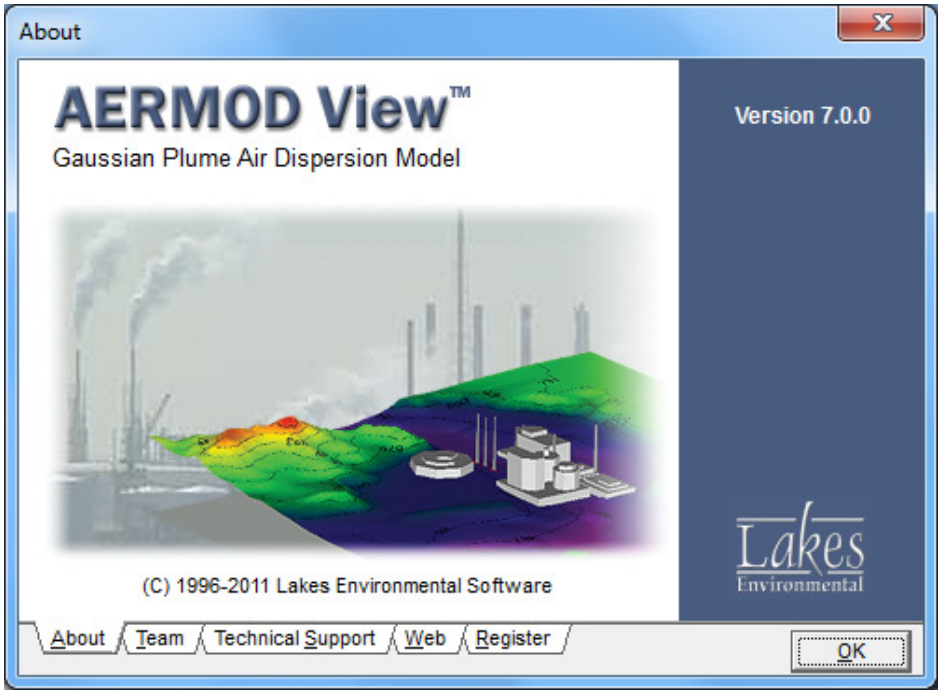
AERMOD View™

Gaussian Plume Air Dispersion Model - AERMOD

Release Notes

Version 7.0



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AERMOD View™ Version 7.0.0

Release Notes

May 10, 2011

New Features & Fixed Issues

Topic	Feature Description
Models	**Latest US EPA Models** AERMOD View Version 7 includes the latest updates and new models made available from the U.S. EPA TTN SCRAM web site: ▪ AERMOD Version 11103 ▪ AERMAP Version 11103 ▪ AERMET Version 11059 ▪ AERMINUTE Version 11059 ▪ LEADPOST Version 11096
Control Pathway	**New US EPA 1-Hour SO2 NAAQS Option** Under the **Control Pathway** - **Pollutant / Averaging** screen a new option was introduced to guide modelers complying with the latest US EPA NAAQS standards for SO2. The new 1-hour SO2 NAAQS standard should be calculated based on the average of the 99th percentile (4th highest) of the annual distribution of daily maximum 1-hour concentrations averaged across the modeled years. After the selection of the pollutant type SO2, the user should check the **US EPA 1-HR SO2 NAAQS Option** box. This will automatically select a few additional options: 1) 1-hour average (CO Pathway) 2) 4th highest for 1-hour average (OU Pathway) 3) Max Daily file(s) (OU Pathway) 4) Max Daily by Year file(s) (OU Pathway)

