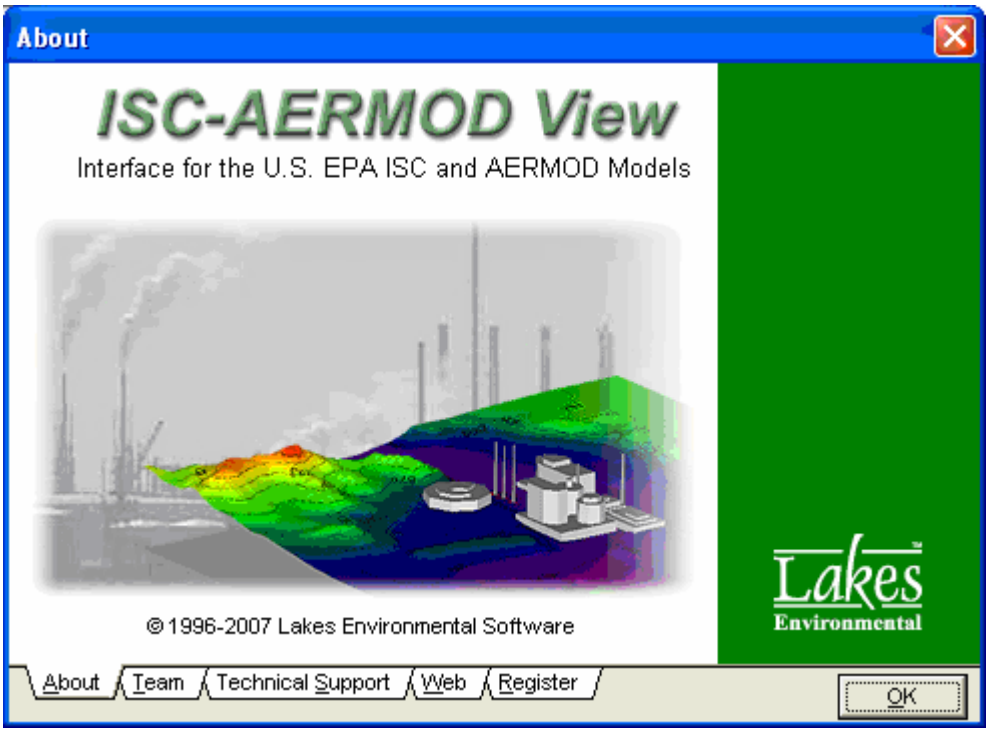
ISC-AERMOD View

Complete Air Dispersion Modeling System for AERMOD

Release Notes



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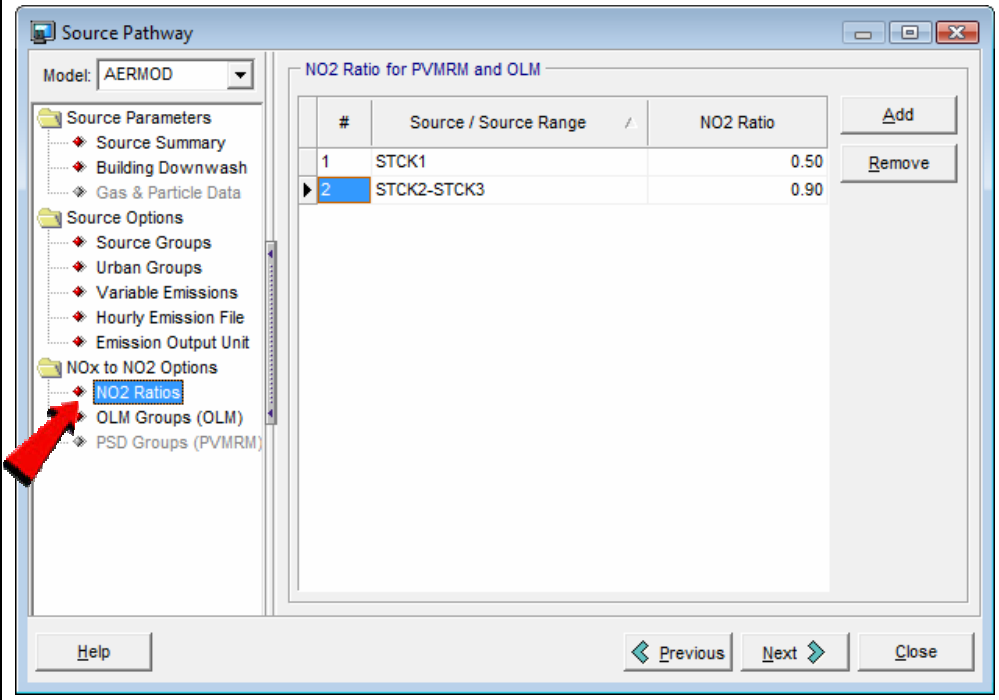
ISC-AERMOD View™
Version 5.8.0

Release Notes

October 30, 2007

Topic	Feature Description
Source Pathway	**NO2/NOx Ratio for PVMRM and OLM Options** The AERMOD in-stack NO2/NOx Ratio option (keyword SO NO2RATIO) for the transformation of NOx to NO2 is now available in the *Source Pathway – N02 Ratios* screen. It allows the N02 ratio to be set for both single sources and source ranges.  **Important Note:** The **NO2/NOx Ratio** field has been removed from the *Source Input*s dialog in order to more easily manipulate data. Rather than having to set the ratio for each individual source, the new screen – *NO2 Ratios* - will allow you to specify NO2/NOx ratios easily for single sources or source ranges in one single location.

