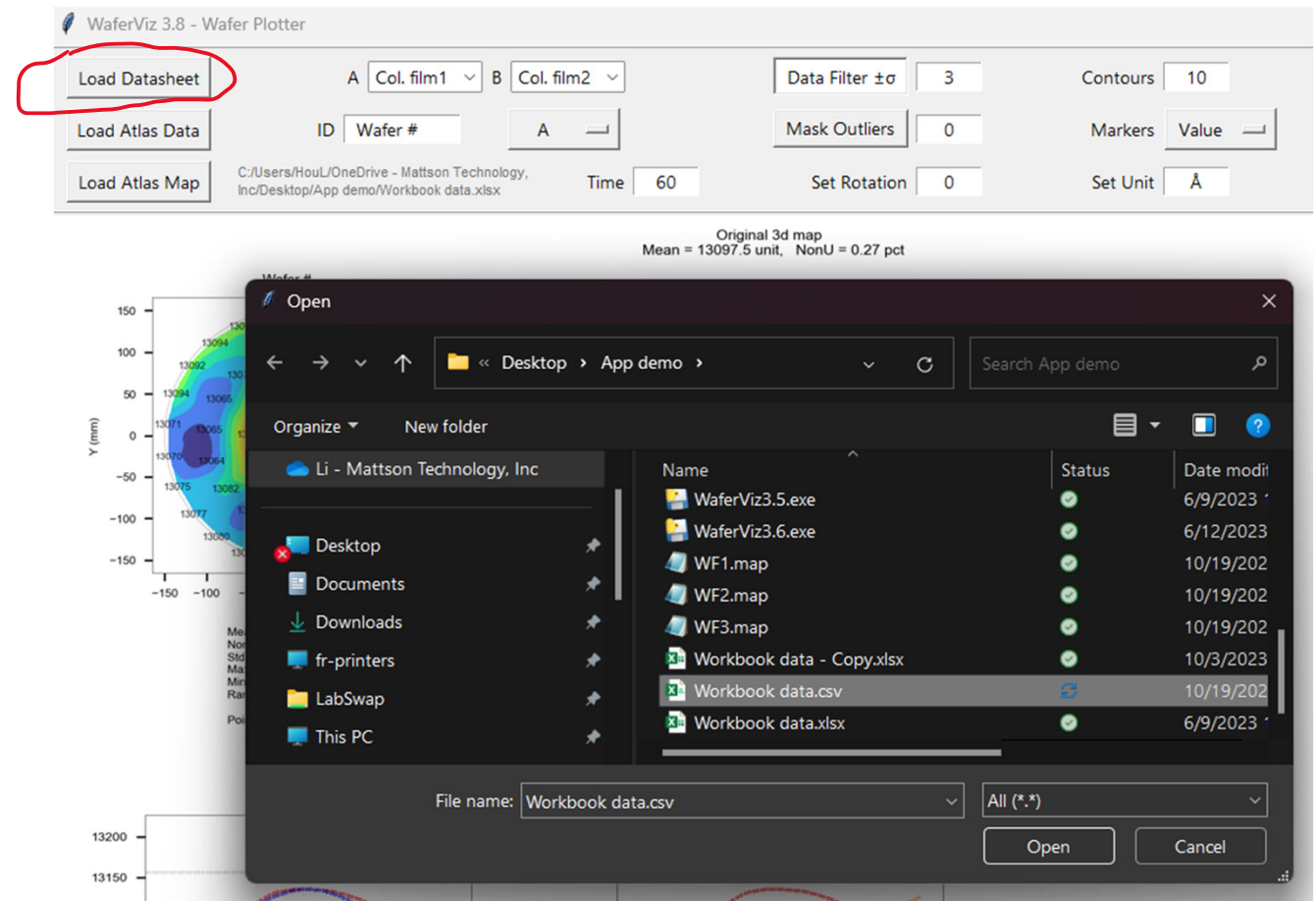


## Step1: Loading Data from Datasheets You Prepared - Choice 1

- 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.