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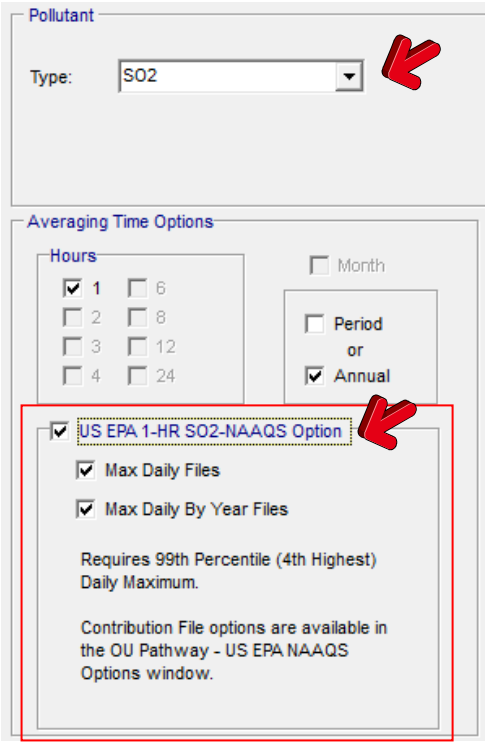
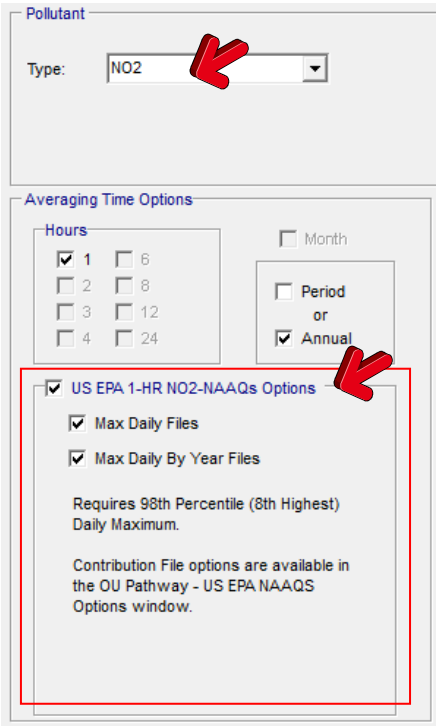
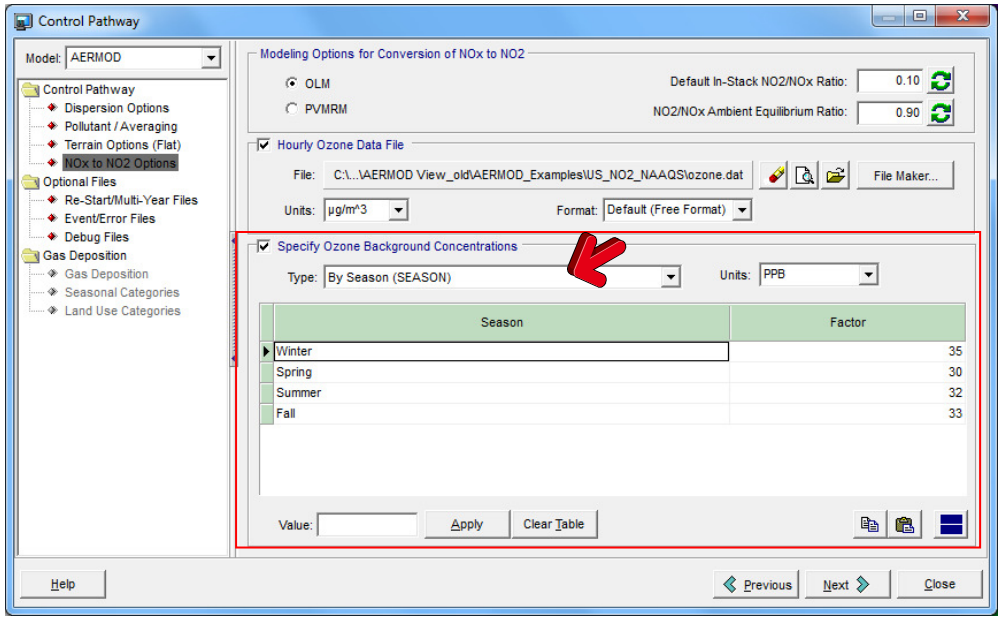
Topic	Feature Description
	

Topic	Feature Description
Control Pathway	**New US EPA 1-Hour NO2 NAAQS Option** Under the **Control Pathway** - **Pollutant / Averaging** window a new option was introduced to guide modelers complying with the latest US EPA NAAQS standards for NO2. The new 1-hour NO2 NAAQS standard should be calculated based on the average of the 98th percentile (8th highest) of the annual distribution of daily maximum 1-hour concentrations averaged across the modeled years. After the selection of the pollutant type NO2, the user should check the **US EPA 1-HR NO2 NAAQS Option** box. This will automatically select a few additional options: 5) 1-hour average (CO Pathway) 6) 8th highest for 1-hour average (OU Pathway) 7) Max Daily file(s) (OU Pathway) 8) Max Daily by Year file(s) (OU Pathway) 

Topic	Feature Description
Control Pathway	**New Ozone Background Concentration Options** A new option to specify temporally-varying background ozone concentrations was introduced with the US EPA AERMOD Version 11059 and 11103. 

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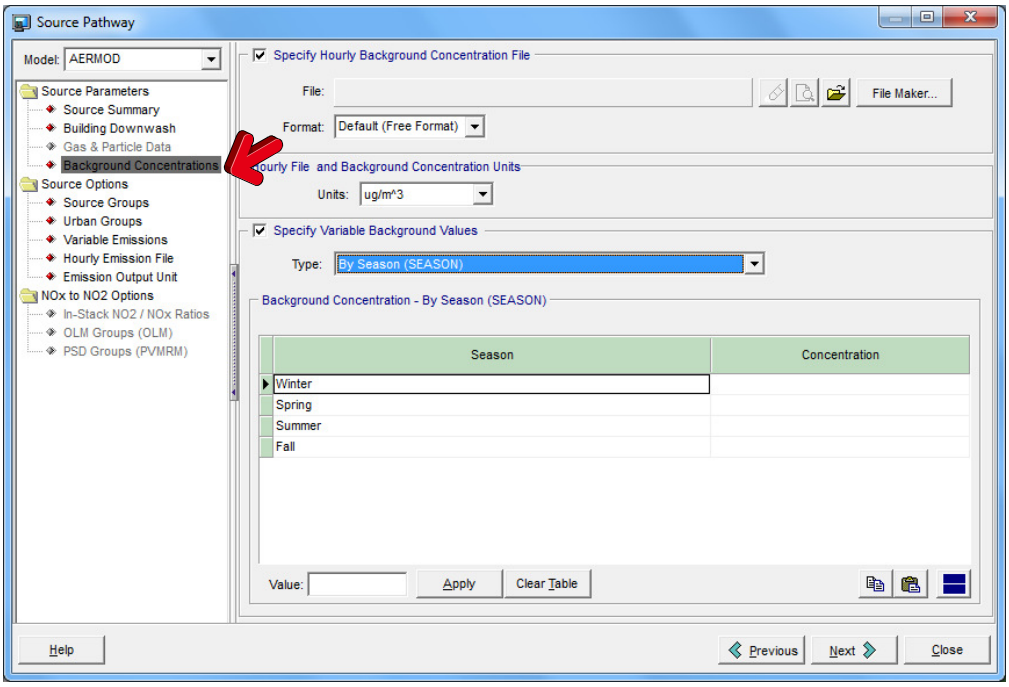
Topic	Feature Description
Source Pathway	**Background Concentrations** Beginning with the US EPA AERMOD model version 11059, users can specify uniform or temporally varying background concentrations using the BACKGRND keyword on the SO Pathway. Background concentrations can be included with any source group to estimate cumulative ambient impacts. Background concentrations can be specified using a range of options similar to those available with the Variable Emissions, and/or on an hourly basis from a separate data file. 

