

CALPUFF View™

**Interface for the CALPUFF Air Dispersion Modeling System:
CALPUFF, CALMET and CALPOST**

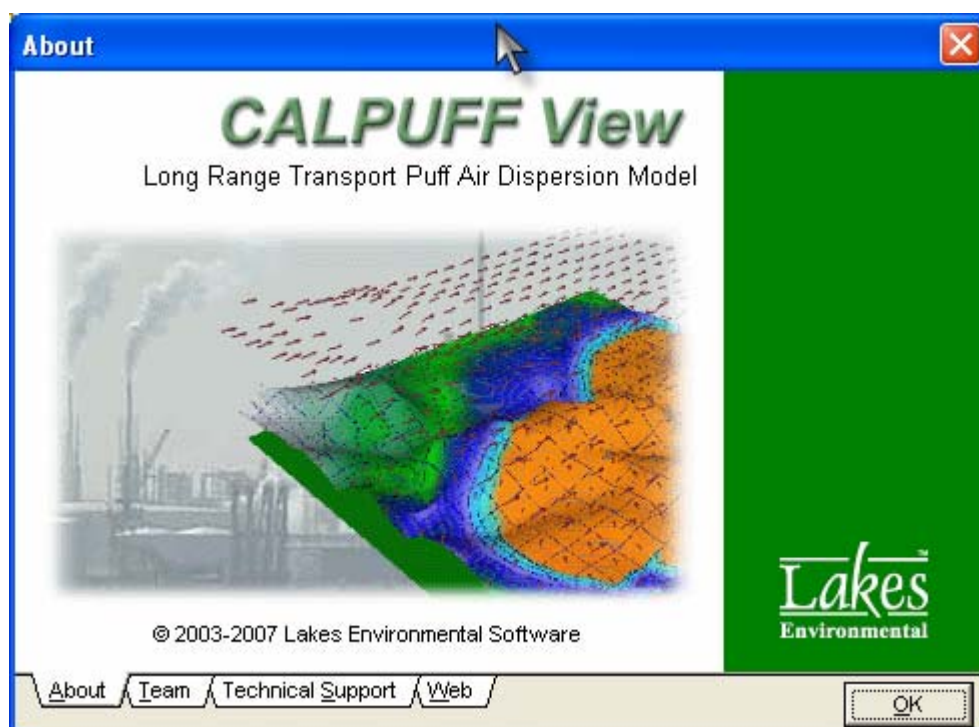
Release Notes

[Release Notes – Version 2.2](#)

[Release Notes – Version 2.0](#)

[Release Notes – Version 1.9](#)

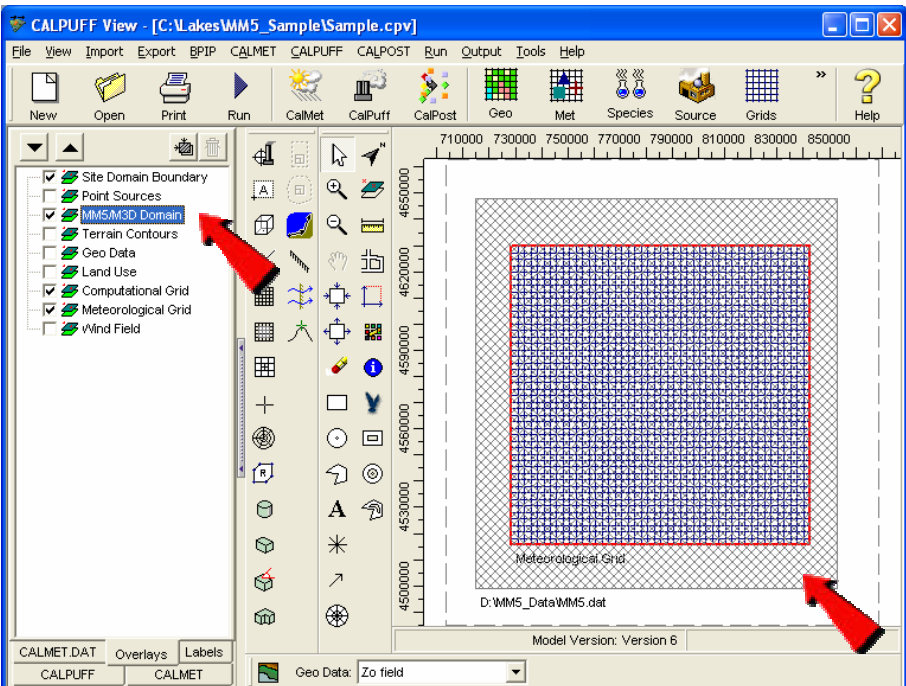
[Release Notes – Version 1.7](#)