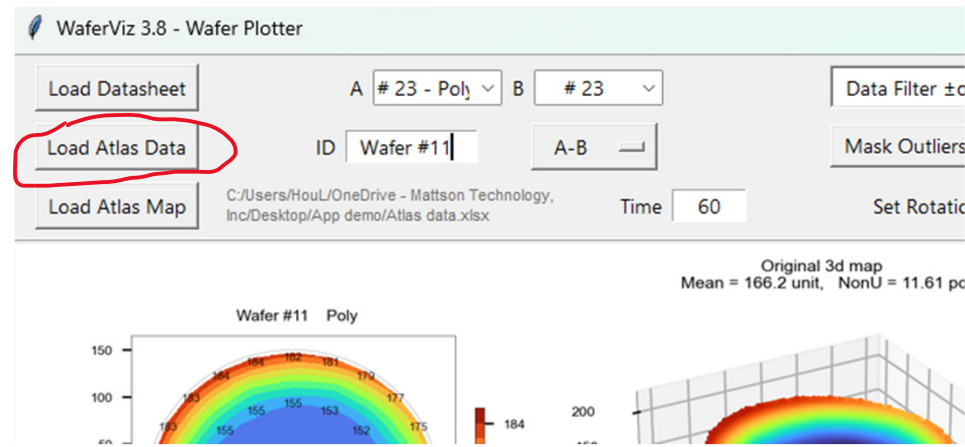
	A	B	C	D	E	F	G	H	I
1	X(mm)	Y(mm)	film1	film2	film3	film4	film5		
2	0	0	13135.69	2079.12					
3	5.972	48.635	13111.55	2294.179					
4	38.613	30.167	13116.88	2278.79					
5	48.635	-5.972	13120.88	2246.208					
6	30.167	-38.612	13113.9	2265.52					
7	-5.971	-48.635	13114.53	2246.741					
8	-38.612	-30.168	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.



Summary: ☒ by film group ☐ by point ☐ by file ☐ by statistics ☐ by SPC (Filtered)

First Previous Next Last

Export Options

☒ Date/time  
☒ Film name  
☒ Stage group  
☒ Lot ID  
☒ Wafer ID  
☒ Cassette recipe name  
☒ Wafer recipe name  
☒ Stage recipe name  
☒ Title  
☒ Stat for each wafer  
☒ Keep blank lines

Select All

Unselect All

☒ Export 12 Selected Wafer Results  
☐ Export All 12 Wafer Results

☐ With purely row-column format, group by film

OK Cancel

Date/Time	Lot ID	Wafer ID	Stage
17-Feb-23 12:15:24 PM	LH	# 10	10
17-Feb-23 12:14:14 PM	LH	# 09	9
17-Feb-23 12:13:03 PM	LH	# 08	8
17-Feb-23 12:11:52 PM	LH	# 07	7
17-Feb-23 11:19:38 AM	LH	# 10	10
17-Feb-23 11:18:27 AM	LH	# 09	9
17-Feb-23 11:17:17 AM	LH	# 08	8
17-Feb-23 11:16:06 AM	LH	# 07	7
17-Feb-23 10:30:37 AM	LH	# 10	10
17-Feb-23 10:29:27 AM	LH	# 09	9
17-Feb-23 10:28:16 AM	LH	# 08	8
17-Feb-23 10:27:06 AM	LH	# 07	7

Statistics	SiO2 (Å)	MSE
Max	25240.3900	4.8600
Min	18252.3600	1.2800
Range	6988.0300	3.5800
Mean	22372.5353	2.4324
StdD	1927.2863	0.7946