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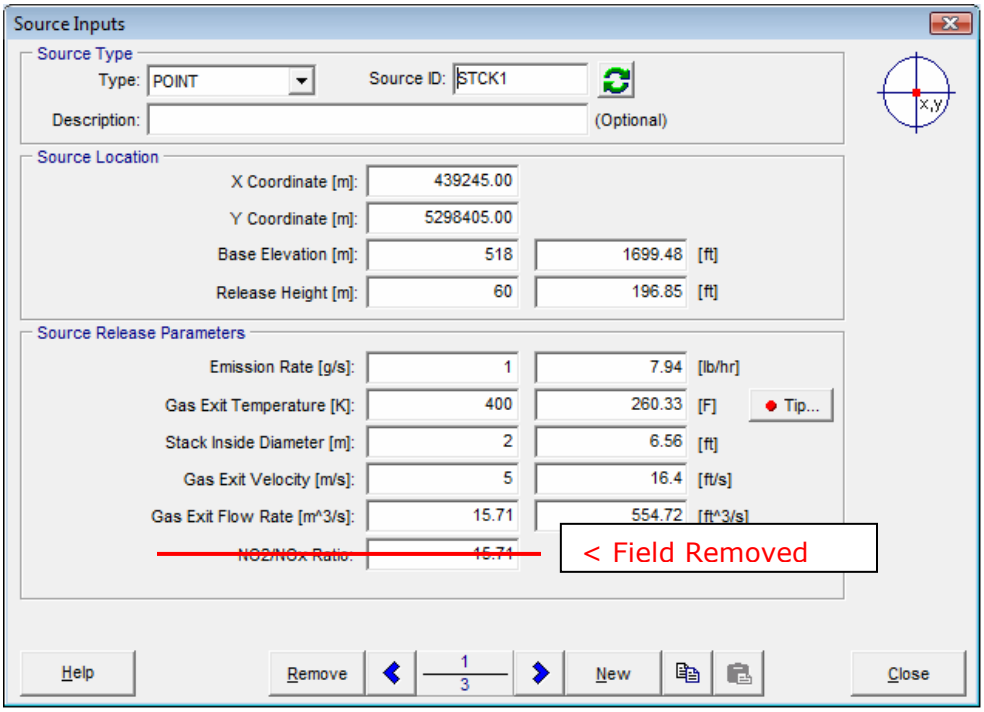
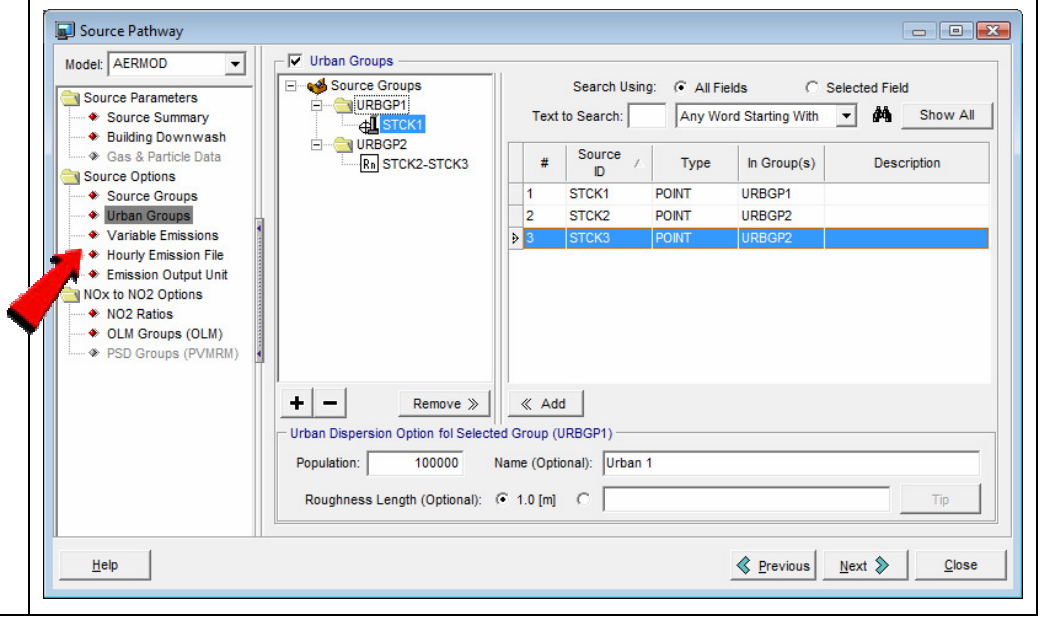
Topic	Feature Description
	
Source Pathway	**Multiple Urban Groups** The option to specify multiple urban areas introduced in AERMOD dated 06341 (keyword CO URBANOPT) is now available in the *Source Pathway – Urban Groups* screen. 

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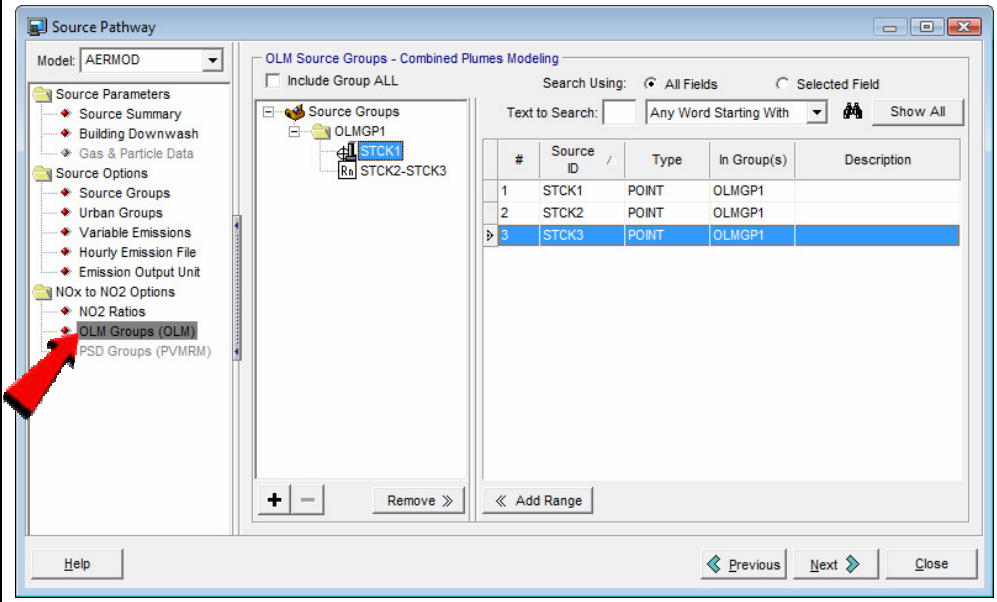
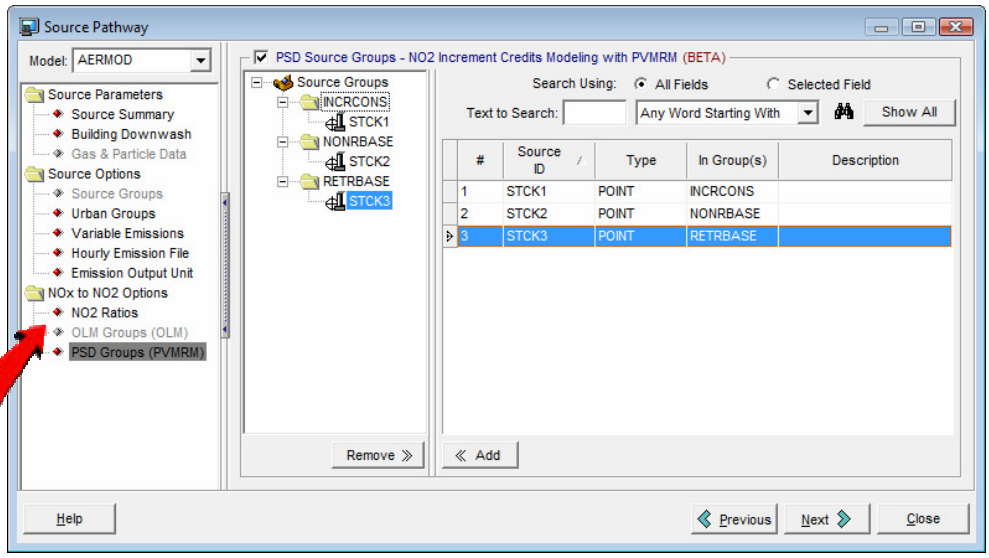
Topic	Feature Description
Source Pathway	**OLM Source Groups** The option to specify multiple sources to be modeled as combined plumes when using the OLM option for modeling NO2 (keyword SO OLMGROUP) is now available in the *Source Pathway – OLM Groups screen*. This non-default option was introduced in AERMOD dated 06341. 
Source Pathway	**PSD Source Groups** The option to group sources to correctly calculate the increment consumption with the PVMRM option (keyword SO PSDGROUP) is now available in the *Source Pathway – PSD Groups (PVMRM) screen*. This non-default option was introduced in AERMOD dated 06341 as a BETA option. 