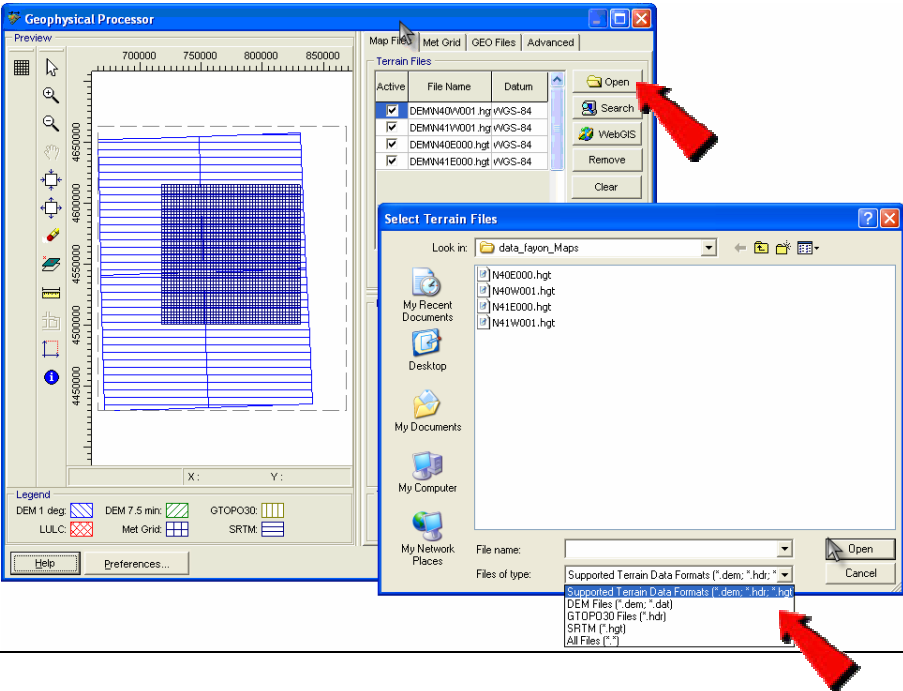


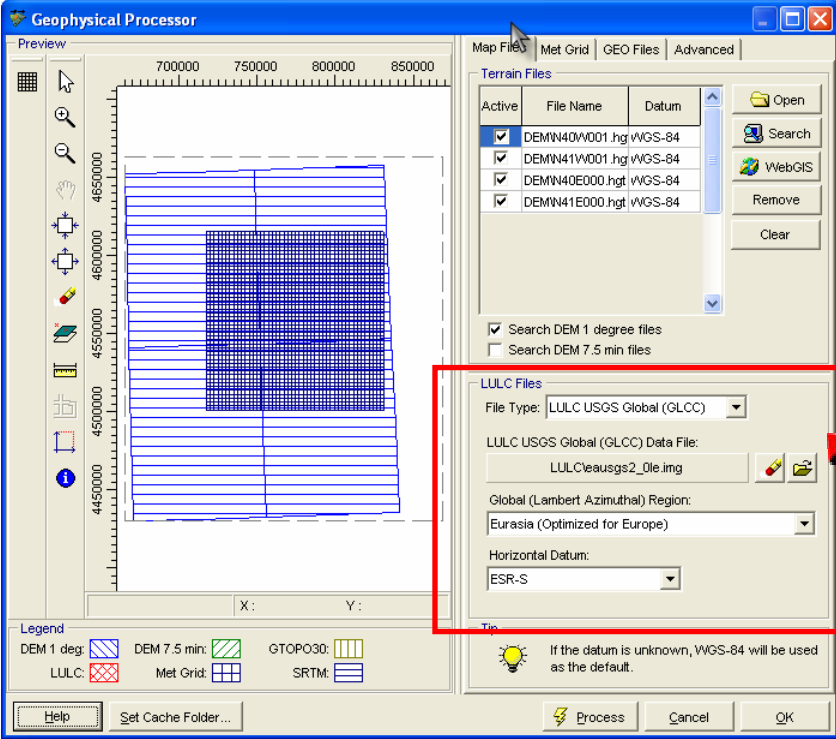
Lakes Environmental Software
Tel: (519) 746-5995
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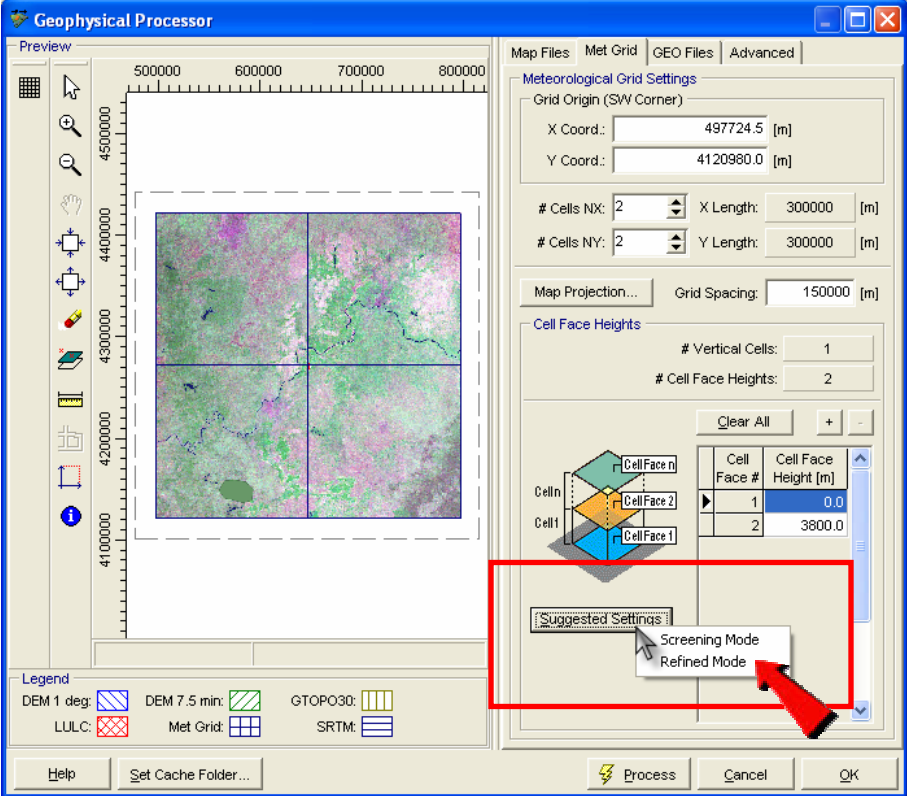
CALPUFF View™ Version 2.2

