

Step1: Preparing Dataset.

- The app uploads data through two ways: a) datasets that are built up with (x, y, data1, data2, ...), and b) the measurement data that are exported from Atlas metrology tools from Nano Metrics.
- For setting up a dataset, Copy/Paste raw data into Excel or CVS sheet.
- Column A and B are reserved for (x, y) coordination. All other columns are for measurement data.
- Contents in the first row doesn't affect potting. You may want to put notes on there.
- There is no limit for the number of data columns can be used.
- Closed the data sheet before uploading from the app otherwise it won't be working.
- Don't put anything on unoccupied cells to avoid confusing the app.

A AutoSave On File Home New Tab Insert Draw Page Layout Formulas Data Review View Help New Tab xlwings

Paste Font Alignment Number Conditional Formatting Format as Table Cell Styles Cells Editing Analyze Data Sensitivity New Group

Clipboard Styles Analysis Sensitivity

I19 X ✓ f_x

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	X(mm)	Y(mm)			film1	film2									
2	0	0			13456.57	12422.31									
3	5.972	48.635			13299.01	12082.12									
4	38.613	30.167			13146.37	12084.61									
5	48.635	-5.972			13000.27	12119.44									
6	30.167	-38.612			13077.17	12245.81									
7	-5.971	-48.635			13235.04	12369.82									
8	-38.612	-30.168			13405.36	12490.94									
9	-48.635	5.971			13380.39	12444.87									
10	-30.168	38.612			13312.93	12201.09									
11	11.943	97.27			13175.07	11568.03									
12	48.257	85.295			13079.99	11708.35									
13	77.225	60.335			12853.46	11755.05									
14	94.436	26.189			12675.43	11807.72									
15	97.27	-11.943			12543.9	11916.21									
16	85.295	-48.257			12551.63	11831.72									
17	60.335	-77.225			12596.03	11730.19									
18	26.19	-94.436			12731.69	11773.93									
19	-11.943	-97.27			12792.04	11985.75									
20	-48.257	-85.295			12826.92	12093.27									
21	-77.225	-60.335			12933.8	12213.64									
22	-94.436	-26.19			13107.06	12280.52									
23	-97.27	11.943			13030.82	12318.73									
24	-85.295	48.257			12895.87	12082.62									
25	-60.335	77.225			12949.82	11720.94									

WAFA MAP DATA1 (2) WAFA MAP DATA1 + 100%

Ready Accessibility: Good to go

Step1: Or Exporting Atlas Data.

- On Atlas screen click “Export” and then “Select All” button as the image shown below.
- Using Excel to open the data as the image shown in the right.
- It is okay saving the data in either .csv or .xls format.
- Closed the data sheet before uploading from the app otherwise it won't be working.

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

[First](#) [Previous](#) [Next](#) [Last](#)

Total 12 wafers

Date/Time ▼			Lot ID	Wafer ID	Slope
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
%StdD	8.6145	32.6277

