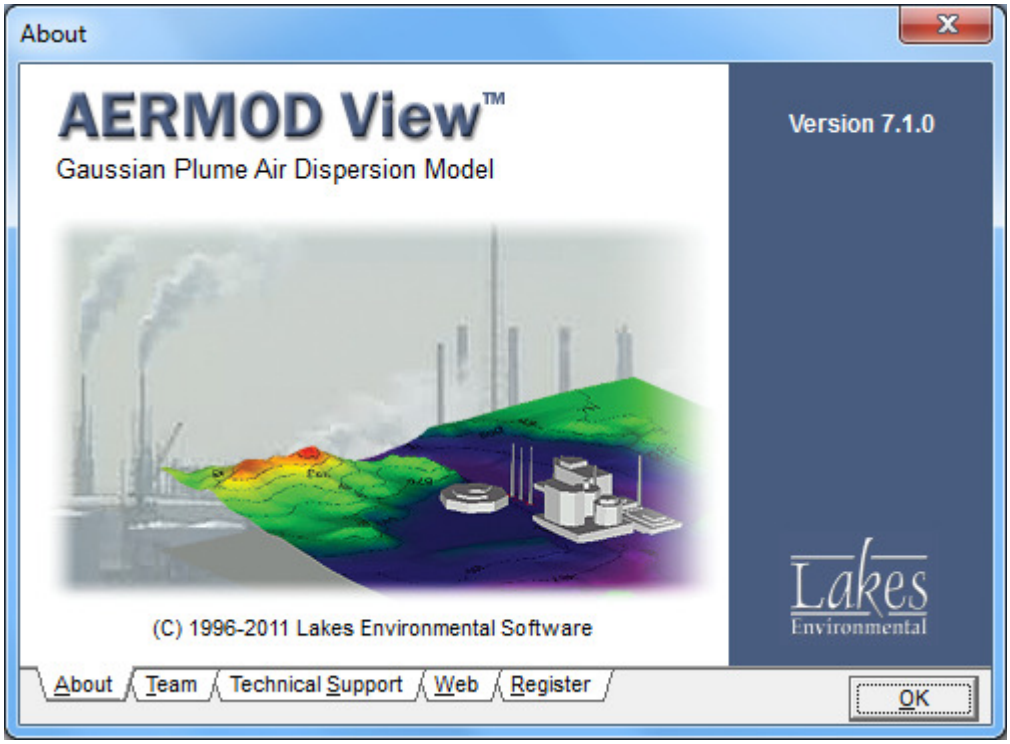
AERMOD View™

Gaussian Plume Air Dispersion Model - AERMOD

Release Notes

Version 7.0 & 7.1



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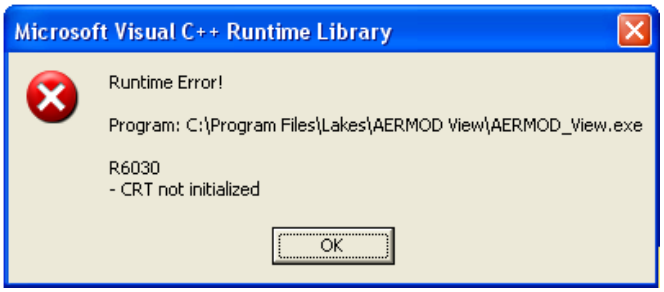
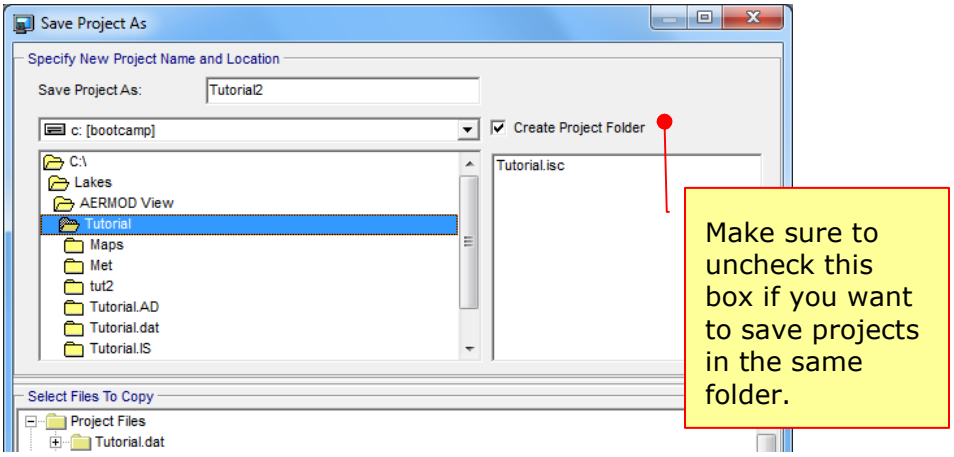
AERMOD View™ Version 7.1

Release Notes

May 31, 2011

New Features & Fixed Issues

Topic	Feature Description
Installation	**Run Time Error – CRT not initialized** The message below was displayed when trying to start AERMOD View Version 7.0.0. in a few machines. This issue has been fixed in version 7.1. 
Save As	**Not Allowing More than One Project in the Same Folder** The Save As functionality under AERMOD View Version 7.0.0 was not allowing users to save more than one project in the same folder. This has been fixed in AERMOD View Version 7.1. 

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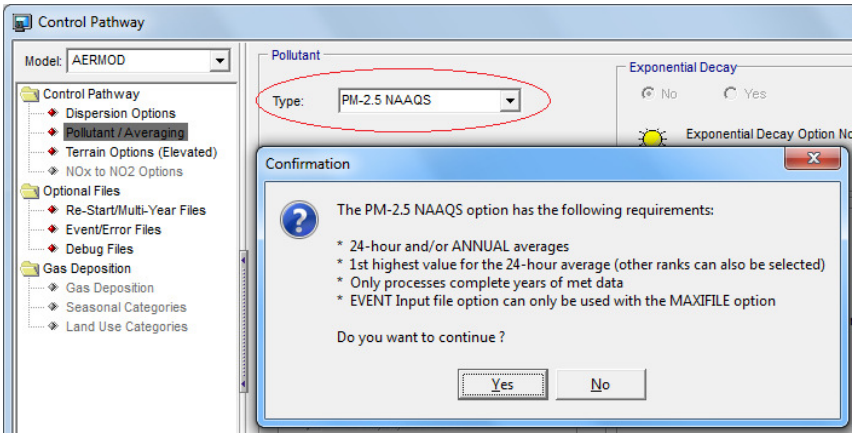
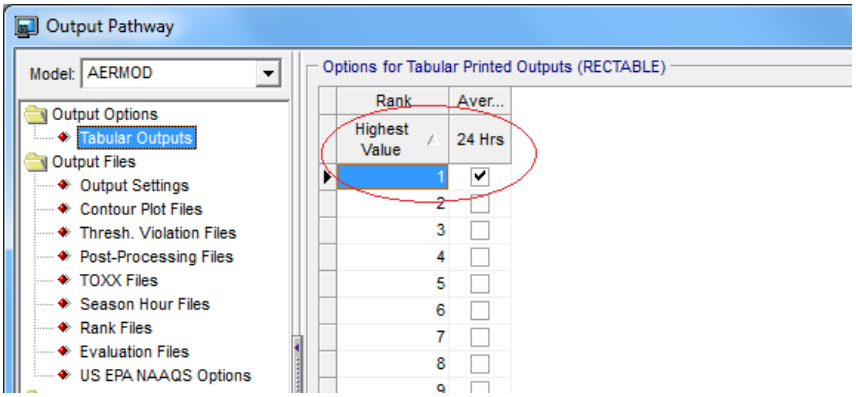
Topic	Feature Description
PM-2.5 NAAQS	**PM-2.5 NAAQS Option with 1st-Highest for 24-hour Average** When selecting the pollutant type PM-2.5 NAAQS, although the message displayed was indicating that the 1st highest should be selected under the Output Pathway, only the 8th highest was being automatically selected.  In AERMOD View Version 7.1, the 1st highest will be automatically selected if pollutant PM-2.5 NAAQS is selected in the Control Pathway. 