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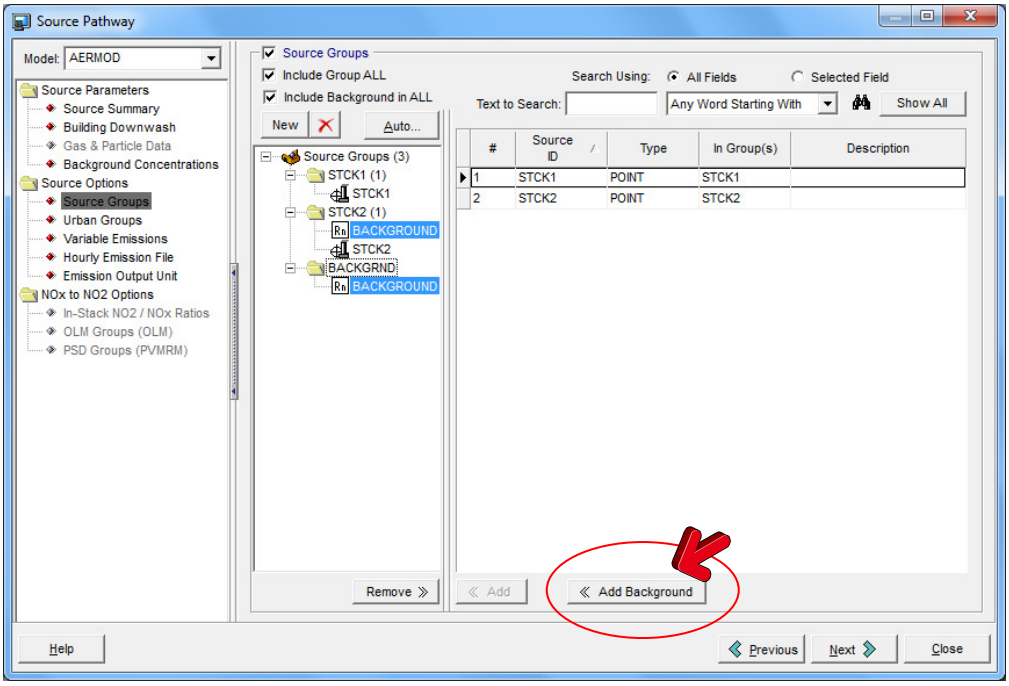
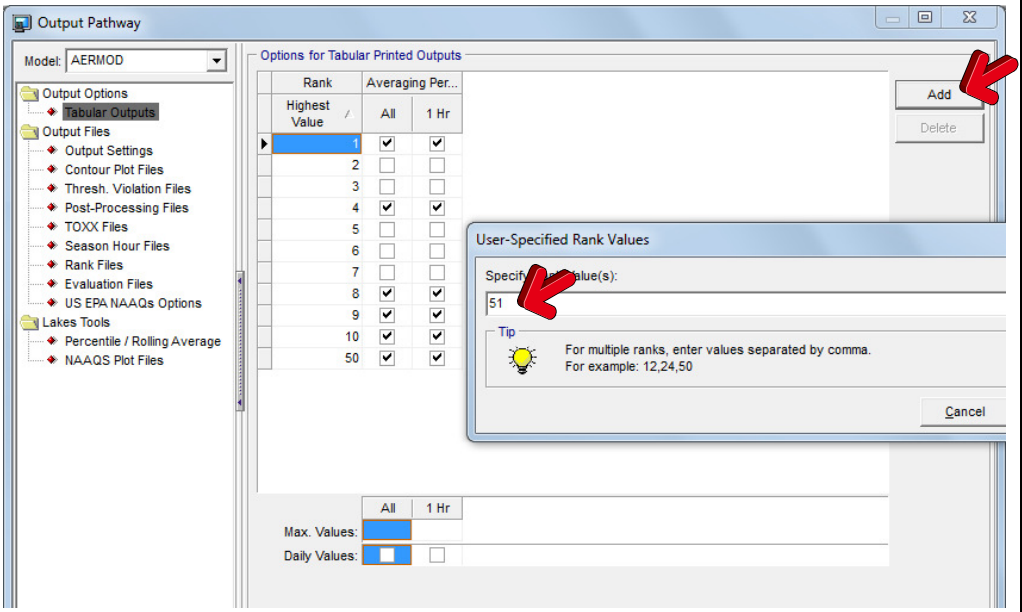
Topic	Feature Description
Source Pathway	**Additional Options for Source Groups** With the introduction of the Background Concentrations option, you can request that the special background concentration source (BACKGROUND) be included in any Source Group and/or be also included as an individual Source Group (BACKGRND). 