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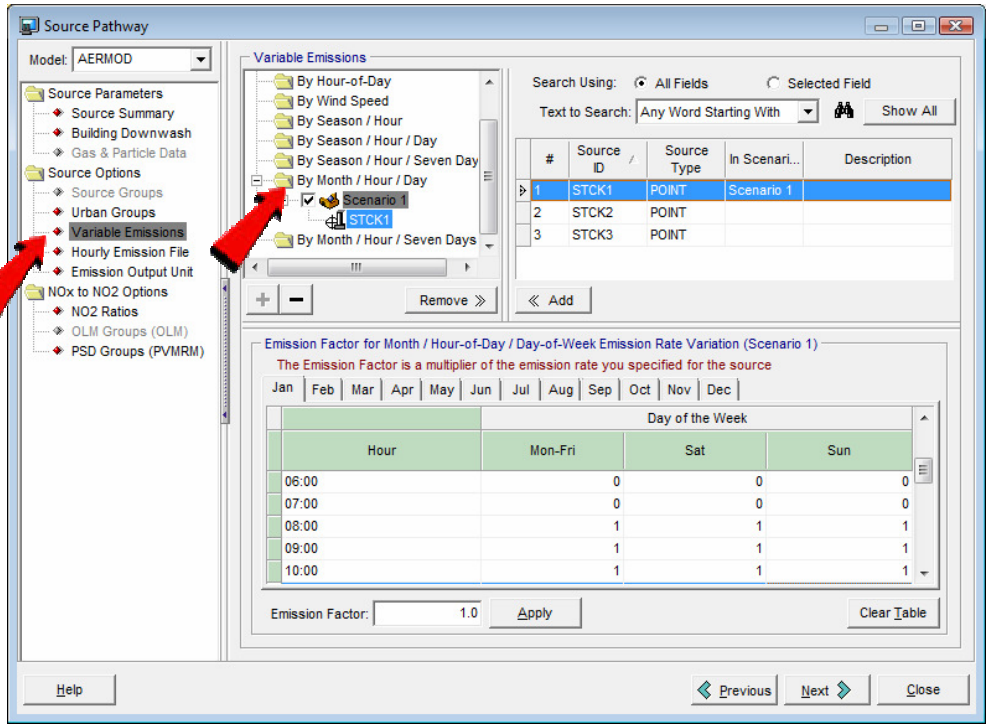
Topic	Feature Description
Source Pathway	**Variable Emission by Month / Hour / Day** The option to specify variable emissions by month, hour-of-day, and day-of-week (Keyword: SO MHRDOW) is now available in the *Source Pathway – Variable Emissions* screen. This option was introduced in AERMOD dated 06341. 

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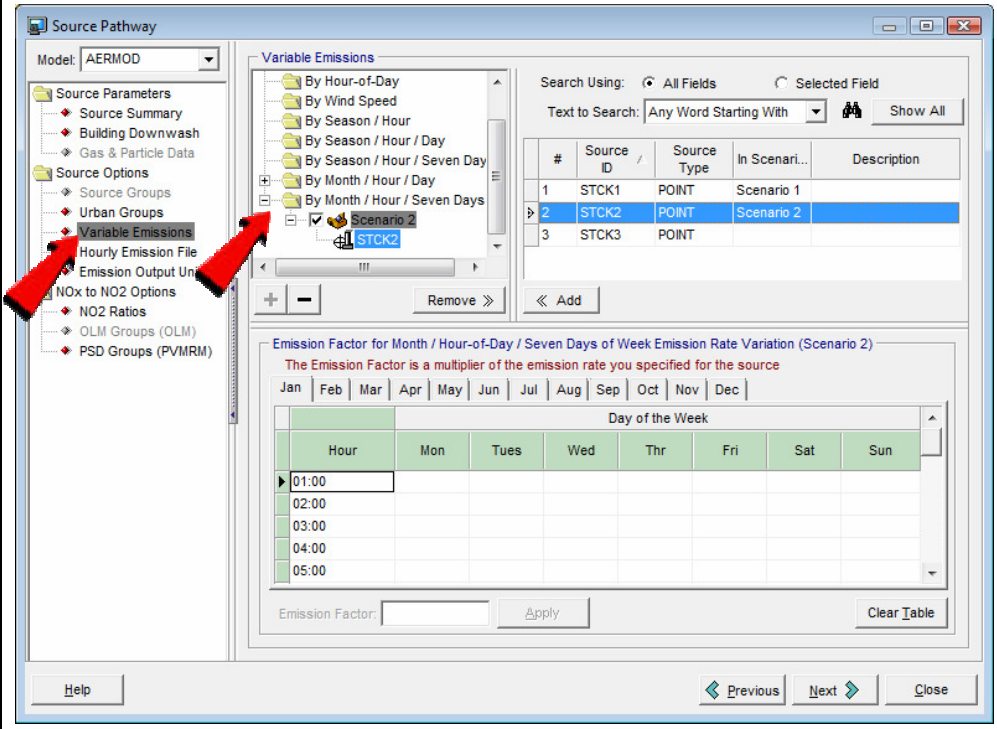
Topic	Feature Description
Source Pathway	**Variable Emission by Month / Hour / Seven Days** The option to specify variable emissions by month, hour-of-day, and the seven days of the week (Keyword: SO MHRDOW7) is now available in the *Source Pathway – Variable Emissions* screen. This option was introduced in AERMOD dated 06341. 

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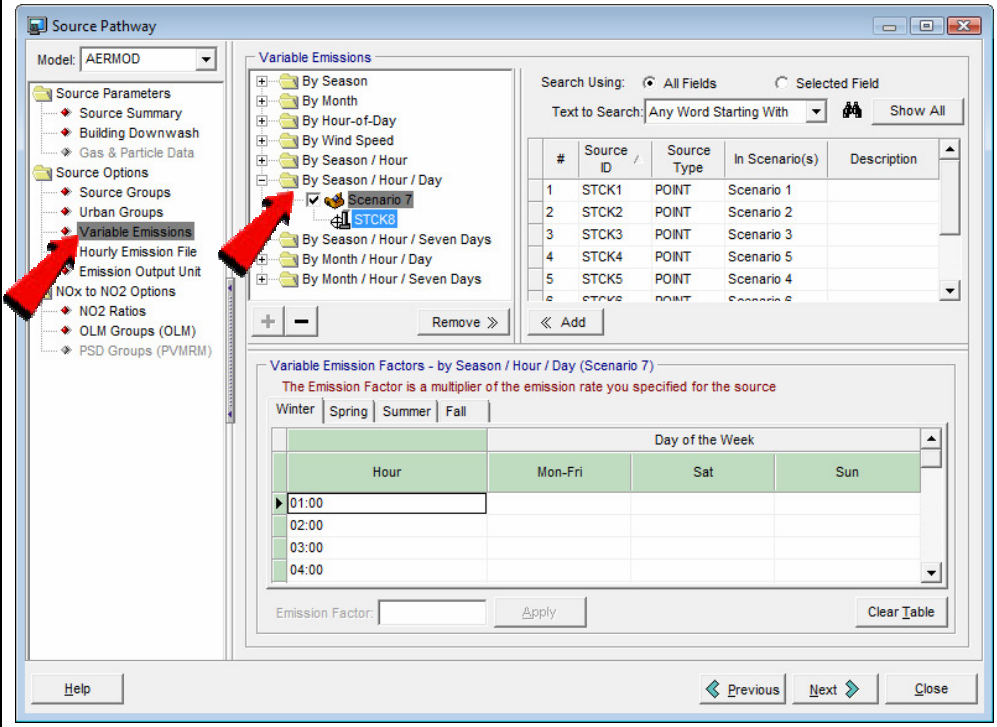
Topic	Feature Description
Source Pathway	**Variable Emission by Season / Hour / Day** The option to specify variable emissions by season, hour-of-day, and day-of-week (Keyword: SO SHRDOW) is now available in the *Source Pathway – Variable Emissions* screen. 