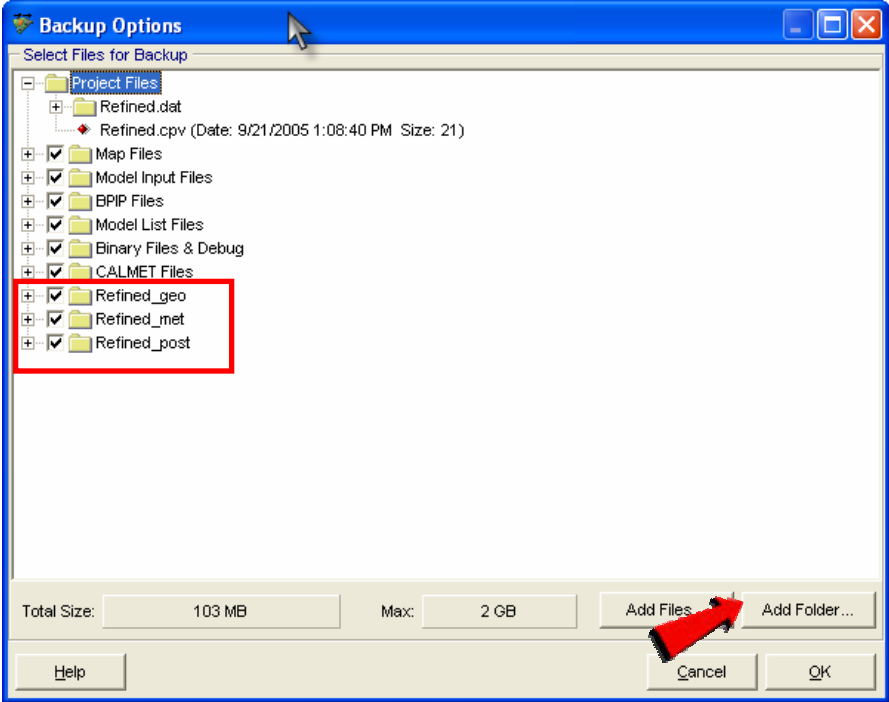
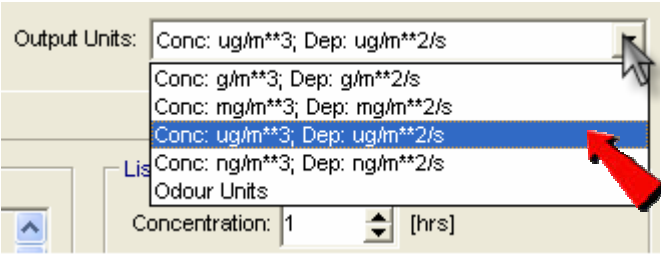
Release Notes June 15, 2007