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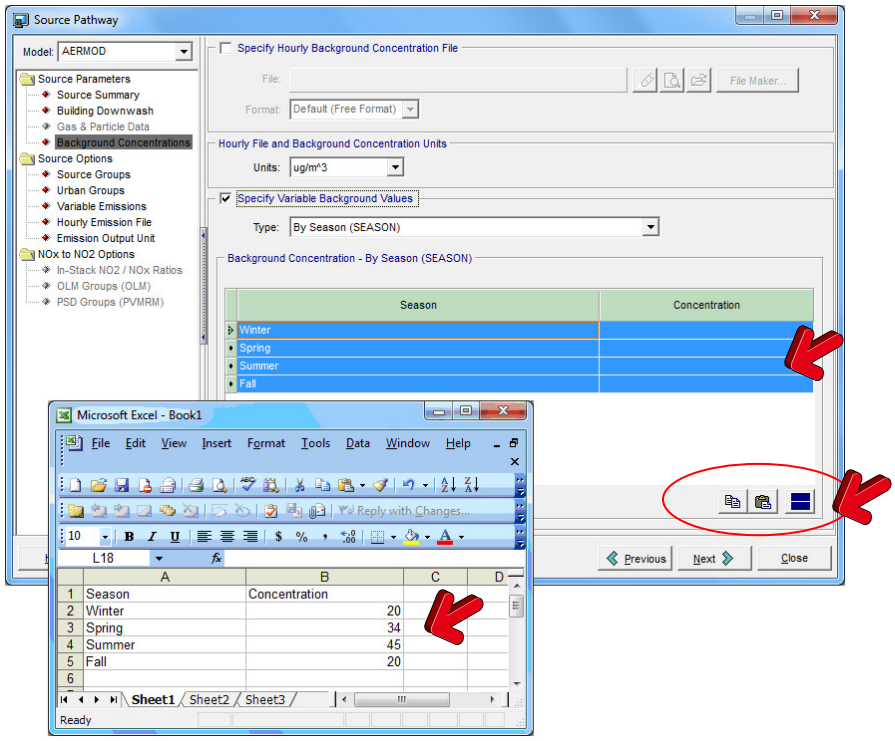
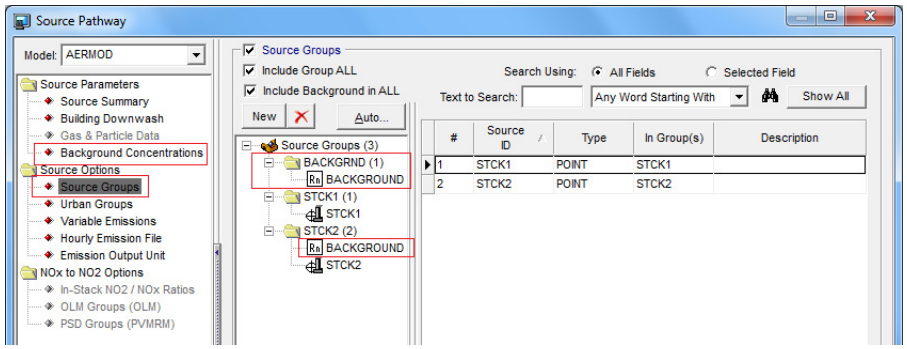
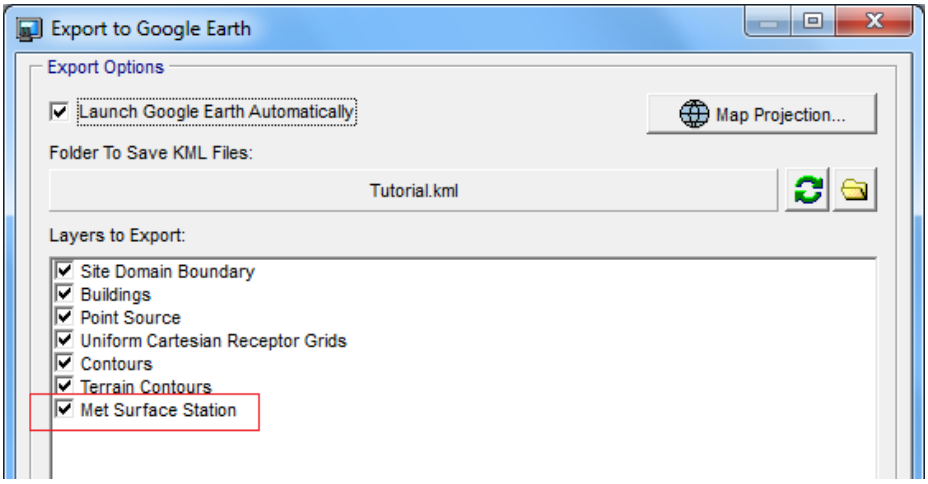
Topic	Feature Description
Source Pathway	**Background Concentration Options** Several improvements were added to the Background Concentration Option: 1. You can now select either the hourly file or background values or both 2. Use the copy, paste, select All buttons () to copy/paste background values between AERMOD View and Excel. 
Source Pathway	**Background Source and Source Group** Background Sources once specified for a specific source group and the Background Source Group will be remembered in case you make the background concentration option inactive and then active again. 

Topic	Feature Description
Backup Option	**Hourly Background Concentration File Added to Backup File** Hourly background concentration file is now automatically added to the Project Backup option (File | Backup | Save to ZIP menu option).
Export	**Export Met Station Location to Google Earth** If the surface meteorological data (*.SFC) file is specified in the Met Pathway, then the **Met Surface Station** layer will be available when exporting your project to Google Earth. 

