

Episode 56K Z. November 3, 2023. Video Steps to create a “Coast to Coast” analysis of 3 days of PM2.5 using your PurpleAir PM2.5 monitor

0)Contact <https://rawsepresidents.wordpress.com> by emailing [rawsepresidents@gmail.com](mailto:rawsepresidents@gmail.com), telling RAWSEPresidents your 01)email, 02)your PurpleAir PM2.5 monitor name, and your 03)PurpleAir Map location (city and state) and 04)requesting to be sent an Excel Template of 3 day data analysis.

1)Every 3 days at the same time download the CSV file at your PurpleAir PM2.5 monitor (for the last 3 days). I download Sunday between 6:30 to 7 AM, on Wednesday 6:30 to 7am, Friday 6:30 to 7am, Monday 6:30 to 7am, Thursday 6:30 to 7am, Sunday 6:30 to 7Am. See Monthly Calendar for the coming months of November & December 2023 for someone who does not want to download PM2.5 data on Saturdays, so collects every 2 days once every two weeks. Put recurring appointments for 6:30AM on your Google or other online Calendar.

2)Make a folder on your computer called 20231103 PurpleAir 3 day data download. Go to the PurpleAir Map and find your own monitor.

3)Click on your monitor dot on the map. A chart showing the ups and downs of PM2.5 levels for the last 3 days appears.

4)Take a Snipping Tool screenshot of the chart with Snipping Tool and save the Snipping Tool PNG file in the same folder as your PurpleAir data download for, for example, 11/03/2023. Label this Snip 202311103 (your city and state or monitor name, for example WI Madison) pic.

5)In the PurpleAir chart for your monitor in the upper right hand corner are three bars. Click on the 3 bars. You will see CSV. Download CSV to your folder. Type the date and your monitor name in front of the name already given by Purpleair to any downloaded CSV file.

6)Copy the content of the PurpleAir file and exit the PurpleAir file, saving the content you are taking. Open the template and paste the fields onto the template. Save.

7)Look at the E column. It should have changed to  $=\$C4 \times \$i\$1)+\$j\$1$  the correct correlation of PurpleAir Data to EPA data

There are two ways to do Step 8

8a)Highlight C4 and grab the bottom of C4 and pull it across D4 and E4. Highlight D4 and E4 together and grab the corner of D5 and pull it down all the columns D & E to the end where an average for the 3 days is on the last row.

(If there are excess data below the average on the last line, delete these rows and make any cells that are outlined into no outline.)

8b)scroll down to the bottom of column E. Highlight column E up to the highest number. Copy. Paste using 2nd paste function to the right the 123 function, into column F. Do the same for Column G. Save. (If there are excess data below the average on the last line, delete these rows and make any cells that are outlined into no outline.)

9)Copy Columns A through G into sheets Yellow, Orange, and Red.

10)For the Yellow sheet highlight the entire Yellow sheet by clicking on the upper left hand triangle. The sheet will turn gray to show all is highlighted. Go to sort custom sort. Delete the sort row in the custom sort box that is already there. Create a new sort row for Column E for cell fill yellow on top. Save.

11)Yellow sheet sort will make all yellow cells at the top. Scroll down and see the last yellow cell. If it is 250, for instance, then use 250 for yellow except delete any rows at the top that are not number rows. You will probably delete 3 rows from the Yellow sheet yellow number count, to get 248. Type 248 in the first sheet at cell E2. This will set **off the** equations in the analysis section and this is how the % of PM2.5 above 12, 25 or 35 is calculated in the XL file. This is the most important step.

12)Do the same for Orange sheet except type the number of orange cells after sort minus non-number rows at the top (probably 3 rows) to get the number to type in the first sheet cell F2.

13)Do the same for Red sheet except type the number of red cells after sort minus non-number rows at the top (probably 3 rows) to get the number to type in the first sheet cell G2.

14)Notice that all your statistics have propagated for above 12, 25 and 35 micrograms per cubic meter in a 3 day period. Notice the begin and end dates of the 3 days has propagated in the analysis. Type your own monitor name or monitor city and state over the fields that show Madison Wisconsin. Save.

15)You are ready to put the statistics in a Word document and make a table of the results for your readers., who may include your local health department.

Now create a Word document to give to the Health Department.

16)Create a word document. Copy from the Excel first sheet cells H1:J29 which is the analysis section showing % in 3 days, and shows how it is calculated.

17) Paste Excel H1:J29 into the work document. Save. Cut the pasted content. Re-paste as format farthest paste choice to the left (no formatting).

18) To make the file more compact. Clear formatting. Choose single spacing. Make the text Line Spacing option don't add space between paragraphs of the same size.

19) Above the data from the Excel file you have put into the Word document insert a chart showing the % 12, 25, 35 ug/m<sup>3</sup> for 3 days.