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

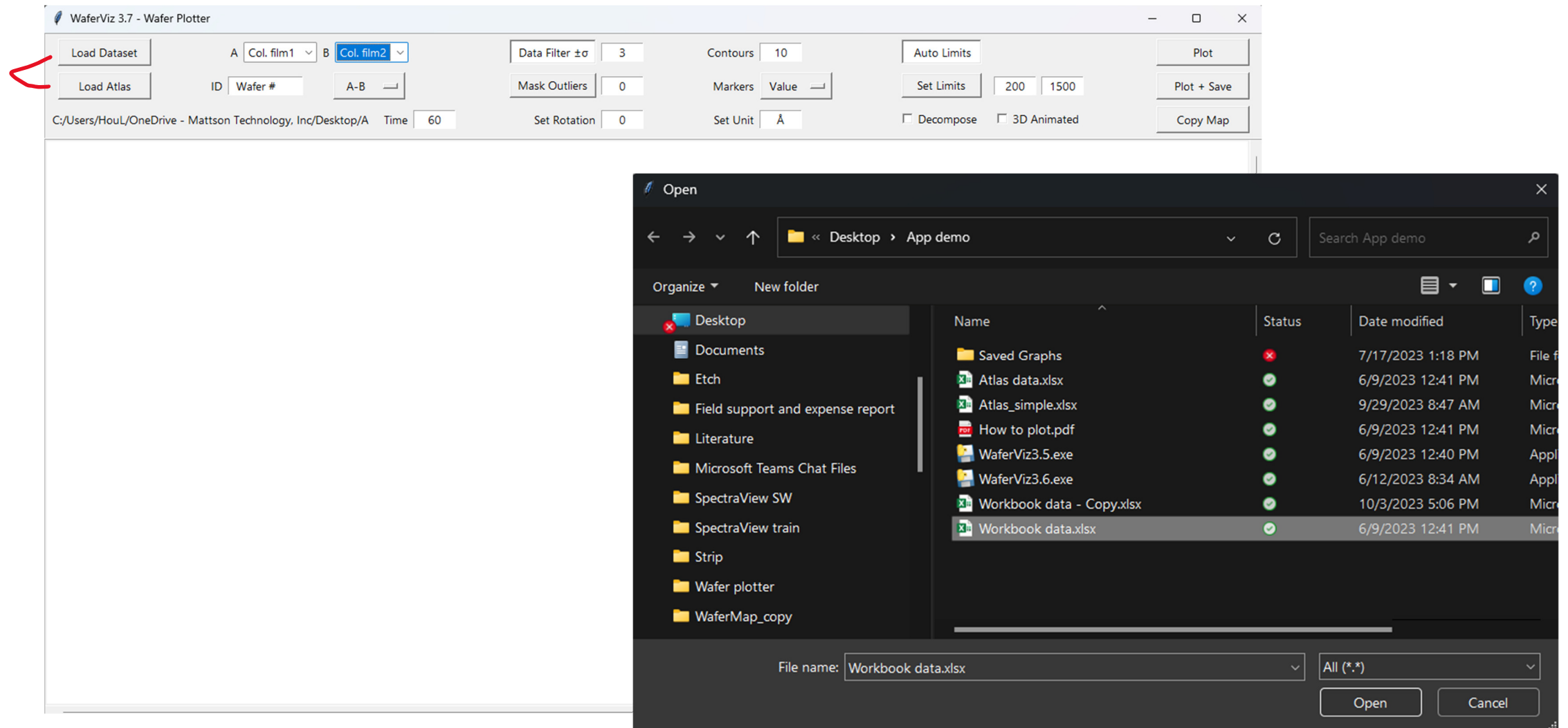
OK

Cancel

[illegible]

Step2: Uploading the Data.

- Open the app and load either dataset or Atlas data by clicking buttons.



Step3: Select Wafers and Configure Plotting.

The screenshot shows the 'WaferViz 3.7 - Wafer Plotter' window. It features a top toolbar with buttons like 'Load Dataset', 'Load Atlas', 'Plot', 'Plot + Save', and 'Copy Map'. Below the toolbar are various input fields and controls: 'A' and 'B' dropdown menus, an 'ID' field with 'Wafer #' as a placeholder, an 'A-B' operator dropdown, 'Data Filter $\pm\sigma$ ' and 'Mask Outliers' input fields, 'Contours' and 'Markers' dropdowns, 'Set Unit' with a unit selector, 'Set Limits' with lower and upper limit inputs, and checkboxes for 'Decompose' and '3D Animated'. A status bar at the bottom shows the file path 'C:/Users/Houl/OneDrive - Mattson Technology, Inc/Desktop/R', 'Time' set to '60', and 'Set Rotation' set to '0'. Numbered callouts (1-11) point to specific elements: 1 points to the file path, 2 to the 'A' dropdown, 3 to the 'ID' field, 4 to the 'A-B' dropdown, 5 to the 'Time' field, 6 to the 'Data Filter' input, 7 to the 'Mask Outliers' input, 8 to the 'Contours' dropdown, 9 to the 'Markers' dropdown, 10 to the 'Set Unit' dropdown, and 11 to the 'Set Limits' input fields.

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. 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 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. See right side.