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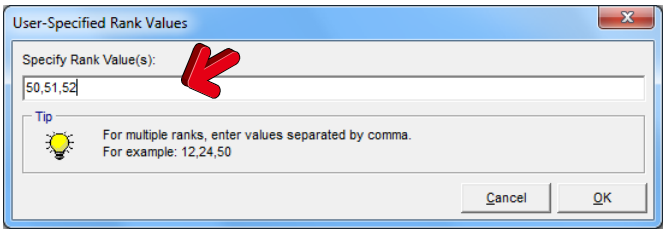
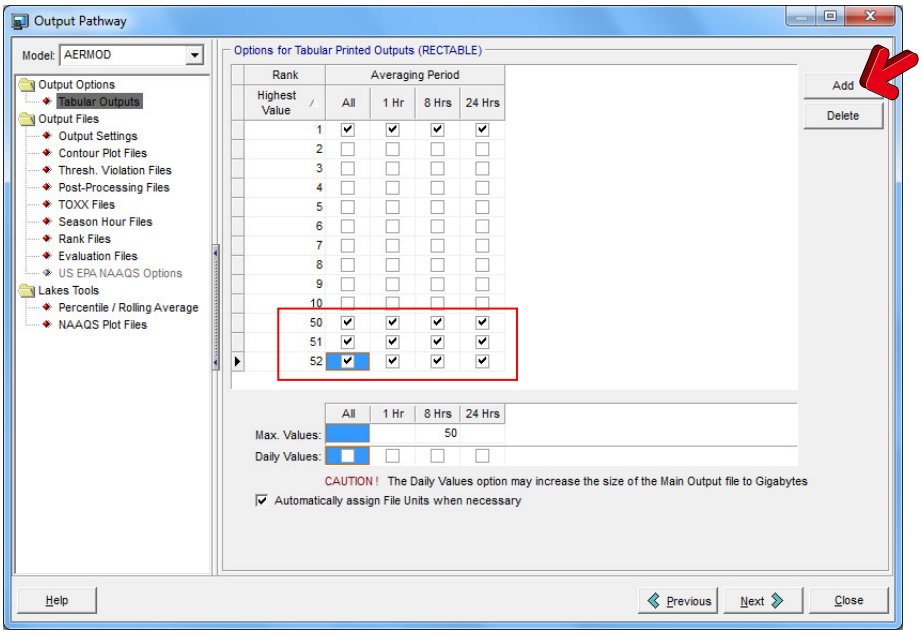
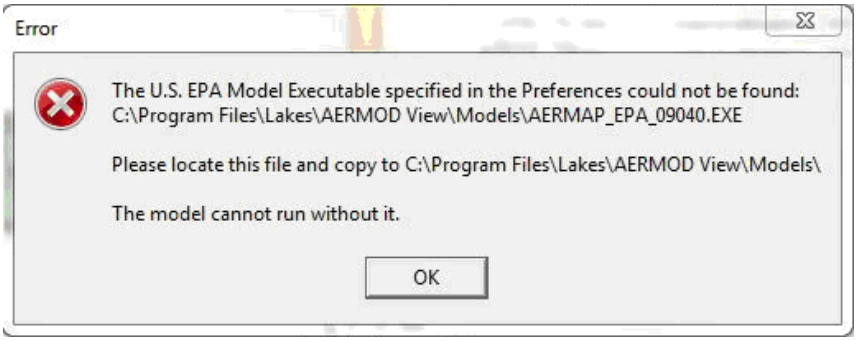
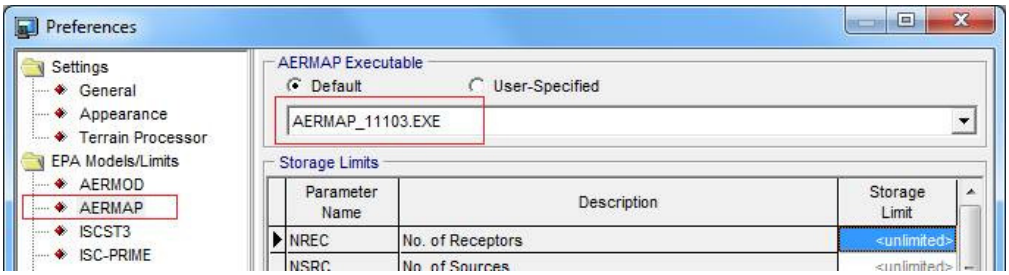
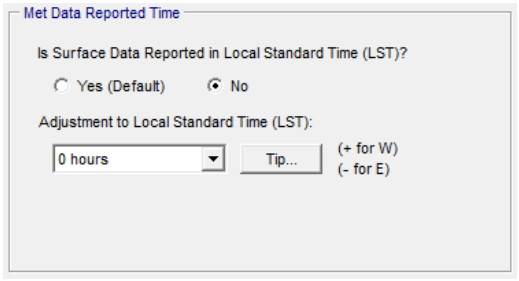
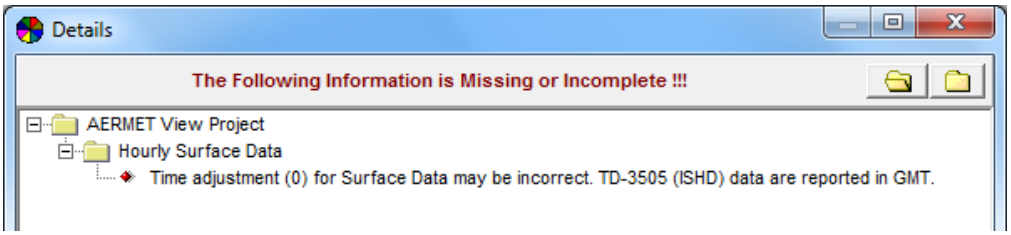
Topic	Feature Description
Output Pathway	**New Added Ranks are Automatically Selected** Under the **Output Pathway – Tabular Output Options**, new ranks added using the **Add** button will be automatically selected for all available averaging periods.  

Topic	Feature Description
AERMAP	**Error AERMAP_EPA_09040.EXE Could Not Be Found** With the release of the US EPA AERMAP Version 11103, the previous version of the AERMAP model executable (AERMAP_EPA_09040.EXE) is no longer part of the AERMOD View installation. Under the Terrain Processor window, when trying to run AERMAP, a message is displayed asking you to locate AERMAP_EPA_09040.EXE.  The solution was to select the menu option **File | Preferences** and then select the latest US EPA AERMAP executable (AERMAP_11103.EXE or AERMAP.EXE). Press OK to close the Preferences dialog.  AERMOD View Version 7.1 will automatically select AERMAP.EXE in case any user-specified AERMAP executable cannot be found.

AERMAP	**AERMAP Not Running Due to Background Concentration Options**
	
	In AERMOD View Version 7.0.0, the new background concentration options were being written to the AERMAP input file causing fatal error messages from the AERMAP model.
	
	`******** FATAL ERROR MESSAGES ********`
	`SO E105 44 SETUP:Invalid Keyword Specified. The Troubled Keyword is BACKGRND`
	`SO E105 45 SETUP:Invalid Keyword Specified. The Troubled Keyword is BACKUNIT`
	
	This issue has been fixed by eliminating any background concentration related keywords from AERMAP input file.

Topic	Feature Description
Contours	**New Contouring Algorithm Introduced** With AERMOD View Version 7.0.0 a much faster contouring algorithm was introduced. Certain projects could not be opened using version 7.0.0 due to some very specific situations regarding receptor locations in existing projects. Most of these situations were fixed in AERMOD View Version 7.1.
Batcher	**Batcher Not Recognizing Certain Paths for Met Files** In AERMOD View Version 7.0.0, Batcher was not finding certain met data files that were located outside the project folder, issuing a message "Bad Format". This issue has been fixed in AERMOD View V.7.1.
AERMET View	**Additional Checks Implemented for TD-3505 (ISHD)** In AERMET View, additional checks were implemented for the Adjustment from GMT to Local Time if surface data is in TD-3505 format (ISHD). Surface data in TD-3505 is reported in GMT time and therefore the user needs to specify the adjustment from GMT to Local Time.  