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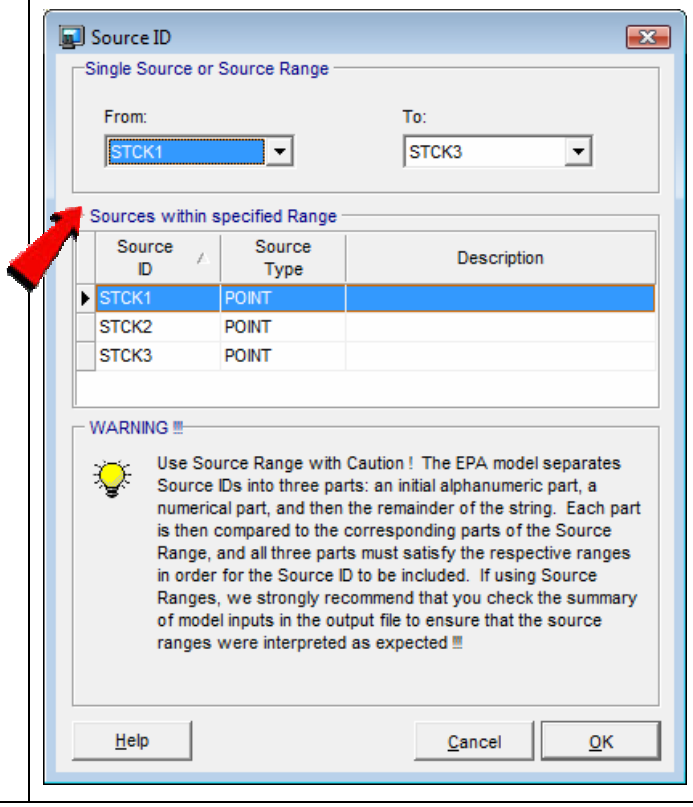
Topic	Feature Description
Source Pathway	**Feature to Check which Sources are within a Source Range** ISC-AERMOD View now contains a feature to display all sources that are within any specified source range. This is a great feature, since the US EPA models (AERMOD, ISCST3, and ISC-PRIME) have a special method for detecting sources within a source range using the source IDs. With this feature, you can be sure that the source range you specified only contains the sources you want. This new feature is available under the **Source ID** dialog which can be accessed from any Source Pathway option that allows the use of source ranges. 

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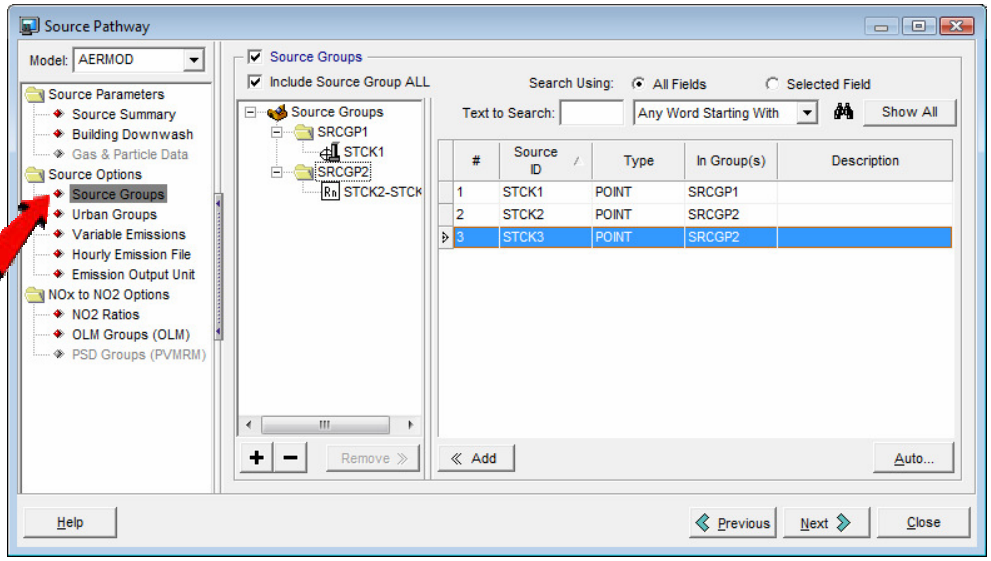
Topic	Feature Description
Source Pathway	**Enhanced Interface for Source Groups** The *Source Pathway – Source Groups* screen was completely re-designed in order to make grouping sources easier to set up and manage. You can filter the list of sources using the new search function and easily drag and drop the sources into the source groups. 

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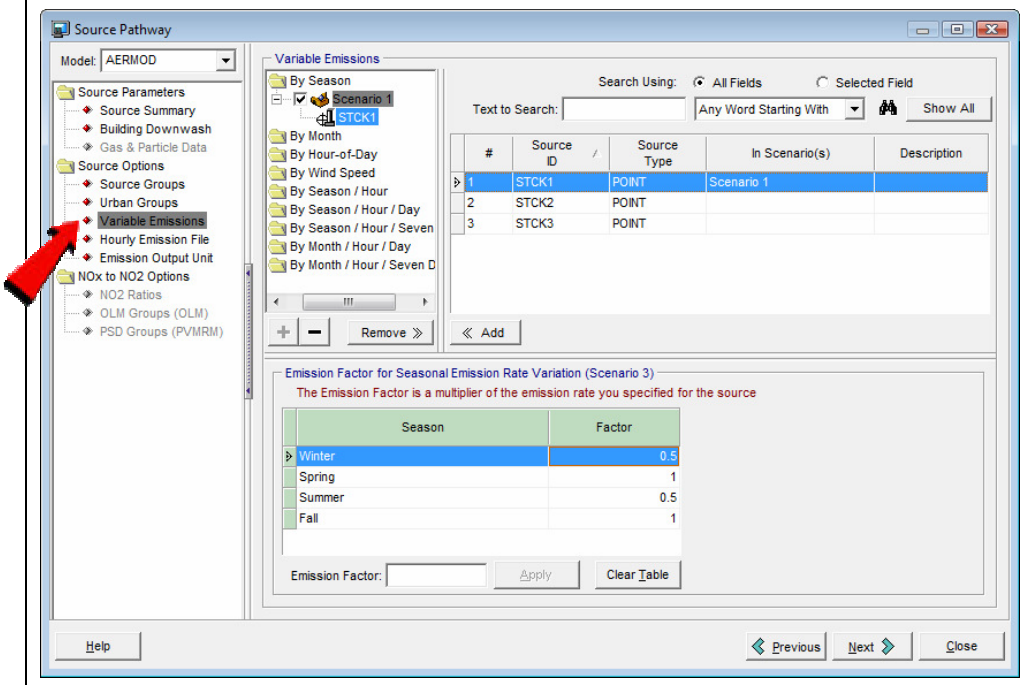
Topic	Feature Description
Source Pathway	**Enhanced Interface for Variable Emissions** The several Variable Emissions screens are now combined under one location - *Source Pathway – Variable Emission* screen. The variable emissions options were completely redesigned for ease of use. You can filter the list of sources using the new search function and easily drag and drop the sources into the emission scenarios. 
Help	**Updated Help File** The help file was updated to include description of the latest features included in this release.