ipe Name | Wa

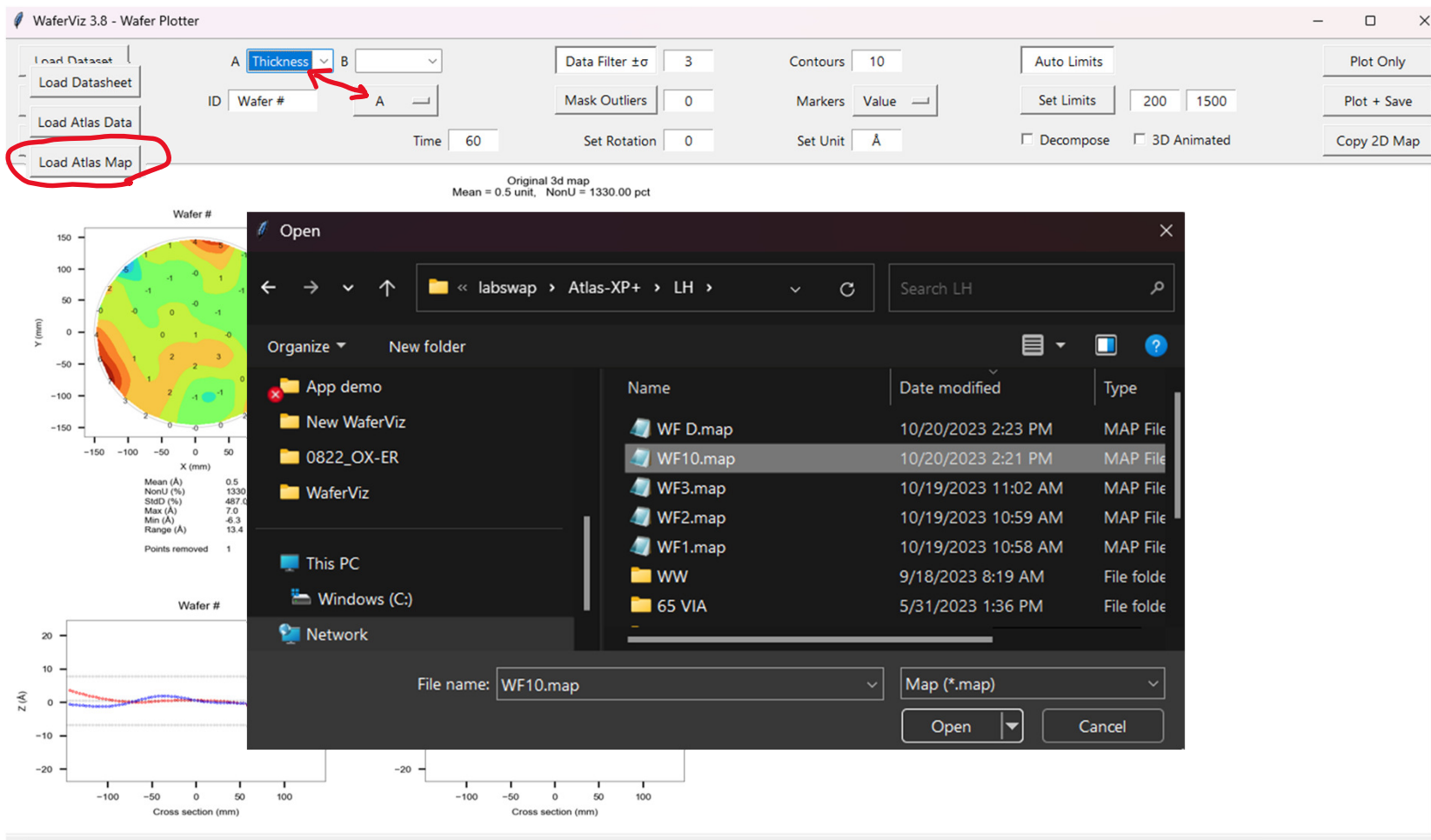
SIO  
SIO  
SIO  
SIO  
SIO  
SIO  
SIO  
SIO  
SIO  
SIO  
SIO

Refresh  
Export  
Print  
Database Backup  
Delete  
Delete All  
Select Mapping  
Select Graphs  
Draw Graphs  
Data Correction  
Export Spectra Files  
Auto Statistics  
Statistics

[illegible]