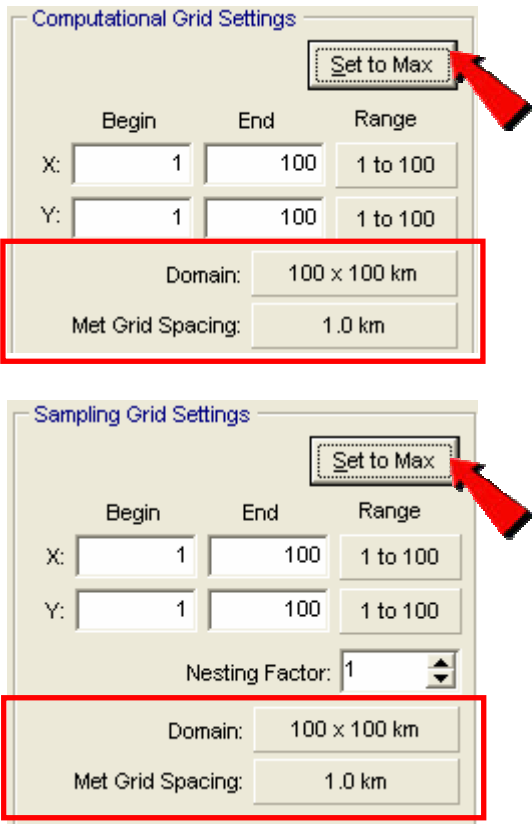
Topic	Feature Description
General	<p>Visualization of MM5 and M3D Domains</p> <p>CALPUFF View can now display the domain extents of any MM5 and M3D data files specified for the project in the graphical area. The <i>MM5/M3D Domain</i> layer is created and is represented in the graphical area as a gray hatched area.</p>  <p>The screenshot shows the CALPUFF View application window with the title bar '[C:\Lakes\MM5_Sample\Sample.cpv]'. The menu bar includes File, View, Import, Export, BPIP, CALMET, CALPUFF, CALPOST, Run, Output, Tools, and Help. The toolbar contains icons for New, Open, Print, Run, CalMet, CalPuff, CalPost, Geo, Met, Species, Source, Grids, and Help. On the left, a layer list shows 'MM5/M3D Domain' selected and highlighted in blue, with a red arrow pointing to it. The main graphical area displays a gray hatched rectangle representing the domain, with a red border and a red arrow pointing to it. The axes are labeled with coordinates: X-axis from 710000 to 850000 and Y-axis from 4500000 to 4650000. The bottom status bar shows 'Model Version: Version 6' and 'Geo Data: Zo field'.</p>

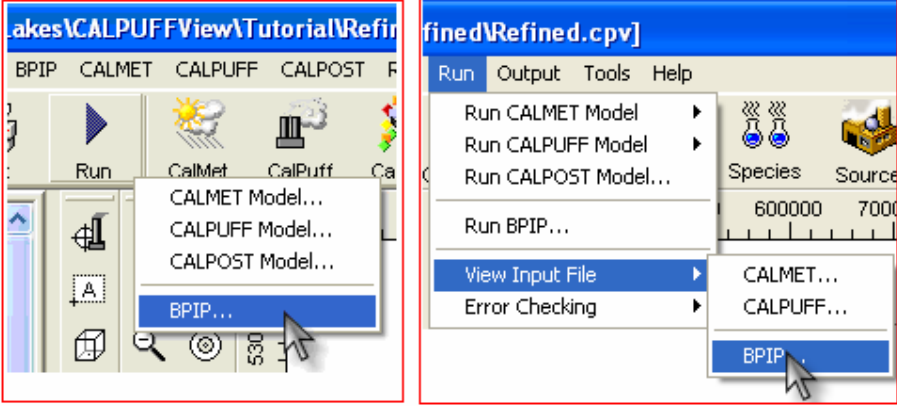
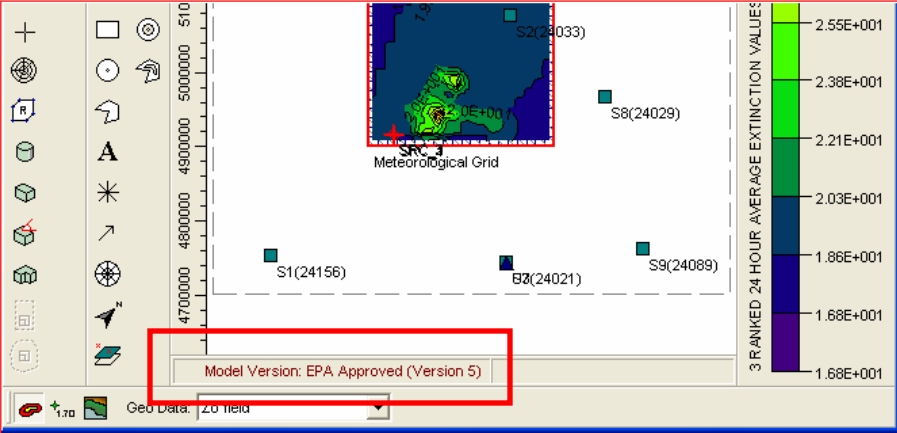
Topic	Feature Description
Geo Processor	<p>Support for Additional Terrain Data Formats</p> <p>CALPUFF View Geophysical Processor now supports the following terrain data file formats:</p> <ul style="list-style-type: none"> • GTOPO30/SRTM30: global terrain data in 30 arc-sec, ~900m resolution (*.hdr) • SRTM3 Version 2: global terrain data in 3 arc-sec, ~90m resolution (*.hgt). This format is only supported by the Version 6 and the VISTAS version of the CALPUFF model. • SRTM1 Version 2: terrain data for the US in 1 arc-sec, ~30m resolution (*.hgt). This format is only supported by the Version 6 and the VISTAS version of the CALPUFF model. <p>SRTM stands for Shuttle Radar Topographic Mission</p> <p>You can download the above terrain data files, free of charge, from our web site at:</p> <p>http://www.weblakes.com/lakesdem.html</p> 