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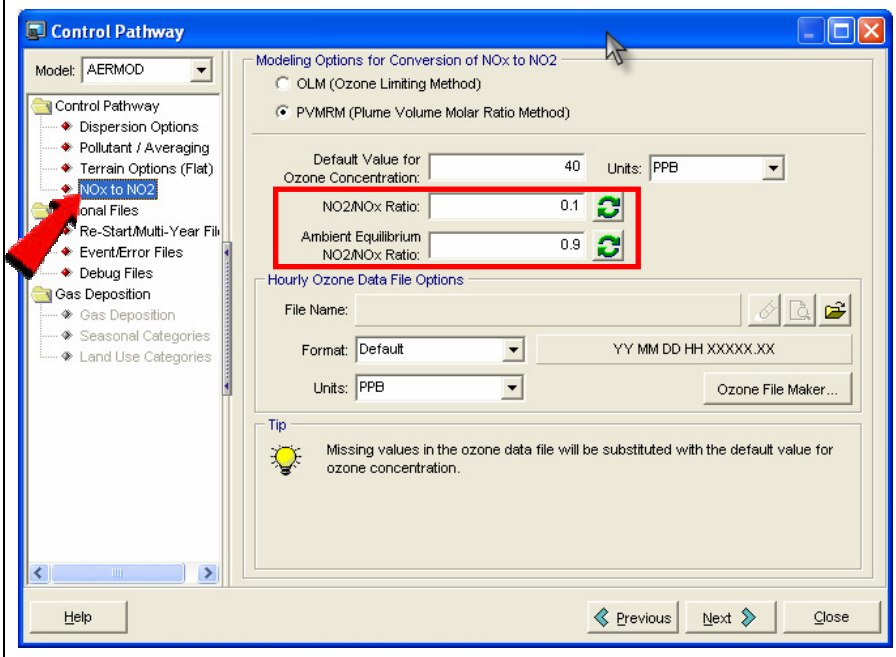
ISC-AERMOD View™
Version 5.7.0

Release Notes

August 23, 2007

Topic	Feature Description
Control Pathway	**Default NO2/NOx Ratio and Ambient Equilibrium Options** The latest AERMOD options for the transformation of NOx to NO2 are now included in ISC-AERMOD View. These options were implemented in the *Control Pathway – NOx to NO2* window and include the keywords NO2RATIO and NO2EQUIL. 

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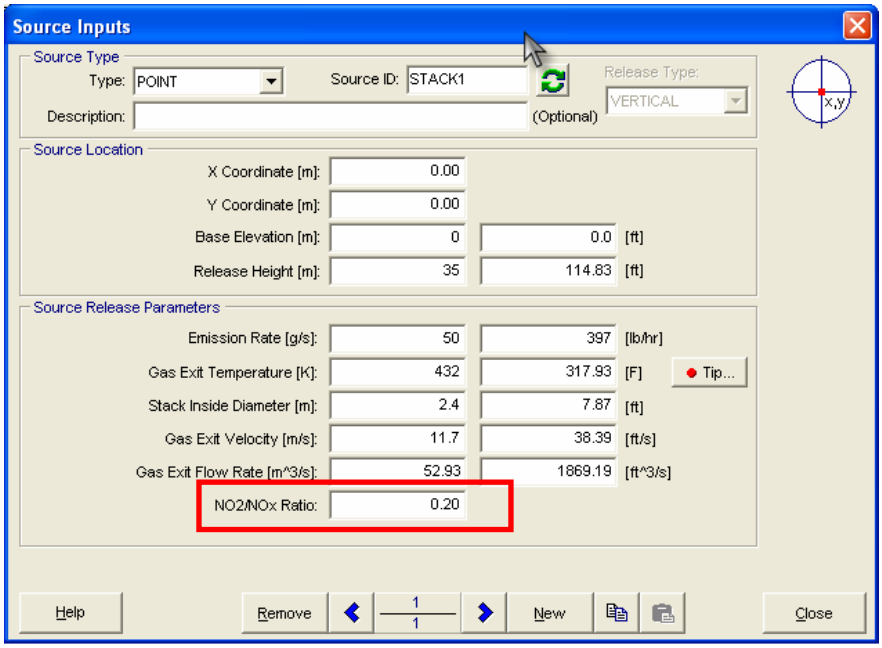
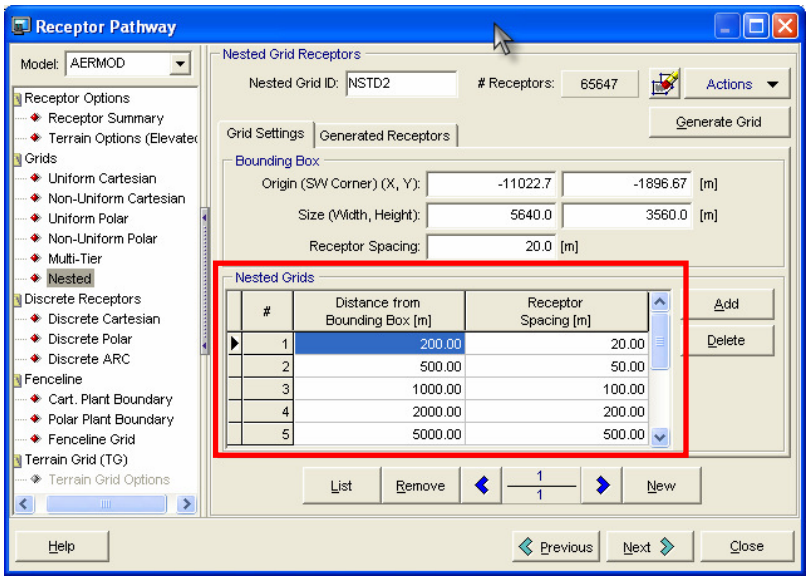
Topic	Feature Description
Source Pathway	**NO2/NOx Ratio Options** **NOTE: This feature has been replaced in version 5.8.0 with the Source Pathway – N02 Ratios** The AERMOD in-stack NO2/NOx Ratio option (keyword NO2STACK) for the transformation of NOx to NO2 is now available in the Source Pathway – Source Inputs dialog. 
Receptor Pathway	**Nested Grid Defaults** The default values for the Nested Grid have been adjusted to comply with the MOE Reg.419/05 guidance. Distances from the bounding box were corrected. 

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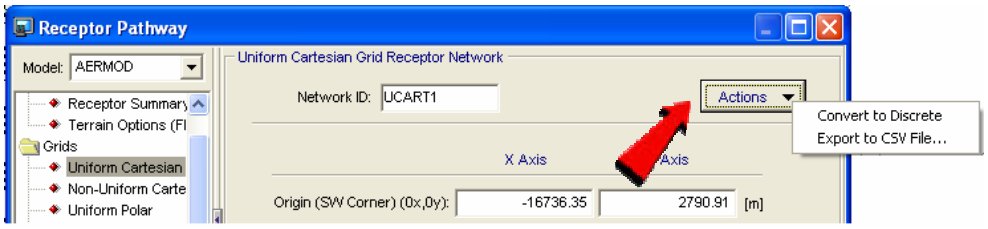
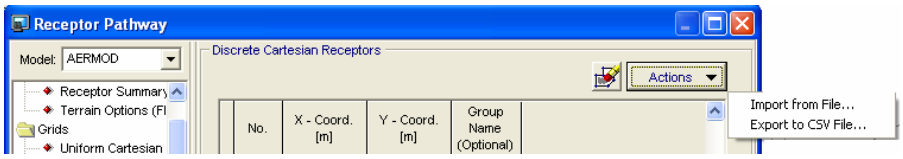
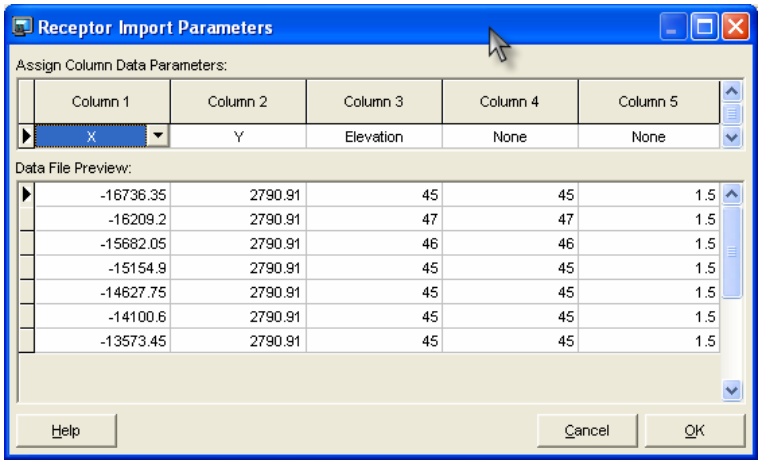
Topic	Feature Description
Receptor Pathway	**New Actions Button in Receptors Pathway Windows** For consistency throughout the Receptor Pathway windows, the *Actions* button was introduced. The *Actions* button, when pressed, displays a pop up menu with action items such as: • Convert to Discrete • Import • Export to CSV File 