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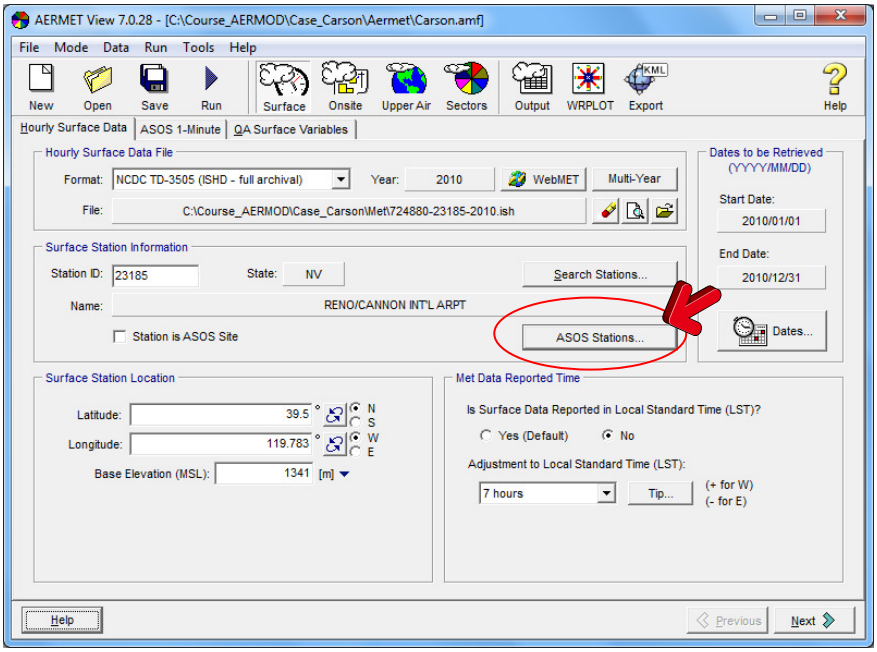
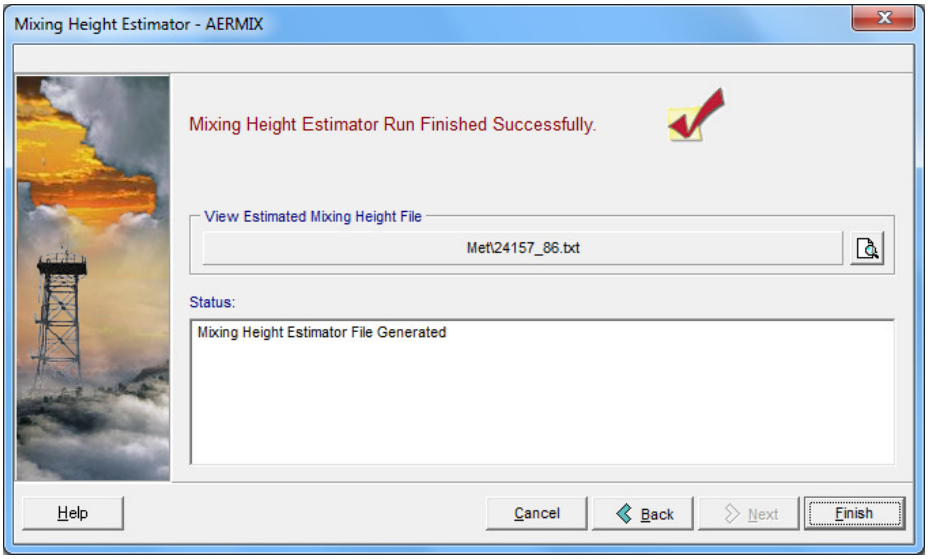
Topic	Feature Description
AERMET View	**ASOS Station List Available** The US EPA AERMET Version 11059 checks if a station is an ASOS station and the ASOS Commission Date using an internal station list. You can now have access to the same list by pressing the **ASOS Stations** button. 
AERMET View	**US EPA AERMET Supported Surface Met Files and Year Range** The US EPA AERMET Model Version 11059 now checks for a range of valid years for the several surface data formats. The acceptable range of years are as follows: **NWS Surface Format / Start Date / End Date** CD-144 --- 12/31/1995 HUSWO 1/1/1990 12/31/1995 TD-3505 (ISHD) --- --- SAMSON 1/1/1961 12/31/1990 SCRAM 1/1/1984 12/31/1992 TD-3280 --- --- **Example:** If a SAMSON file is provided for one of the NWS stations which are present under the ASOS station list (see previous topic) and the year of the SAMSON file is prior to 1961 or beyond 1990, then AERMET will set all cloud cover values for the surface output file (*.SFC) as missing (99). This SFC file will not be appropriate for use with the AERMOD model. For stations IDs not found in the ASOS list (e.g., 99999, 66666, etc.), a warning will be given under Stage 1 Report file (*.RP1) but cloud cover values will not be set to missing.

Topic	Feature Description
Rammet View	**Mixing Height Estimator - AERMIX** Under AERMOD View Version 7.0.0, the Mixing Height Estimator was not generating output results. This issue has been fixed in Version 7.1 

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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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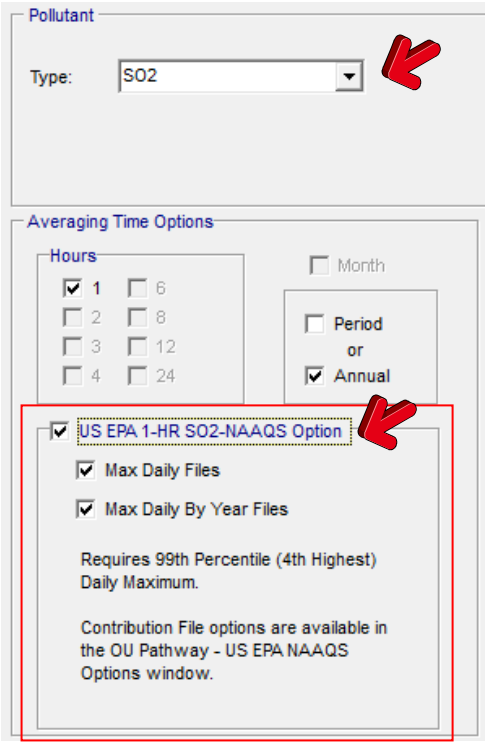
Topic	Feature Description
	

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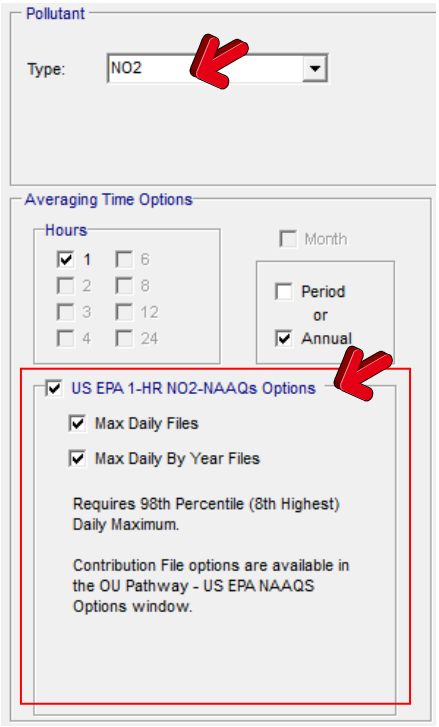
Topic	Feature Description
Control Pathway	**New US EPA 1-Hour NO2 NAAQS Option** Under the **Control Pathway** - **Pollutant / Averaging** window a new option was introduced to guide modelers complying with the latest US EPA NAAQS standards for NO2. The new 1-hour NO2 NAAQS standard should be calculated 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) 