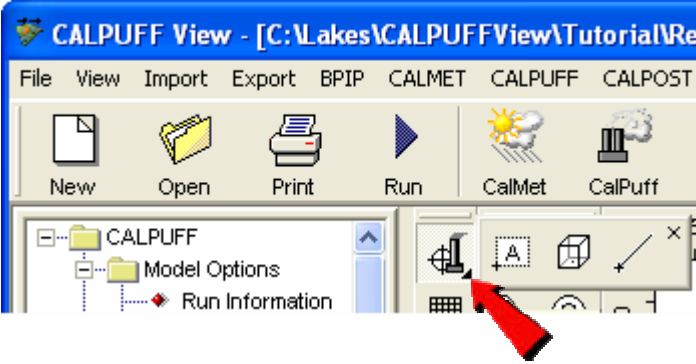
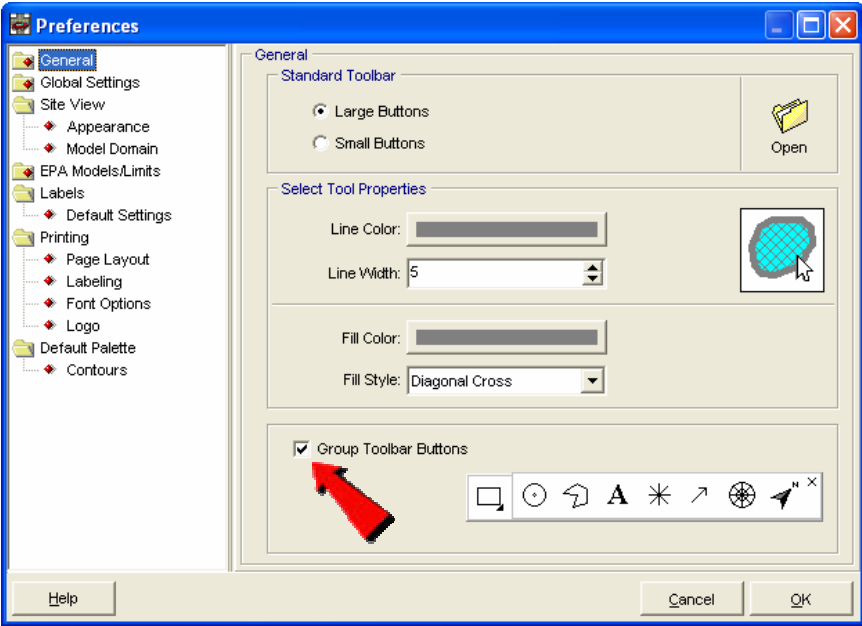
Topic	Feature Description
Geo Processor	<p>Support for GLCC LULC Global Format</p> <p>CALPUFF View now supports the Global Land Cover Characterization (GLCC) format version 2 (*.img) which has a ~1km resolution, 30 arc-sec. The GLCC database was developed on a continent-by-continent basis:</p> <p>Download this data format from our web site at:</p> <p>http://www.weblakes.com/modeling_data.html</p> <ul style="list-style-type: none"> • Africa • Australia Pacific • Eurasia (optimized for Asia) • Eurasia (optimized for Europe) • North America • South America 