Receptor Pathway	**Import/Export Receptors Options Improved**
	
	In each of the Receptor Pathway windows, you can now export all types of receptors (including grids) to a file. The default format for exporting receptor parameters is the Comma Separated Values (CSV) with the following header parameters:
	
	`X, Y, ELEV, HILL, FLAG`
	`100.00, 100.00, 2.5, 2.5, 3.0`
	`200.00, 200.00, 3.5, 3.5, 3.0`
	
	 
	
	When importing receptors that are not in the default CSV format (see above), you can specify the headers for each column using the *Receptor Import Parameters* dialog.
	
	 

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Terrain Processor

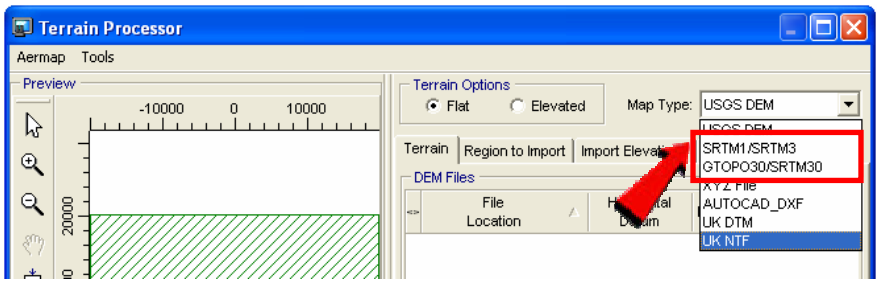
Support for SRTM Terrain Data Formats

The Terrain Processor now supports the Shuttle Radar Topography Mission terrain data (SRTM) in the following formats:

Format	Coverage	Resolution	File Extension
SRTM1 - Version 2	USA	1 arc-sec, ~30m	*.hgt
SRTM3 - Version 2	Global	3 arc-sec, ~90m	*.hgt
SRTM30	Global	30 arc-sec, ~1km	*.hdr

You can download the above terrain data files, **free of charge**, from our web site at:

http://www.weblakes.com/lakesdem.html



Terrain Processor

AERMAP Runs with Open Pit Sources

The US EPA AERMAP model (dated 06341) does not support Open Pit sources although the AERMOD model (dated 07026) does. Projects that contained one source of type, Open Pit, would experience a failed AERMAP run. The ISC-AERMOD View Terrain Processor now checks for this case and runs the AERMAP model just for your receptors. In this case, please make sure to assign a base elevation for the Open Pit sources manually.

Graphical Tools

Angled Area Sources Tool

A graphical tool has been added to create angled area sources. An angled area source can be created either by clicking on the new 'Angled Area Source' button in the Application toolbar, or by creating a 'regular' area source and specifying a non-zero 'Orientation Angle from North'. The rotation takes place clockwise around the southwest corner of the area source (the X and Y coordinates specified for the area source).

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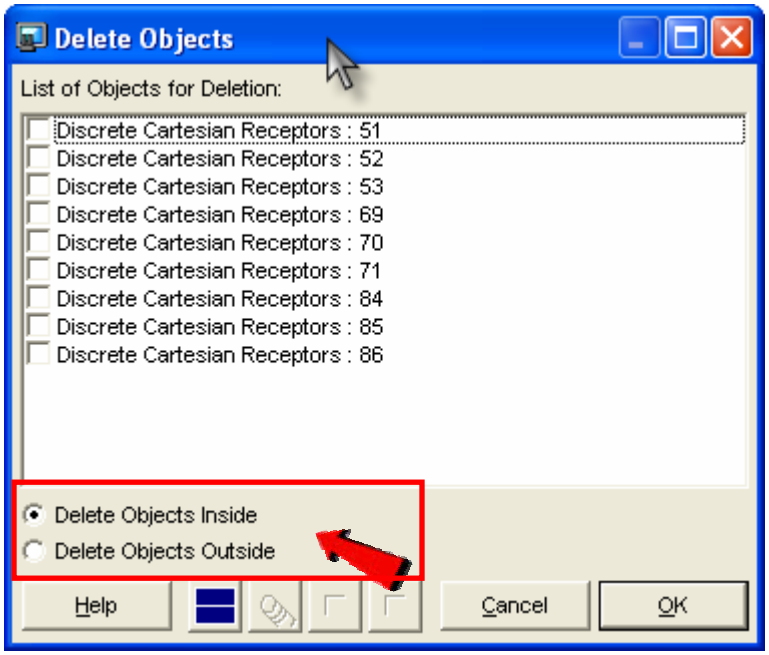
Graphical Tools	**Additional Delete Tools** Additional Delete tools were implemented. See the functionality of each one of these tools below:  **Point/Rectangular Delete Tool:** This tool allows you to delete a specific object or objects inside or outside a user specified rectangle.  **Circular Delete Tool:** This tool allows you to delete a specific object or objects inside or outside a user specified circle.  **Polygonal Delete Tool:** This tool allows you to delete a specific object or objects inside or outside a user specified polygon. A new option was implemented in the *Delete Objects* dialog that allows you to specify if objects to be deleted are inside or outside the shape (rectangular, circular, or polygonal) digitized using one of the delete tools described above. 
Site Domain	**Nested Grid Site Domain Bug Resolved** In Version 5.6 of ISC-AERMOD View, the site domain was not automatically including all receptors in a nested grid. This issue has been resolved.
MAXTABLE Viewer	**Quality Assurance** The MAXTABLE Viewer has been reviewed and some minor issues have been resolved in order to make the results consistent with the Ontario Ministry of Environment (MOE) Reg. 419/05.

