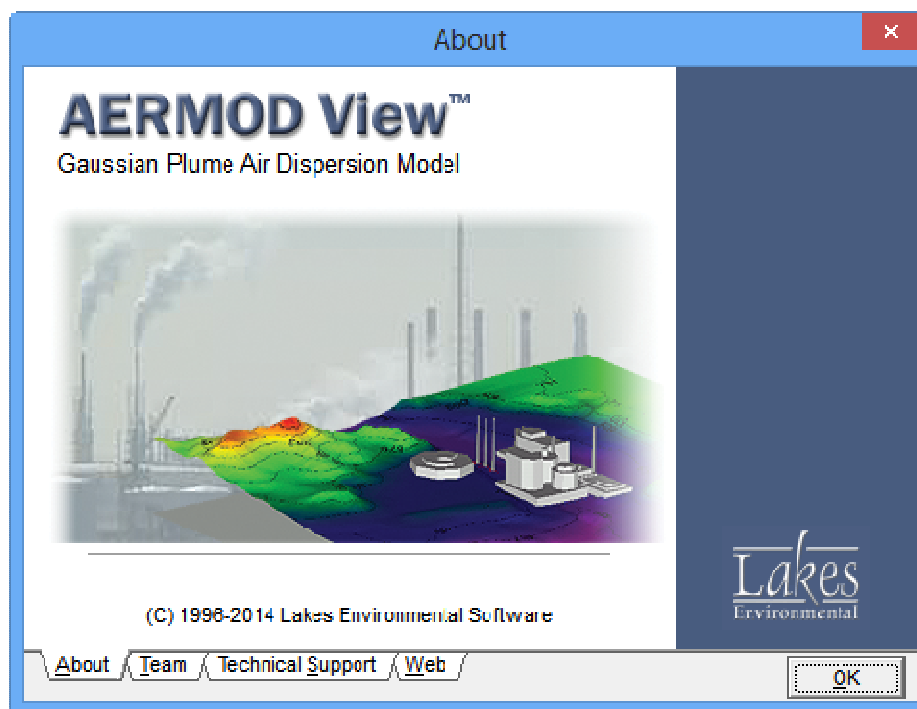# AERMOD View™

Gaussian Plume Air Dispersion Model - AERMOD

Release Notes

Versions 8.0, 8.0.5, 8.1, 8.2, and 8.5

Lakes Environmental Software
Tel: (519) 746-5995 - Fax: (519) 746-0793
E-mail: **support@webLakes.com**
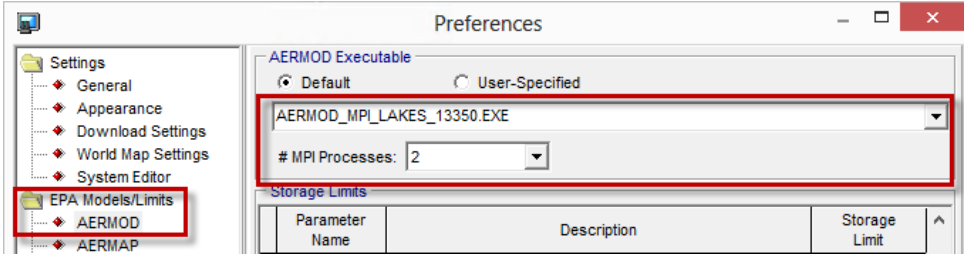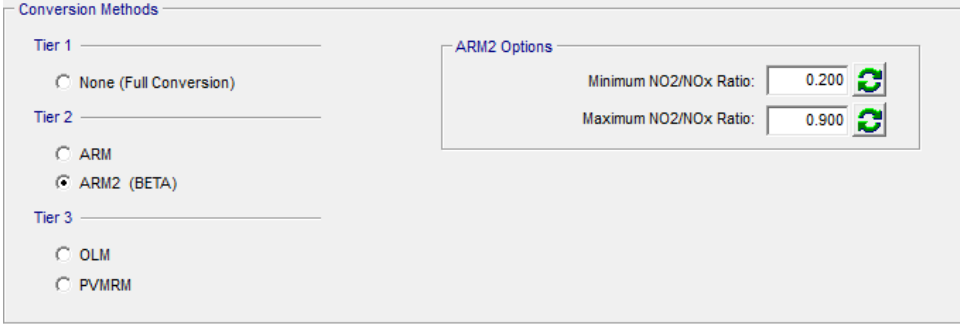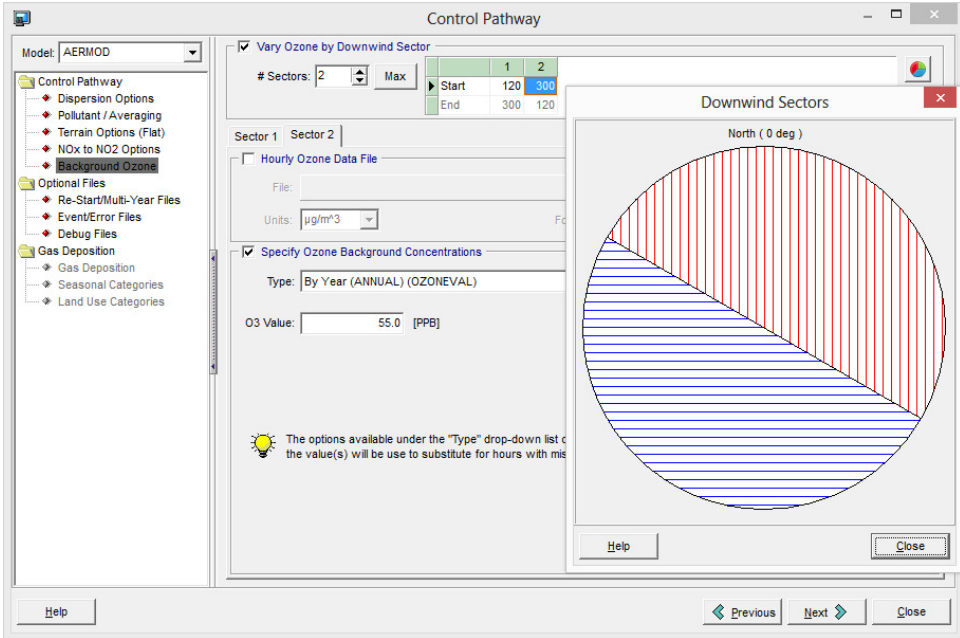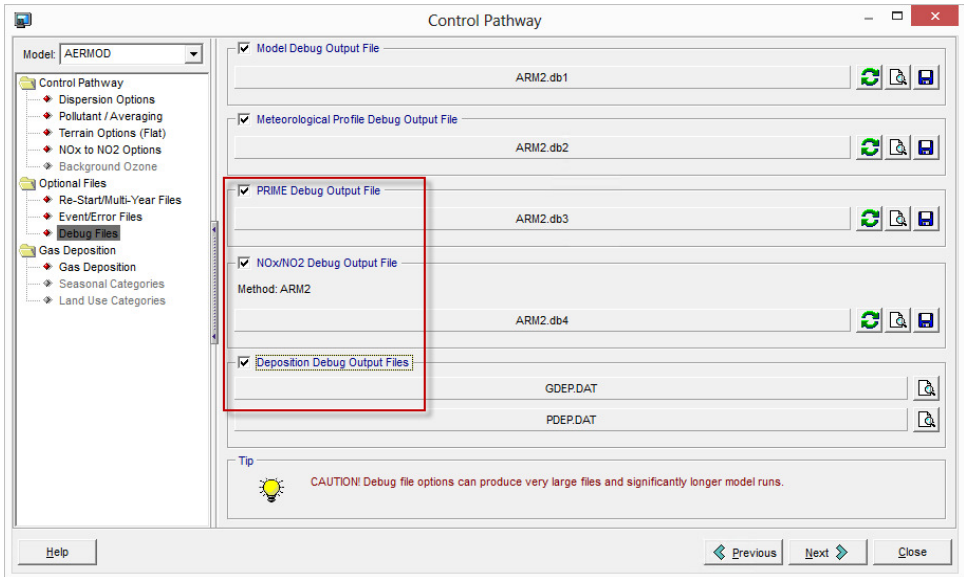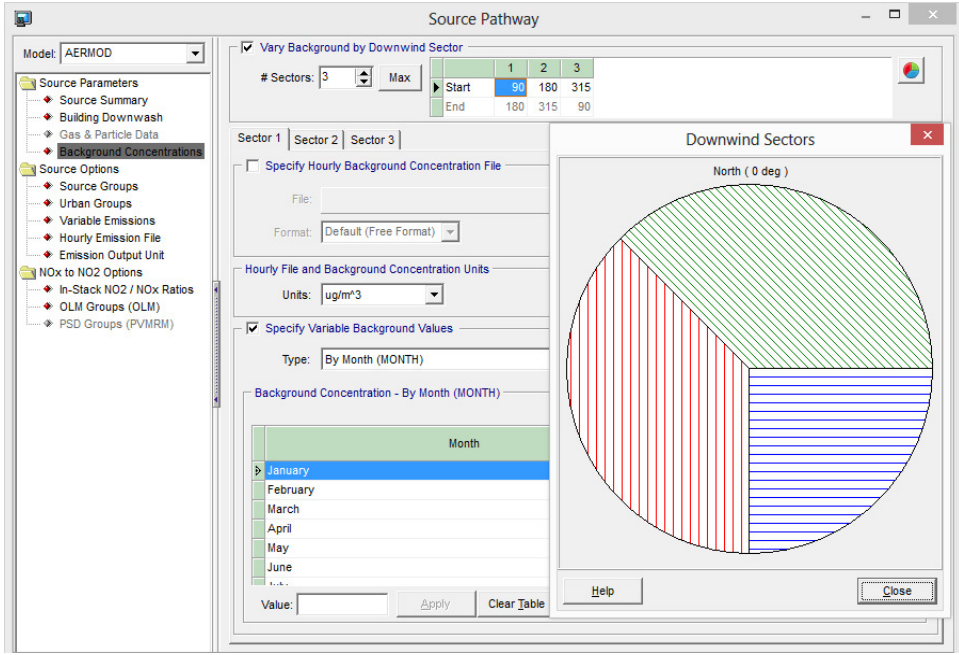Web Site: **www.webLakes.com**

AERMOD View™ Version 8.5

Release Notes

January 21, 2014
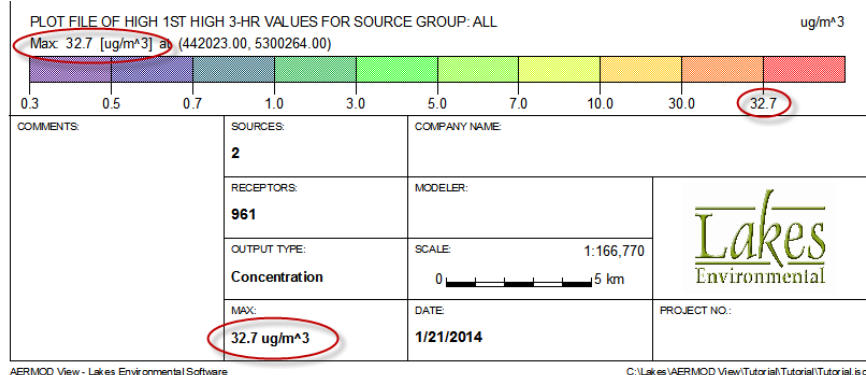
New Features

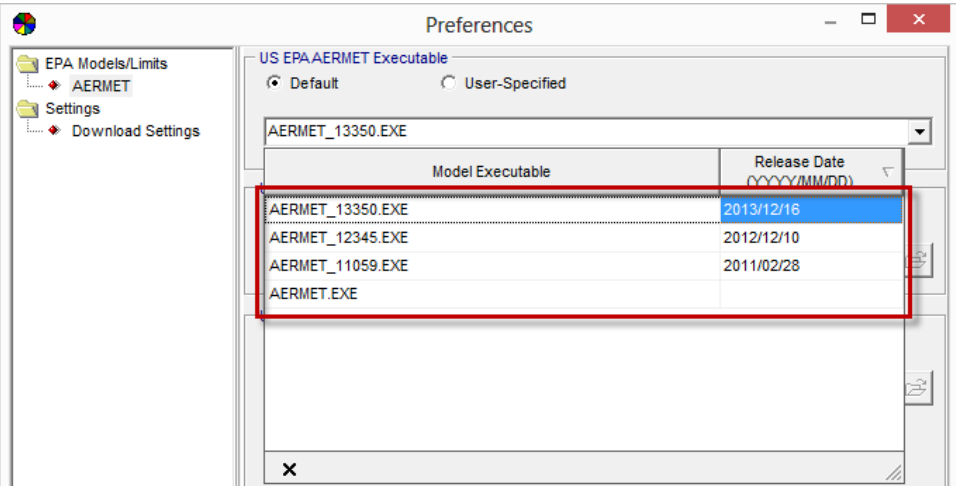| Topic	Feature Description
Models	**Latest Releases of US EPA Models Available** The following US EPA Models were released since December 2013 and are incorporated into AERMOD View Version 8.5: 1. AERMOD Model 13350 (Released Dec 2013) 2. AERMET Model 13350 (Released Dec 2013) **Note:** AERMOD 13350 **will not run** using met data created using AERMET **11059 or earlier**. Old met data must be re-processed using a more recent version of AERMET (preferably 13350), or the modeler must use an older version of the AERMOD model.
AERMOD MPI	**New Version of Lakes AERMOD MPI 13350 (Parallel Version)** A new version of the Lakes AERMOD MPI for the US EPA Model Version 13350 is now available (AERMOD_MPI_Lakes_13350.exe). You can specify to use this model under the **Preferences** dialog. **Note:** AERMOD_MPI_LAKES_13350.EXE or AERMOD_MPI_LAKES.EXE will run the latest version of the AERMOD model (13350) in parallel mode using up to a maximum of 8 cores.