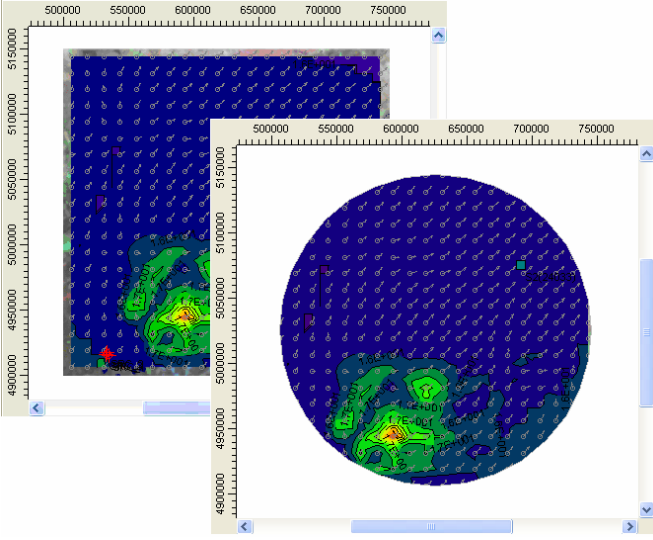

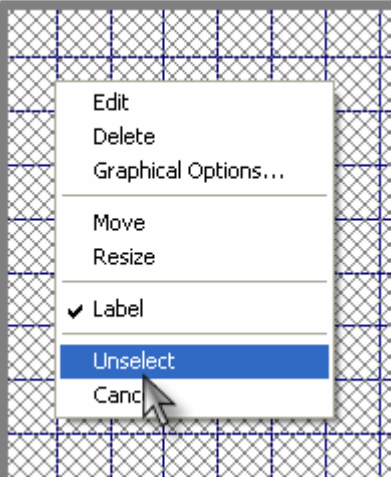
Topic	Feature Description
Geo Processor	<p>Cell Face Heights</p> <p>If you initially created your project in screening mode and want to convert it to the refined mode, you can now easily apply the suggested Cell Face Heights for the Refined mode by pressing the <i>Suggested Settings</i> button.</p>  <p>The screenshot shows the 'Geophysical Processor' window. On the left is a map preview with a coordinate grid. On the right are various settings panels. The 'Cell Face Heights' panel is highlighted with a red rectangle. It contains a table with two columns: 'Cell Face #' and 'Cell Face Height [m]'. The table has two rows: Row 1 has '1' and '0.0'; Row 2 has '2' and '3800.0'. Below the table is a 'Suggested Settings' button. A red arrow points to this button, which has a dropdown menu showing 'Screening Mode' and 'Refined Mode'.</p>
General	<p>Import Source Descriptions from ISC/AERMOD Input Files</p> <p>The import option was extended to also import source descriptions from the ISC/AERMOD input file. The import option will recognize ** DESCRSRC as the parameter containing the source description.</p> <pre> ***** ** AERMOD Source Pathway ***** ** ** SO STARTING ** Source Location ** ** Source ID - Type - X Coord. - Y Coord. ** LOCATION STCK1 POINT 439245.000 5298405.000 0.0 ** DESCRSRC This is the description for Stack 1 </pre>

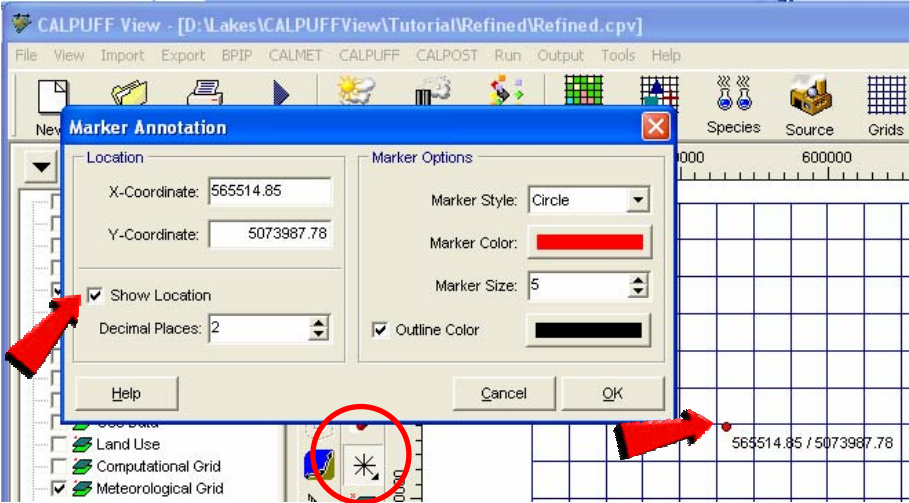
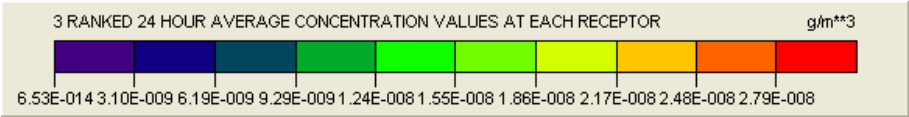
Topic	Feature Description
General	<p>Additional Features for the Backup Option</p> <p>CALPUFF View now automatically includes the geo, met and post folders into the backup file. The new <i>Add Folder</i> button allows you to specify additional folders, including their contents, to be included in the backup.</p> 
General	<p>Interface Default Options</p> <p>Newly created projects now have the following default options in the interface:</p> <ul style="list-style-type: none"> CALPUFF Output Units for Concentration in ug/m**3 and for Deposition in ug/m**2 