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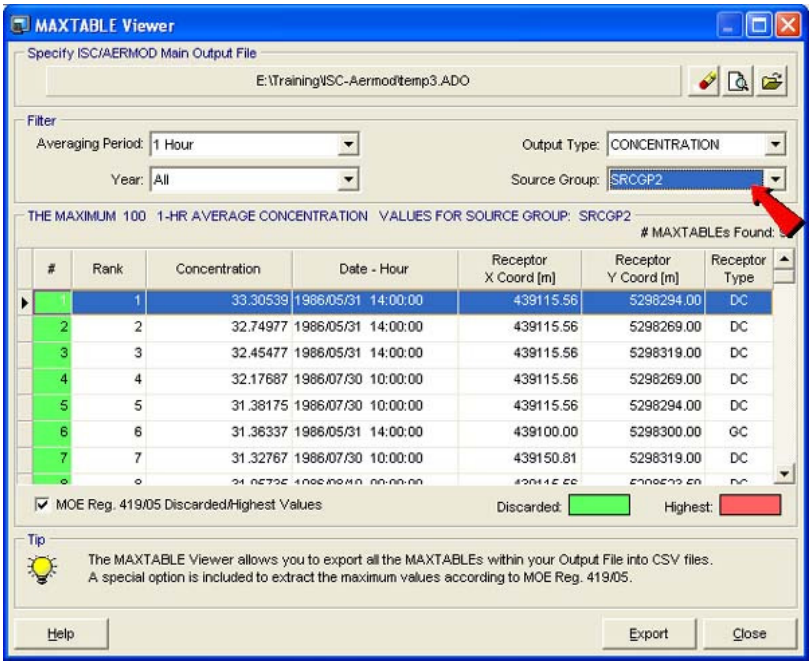
MAXTABLE Viewer	**Source Groups** The MAXTABLE Viewer now supports source groups other than "All". The *Source Group* field in the MAXTABLE Viewer allows you to specify the source group for which you would like to see the maximum concentrations. 
Preferences	**Default Number of Vertices for Circular Buildings** In the BPIP input file, circular buildings (e.g., tanks) are represented as uniform polygons. An option was added to the *Preferences* dialog (**File** | **Preferences** | **EPA Models/Limits** | **BPIP**) to allow for the specification of the number of polygon vertices (corners) that should be used when representing a circular building. The default number is 8. Please note that the higher the number of vertices, the longer the time BPIP will need to run.

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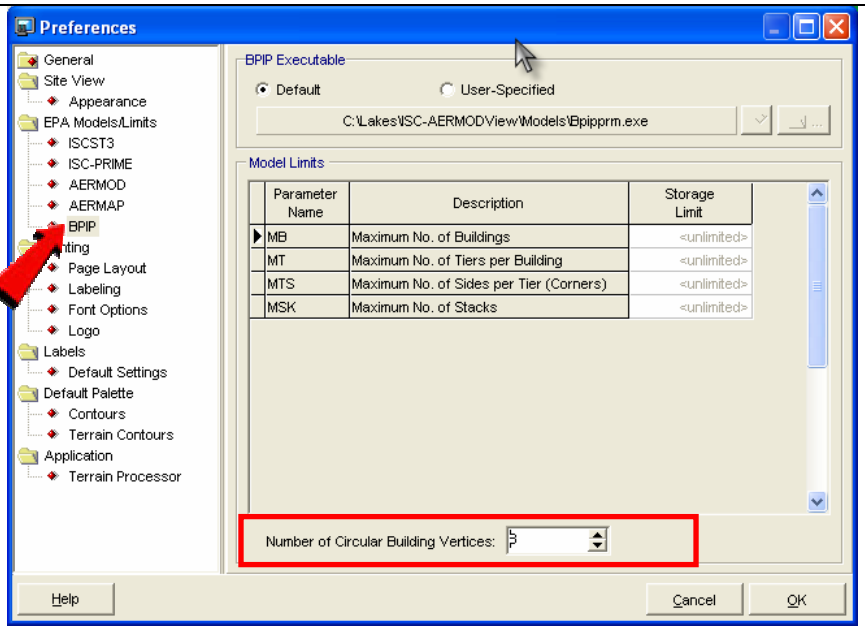
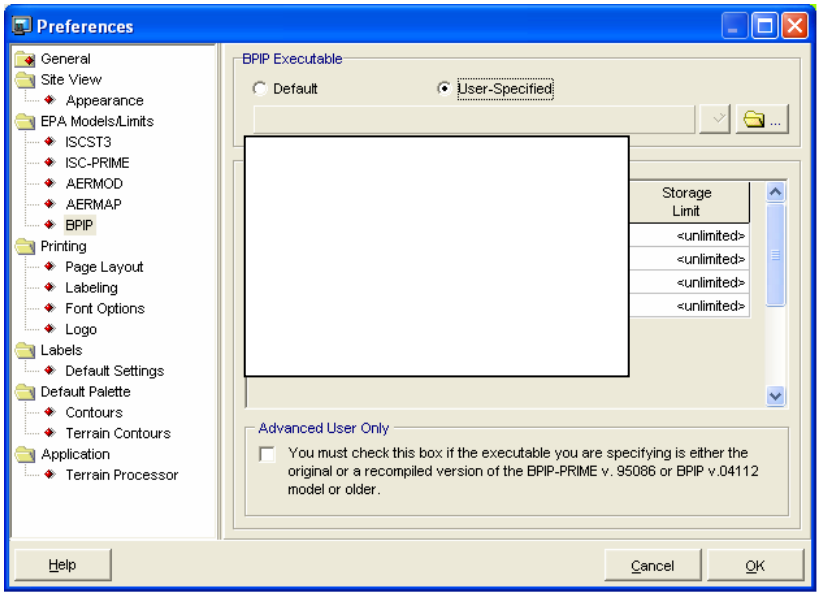


Preferences

BPIP Executable – Advanced User Only Option Removed

In the *Preferences* dialog, the option to specify the US EPA BPIP executables dated 95086, 04112, or older was eliminated. These executables are no longer necessary since the **BPIPPRM** executable dated 04274 is the recommended program for building downwash calculations.



BPIP

Building Import Bug

In some situations, multi-tiered buildings imported from DXF were separated into individual buildings. This bug has been corrected.

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Batcher	**Run Time Bug** In previous versions of AERMOD View, if a Batcher run spanned two days, the reported run time would be incorrect. This issue has been resolved.
Plotfiles	**Incorrect Grouping of Plotfiles** In some circumstances, plot files were being grouped incorrectly in the left hand tree view list. The issue has been resolved.

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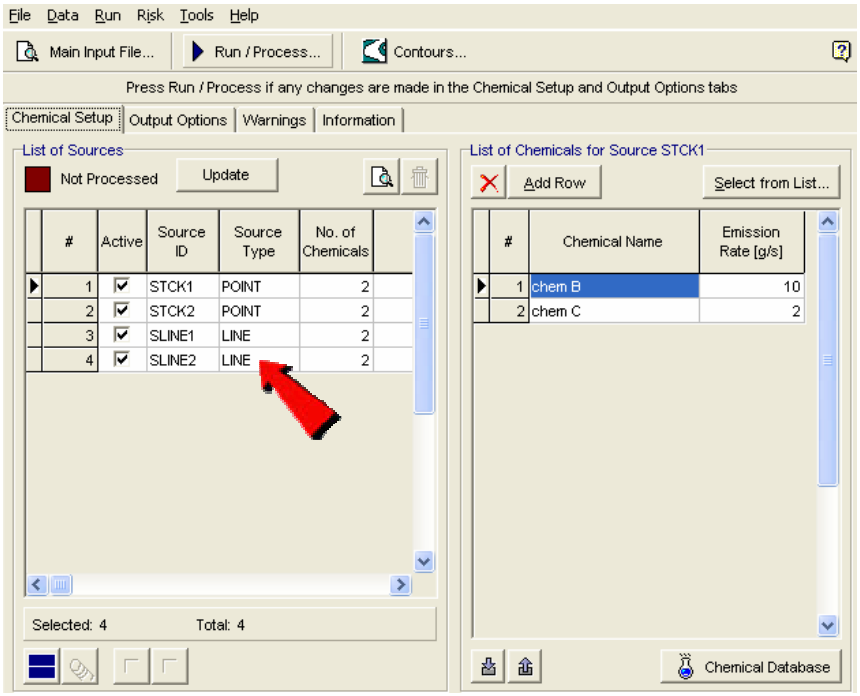
Multi-Chemical Utility	**Support for Line Sources** Line sources are now supported by the Multi-Chemical Utility. The group of volume sources that represent an individual line source will be processed in a single input file, but each line source will be processed separately. 
Multi-Chemical Utility	**Automatic Batcher Close** When running through Multi-Chemical Utility, the Batcher will now automatically close once all runs have finished successfully. This allows for the creation of chemical specific plotfiles without any further user action.