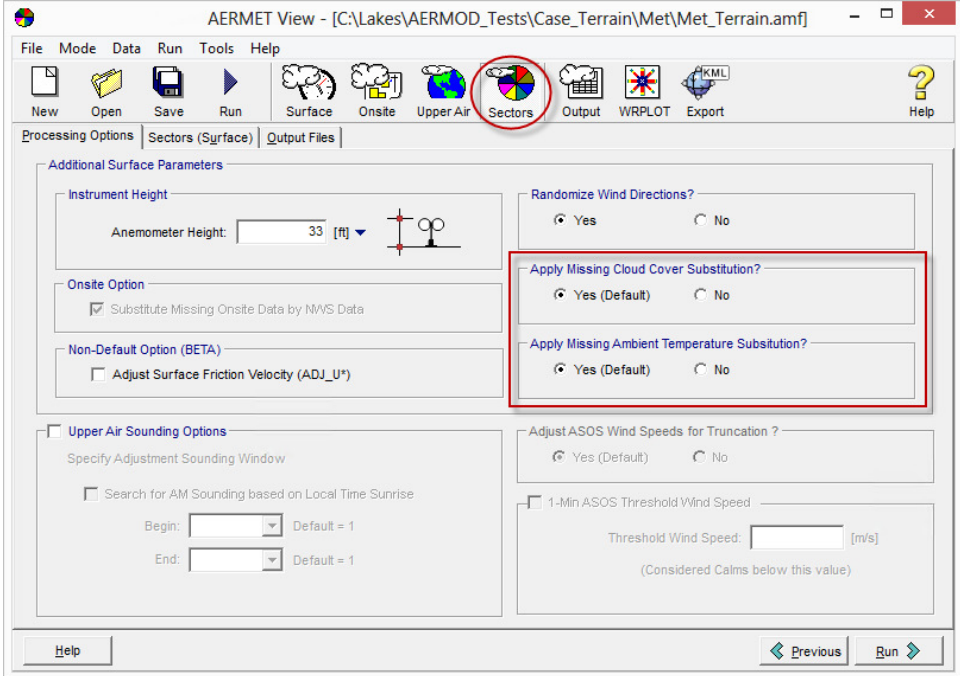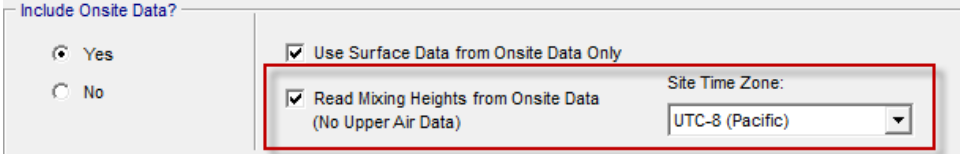| Topic	Feature Description
Control Pathway	**New NO2 Modeling Methods** The U.S. EPA incorporated two new options for modeling NO2: the **Ambient Ratio Method (ARM)** and the **Ambient Ratio Method − 2 (ARM2)**. ARM can be modeled as a Regulatory Default option while ARM2 is a non-default BETA option.
Control Pathway	**Vary Background Ozone by Downwind Sector** Introduced with AERMOD 13350, background ozone concentrations can now vary by downwind sector. Sectors are defined by the flow vector (direction the wind blows **towards**). The original background ozone variance options (including hourly emission files) are applied to each individual sector.

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Topic	Feature Description
Control Pathway	**Background Ozone Options Moved** The Background Ozone options used with the OLM and PVMRM model options have been relocated to their own window (CO Pathway – Background Ozone).
Control Pathway	**New Debug Files** Introduced in AERMOD 13350, users can now create separate debug files containing: • PRIME downwash parameters, • Gas and particle deposition output, and • NO2 model options (OLM, PVMRM, ARM, or ARM2).
Source Pathway	**Import/Export of Line Volume and Line Area Sources** Line Volume and Line Area sources can now be exported to and imported from AERMOD View projects using the Lakes Format Template source parameters spreadsheet. Details are included in the Help file.

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Topic	Feature Description
Source Pathway	**Vary Background Concentrations by Downwind Sector** Introduced with AERMOD 13350, background concentrations can now vary by downwind sector. Sectors are defined by the flow vector (direction the wind blows **towards**). The original background variance options are applied to each individual sector.
Source Pathway	**New Line Volume Source Configuration** Adds a third configuration to line volume sources: **Separated 2W**. This option follows the original ISCST3 model guidance for placement of separated volume sources (center-to-center distance = 2 * length of side). The existing **Separated** method is still available. This method places sources at the start and end nodes then calculates an even center-to-center distance for all other sources along the line.

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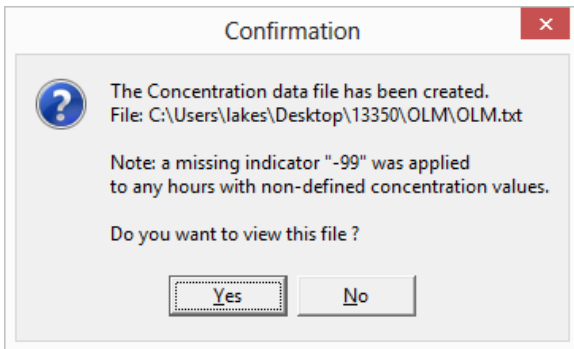| Topic	Feature Description
Source Pathway	**Modified Seasonal Labels for Southern Hemisphere** When the Map Projection is set to the Southern Hemisphere, all seasonal labels (e.g., Background Concentrations, Variable Emission Rates) are reversed and display what months apply to each value. Variable Emission Factors - by Season / Hour (Scenario 2) The Emission Factor is a multiplier of the emission rate you specified for the source Season: Summer (Dec, Jan, Feb), Fall (Mar, Apr, May), Winter (Jun, Jul, Aug), Spring (Sep, Oct, Nov); Hour (Ending of Hour Period) 01:00
Printouts	**Maximum Value Decimal Places** The maximum value field shown in the Printout is now controlled by the "No. Decimal Places" field in the **Graphical Options Contours Color Ramp** settings. The full maximum value to 5 decimal places is still displayed in the Contours Panel. PLOT FILE OF HIGH 1ST HIGH 3-HR VALUES FOR SOURCE GROUP: ALL ug/m^3 Max: 32.7 [ug/m^3] at (442023.00, 5300264.00) 0.3 0.5 0.7 1.0 3.0 5.0 7.0 10.0 30.0 32.7 COMMENTS: SOURCES: 2 COMPANY NAME: RECEPTORS: 961 MODELER: OUTPUT TYPE: Concentration SCALE: 1:166,770 0 — 5 km MAX: 32.7 ug/m^3 DATE: 1/21/2014 PROJECT NO.: AERMOD View - Lakes Environmental Software C:\Lakes\AERMOD View\Tutorial\Tutorial\Tutorial.isc
AERMOD 3D	**Visualization and Control Enhancements** The AERMOD 3D View has been updated to include several new features: • Quick-zoom to sources and buildings using new toolbar button • Introduces vertical exaggeration scale Vertical Exaggeration: 1.0 • New mouse controls: left-click and pan to change viewing angle, right-click and pan to change center point.

Topic	Feature Description
Met View	**Export SFC & PFL Files to CSV and Excel** Surface (.SFC) and Profile (.PFL) files can be exported from Met View to CSV or Excel spreadsheet. The exported file contains all column headers and unit descriptions. Export button is available in Met View window. <table><thead><tr><th></th><th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>F</th><th>G</th><th>H</th><th>I</th><th>J</th><th>K</th><th>L</th></tr></thead><tbody><tr><td>1</td><td>Year</td><td>Month</td><td>Day</td><td>Julian Day</td><td>Hour</td><td>Sensible Heat Flux</td><td>Surface Friction Velocity</td><td>Convective Velocity Scale</td><td>Vertical Potential Temperature Gradient above PBL</td><td>Height of Convectively-Generated Boundary Layer – PBL</td><td>Height of Mechanically-Generated Boundary Layer – SBL</td><td>Monin-Obukhov Length</td></tr><tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td>W/m^2</td><td>m/s</td><td>m/s</td><td></td><td>m</td><td>m</td><td>m</td></tr><tr><td>3</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>1</td><td>-13</td><td>0.236</td><td>-9</td><td>-9</td><td>-999</td><td>263</td><td>83.6</td></tr><tr><td>4</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>2</td><td>-2.1</td><td>0.054</td><td>-9</td><td>-9</td><td>-999</td><td>82</td><td>6.4</td></tr><tr><td>5</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>3</td><td>-999</td><td>-9</td><td>-9</td><td>-9</td><td>-999</td><td>-999</td><td>-99999</td></tr><tr><td>6</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>4</td><td>-4.1</td><td>0.076</td><td>-9</td><td>-9</td><td>-999</td><td>48</td><td>8.9</td></tr><tr><td>7</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>5</td><td>-12.9</td><td>0.236</td><td>-9</td><td>-9</td><td>-999</td><td>263</td><td>83.8</td></tr><tr><td>8</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>6</td><td>-4.1</td><td>0.076</td><td>-9</td><td>-9</td><td>-999</td><td>75</td><td>8.9</td></tr><tr><td>9</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>7</td><td>-12.9</td><td>0.236</td><td>-9</td><td>-9</td><td>-999</td><td>263</td><td>83.8</td></tr><tr><td>10</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>8</td><td>-8.1</td><td>0.148</td><td>-9</td><td>-9</td><td>-999</td><td>133</td><td>33.1</td></tr><tr><td>11</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>9</td><td>-4.7</td><td>0.1</td><td>-9</td><td>-9</td><td>-999</td><td>73</td><td>17.3</td></tr><tr><td>12</td><td>1986</td><td>1</td><td>1</td><td>1</td><td>10</td><td>-3.9</td><td>0.174</td><td>-9</td><td>-9</td><td>-999</td><td>167</td><td>110.4</td></tr></tbody></table>
AERMET View	**New US EPA AERMET Model Version 13350** On December 16, 2013, the US EPA released a new version of the AERMET model (13350). For a complete description of the changes, please see the US EPA Model Change Bulletin #4 (MCB#4).

Topic	Feature Description
AERMET View	**Preferences Option for AERMET Model Version** AERMET 13350 was added as the default model version. The **Preferences** menu was modified to include a drop-down menu for model executable selection. You can select from AERMET 13350 (the default and recommended), AERMET 12345, or AERMET 11059. The AERMET View **Project Status** dialog will display the model version being used when you run AERMET. **Note:** The option to select AERMET 11059 is still available in the AERMET View interface for backward compatibility; however modelers should always use the latest versions of the US EPA models.