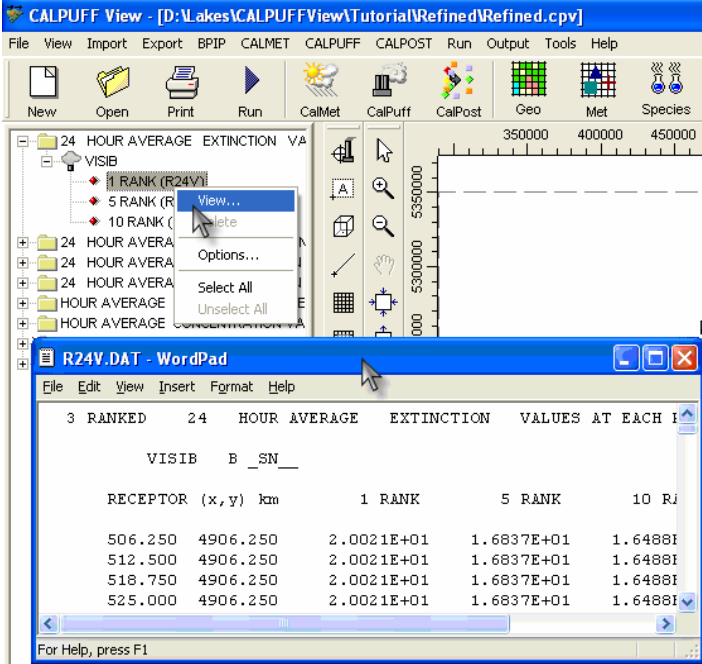
Topic	Feature Description
General	<p>Set to Max Option</p> <p>The <i>Set to Max</i> button was implemented on the Computational and Sampling Grid dialogs. This option allows the user to quickly set up these grids to the maximum size allowed. The Domain for the currently specified grid (computational or sampling) is automatically computed and displayed in km. The Met Grid Spacing is also displayed.</p>  <p>Computational Grid Settings</p> <p>Set to Max</p> <p>Begin End Range</p> <p>X: 1 100 1 to 100</p> <p>Y: 1 100 1 to 100</p> <p>Domain: 100 x 100 km</p> <p>Met Grid Spacing: 1.0 km</p> <p>Sampling Grid Settings</p> <p>Set to Max</p> <p>Begin End Range</p> <p>X: 1 100 1 to 100</p> <p>Y: 1 100 1 to 100</p> <p>Nesting Factor: 1</p> <p>Domain: 100 x 100 km</p> <p>Met Grid Spacing: 1.0 km</p>

Topic	Feature Description
General	<p>Run BPIP Option</p> <p>A shortcut to run BPIP was implemented under the <i>Run</i> button pop-up menu. Additional shortcuts for BPIP were also introduced under the <i>Run</i> menu.</p> 
General	<p>Model Version Displayed on the Status Bar</p> <p>The currently selected CALPUFF model version is now displayed on the status bar in a maroon label. This way, the user is aware which version of the model is being currently used. The model version can be changed from the <i>Preferences</i> dialog.</p> 

Topic	Feature Description
Tools	<p>New Toolbar Grouping Option</p> <p>A new option allows toolbar buttons to be grouped together based on common functionality. This allows for simplification of both the <i>Annotation</i> and <i>Application Toolbars</i>. You can identify the tools that are grouped together with a small arrow on one of the corners of the tool.</p>  <p>This feature can be turned on or off from the <i>General</i> panel of the <i>Preferences</i> dialog.</p> 