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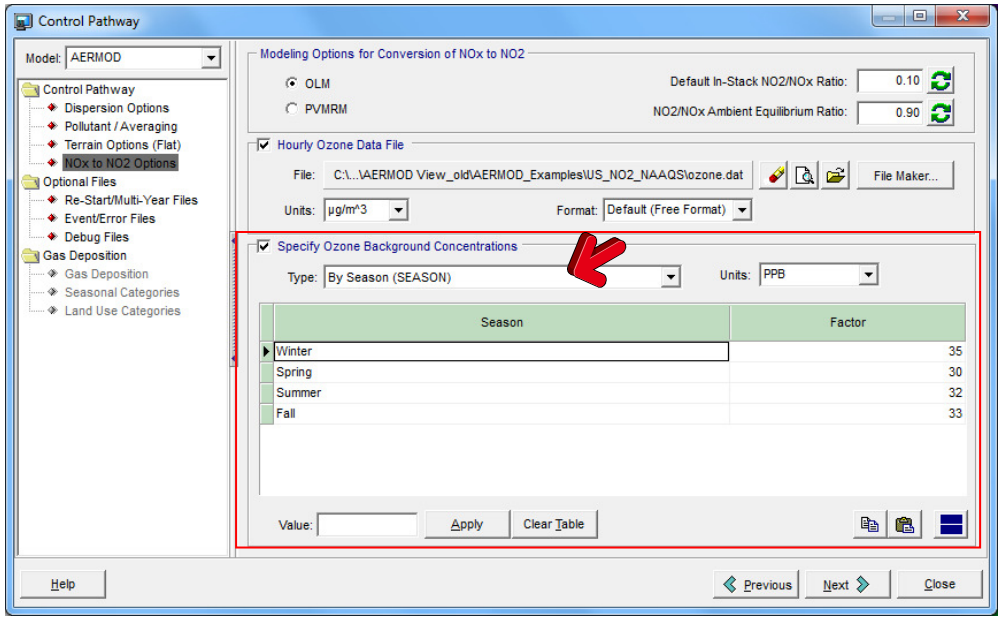
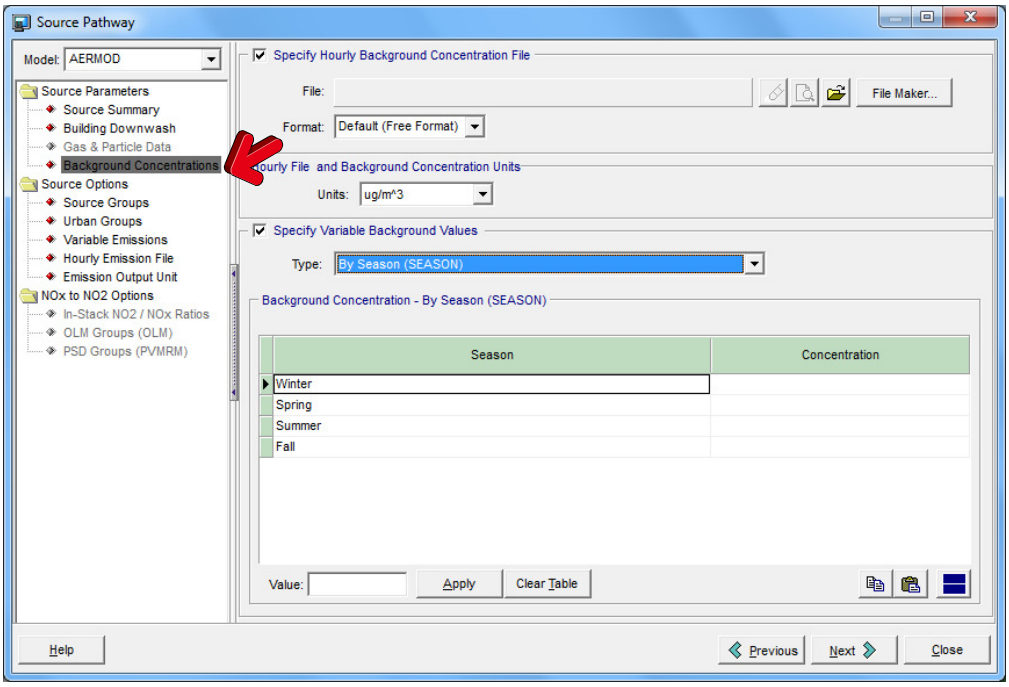
Topic	Feature Description
Control Pathway	**New Ozone Background Concentration Options** A new option to specify temporally-varying background ozone concentrations was introduced with the US EPA AERMOD Version 11059 and 11103. 

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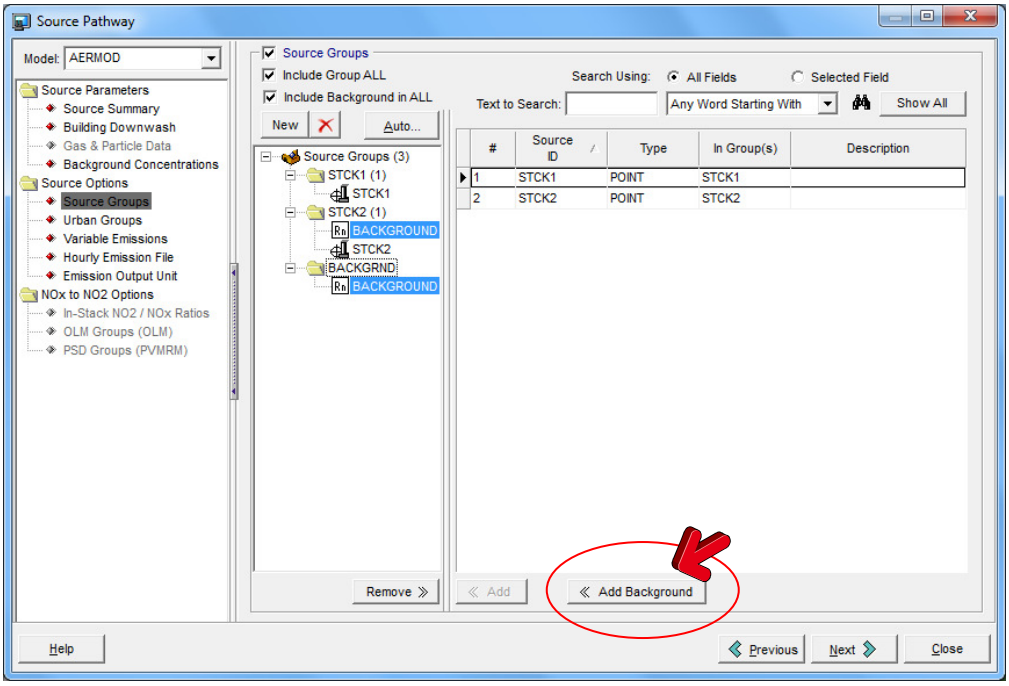
Topic	Feature Description
Source Pathway	**Additional Options for Source Groups** With the introduction of the Background Concentrations option, you can request that the special background concentration source (BACKGROUND) be included in any Source Group and/or be also included as an individual Source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