## 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: 300.000000
Edge Exclusion: 3.000000
Edge Clip: 3.000000
Rectangle MinX: 0.000000
Rectangle MaxX: 0.000000
Rectangle MinY: 0.000000
Rectangle MaxY: 0.000000
Film Program: Oxide on Si
Data Type: SiO2
Data Unit: Å
Display Format1: %%.%df
Display PercisionDigits1: 2
Display Format2: %%.%df
Display PercisionDigits2: 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 40.000000 0.000000 2422.000000
Ln 20, Col 2( 80% Windows (CRLF) ANSI
```

## Step2: Configuring Settings.

The screenshot shows the WaferViz 3.8 - Wafer Plotter interface. The top toolbar contains several buttons and input fields, each with a blue numbered callout:

- 1: Load Dataset button
- 2: A Thickness dropdown menu
- 3: ID Wafer # input field
- 4: A-B operator dropdown menu
- 5: Time 60 input field
- 6: Data Filter  $\pm\sigma$  3 input field
- 7: Mask Outliers 0 input field
- 8: Contours 10 input field
- 9: Markers Value dropdown menu
- 10: Set Unit Å input field
- 11: Auto Limits button

Below the toolbar, there are additional settings and buttons:

- Atlas Exported button
- Load Atlas Map button
- File path: C:/Users/HouL/OneDrive - Mattson Technology, Inc/Desktop/App demo/WF1.map
- Set Rotation 0 input field
- Set Limits 200 1500 input fields
- Decompose checkbox
- 3D Animated checkbox
- Plot Only button
- Plot + Save button
- Copy 2D Map button

On the right side, there are two expanded dropdown menus:

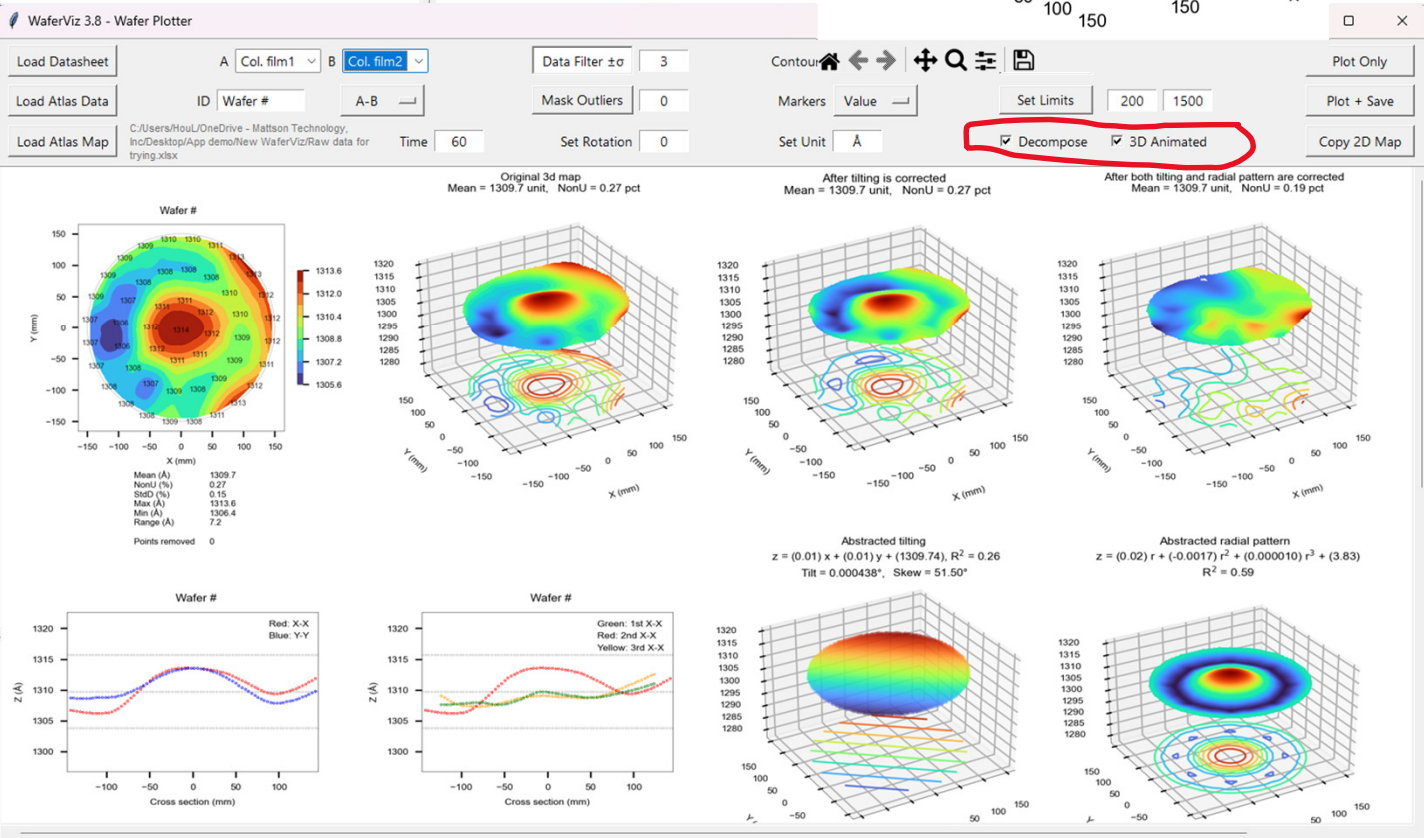
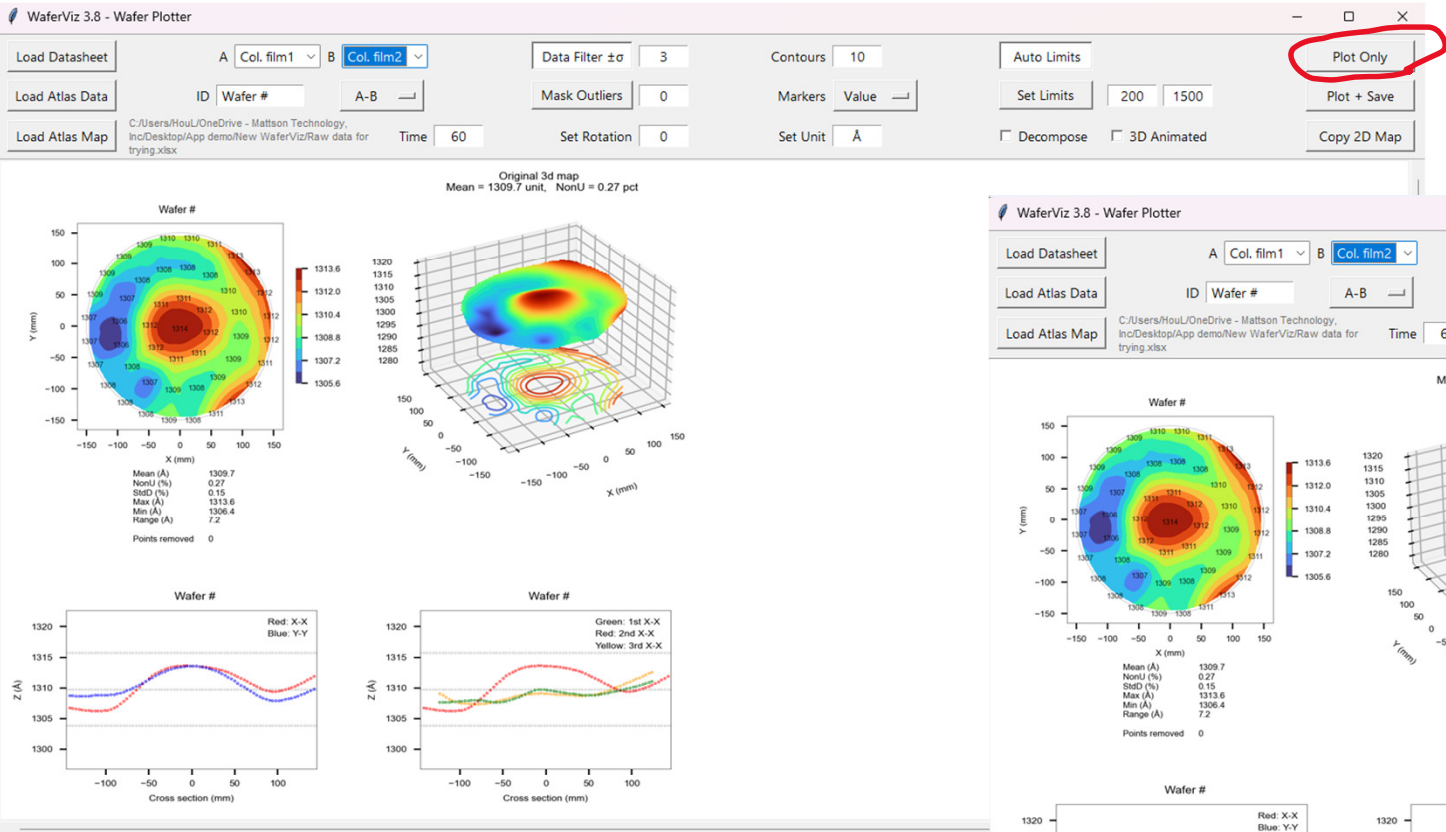
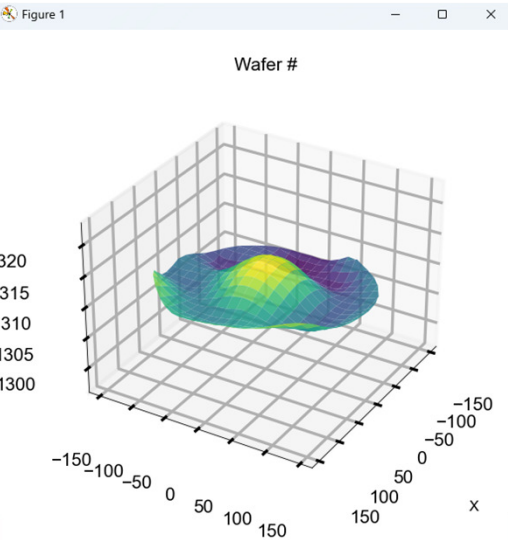
- 4. Operators: A-B, A-B, B-A, (A-B)/t, (B-A)/t, A, B
- 9. Marker choices for the contour map: Value, Sign, Dot, None

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.



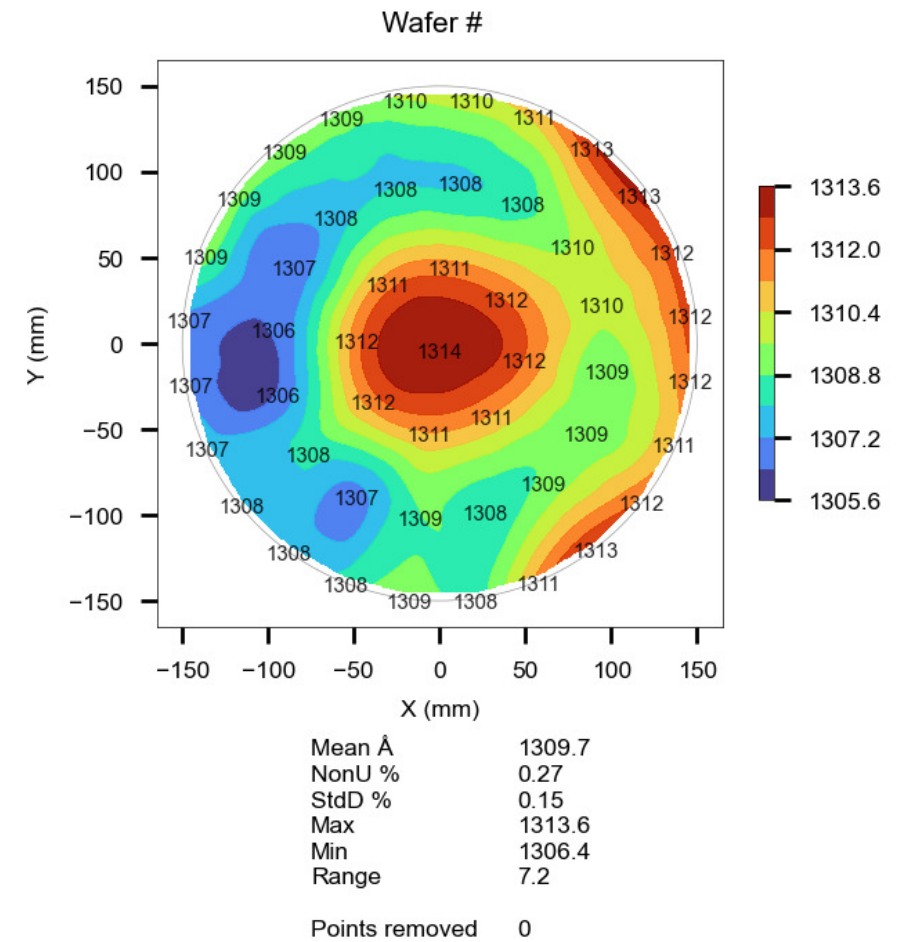
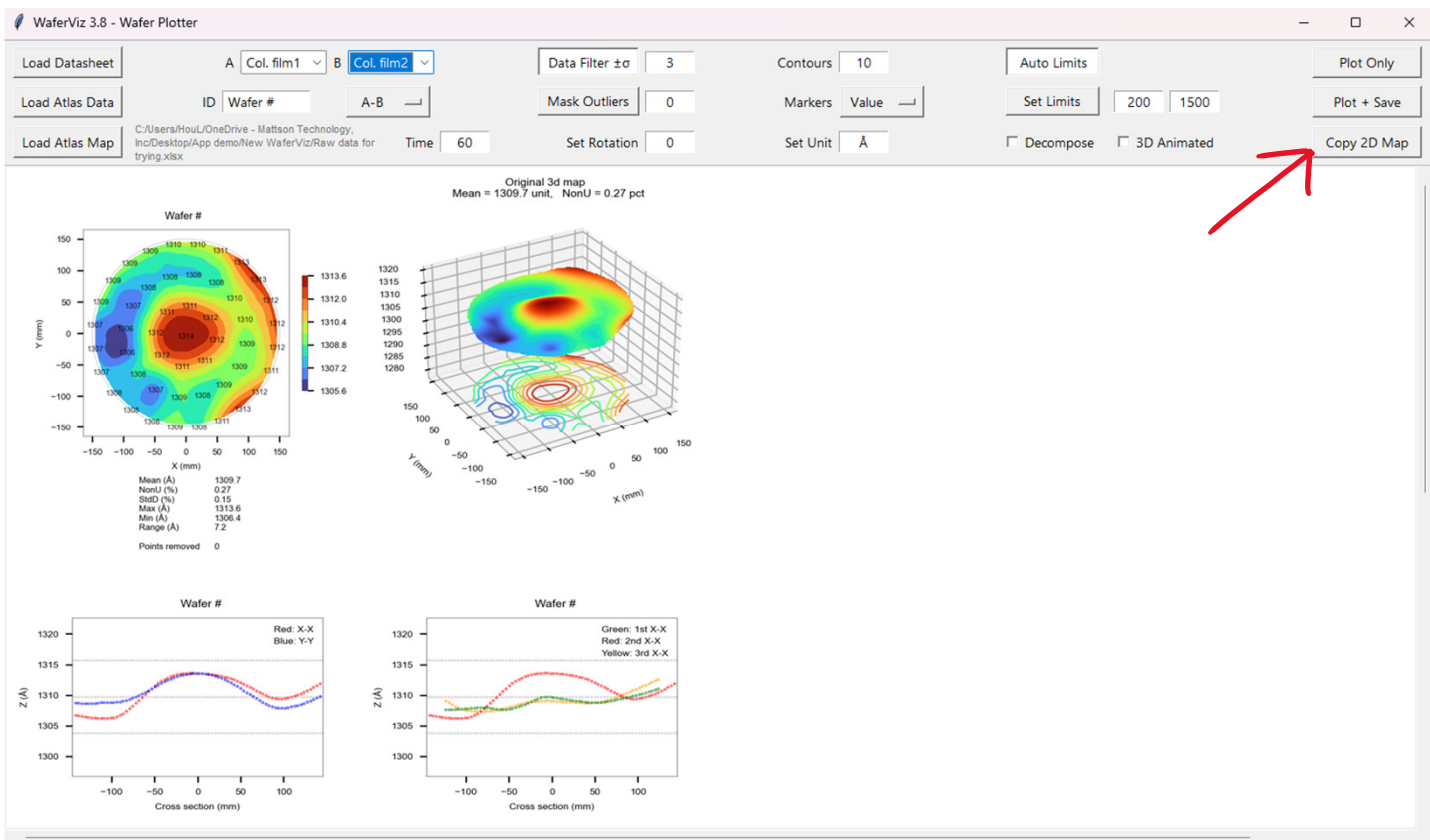
# Step3: Plotting.

- 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.