Topic	Feature Description
Output Pathway	**Highest Values Table** Introduced with AERMOD Version 11059 and 11103, you can now specify more than the 10th-highest values up to a maximum of 999th. In AERMOD View, the Highest Values table was re-designed to accommodate this new option. By default, only the 10 highest values will be automatically displayed in the table. Additional highest values can be specified by pressing the **Add** button. 

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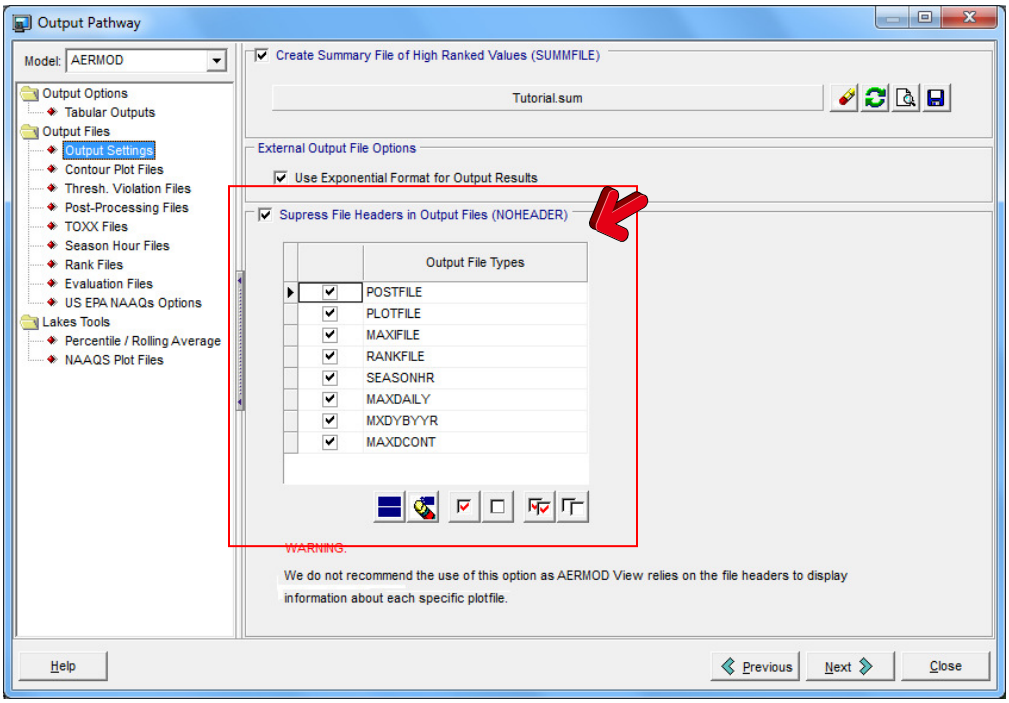
Topic	Feature Description
Output Pathway	**Additional Output Settings** The **Output Settings** window under the Output Pathway was redesigned to accommodate the new option introduced with AERMOD Version 11059 and 11103 which allows the user to suppress output file headers from several output files such as PLOTFILES, POSTFILES, etc. We do not recommend the use of this option unless you need to post-process these files outside the AERMOD View interface. The exiting **Summary File** option is now selected as default for all new projects and has a new extension (*.sum instead of *.osf). 