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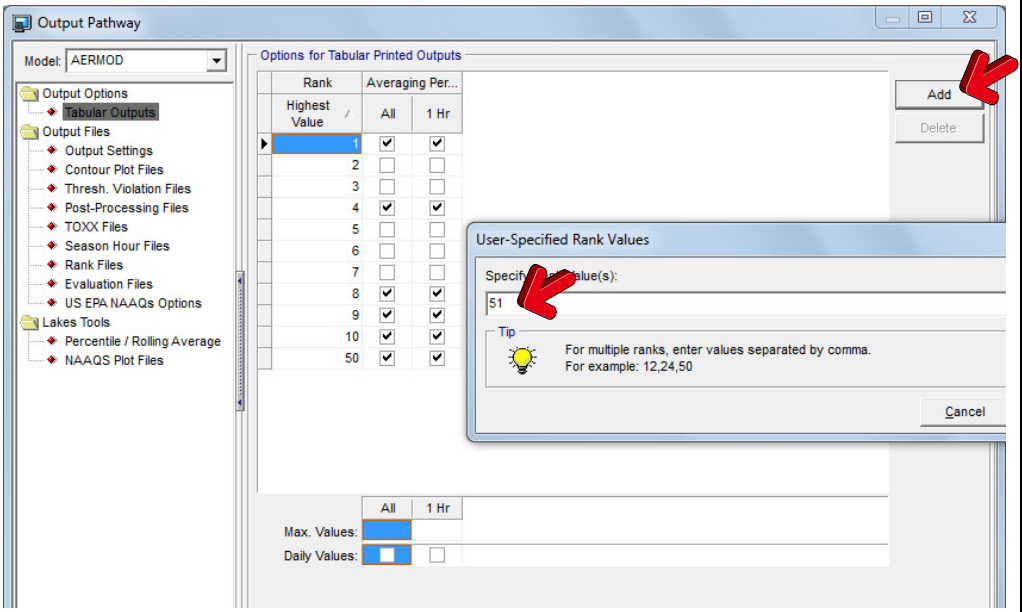
Topic	Feature Description
Output Pathway	**Highest Values Table** Introduced with AERMOD Version 11059 and 11103, you can now specify more than the 10th-highest values up to a maximum of 999th. In AERMOD View, the Highest Values table was re-designed to accommodate this new option. By default, only the 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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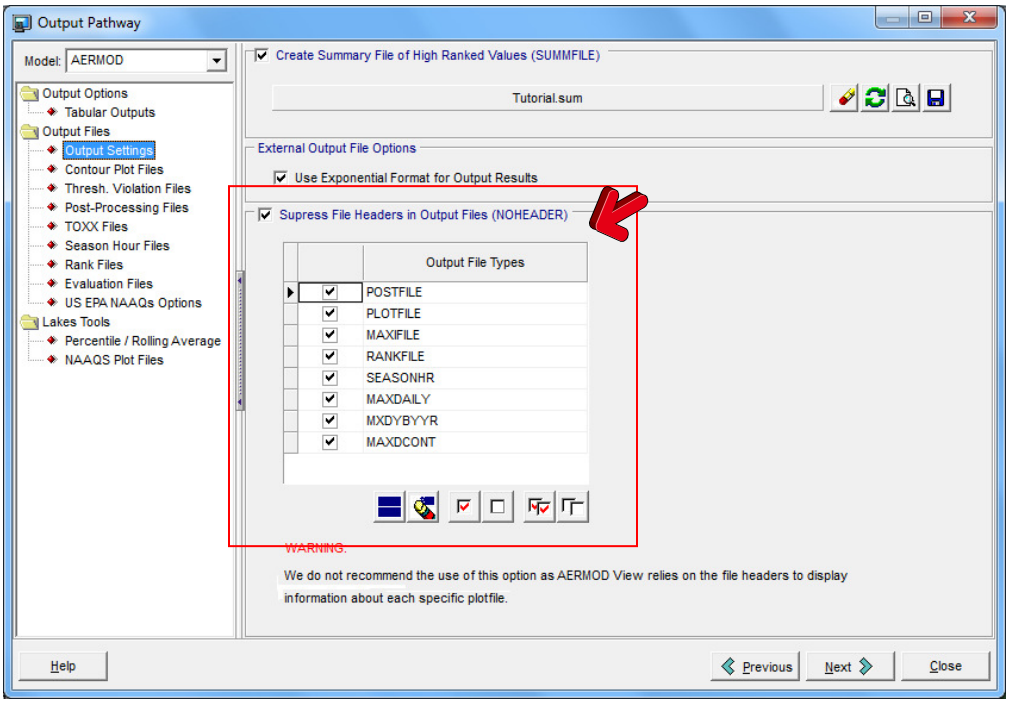
Topic	Feature Description
Output Pathway	**Additional Output Settings** The **Output Settings** window under the Output Pathway was redesigned to accommodate the new option introduced with AERMOD Version 11059 and 11103 which allows the user to suppress output file headers from several output files such 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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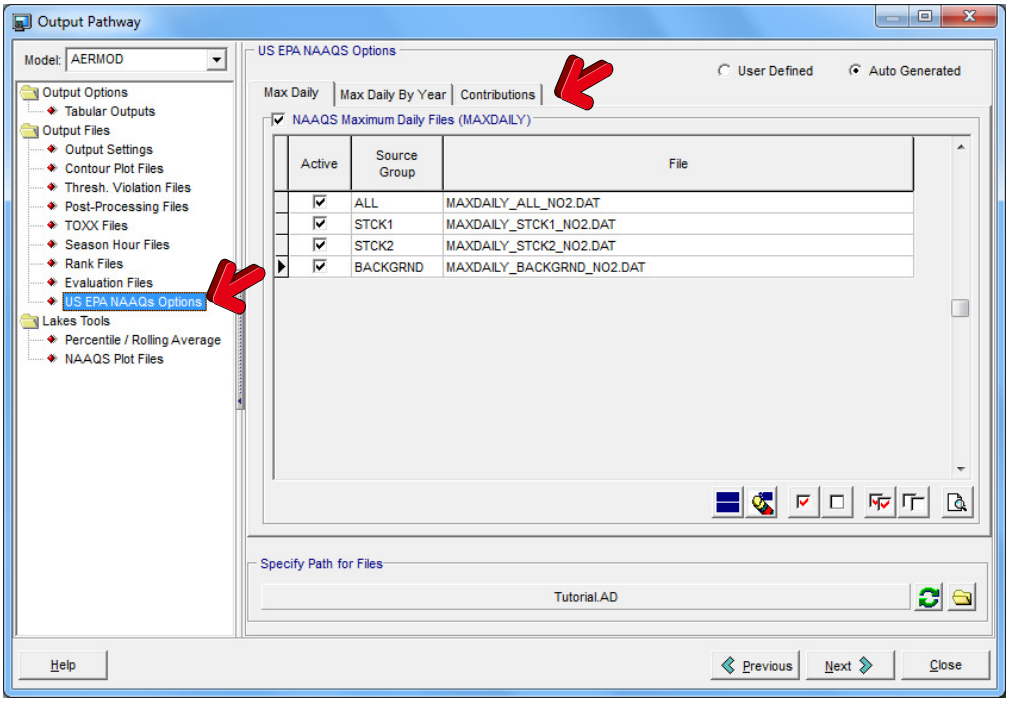
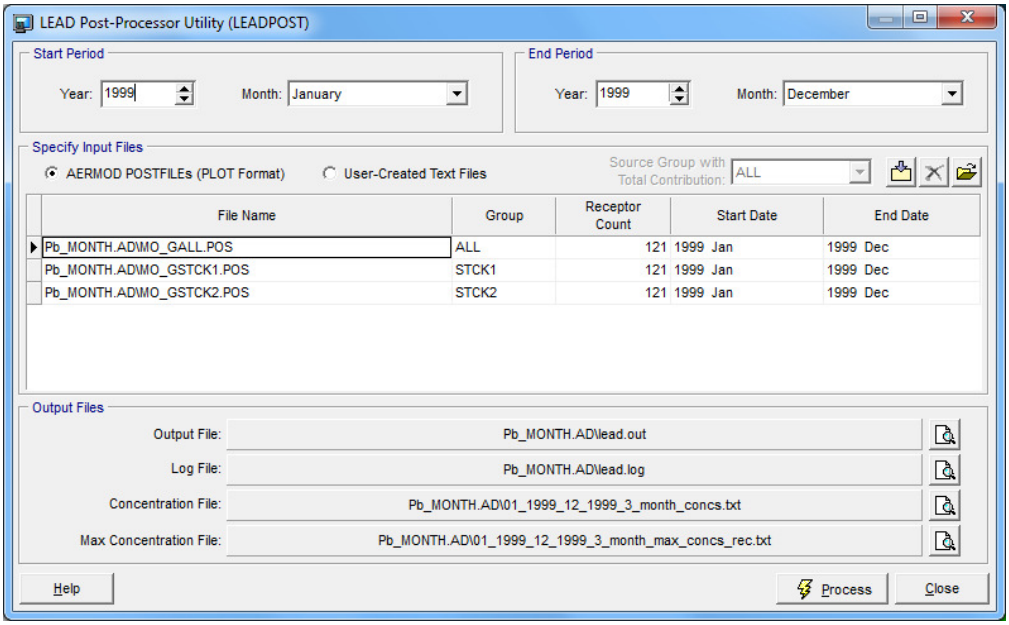
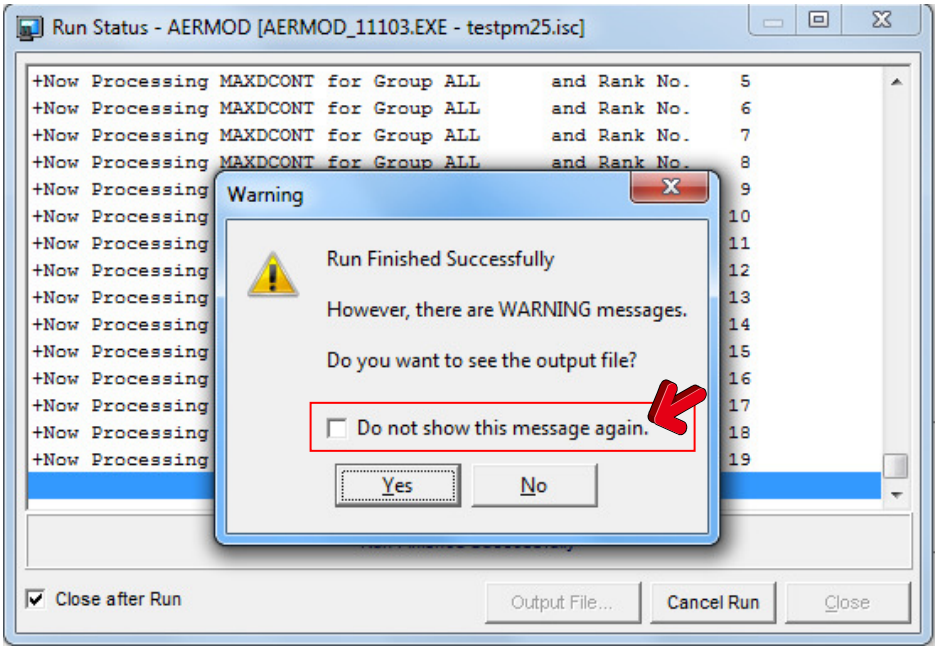