Preferences

EPA Models/Limits
　　◆ AERMET
Settings
　　◆ Download Settings

US EPA AERMET Executable
⦿ Default   ○ User-Specified

AERMET_13350.EXE

Model Executable	Release Date (YYYY/MM/DD)
AERMET_13350.EXE	2013/12/16
AERMET_12345.EXE	2012/12/10
AERMET_11059.EXE	2011/02/28
AERMET.EXE	

Topic	Feature Description
AERMET View	**Cloud Cover and Temperature Substitution Options** Introduced with AERMET 13350, the model will substitute ambient temperature and cloud cover across 1- and 2-hour gaps. Both options are enabled by default when only one of the Surface and Onsite pathways is used. When both Surface and Onsite pathways are used, the options are disabled by default.
AERMET View	**Use Onsite Pathway Only** AERMET 13350 allows users to bypass the Upper Air pathway entirely when mixing heights are read from Onsite data. Users must specify the local time zone for the modeling site when using this option.

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Topic	Feature Description
AERMET View	**Sectors Modifications** The **Sectors** options have been modified to make inputs more transparent for projects located in the Southern Hemisphere where seasons are reversed from AERMET defaults. • The Hemisphere (North or South) is noted • Season definitions are now listed as the month range instead of the season name.
AERMET View	**Added Version and Date Period Details** The **Output Files** tab now includes version number and options, selected model options, start date, and end date for the Surface and Profile files.
AERMET View	**Upper Air Estimator Updated for AERMET 13350** Lakes Environmental Upper Air Estimator tool was updated for compatibility with the latest release of the US EPA AERMET 13350.

Fixed Issues

Topic	Issue Description
Save Project As	**Renamed Met Data Files** When meteorological data files had an identical name to a project, the file names were changed when running the Save Project As menu option. The option now maintains the original path to the met data files.
Control Pathway	**Ozone File Maker Update** The "Auto Populate for Missing Hours" option in the Hourly Ozone Concentration File Maker utility was removed. When building the file, the utility automatically adds a missing indicator (-99) to all blank cells.
Source Pathway	**Gas & Particle Data Fixes** Fixed a bug which did not write deposition parameters to sources with IDs longer than 10 characters. Also fixed an issue with the Copy and Paste functions.
Source Pathway	**Line Volume Source Coordinates** Expanded the number of source node coordinates written to the model input file so coordinates of individual sources along the line can be recreated.
Reports	**Missing Fields** Fields like Pollutant Type in the Control Pathway report went missing for certain values. This has been fixed.
Contours Panel	**Shortened Plotfile List** Removed the full project folder path from the Plotfile List menu to make file names shorter. Previous versions occasionally had issues with paths that extended beyond the available space.
Color Ramp	**Duplicate Title** Fixed an issue with the original Color Ramp title remaining after renaming.
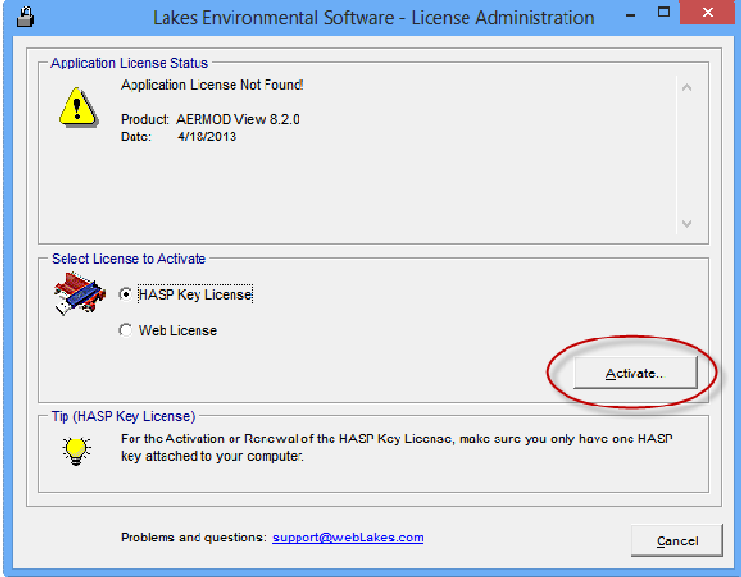
Topic	Issue Description
WRPLOT View	**Miscellaneous Updates** Updates include: • New default "Files of type" set to All Files when adding files • Setting Wind Classes display to show 2 decimal places and refined conversions between m/s and knots. • Bug fixes to the Data File Info panel when multiple files or years of data are analyzed. Fixes include displaying the proper number of missing records and total number of hours when the Date Range is modified. • Inclusion of February 29 in the Specify Days option when a leap year is present. • All percentages normalized to the total number of hours. Previous versions would correct calm frequencies to remove missing records. • Modification to reading TD-3505/ISHD files to match code from AERMET. The program now reads observations found between :30 of the previous hour and :01 of the current hour. • Added XLSX support to the Import Surface Data from Excel utility. • Modifications to the Years and Time Range fields to allow subsets of multiple years and overnight hours to be analyzed.
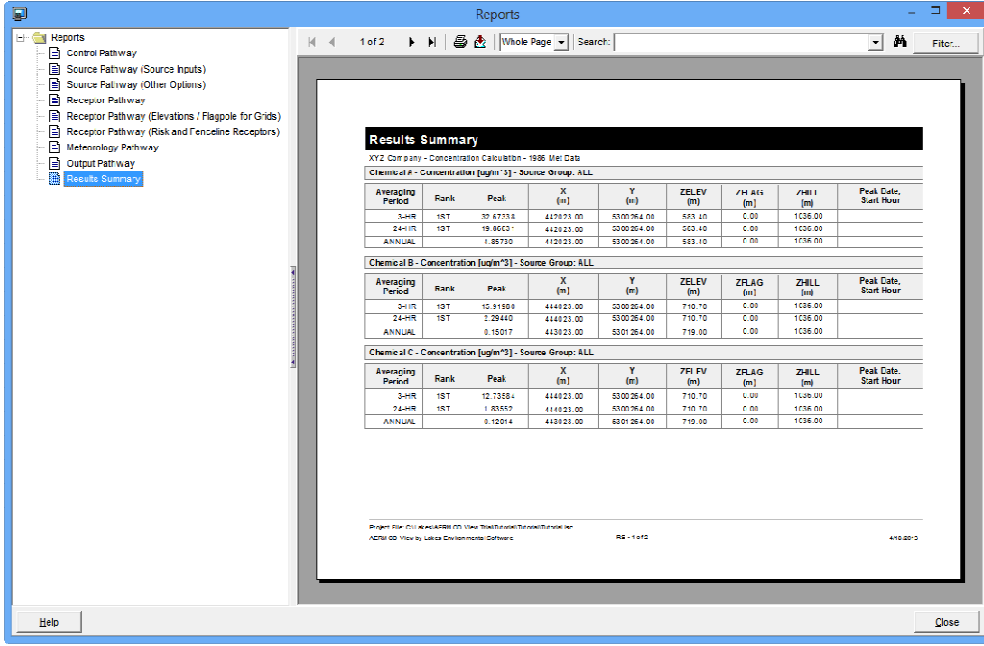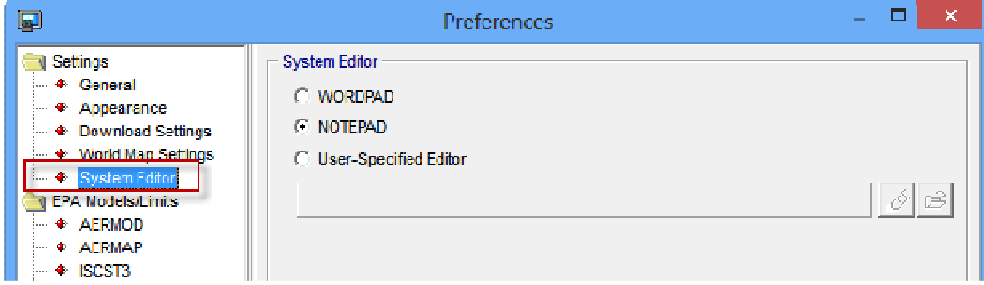
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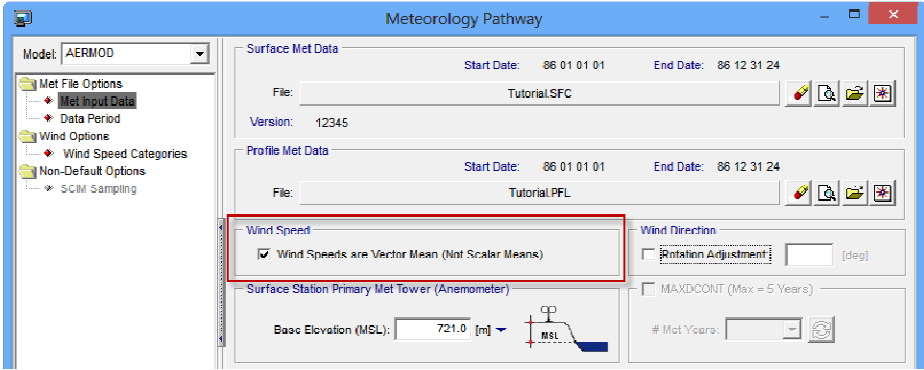
Release Notes
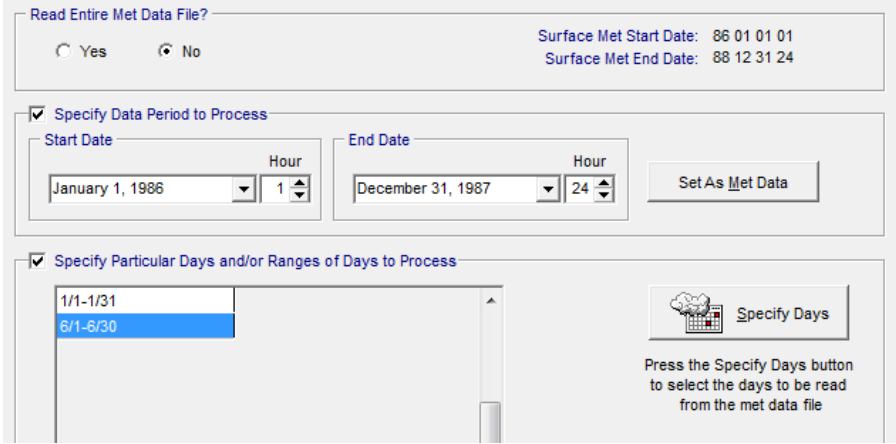
April 18, 2013

New Features

Topic	Feature Description
Install	**Web License Automatically Deactivated During Uninstall** If you have a Web License and you uninstall AERMOD View using the uninstall feature from the Windows Control Panel then your web license will be automatically deactivated as long as an internet connection was available during the uninstall.
HASP License	**HASP Key License Requires Update** AERMOD View Version 8.2 requires the renewal/update of the HASP Key License. If you are under current maintenance and you have the HASP Key license, than you will receive your HASP renew code with the release email. Instructions on how to update/activate your HASP Key license are provided in the installation instructions document available in the update site.

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Web: www.webLakes.com

Topic	Feature Description
Reports	**Updated Reports Template and New Results Summary** The Reports template was updated to include new model features. The **Results Summary** was also added for standard or multi-chemical runs. The report contains tables summarizing model output concentrations or deposition fluxes.
Preferences	**Select Default Text Editor** Users can now specify the default text editor for opening project input and output files under the **File	Preferences** options.

Topic	Feature Description
Labels	**Control Labels for Large Numbers of Objects** Previous versions of AERMOD View restricted control of individual labels to the first 1,000 objects of a single type for performance purposes. Users can now select the "Show All" checkbox on the Labels Tree Menu to control individual labels of all objects.
Base Maps	**Transparency Option for Raster Images** Users can set image transparency when importing raster image base maps.
Source Pathway	**NO2/NOx Ratios for Line-Area and Line-Volume Sources** In-Stack NO2/NOx ratios are now available for Line Area and Line Volume source types. The specified ratio applies to all sources in the line.
Source Pathway	**Improved Error Handling When Importing Deposition Data** A list of errors is available when importing deposition parameters to the Gas & Particle Data source options.
Met Pathway	**Updated Vector Mean Wind Option** Enabled the "**Wind Speeds are Vector Mean**" option for default and non-default control options. This option was moved from the Control Pathway window to the Meteorology Pathway window.