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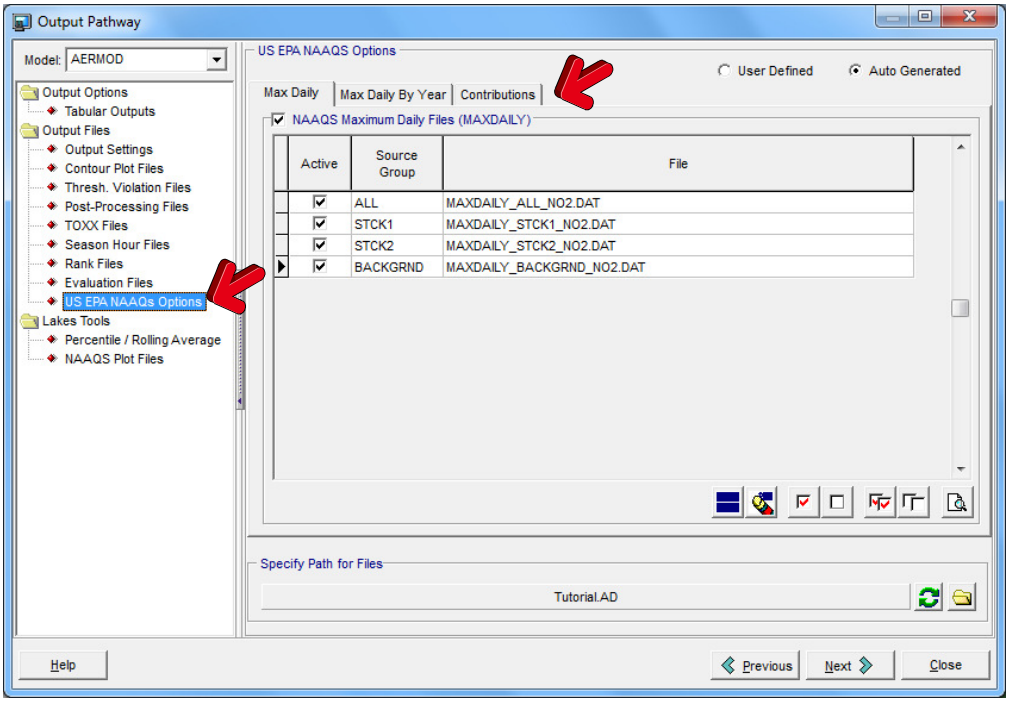
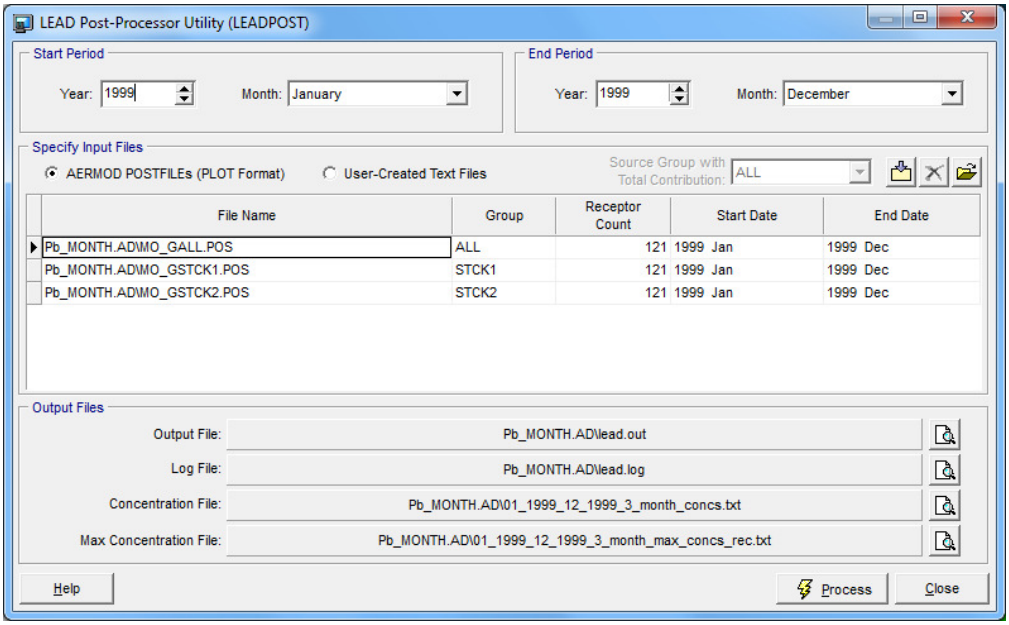
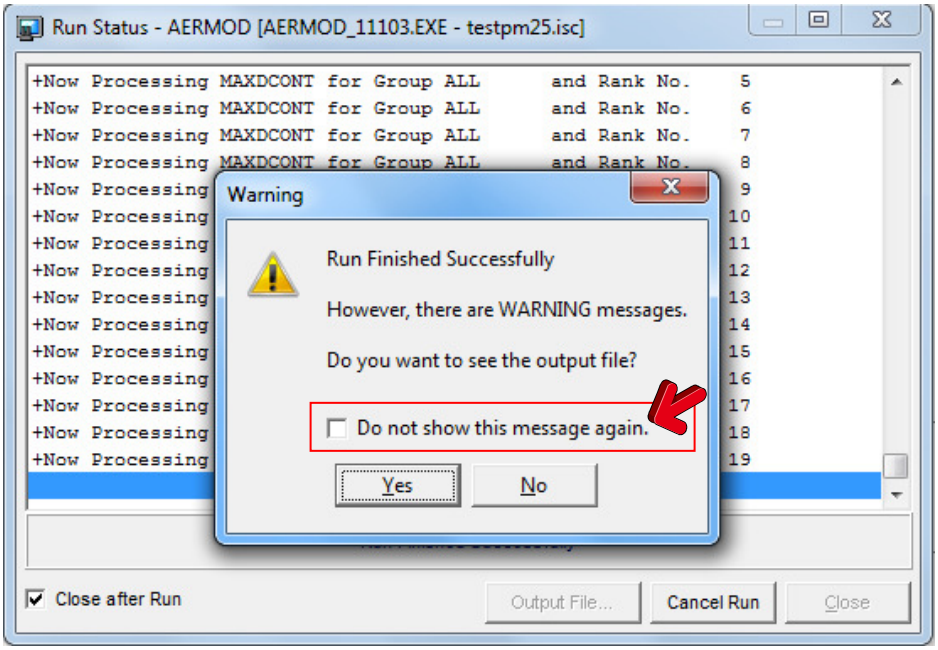
Topic	Feature Description
Output Pathway	**US EPA NAAQS Options** Introduced with AERMOD Version 11059 and 11103, three new special output file options are available that can only be used for the special processing of 1-HR SO2, 1-HR NO2, and 24-HR PM2.5 NAAQS options: 1) **MAXDAILY:** Output file of daily maximum 1-hour concentrations for a specified source group, for each day in the data period processed. 2) **MXDYBYYR:** Output file with a summary of daily maximum 1-hour concentrations by year for each rank specified on the RECTABLE keyword. 3) **MAXDCONT:** Contribution files 