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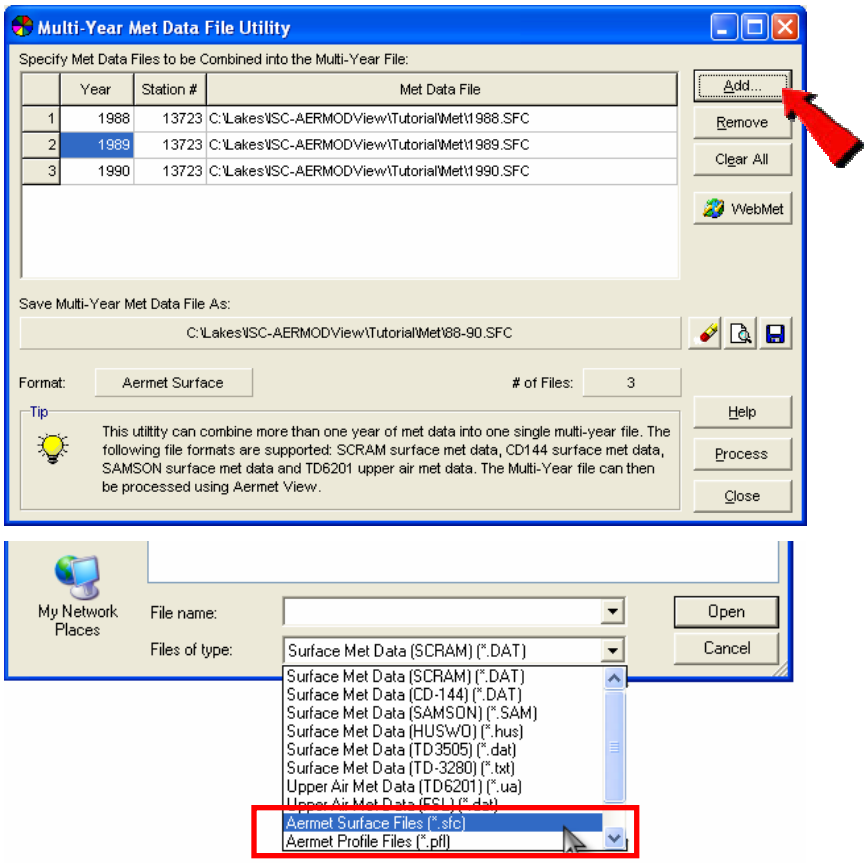
Aermet View	**Multi-Year Met Data File Utility** The Multi-Year Met Data File Utility has been enhanced. It now supports AERMET Surface (*.SFC) and Profile (*.PFL) output files. This utility allows you to combine several single-year met files into one combined file. You have access to this utility by selecting Tools | Multi-Year Data from the Aermet View menu. 
Aermet View	**Sector Display** Under the Sectors and Surface Parameters tab, some sectors were being displayed with incorrect starting and ending angles. This has been corrected.

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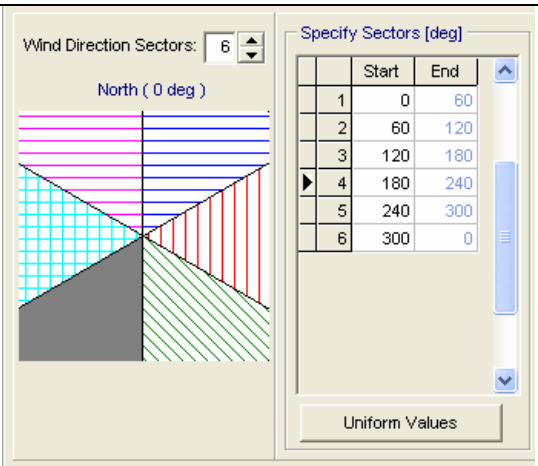
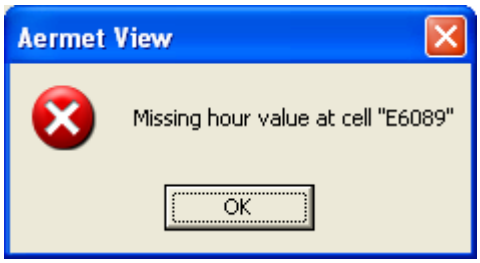
	
Aermet View	**Import From Excel Tool** The Import from Excel tool now has added checks for missing and incorrect date and time values. 
Aermet View	**On-Site Data – Variables to Read** Previously, if there were many variables in the on-site data records, the input file may have been written with a line that exceeded 80 characters; this causes the US EPA AERMET model to fail. Aermet View will now put the variables to read on multiple lines if necessary.
Aermet View	**On-Site Only Option** The US EPA AERMET model has an option to use on-site data without using a standard hourly surface file. Until now, this option was hidden in the Aermet View interface; it is now available for all users.

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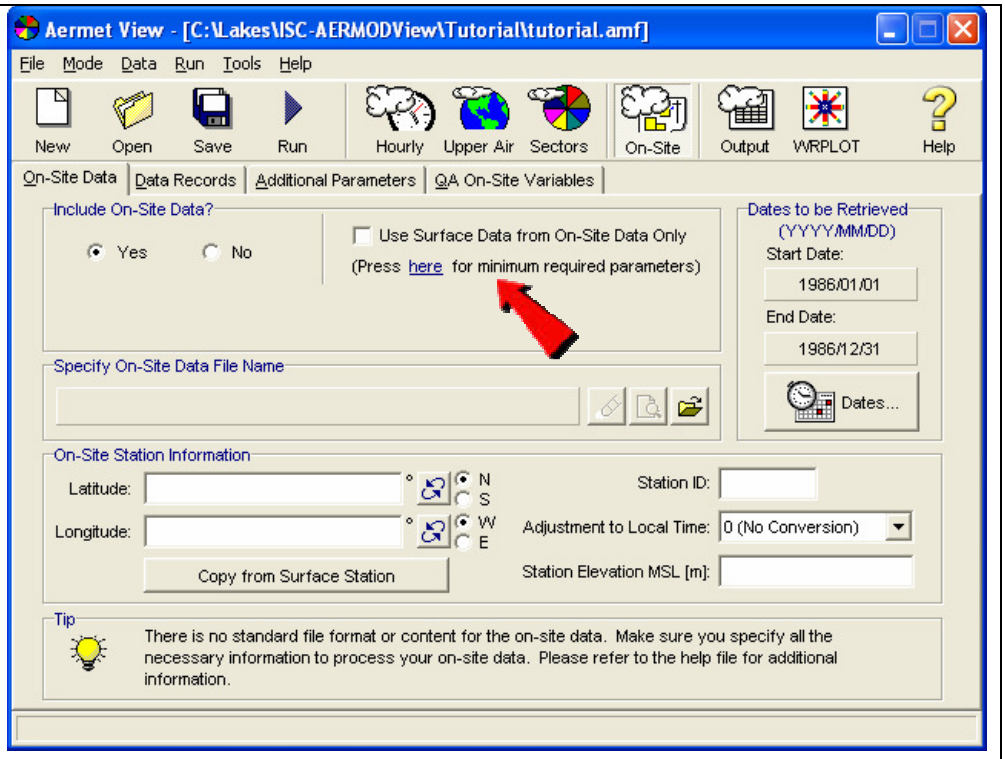

Aermet View	**Project Backup** In some project backups, the surface and upper air files were corrupted when the backup file was unzipped. This issue has been resolved.

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