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Topic	Feature Description
Met Pathway	**Expanded Data Period Options** The "Specify Data Period to Process" and "Specify Particular Days and/or Ranges of Days to Process" can now be used simultaneously.
Details	**Incomplete Project Message with Incompatible Met Data** An error message is issued if met data processed using the 06341 version of AERMET (or earlier) is input when using the AERMOD 12345 executable.
AERMET View	**XLSX Support in the Import Surface Data from Excel Tool** Users can now input XLSX files to the **Import Surface Data from Excel** utility to support larger datasets (>65536 rows).

Fixed Issues

Topic	Issue Description
Control Pathway	**Fixed BETA Options Error** Fixed an issue where the program looked for user-specified Low Wind Parameters associated with LOWWIND2 even when the LOWWIND1 option was selected.
Source Pathway	**Display Base Elevation for Line-Area Sources** Fixed an issue in the Source Summary table where the Base Elevation column was empty for Line Area sources.
Source Pathway	**Corrected Source Import for Line-Area Sources** The Import Sources routine was fixed to properly import all source parameters from Line-Area source types.
Risk Mode	**Various Risk Mode Options** • Multi-Tier grid not displayed when created using the **Risk Mode | Risk Grid...** menu option. • Copy-and-paste functions of **Risk Emission Phase Data** menu were not working properly.
Terrain Processor	**Error Converting NED GridFloat to GeoTIFF** A component was missing that was necessary for converting NED terrain data downloaded from WebGIS from its native GridFloat format to the AERMAP-accepted GeoTIFF format. The missing component is now included in the install package.
Multi-Chemical Utility	**Urban Groups with Line-Area and Line-Volume Sources** Resolved an issue where the URBANSRC keyword was not correctly applied to line sources.
AERMET View	**Multiple STABLEBL Keywords** AERMET View now accepts the BETA adjust U* option and the ONSITE Bulk Richardson Number scheme option in the same run. The previous release only allowed the STABLEBL keyword to be used once.
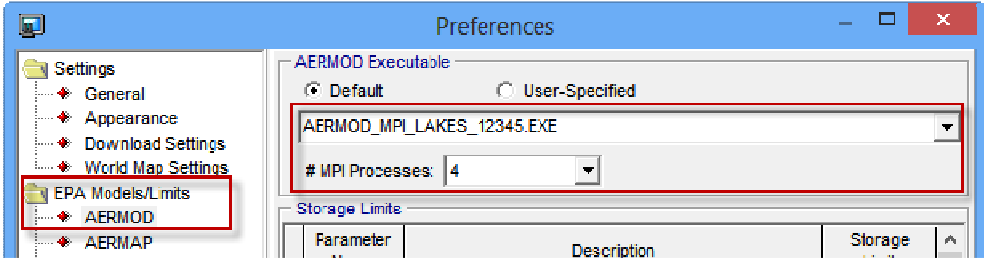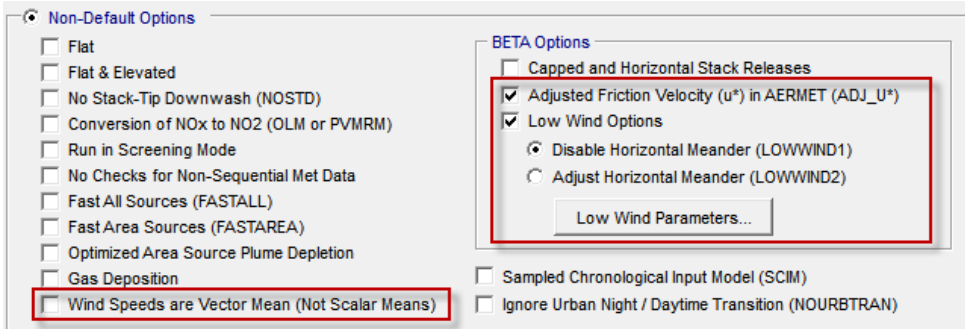
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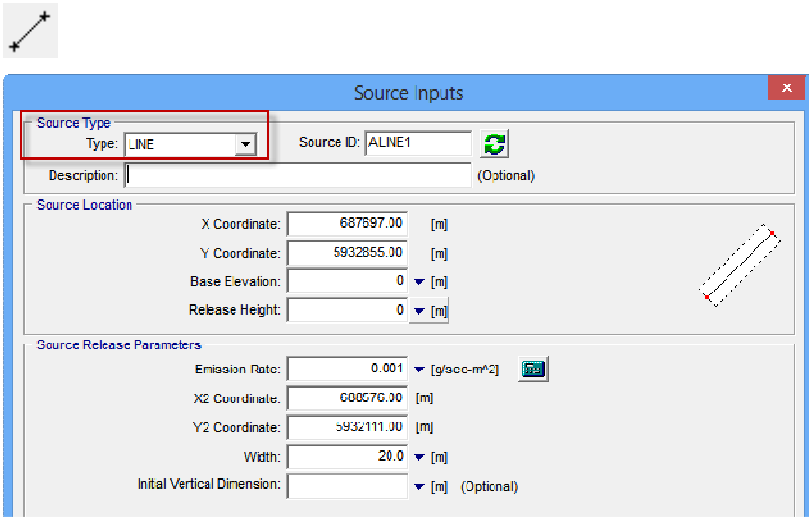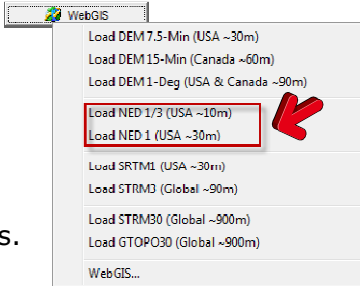
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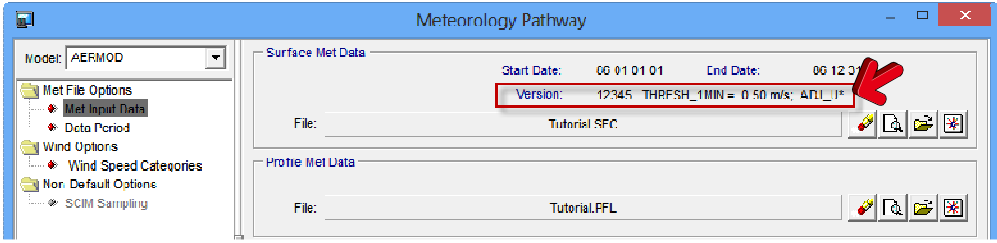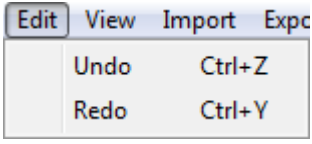
January 25, 2013
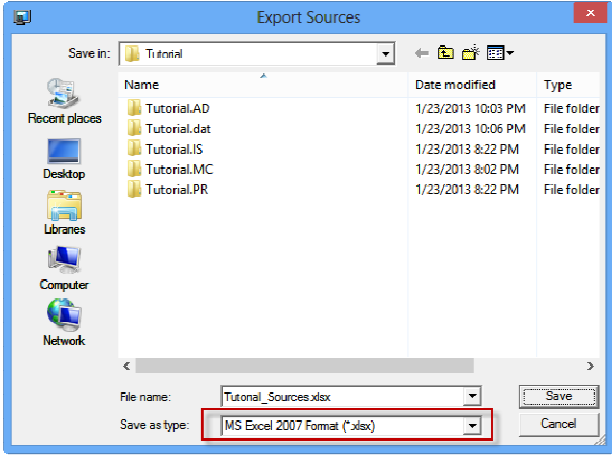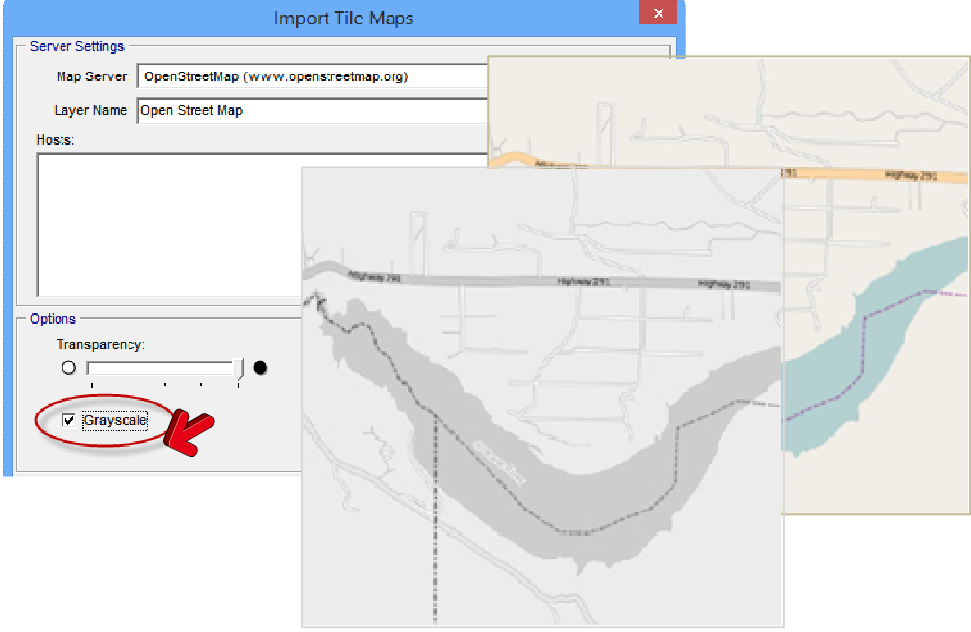
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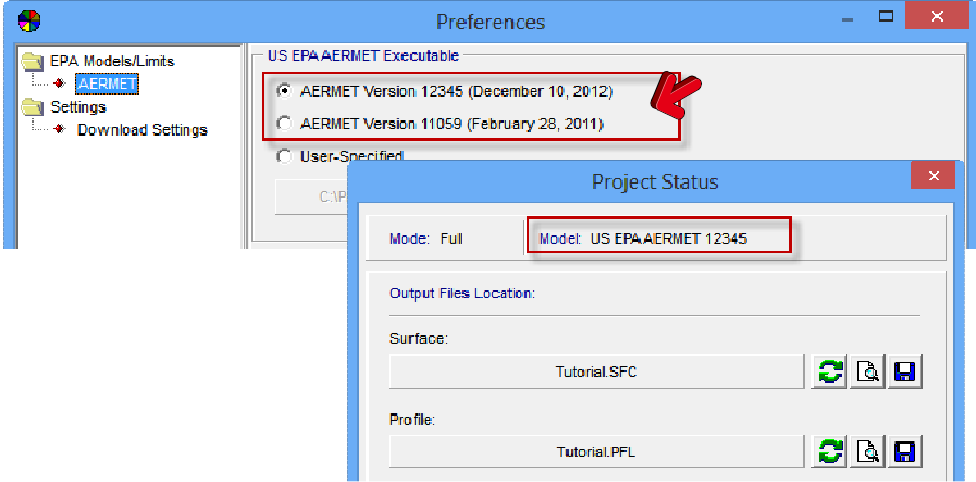
Topic	Feature Description
Install	**Compatibility with Windows 8, 32-Bit and 64-Bit** AERMOD View Version 8.1 is compatible with Microsoft Windows 8, 32-bit and 64-bit versions. AERMOD MPI (Parallel Version) requires the installation of MPICH2, which requires that .NET Framework 3.5 is installed in your computer. As opposed to Windows 7 and XP, Windows 8 does not automatically install .NET Framework 3.5. The user must manually select it before installing MPICH2 1.4.1. Instructions are provided in the AERMOD View Installation Notes.
Models	**Latest Releases of US EPA Models Available** The following US EPA Models were released since Dec/2012 and are incorporated into AERMOD View Version 8.1: 3. AERMOD Model 12345 (Released Dec 2012) 4. AERMET Model 12345 (Released Dec 2012) 5. AERSURFACE Model 13016 (Released Jan 2013)
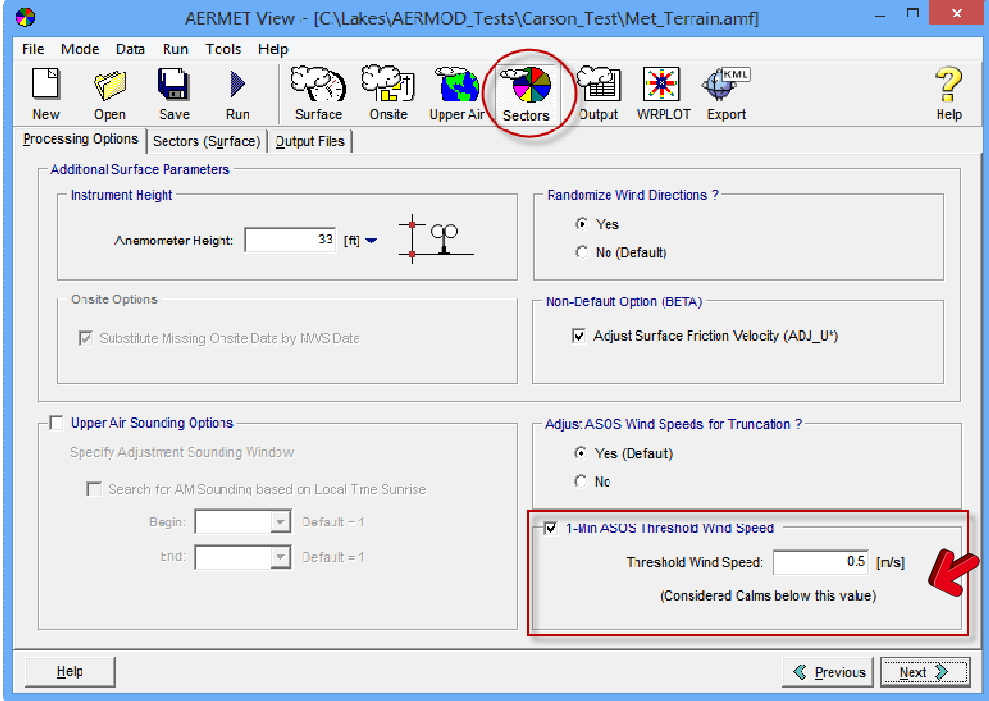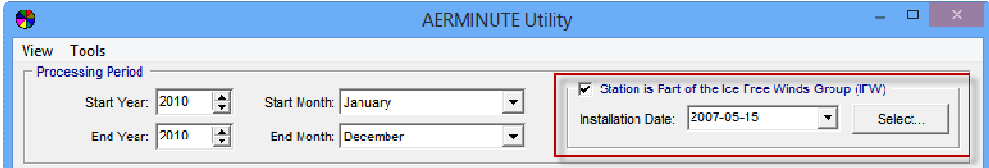
Topic	Feature Description
AERMOD MPI	**New Version of Lakes AERMOD MPI 12345 (Parallel Version)** A new version of the Lakes AERMOD MPI for the US EPA Model Version 12345 is now available (AERMOD_MPI_Lakes_12345.exe). You can specify to use this model under the **Preferences** dialog. **Note:** AERMOD_MPI_LAKES_12345.EXE or AERMOD_MPI_LAKES.EXE will run the latest version of the AERMOD model (12345) in parallel mode using up to a maximum of 8 cores.
Control Pathway	**New Non-Default Options in Control Pathway** New Non-Default BETA options have been added to the Control Pathway supporting the new options introduced in the US EPA AERMOD Model 12345. These options address model performance concerns in low wind speed conditions: • METHOD STABLEBL ADJ_U*: adjust surface friction velocity. • LOWWIND1: increases minimum horizontal turbulence and turns off horizontal plume meander. • LOWWIND2: increases minimum horizontal turbulence and incorporates a modified meander component. Users can input a user-specified minimum sigma-v, minimum wind speed, and maximum meander factor in conjunction with the LOWWIND1 and LOWWIND2 options. An additional option was introduced that allows users to specify that input wind speeds are vector means not scalar means.
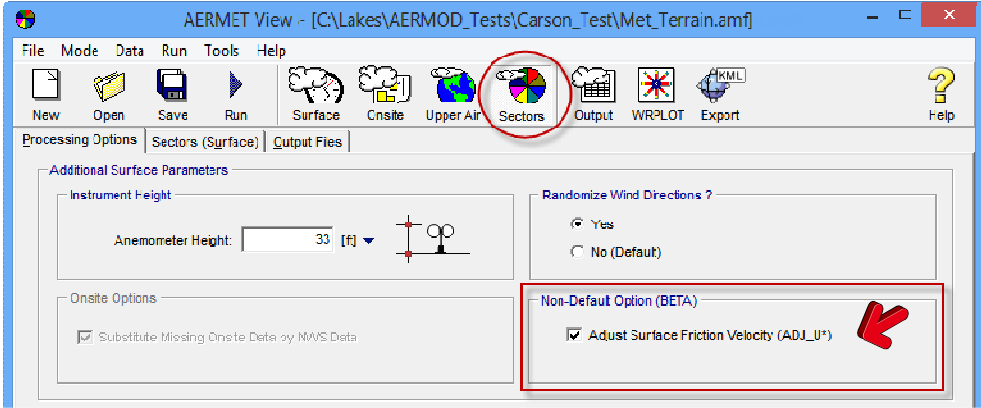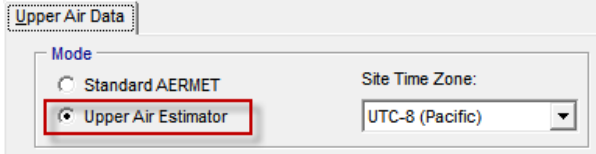
Topic	Feature Description
Source Pathway	**New Line Source Type Introduced** A new source type, LINE, was introduced in the US EPA AERMOD Model 12345. This new LINE source is an alternative to the current AREA source type for rectangular sources. The LINE source type, specified as 1 line segment with start/end points and width, utilizes the same routines as the AREA source type, and will give identical results for equivalent source inputs. A graphical tool was implemented in AERMOD View for this new source type.
Terrain Processor	**Updates to the Download of NED Terrain Data** The feature to download NED terrain data from the USGS site, introduced in AERMOD View Version 8, was updated. Beginning December 18, 2012, the USGS National Map Server no longer offers download of NED data in GeoTIFF format, which is the format accepted by AERMAP. NED 1 and 1/3 arc-second data is now only available through 1- degree tiles in ArcGrid and GridFloat formats. Lakes Environmental incorporated in AERMOD View 8.1 a seamless conversion of downloaded 1-degree GridFloat tiles into the GeoTIFF format. Note: Support for non-CONUS areas (Hawaii, Alaska, and Puerto Rico) was also implemented.