Topic	Feature Description
Output Pathway	**US EPA NAAQS Options** Introduced with AERMOD Version 11059 and 11103, three new special output file options are available that can only be used for the special processing of 1-HR SO2, 1-HR NO2, and 24-HR PM2.5 NAAQS options: 1) **MAXDAILY:** Output file of 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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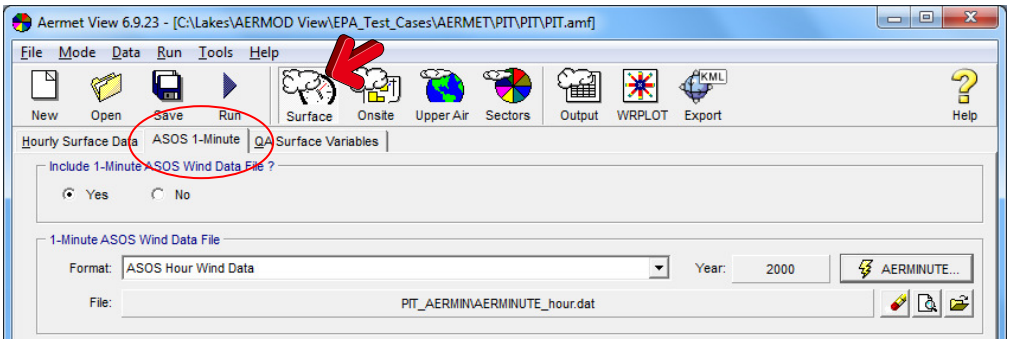
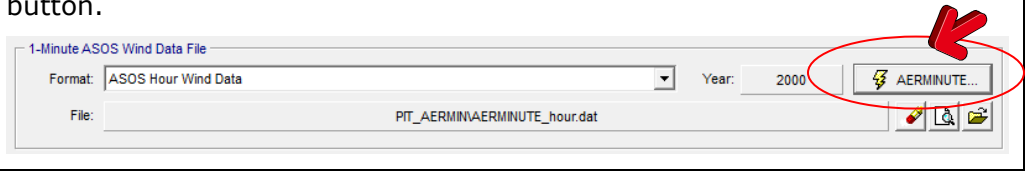
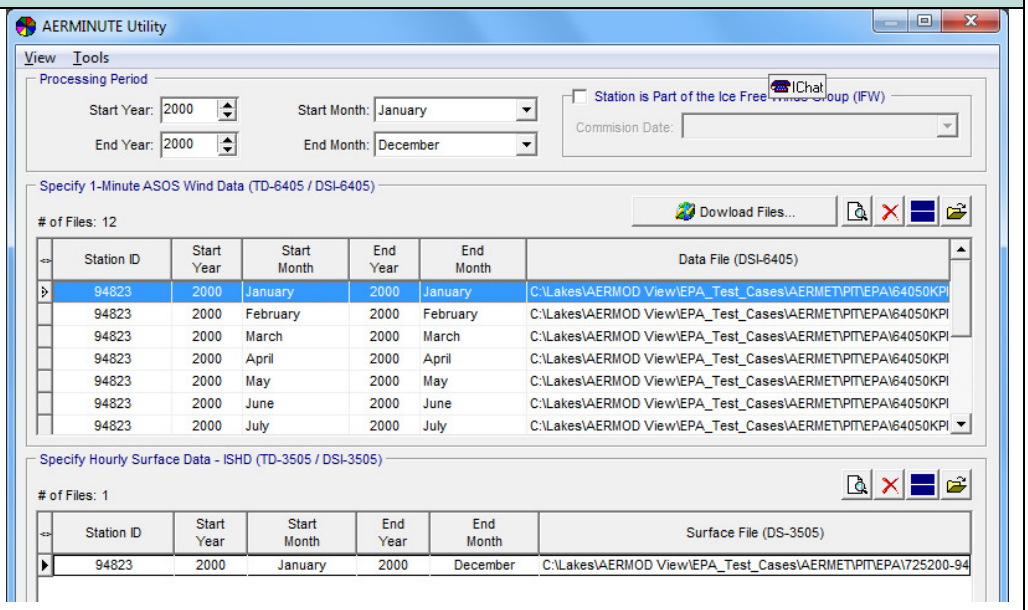
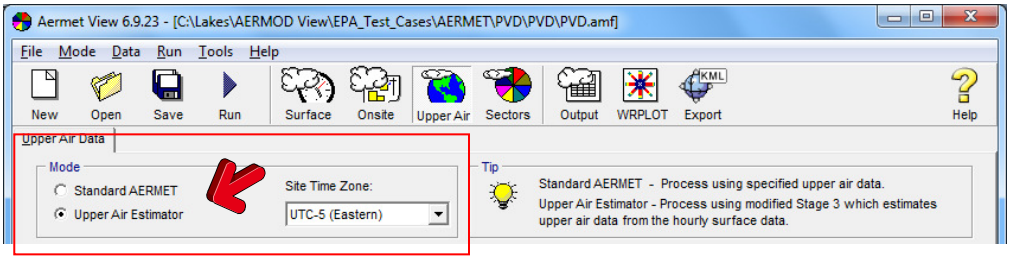
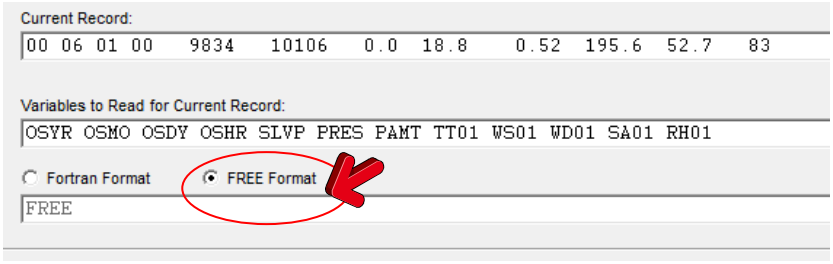
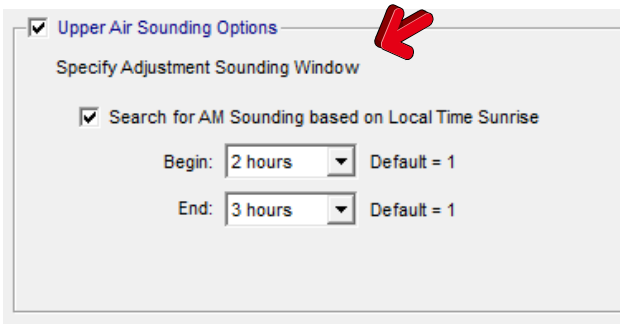
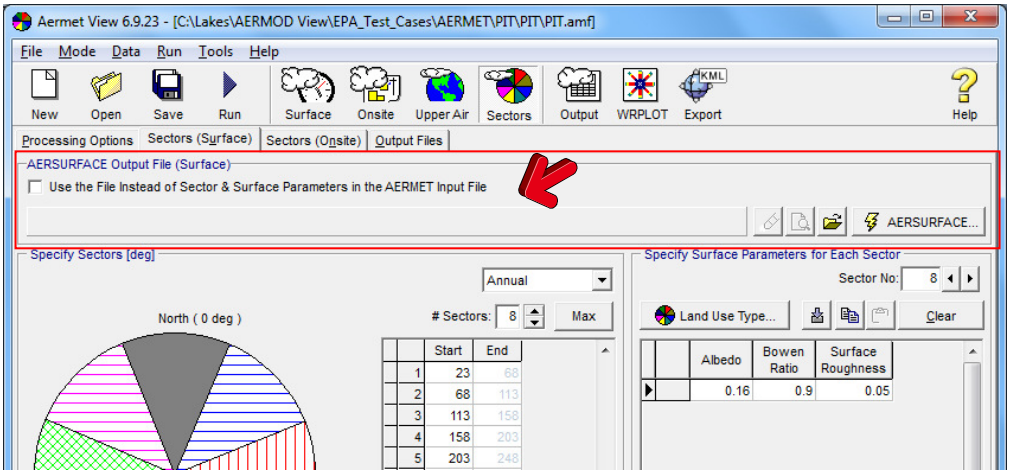
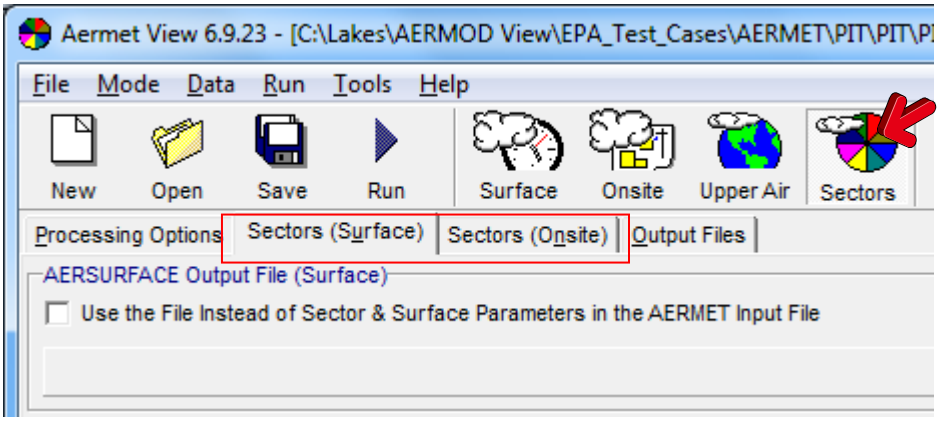
Topic	Feature Description
AERMET View	**1-Minute ASOS Data Option** Introduced with AERMET Version 11059, you can specify the hourly averaged winds derived from 1-minute ASOS wind data pre-processed by the US EPA AERMINUTE program. The hourly averaged wind speed and direction generated by the AERMINUTE 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. 