10. The default unit is Å. You can change it to any physical units such as °C, Ohm/sq.

11. If “Set Limits” is pressed, You can enter lower limit and up limit that will be in effect.

4. Operators:

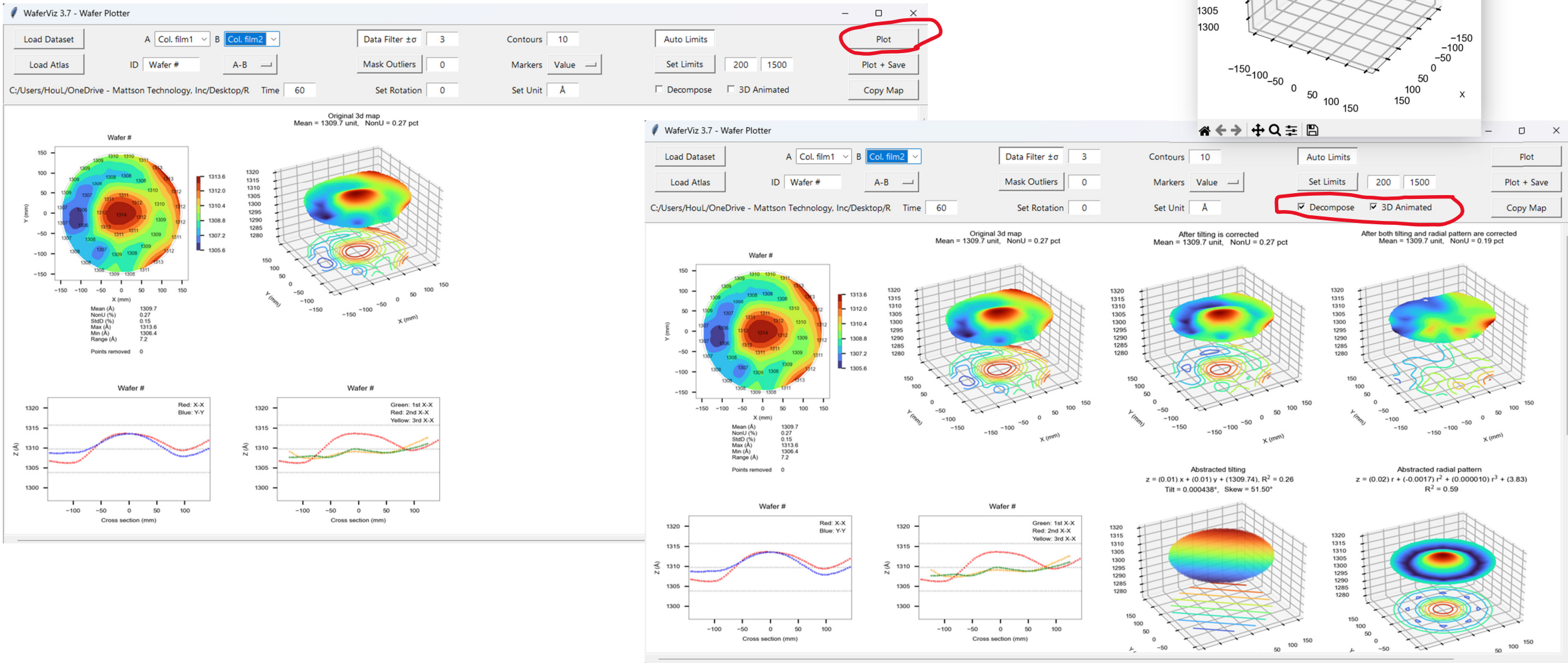
A-B
B-A
(A-B)/t
(B-A)/t
A
B

9. Marker choices for the contour map:

Value
Sign
Dot
None