Topic	Feature Description
Tools	**LEAD Post-Processor Utility (LEADPOST)** On April 13, 2011, the US EPA released the latest version of the LEAD post-processor (LEADPOST Version 09096). LEADPOST was incorporated into AERMOD View as an external utility available under the **Tools** menu. The Pollutant "LEAD" was also incorporated in the Pollutant list in the Control Pathway. The simple steps on how to use the Lead Post-Processor Utility are outlined below:  1) Select Pollutant "**LEAD**" in Control Pathway 2) Select Averaging Time "**Month**" 3) Specify **Source Groups** you want to analyze 4) Specify the **POSTFILE option for each Source Group**. Make sure the format type is **PLOT (ASCII),** not the UNFORM (Binary). LEADPOST will only work with ASCII type POSTFILES. 5) **Run** the **AERMOD** model 6) Select **Tools | LEAD Post-Processor** 7) Review the input data. You will notice that all input data for your project was automatically recognized and loaded. 8) Press the **Process** button. After processing finished, close the utility. 9) The 3-month rolling average maximum concentration file is automatically loaded into AERMOD View Plots list and is displayed as contours.

Topic	Feature Description
Run	**Option Not to Display Messages** A warning message was introduced with AERMOD View Version 6.8.0 which is displayed after the model finished running. In case Warnings and/or Error messages are found in the main output file, this message was always displayed. Starting in AERMOD View Version 7.0, you are able now turn on/off the display of this message after the run.  The option for displaying the run messages can be turned on/off under the **Preferences**. 

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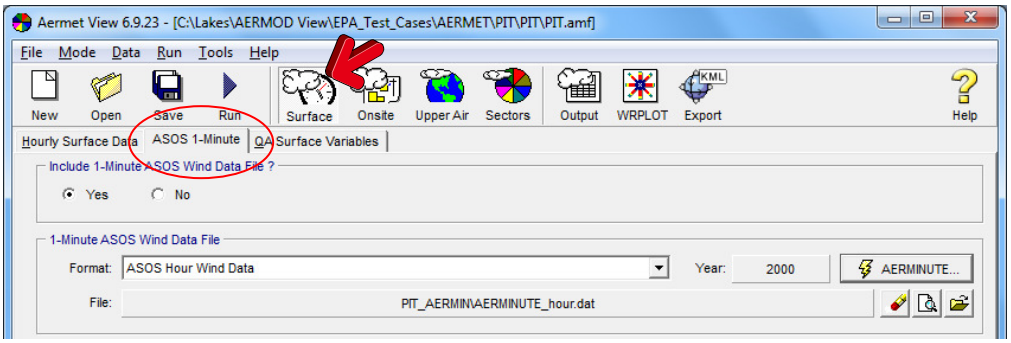
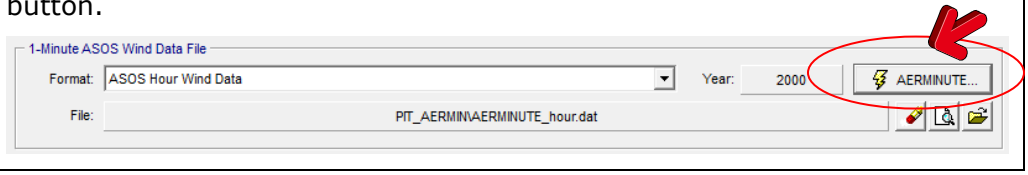
Topic	Feature Description
AERMET View	**1-Minute ASOS Data Option** Introduced with AERMET Version 11059, you can specify the hourly averaged winds derived from 1-minute ASOS wind data pre-processed by the US EPA AERMINUTE program. The hourly averaged wind speed and direction generated by the AERMINUTE program can be merged with data from standard surface files (such as TD-3505/ISHD), along with upper air and onsite data (if available) in Stage 2 of AERMET processing. In AERMET View, this option is available under the **Surface** section – **ASOS-1 Minute** tab. 
AERMET View	**AERMINUTE Utility** The US EPA released AERMINUTE (Version 11059) on April 8, 2011. AERMINUTE is a program that processes 1-minute Automated Surface Observing Stations (ASOS) wind data available from the National Climatic Data Center (NCDC) in the TD-6405 format. AERMINUTE generates hourly averaged wind speed and wind direction to supplement the standard hourly ASOS observations used in AERMET to improve the number of calms and missing winds. In AERMET View, you have access to the **AERMINUTE Utility** under the **Surface** section – **ASOS-1 Minute** tab and by pressing the **AERMINUTE** button. 