20) In the wordpress file insert your own location and data into this template wordpress document.

Midwest in summary: the Madison, Wisconsin PurpleAir PM2.5 monitor showed above 12 micrograms per cubic meter 100% of the last 3 days.

Madison, Wisconsin PurpleAir PM2.5 monitors showed above 25 micrograms per cubic meter 43% of the last 3 days.

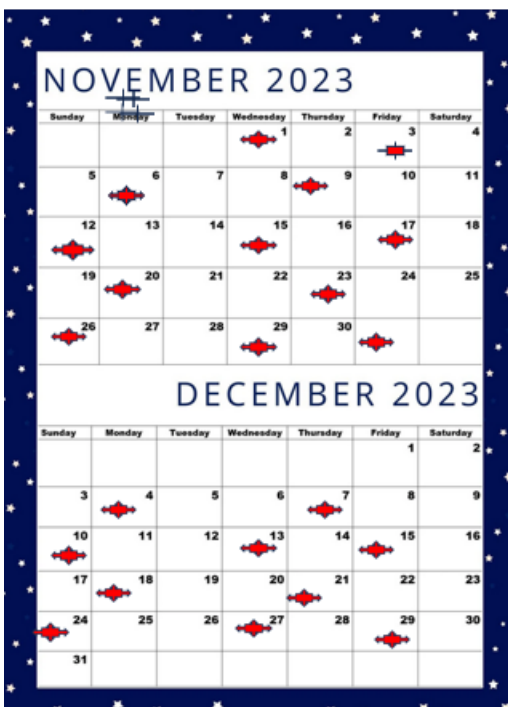
Madison, Wisconsin PurpleAir PM2.5 monitor showed above 35 micrograms per cubic meter 19% of the last 3 days.

Save  
21) Go back to your Excel Sheet. Make a Snipping Tool snapshot of the 1st page of the Excel file. Save the first page of the Excel sheet as a PDF (you will probably be able to save only 13 pages, since the last (14th) page is usually blank.)

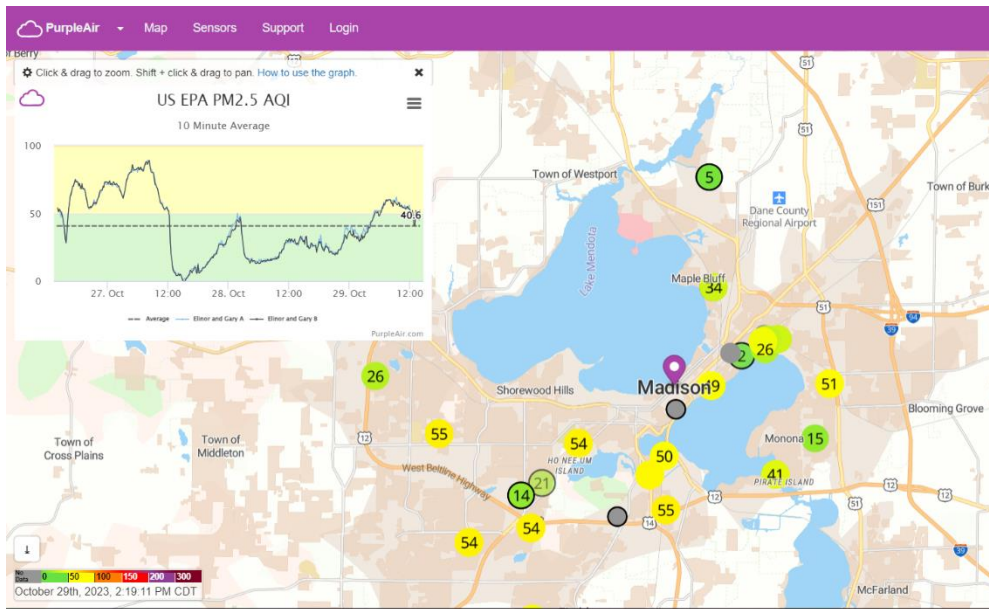
22) If you want RAWSEP residents to publish your data analysis for your own monitor, email all files except XL file to [RAWSEPresidents@gmail.com](mailto:RAWSEPresidents@gmail.com)

23) If you want to critique the XL Template sent to you by RAWSEPresidents, email your own XL file to [RAWSEPresidents@gmail.com](mailto:RAWSEPresidents@gmail.com) and detail any problems you had with the RAWSEP template.

24) The <https://rawsepresidents.wordpress.com> site does not have the functionality to upload CSV or XL files directly to the website.



| Name                                   | Date modified      | Type        | Size |
|--|--------------------|-------------|------|
| 20231029 PurpleAir 3 day data download | 10/29/2023 2:16 PM | File folder |      |



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