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Topic	Feature Description
Met Pathway	**Version and Processing Parameters Shown** Under the Met Pathway, the Version number of the specified Surface Met file (*.SFC) will be displayed for your verification (e.g., Version 12345). This version corresponds to the US EPA AERMET version that was used to preprocess the met file. If you preprocessed your met data using the new AERMET options introduced in version 12345 (THRESH_1MIN and ADJ_U*), then these options will also be indicated after the version number.
General	**Options to Undo/Redo Changes** You can now **Undo** or **Redo** Move/Rotate/Resize changes to graphical model elements (e.g. annotations) using the **Edit | Undo** and **Edit |Redo** options.
Import/ Export	**Updated Functionality for Import/Export of Excel Files** Previous versions of AERMOD View required that you have Microsoft Excel installed in your computer in order to use the Import/Export from Excel file (*.XLS) functionality. Starting with AERMOD View 8.1, you no longer need to have Excel installed on your machine.

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Topic	Feature Description
Export	**Support for Excel *.XLSX Format** The number of columns supported for the import/export of source parameters (specifically related to X,Y coordinates for polygonal area sources with many vertices) was limited to 256 columns which is a limitation of Excel 2003 (*.xls). In AERMOD View 8.1 during export you can select to save the data as an MS Excel 2007 Format (*.xlsx) which allows for more than 256 columns.
Base Maps	**Grayscale Option for Tile Maps** You can now select to import Tile Maps in grayscale instead of in color.

Topic	Feature Description
AERMET View	**New US EPA AERMET Model Version 12345** On December 17, 2012, the US EPA released a new version of the AERMET model (12345). For a complete description of the changes, please see the US EPA Model Change Bulletin #3 (MCB#3).
AERMET View	**New US EPA AERSURFACE Version 13016** On January 18, 2013, the US EPA released a new version of AERSURFACE (13016). This latest EXE is now part of AERMOD View 8.1 and it is used by default. This new version contains bug fixes and enhancements within the code. For a complete description of the changes, please see the US EPA Model Change Bulletin #1 (MCB#1). **Note:** Changes incorporated into the US EPA AERSURFACE 13016 are only internal to the code. The AERSURFACE interface options within AERMET View remain the same.
AERMET View	**Preferences Option for AERMET Model Version** Under the **Preferences** dialog, you have the option to select the US EPA AERMET version you want to run: AERMET 12345 (the default and recommended) or AERMET 11059. The AERMET View **Project Status** dialog will display the model version being used when you run AERMET. **Note:** The option to select AERMET 11059 is still available in the AERMET View interface for backward compatibility; however modelers should always use the latest versions of the US EPA models.

Topic	Feature Description
AERMET View	**Threshold Wind Speed Option for AERMINUTE Output** Introduced with AERMET 12345 is the option to specify a wind speed threshold for 1-minute ASOS winds output by AERMINUTE. This value will be used by AERMET in Stage 3. There is no default value; however, a warning message will be generated if the user-specified threshold is greater than 0.5 m/s, and a fatal error message will be generated if the user-specified threshold is less than zero or greater than 1.0.
AERMET View	**AERMINUTE – IFW Installation Date** Now the AERMINUTE Utility automatically checks if the ASOS surface station being used is part of the Ice Free Winds (IFW) group and if so, it automatically specifies the date of the installation.

Topic	Feature Description
AERMET View	**BETA Option to Adjust Surface Friction Velocity (ADJ_U*)** Introduced with AERMET 12345, a new BETA option is available to adjust surface friction velocity (u*) for low wind speed stable conditions. This option is considered a non-Default option and is subject to regulatory review. **Note:** Use of this option also requires the user to select the Non-Default BETA option on the AERMOD Control Pathway.
AERMET View	**Upper Air Estimator Updated for AERMET 12345** Lakes Environmental Upper Air Estimator tool was updated for compatibility with the latest release of the US EPA AERMET 12345.
RAMMET View	**Fill in Missing Data Option for Mixing Height File** Fill in missing data option for mixing height files generated by the Mixing Height Estimator.

