

AERPLOT Sample Run

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Overview of the Step-by-Step Instructions

This example assumes that the user has run through the “Sample Run File” tutorial for AERMOD. That means that the user has a folder in which AERMOD has run, and that folder contains the end-product files like AERMOD.OUT .

Using a web browser and a CMD.EXE window, the user will retrieve AERPLOT.EXE and its AERPLOT.INP file and place them into the “Sample Run File” folder. Then the user will make a one-line addition to AERMOD’s AERMOD.INP file.

On running AERMOD again, this time it will produce the “plot file”, to be named AERPLOT.KMZ. At that point the AERPLOT program will also open the “earth browser” Google Earth (previously installed) to reveal the plot.

Step-by-Step Instructions

Preparation

This example assumes that the user has run through the “Sample Run file”.

This example assumes Windows. To see the plot, it assumes that you have installed Google Earth. (Available at <http://www.google.com>).

This example works with AERPLOT 16216 and AERMOD 18081.

In the CMD.EXE window, go to the “Sample Run File” folder.

This is as was done in “Sample Run File”.

Get AERPLOT and the "AERPLOT Sample Run" file AERPLOT.INP .

Use the web browser that was used in the "Sample Run File". Go to the EPA's SCRAM web site at <http://www.epa.gov/scram> . There, under "Air Quality Models", find the "Dispersion Modeling" link and click it.

There, find the link for "Related Programs" and click that.

Then, you can find the link for the "AERPLOT", so click that. Clicking on the AERPLOT link will take you to the AERPLOT section.

Click the "AERPLOT Sample Run (ZIP)" link. Clicking that should start a download of the ZIP file to your computer.

If you are asked whether to open or save the ZIP file, click the little arrow next to the Save button, select the "Save As" option, and save it to the SampleRun folder you made for AERMOD's "Sample Run File".

At this point, the user is done with the web browser and can close it.

Unzip the file in the same way you did for AERMOD's "Sample Run File". You should leave the AERPLOT.EXE and AERPLOT.INP in the SampleRun folder.

See how the plot file is specified in the AERPLOT.INP file.

Note that the plot file name is specified, here as AERMOD.PLT :

```
PlotFileName = AERMOD.PLT
```

At this point, if and only if you do **not** want to see the plot or don't have an earth browser, set the "disableEarthBrowser" line, up above, to:

```
sDisableEarthBrowser = true
```

In the Sample Run folder, add a line to AERMOD.INP .

Remember that NOTEPAD.EXE can be a good editor.

At the end of AERMOD.INP, add the PLOTFILE line, changing:

```
OU STARTING
  RECTABLE  ALLAVE  FIRST-THIRD
  MAXTABLE  ALLAVE  50
  SUMMFILE  AERTEST.SUM
OU FINISHED
```

To:

```
OU STARTING
  RECTABLE  ALLAVE  FIRST-THIRD
  MAXTABLE  ALLAVE  50
  SUMMFILE  AERTEST.SUM
  PLOTFILE  3 ALL FIRST AERMOD.PLT
OU FINISHED
```

Run AERMOD again. See the AERMOD.PLT file appear.

You can look at the plot file in an editor. The plot file is straightforward. The file header explains a lot, and the data is arranged in columns.

Run AERPLOT and Google Earth.

Run the program by just typing:

```
aerplot
```

If the earth browser is available, then when the AERPLOT run concludes, the earth browser will open and provide the mappings for examination.

In Google Earth, the panel to the upper left contains controls that can make the different parts of the mapping disappear and reappear. Try turning them on and off to get a feel for this collection of tools.

In the plot area itself, there are circles of dots that represent the receptors that AERMOD had calculated. The color scale used indicates the concentrations found, and in the panel to the upper left and the "legend" to the lower left, the concentration ranges are shown.

Pick any of the dots in the plot, and click on it. An "information balloon" opens up with information about that dot's receptor.

To exit Google Earth, use Alt-F4, or use the "Exit" menu item in the File menu, or click on the "X" button in the window's upper right.

To exit CMD.EXE, enter the "exit" command, or use Alt-F4, or click on the "X" button in the window's upper right.

Appendices

Appendix: AERPLOT and AERMOD File Extensions

This table is a list of the AERPLOT file types used by this example. It supplements the list of AERMOD file types in the "Sample Run File" folder.

Extension	Meaning
*.plt	"plot file" of data to be plotted, output by AERMOD and read by AERPLOT
*.kmz	Compressed collection of XML data for earth browser, output by AERPLOT
*.exe	executable file
*.inp	input file

Appendix: If you run into problems

We are available through the SCRAM web site ["Contact us" page](https://www.epa.gov/scram/forms/contact-us-about-air-quality-models), <https://www.epa.gov/scram/forms/contact-us-about-air-quality-models> .