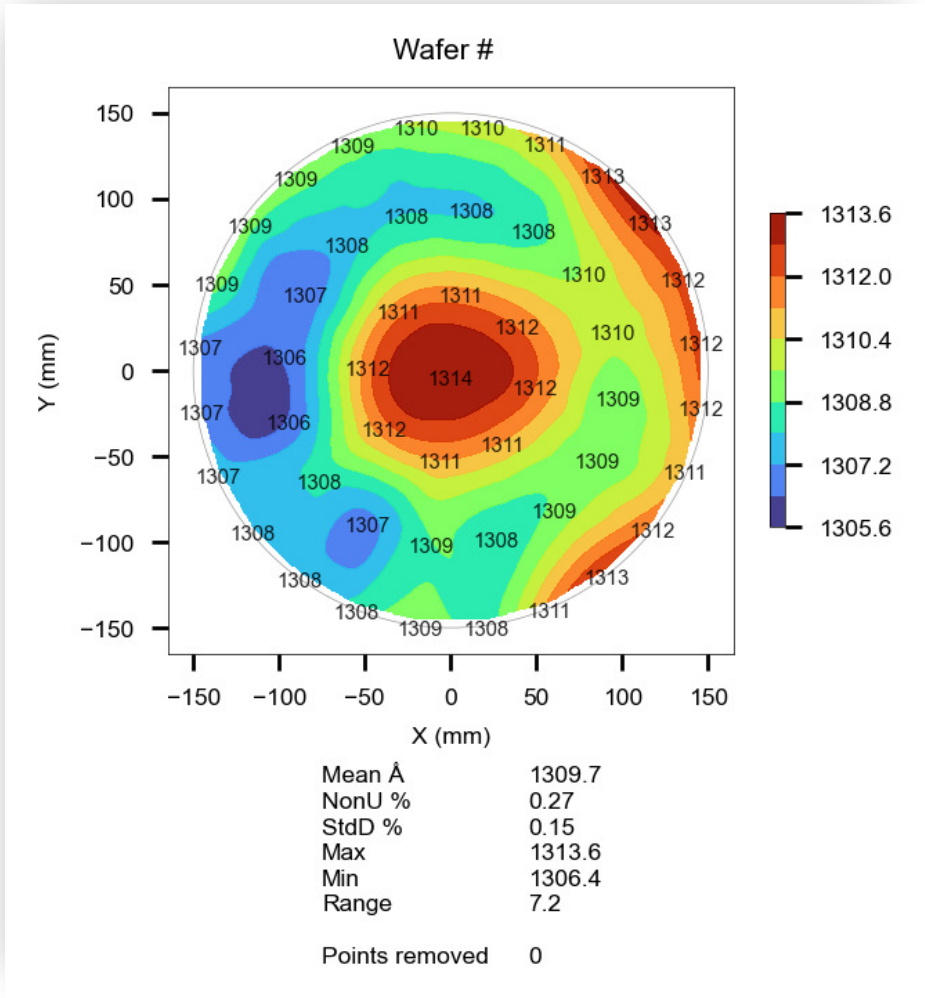
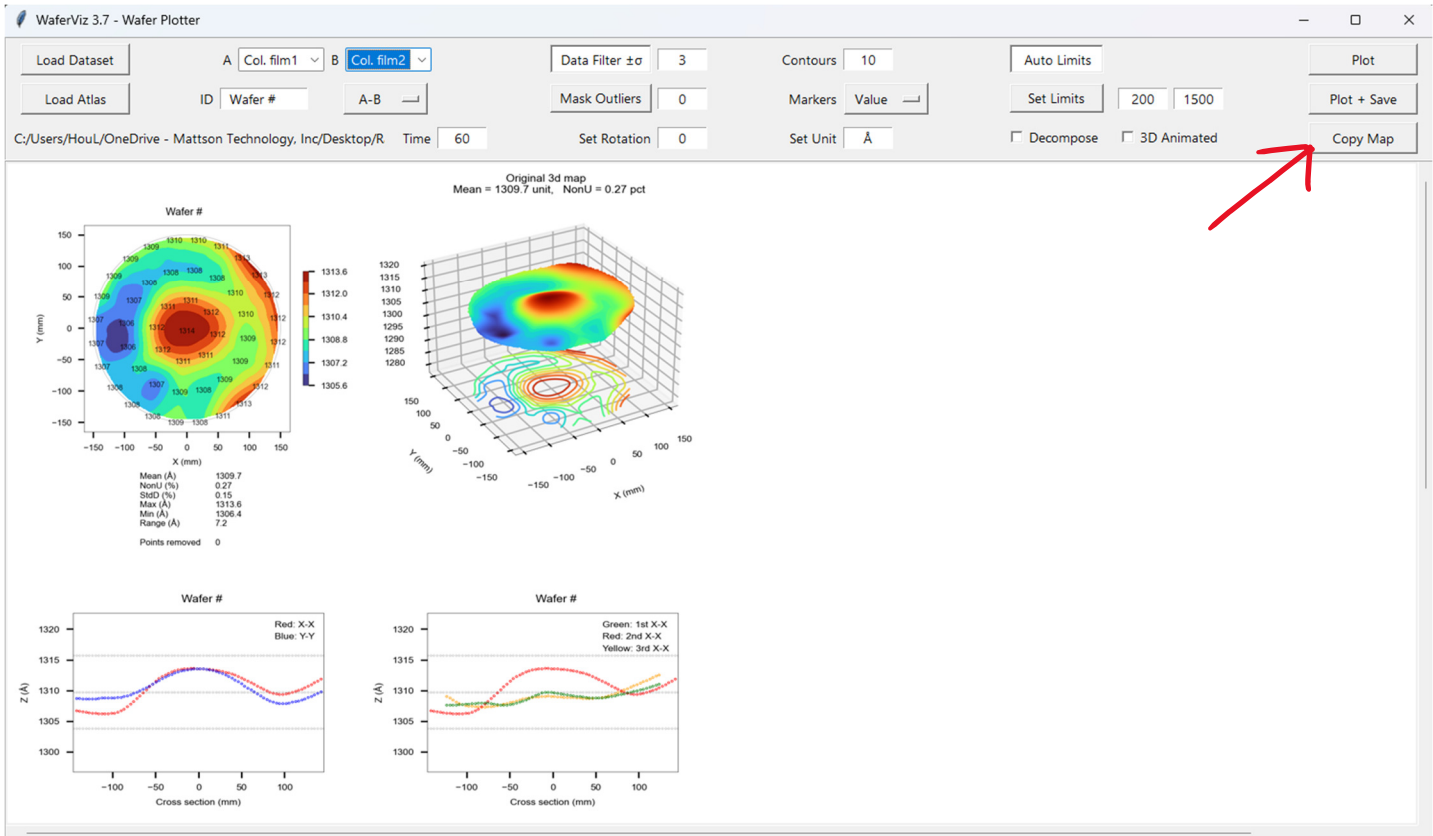
Step4: Plot.

- Just plotting only takes few seconds.
- Selecting “Decompose” and “3D Animated” and “Plot” will take 22s.



Step5: Copy the Graph

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



Step5: Save Graphs

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