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Fixed Issues
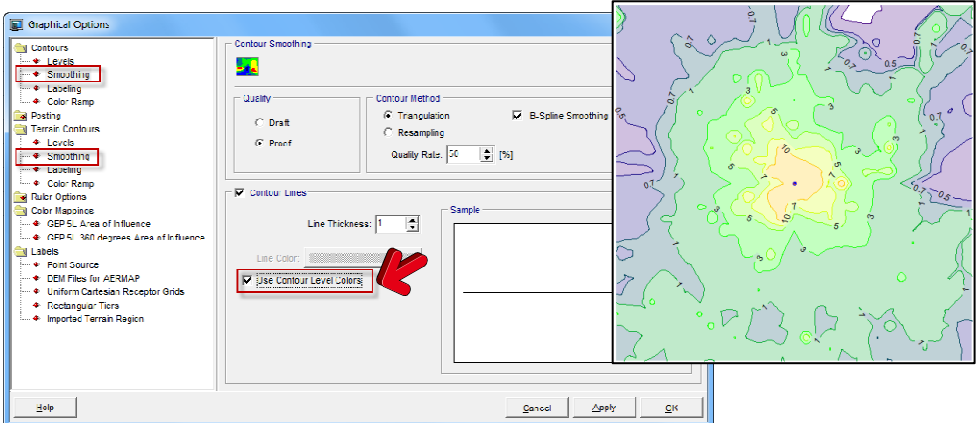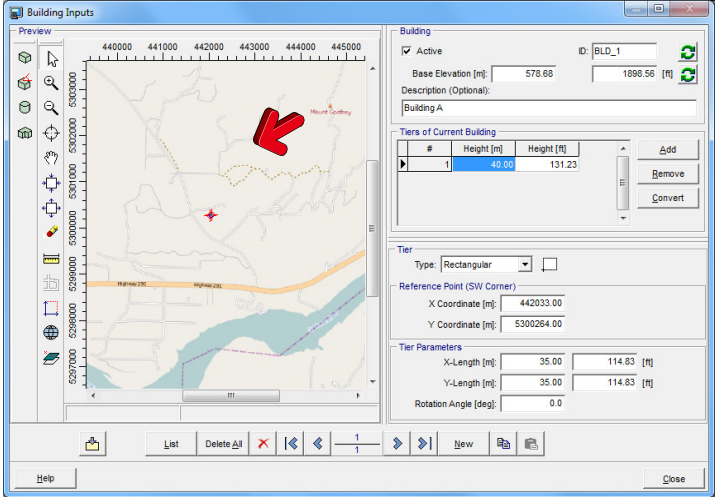
Topic	Issue Description
Base Maps	**Base Maps Not Transferred to the New Saved Project As** AERMOD View 8.0.5 did not transfer the reference to imported base maps/tile maps to the new project when using the "Save As Project" option. This issue has been fixed in AERMOD View 8.1.
Source Pathway	**Gas & Particle Data – Method 2 with Non-Default Option** Issue of not being able to select the Non-Default **Method 2** option under the **Source Pathway – Gas & Particle Data** window with only the Non-Default option selected in the Control Pathway was resolved.
MAKEMET Utility	**Surface Roughness Value for Water Fixed** Under the MAKEMET Utility (accessed from the Tools menu), when the water land use category was selected, a surface roughness of 0.0 was being specified instead of 0.0001 due to the limitation on the number of decimal places allowed in the field. This issue has been resolved.
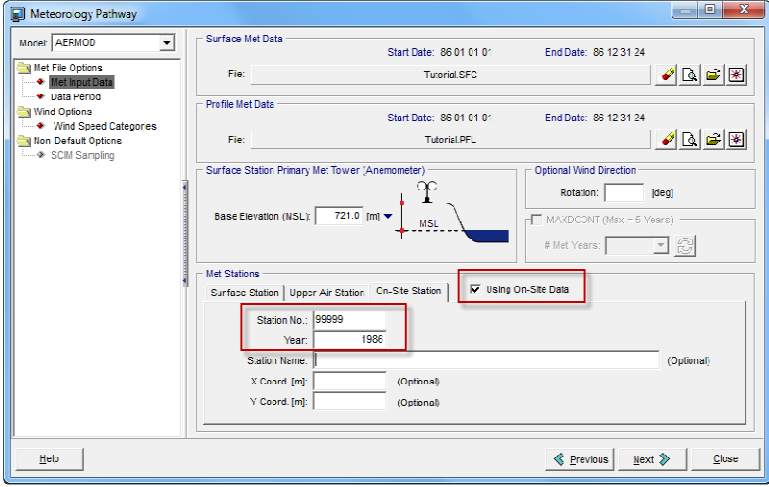
AERMOD View™ Version 8.0.5
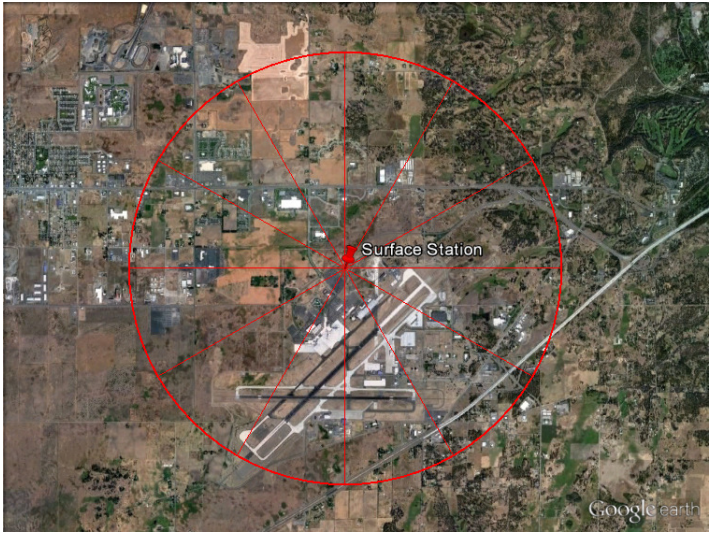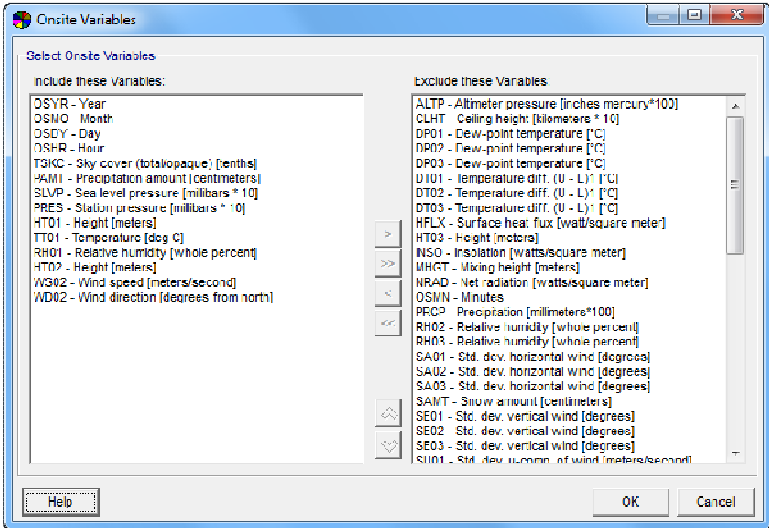
Release Notes
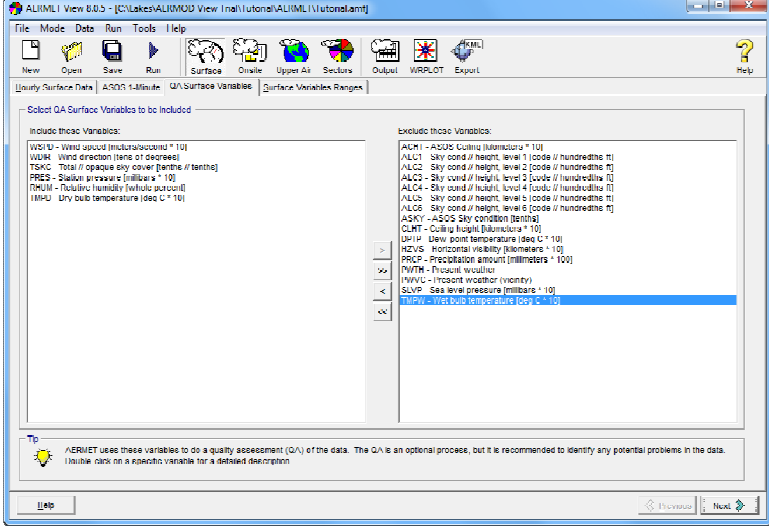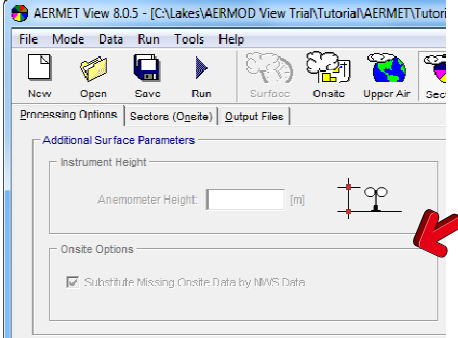
October 11, 2012

New Features
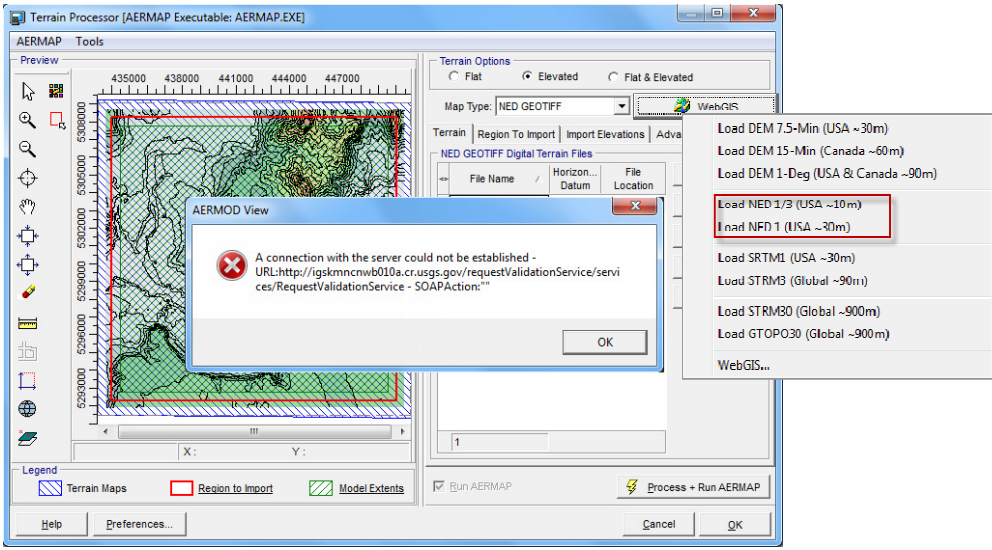
Topic	Feature Description
Graphical Options	**Colored Contour Lines** Contour Lines and Terrain Contour Lines can now be colored to match the contour level colors. This option is available under the **Graphical Options – Smoothing panel**.
Buildings	**Map Layers Available under Preview in Building Inputs Dialog** The Preview display of the Building Inputs window now includes all base maps as layers.

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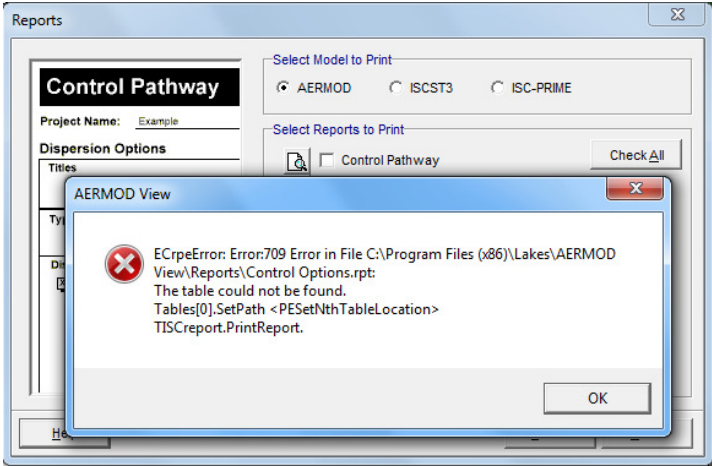
Topic	Feature Description
Export	**New Google Earth Export Options** The Export to Google Earth feature now includes: • Plant Boundary Receptors • Exporting contour lines only, without shading
Source Pathway	**In-Stack NO2/NOx Ratio List Update** Enhanced the In-Stack NO2/Nox Ratio table to display more digits.
Meteorology Pathway	**Onsite Station Information Extracted from SFC Met File** Onsite station ID number and year are automatically populated if the SFC file contains onsite station information.
Details	**Additional Warnings in Details** AERMOD View will now warn you if the urban dispersion option is enabled and a population value is not input for urban groups.
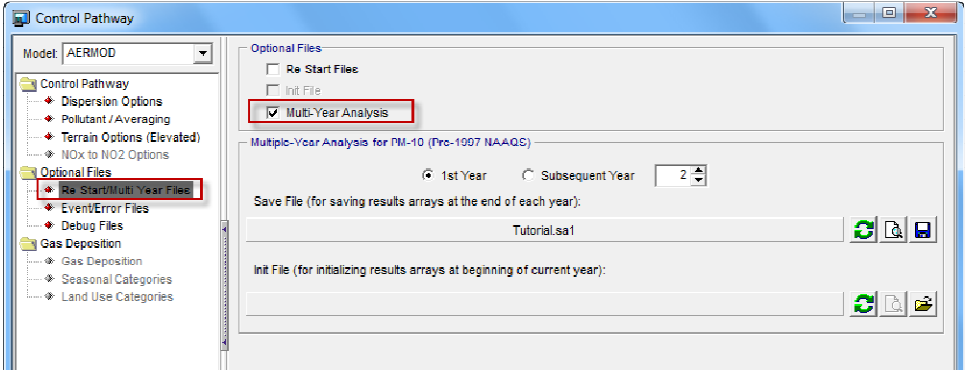
Topic	Feature Description
AERMET View	**Sectors and 3-Km Radius Exported to Google Earth** When exporting AERMET View project information to Google Earth, a 3-kilometer radius and outline of specified sectors is now included for the surface met station and/or onsite met station. This feature is especially useful for users that need to specify the land use type and sectors by hand.
AERMET View	**Improvements for the Onsite Data Formatting Options** When identifying onsite variables, single- and multi-level variables are now listed in a single table so that users can specify any order. Also implemented is the full description for each onsite variable and expected units. The unit for the onsite precipitation variable "PRCP" was changed from mm to mm*100 as required by the US EPA AERMET dated 11059.