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	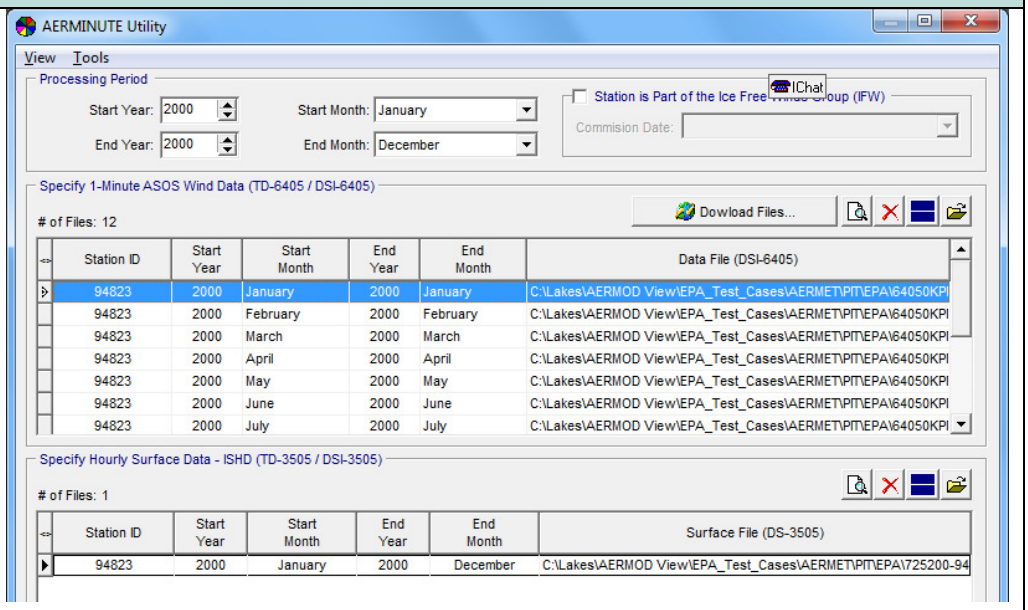

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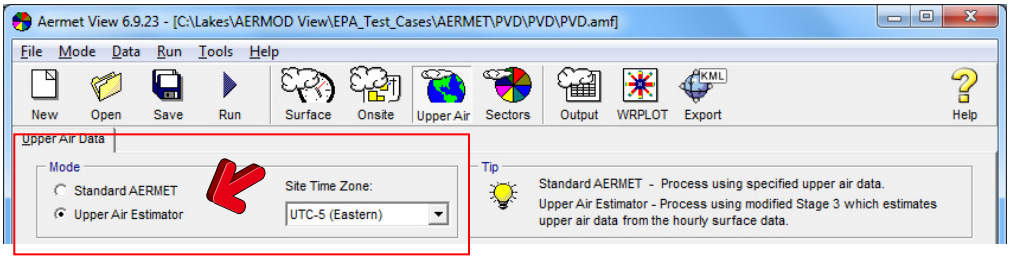
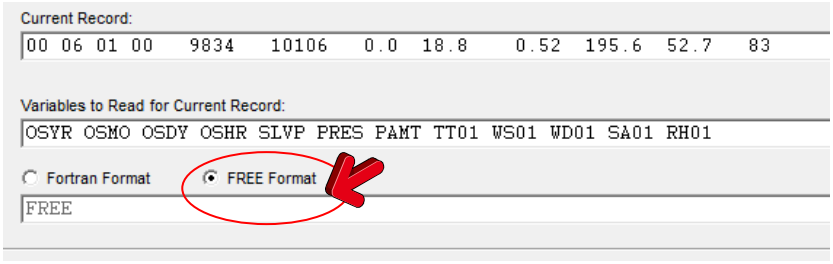
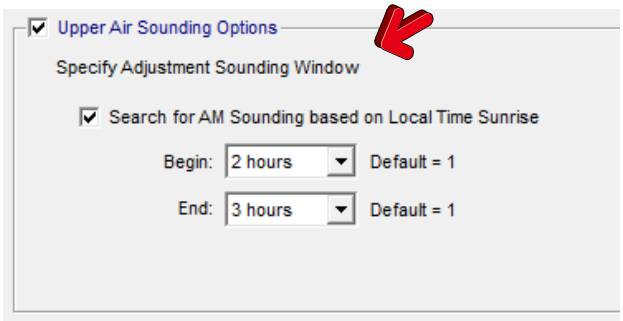
Topic	Feature Description
AERMET View	**Upper Air Estimator Updated** Lakes Environmental **Upper Air Estimator** was updated according to latest US EPA AERMET Version 11059. The **Upper Air Estimator** is a Lakes Environmental tool and it is not part of the official US EPA AERMET code. 
AERMET View	**FREE Format Option for Onsite Data Records** You can now specify your onsite data records as free-formatted, using keyword FREE. The AERMET model reads date fields as integers (Fortran "I" format) and all other variable as REAL format (Fortran "F" or "E" format 
AERMET View	**New Upper Air Sounding Options** Introduced with AERMET Version 11059, you can now select the most appropriate sounding based on local sunrise. This is an important feature for modelers doing projects beyond North America. 