Topic	Feature Description
	

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. 

Topic	Feature Description
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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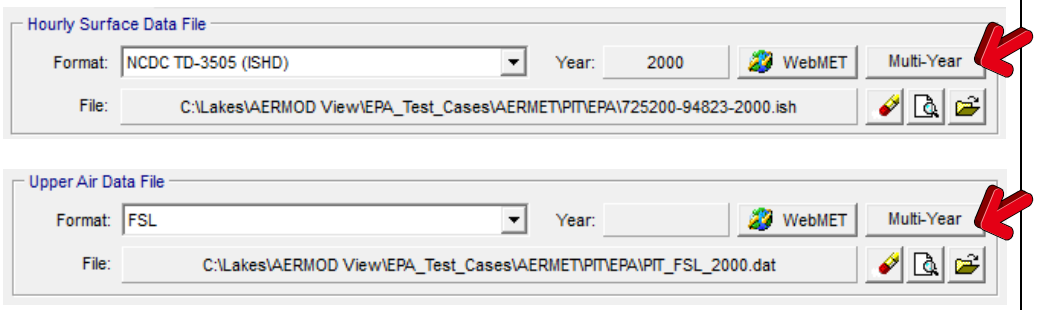
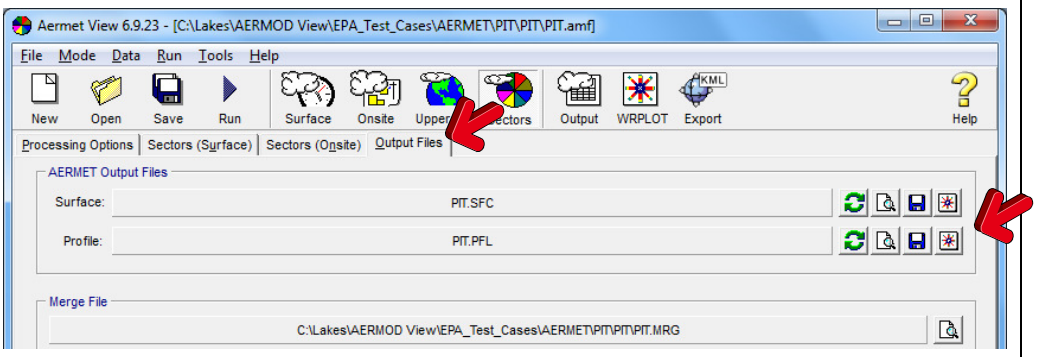
Topic	Feature Description
AERMET View	**Ability to Specify Multiple Year Files** The **Multi-Year** button for surface and upper Air files launches the **Multi-Year Data** utility from where you can select multiple files to be combined into one multi-year file. After files are combined, the multi-year 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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