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Topic	Feature Description
AERMET View	**Full Descriptions for QA Variables** Surface and Upper Air Variables that you select for QA now display their full description and expected units.
AERMET View	**Disabled Unsupported Options for Onsite Only Option** If the "Surface Data from Onsite Only" option is enabled, model options that only apply to hourly surface data are disabled including anemometer height and data substitution selection.
AERMET View	**Additional Warnings for AERMET View** Additional warning messages were implemented related to the adjustment from GMT to local standard time (LST) for hourly surface data, onsite data, and upper air data.

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Fixed Issues

Topic	Issue Description
Terrain Processor	**Automated Download of NED Terrain Data Connection Issue** Starting in AERMOD View Version 8.0 users can now automatically download USGS National Elevation Dataset (NED) terrain data files for projects located in the United States. On the first week of October 2012, the USGS changed the server parameters and settings that allowed third party programs to automatically download the NED terrain data from their servers. Users of AERMOD View trying to download the NED terrain data started receiving messages that a connection with server could not be established. AERMOD View Version 8.0.5 contains a solution to this issue. **NOTE:** This feature is only available for users with current maintenance. If you are receiving this update as part of your maintenance, once your maintenance expires, you will no longer have access to this feature.

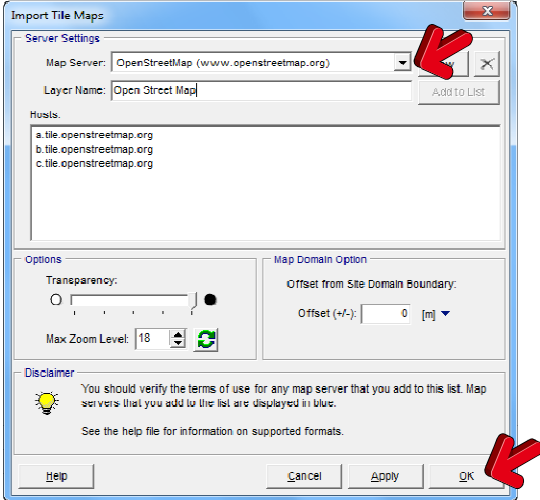| Topic	Issue Description
Reports	**Generate Reports Error** Version 8.0 contained a bug which prevented AERMOD View from creating or displaying reports. This issue has been resolved.
Output Pathway	**Creation of the Exceedance Plot File Fixed** Fixed a bug in which the Threshold Violation File was created but the Exceedance Plot File was empty.
Base Maps	**Raster Image Optimization** Updated the **Import | Base Maps | Raster Images** option to resolve two issues: 1. Coordinates embedded in geo-referenced GeoTIFF images are now read by the program even if a corresponding .tfw file is not present. 2. The preview display of the **Import Base Maps** window would not show some large base maps.
Multi-Chemical Utility	**Multi-Chemical Utility Storage/Memory Error** Fixed a problem resulting in Multi-Chemical runs failing due to a lack of storage or memory.
Buildings	**Building Tiers in Wrong Order** Resolved a bug in which building tiers were ordered differently in the main display and the **Building Inputs** window. Tiers are now ordered automatically from shortest to tallest.

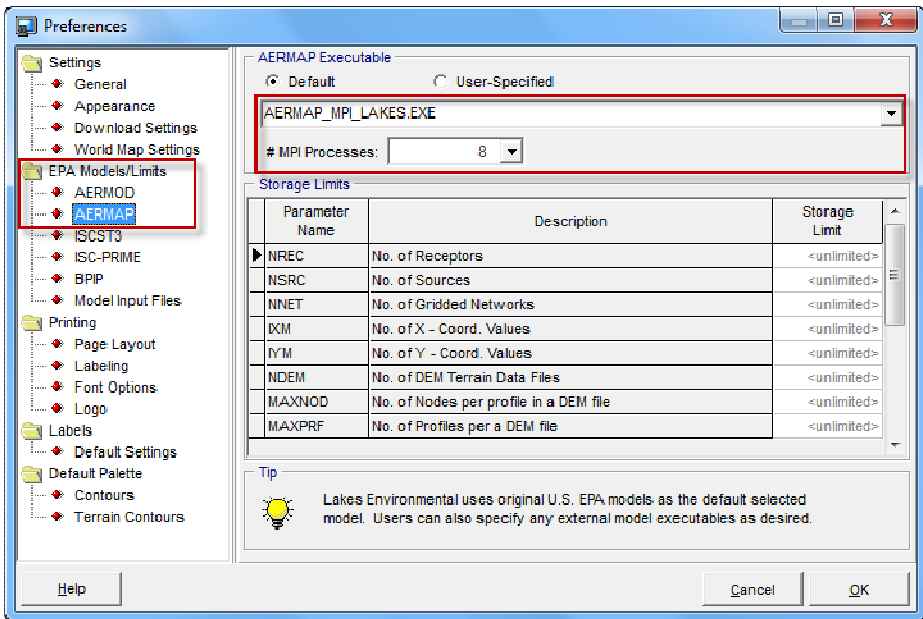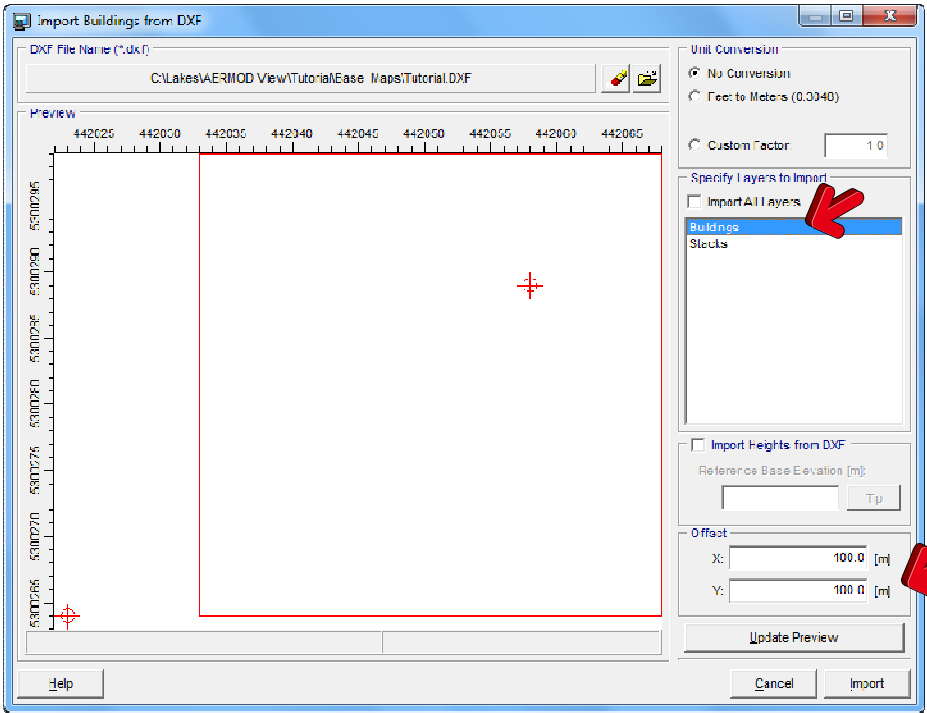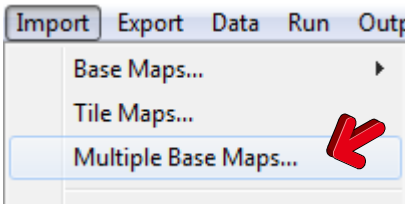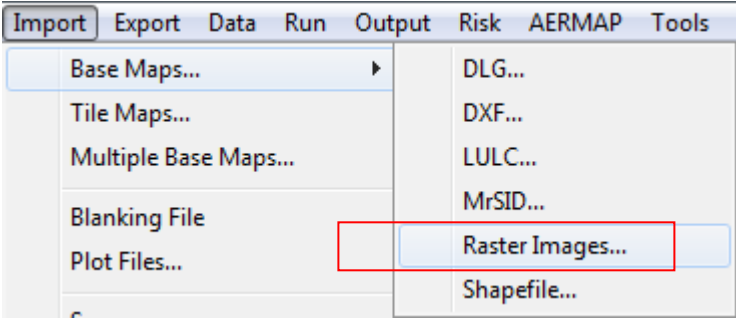| Topic	Issue Description
Source Pathway	**Adding Line Source Nodes** Resolved an issue where adding line source nodes in the Source window created a row which could not be selected.
AERMOD MPI	**New Version of AERMOD MPI 12060 (Parallel Version)** A new update of the Lakes AERMOD MPI for the US EPA Model Version 12060 is now available and it will replace the exe provided with AERMOD View Version 7.6 (AERMOD_MPI_Lakes_12060.exe). This new compiled AERMOD MPI executable contains fixes to an issue only found for projects using the Multi-Year Analysis option (MULTYEAR keyword). The MULTYEAR option requires the user to run 5 separate years of met data using five different AERMOD runs. The MULTYEAR option requires the previous year initialization file to be provided for each subsequent year run.

AERMOD View™ Version 8.0

Release Notes
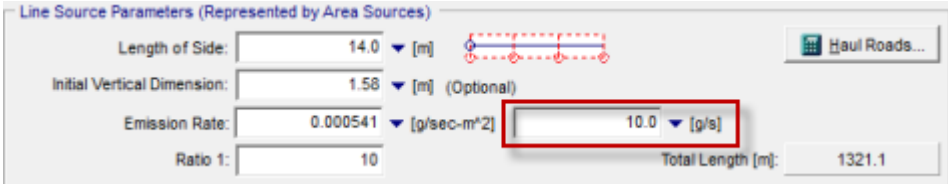
September 5, 2012
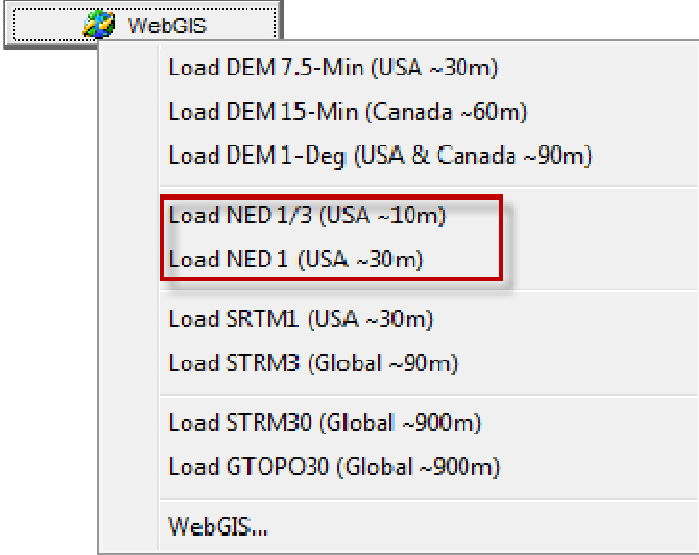
New Features & Fixed Issues

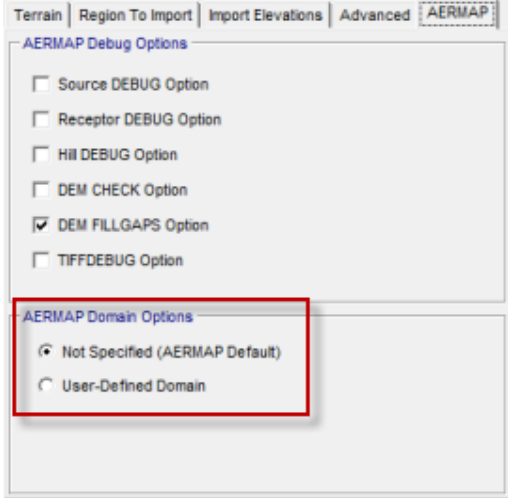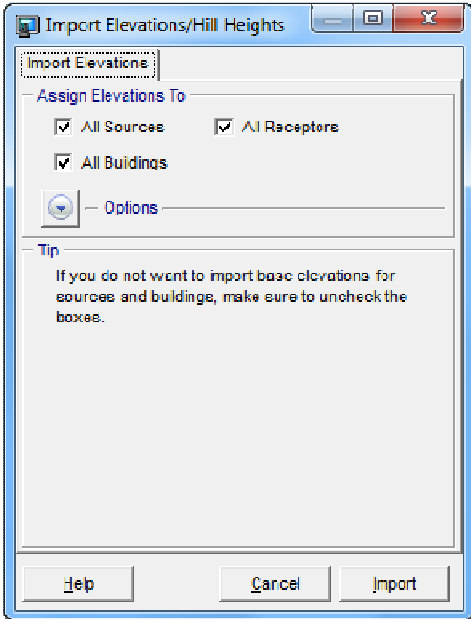| Topic	Feature Description
Base Maps	**Automated Download of Worldwide Geo-Referenced Base Maps** The **Import Tile Maps** feature allows users to import imagery from various online resources. The program comes loaded with 6 different Map Servers which range from road maps (e.g., OpenStreetMap, MapQuest Streets) to Satellite and Aerial photography (e.g., MapQuest Satellite, CloudMade Maps). Additional Map Servers can be added by the user. **Simple Steps:** **Step 1:** Create your AERMOD View project. **Step 2:** Select **Import | Tile Maps** menu option. **Step 3:** Select **Map** type (e.g., OpenStreetMap) and click **OK**.