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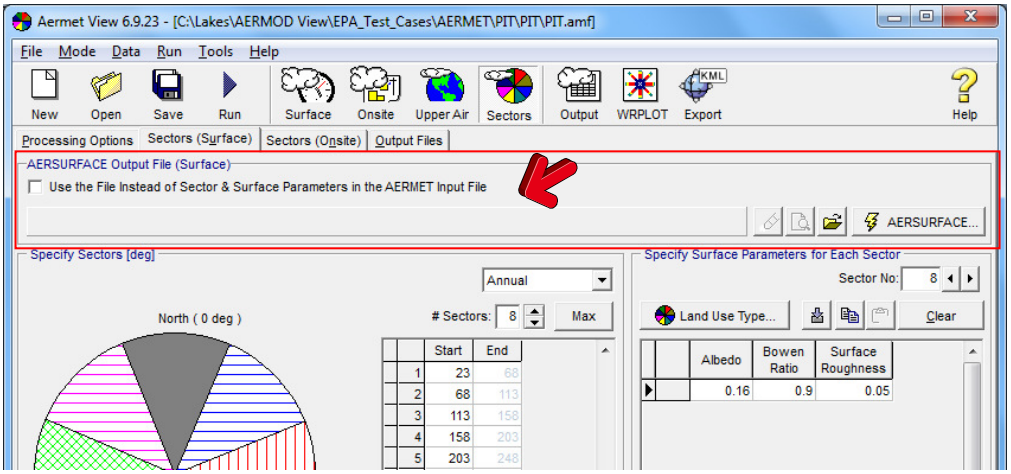
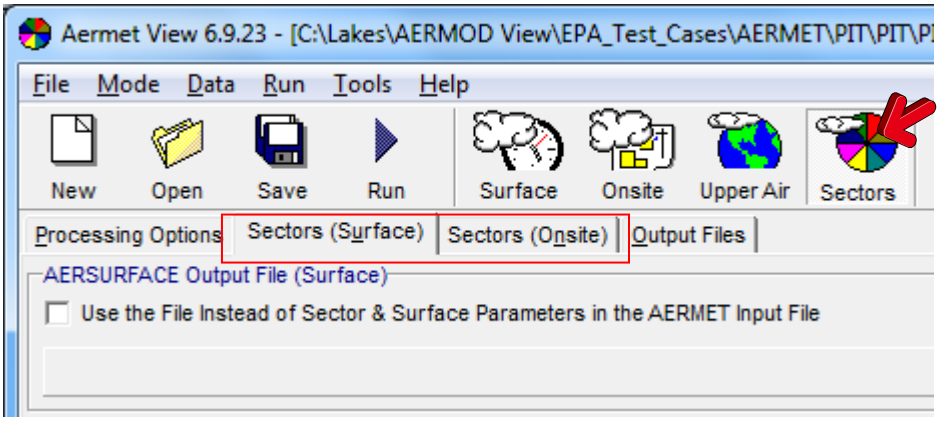
AERMET View	**Option to Specify AERSURFACE Output File** The option to specify the AERSURFACE output file directly into the AERMET input file for Stage 3 is now available. 
AERMET View	**Surface Parameters for Secondary Station** Introduced with the US EPA AERMET Version 11059, you are required to specify a secondary set of surface characteristics when winds from NWS surface station are substituted for missing onsite winds. 

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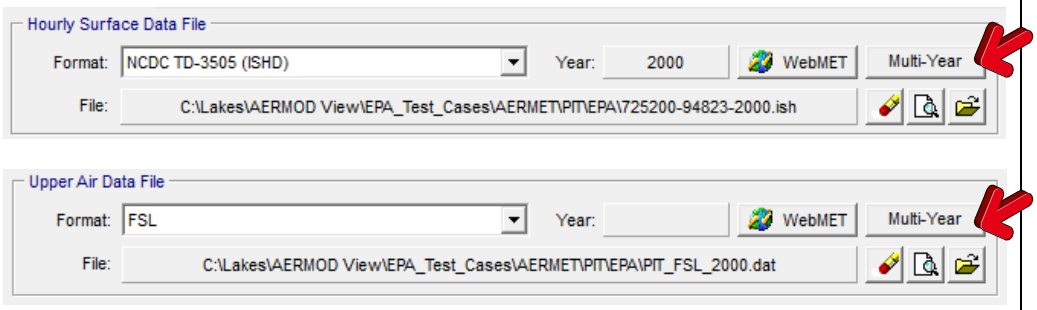
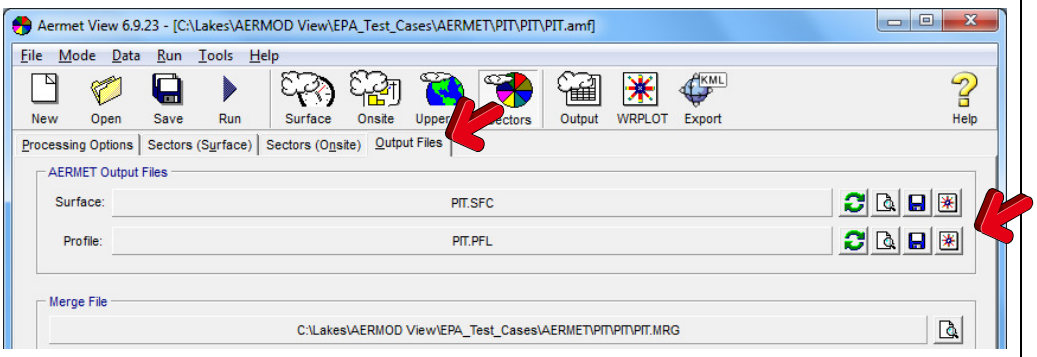
AERMET View	**Ability to Specify Multiple Year Files** The **Multi-Year** button for surface and upper Air files launches the **Multi-Year Data** utility from where you can select multiple files to be combined into one multi-year file. After files are combined, the multi-year file is automatically loaded into your AERMET View project. 
AERMET View	**New Output File tab Available** A new tab is now available under the **Sectors** section. From the Output Files tab you have easy access to the output files created by the AERMET model. You can change the output name, view the results in grid format, and visualize the wind rose. 

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