Topic	Feature Description
	Downloaded imagery is stored locally. Check the **File | Preferences | World Map Settings** to add Proxy Server details. **NOTE:** The **Import Tile Maps** feature is only available for users with current maintenance. If you are receiving this update as part of your maintenance, once your maintenance expires, you will no longer have access to this feature.
Models	**New AERMAP MPI Executable (8-Core)** A parallelized version of the AERMAP executable (11103) has been added to AERMOD View. AERMAP MPI will work on up to 8 processors, and it significantly reduces runtimes when processing elevation data especially with complex file formats like the 10-meter National Elevation Dataset (NED) tiles. See the **Getting Started – AERMOD MPI & AERMAP MPI** document, available in the update site, for further instructions.

Topic	Feature Description
Import Buildings from DXF	**Additional Options for Importing Buildings from DXF** • **Layer to Import:** Import more than one layer containing buildings. • **Offset Option:** Allows you to shift your buildings in the project domain (e.g. convert a local Cartesian coordinate system to UTM).
Base Maps	**Improved Method of Importing Multiple Georeferenced Base Maps** Using this feature allows you to search for multiple base maps, which already contain georeferenced world files, located in the same folder and import them either as a single layer or as separate maps.

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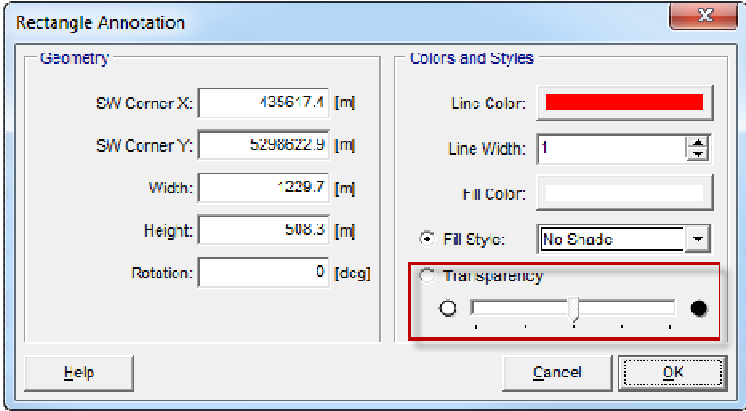
Topic	Feature Description
Base Maps	**Import Raster Images** You can now import any supported raster image file (e.g., BMP, JPEG, TIFF, etc.) using the same option in the menu.
Tools	**New LEADPOST Executable in LEAD Post-Processor** AERMOD View now uses the latest version of LEADPOST (12114) in the LEAD Post-Processor Utility. LEADPOST Version 12114 was released by the US EPA on April 2012.
Source Pathway	**Input Total Line Emission Rate for Line Area Sources** The emission rate for the Line Area source can now be input as the total emission rate for the entire line instead of the emission rate per unit area. The area sources along the line must be generated before the total line emission rate can be entered.
Source Pathway	**Line Volume Source Emission Rates – Issue Fixed** Fixed issue in which a fatal error was generated if a line source emission rate was an integer instead of a real number (e.g., 1E-5 instead of 1.0E-5 or 0.00001). Program now creates a real value.
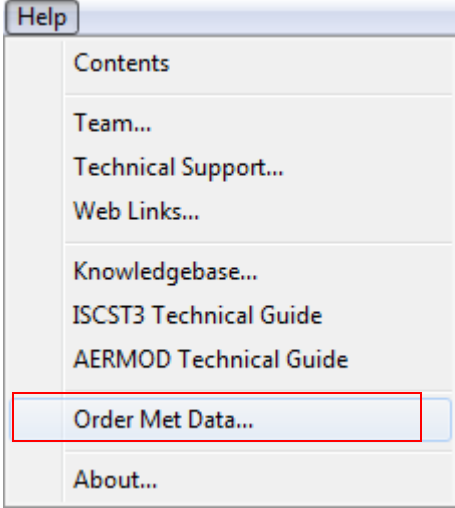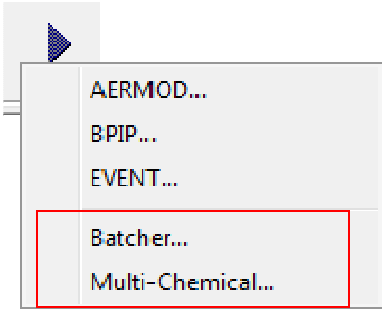
Topic	Feature Description
Terrain Processor	**Automatic Download of NED Terrain Data** Users can now automatically download USGS National Elevation Dataset terrain data files for projects located in the United States. Select the WebGIS button and choose either 1/3 arc-second (~10 meter) or 1 arc-second (~30 meter) resolution. **NOTE:** This feature is only available for users with current maintenance. If you are receiving this update as part of your maintenance, once your maintenance expires, you will no longer have access to this feature.
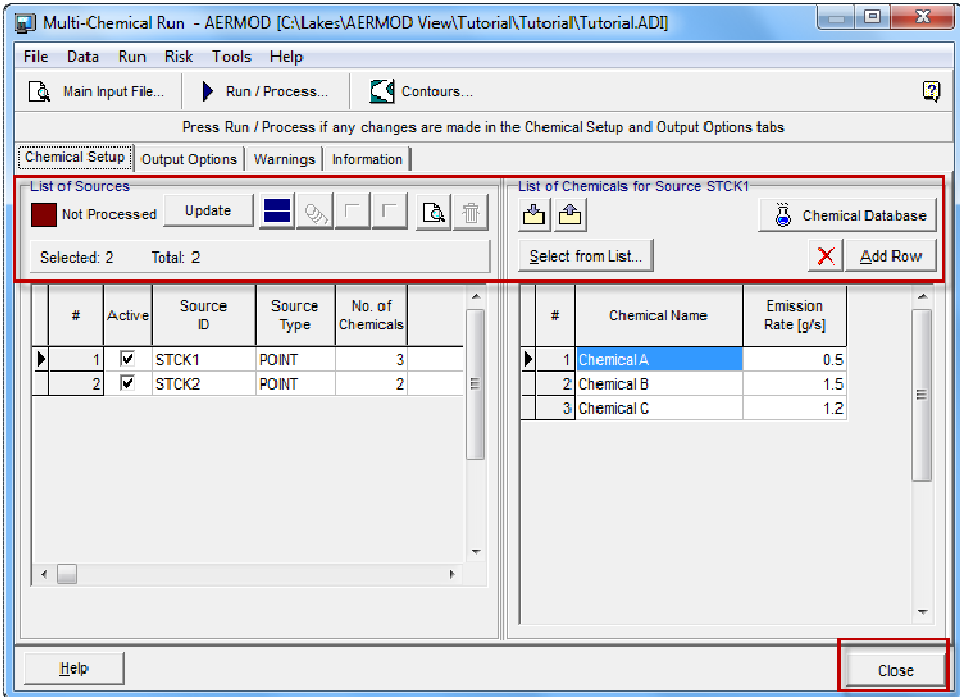
Topic	Feature Description
Terrain Processor	**AERMAP Domain Selection** Consistent with the latest AERMAP executable release by the U.S. EPA, the Terrain Processor defaults to unspecified domain extents when running AERMAP. With this option enabled, AERMAP will process the entire terrain file when calculating elevations and hill height scales.
Terrain Processor	**Buffer for WebGIS Terrain Downloads** All maps downloaded from the **WebGIS** button will include a 5% buffer region. The buffer will help protect projects located close to edges of terrain files that their project domain will be covered.
Terrain Processor	**Extended Support for Large Domains** Internal changes were made to reduce incidence of memory errors (e.g., "Table is full") which prevented the **Terrain Processor** from handling data which covered a large domain or when the number and resolution of terrain files was very large.

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Topic	Feature Description
Terrain Processor	**Optimized Elevation Import** The process for importing elevations to model objects, after AERMAP has been run, was optimized for faster processing times. The options under the Import Elevations/Hill Heights dialog were simplified for easy of use.
Details	**Additional Warnings in Details** AERMOD View will now warn you if a Source and/or Building have a base elevation of zero while receptors do not.

Topic	Feature Description
Graphical Options	**Default Contour Shade Style set to Transparent** Results contours will now default to the **Transparent** Shade Style after the model is run. This change makes all lower-layer overlays (e.g., base maps) easier to see beneath the results contours. Also, the Alpha Blend option was renamed Transparent option for easy understanding.
Graphical Options	**New Default Level Options for Concentration Contours** Contour levels are now set using the **Natural** value distribution algorithm by default. The **Natural** algorithm creates rounded level values (e.g., 10, 20, 50, 100, 200, etc.). The default minimum value is now defined as the maximum between the plot minimum value and the plot maximum value divided by 100.

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Topic	Feature Description
Annotation Toolbar	**Transparency Option for Annotations** A transparency level can be set for all annotation objects.
Annotations	**Last Selected Annotation Settings** Last selected settings for the Annotation tools will now be saved. These settings will be applied globally – the changes made in one project will be applied to annotations made in the next project until changed again.
Contour Legend	**Emission Output Labels on Legend** Resolved a problem with deposition plots where the contour legend did not display the user-specified emission output unit.

Topic	Feature Description
Order Met Data	**New Link under the Help Menu** The Order Met Data link is now available under the Help menu. This link connects to the Request Met Data quote online form available in the webLakes.com site. Help Contents Team... Technical Support... Web Links... Knowledgebase... ISCST3 Technical Guide AERMOD Technical Guide Order Met Data... About...
Run	**Batcher and Multi-Chemical Utility Shortcuts** You can access the Batcher and Multi-Chemical Utility by clicking on the Run menu toolbar button. AERMOD... BPIP... EVENT... Batcher... Multi-Chemical...

Topic	Feature Description
Multi-Chemical Utility	**Multi-Chemical Utility Interface Layout Changes** Small changes have been made to the Multi-Chemical Utility to streamline the interface.
Multi-Chemical Utility	**Multi-Chemical Utility Now Generates Plotfiles with Scientific Notation for Very Small Values** The Multi-Chemical Utility can now handle again very small concentration values. In AERMOD View Version 7.6, these values were being written as zeros (e.g., 0.00000). In this release, if very small values are detected (e.g., 0.0000023), the concentration/deposition results in the plotfile will be automatically written all in scientific notation.
POST View	**Additional Features Implemented in POST View** The following menu options/features were introduced in POST View: • Import Tile Maps (current maintenance only) • Import Raster Images using one menu option • Print to PDF option under the File menu • Transparency options for Annotation tools

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