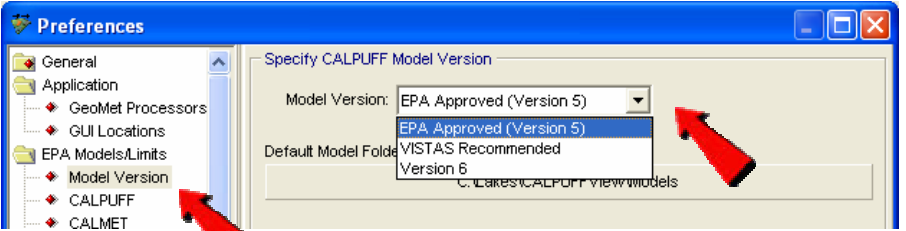
Topic	Feature Description
Tools	<p>Clip Region Tools</p>  <p>New rectangular, circular, and polygonal Clip Region tools allow you to clip/mask a section of the graphical area that you do not wish to show. The Clip Region tools are now available on the <i>Annotation</i> toolbar.</p> 
Tools	<p>New Option for the Select Tool Pop-Up Menu</p>  <p>A new option available for objects in the drawing area allows you to unselect the object that is currently selected in the drawing area. The Unselect option is located on the floating menu available when you right-click an object from the drawing area.</p> 

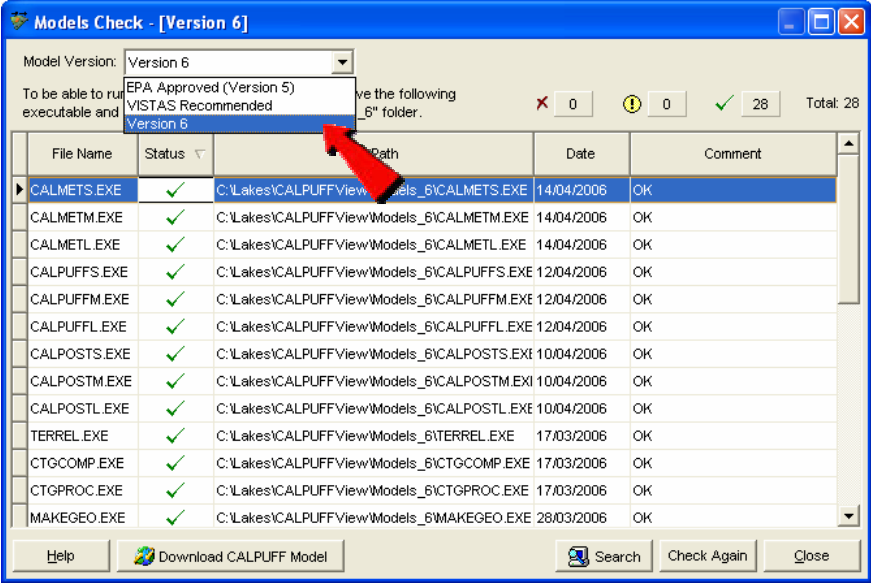
Topic	Feature Description
Tools	<p>Marker Annotation Coordinates</p> <p>You can now display the coordinates of any marker placed on the drawing area. The Show Location feature is located in the <i>Marker Annotation</i> dialog.</p> 
CALPOST	<p>Detailed Description for CALPOST Contour Plot Results</p> <p>A more detailed description is now being placed in the color ramp for CALPOST contour results.</p> 

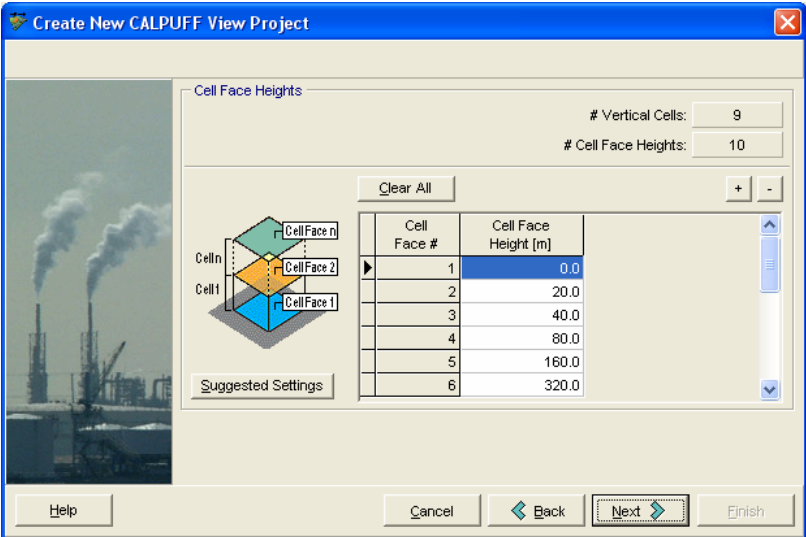
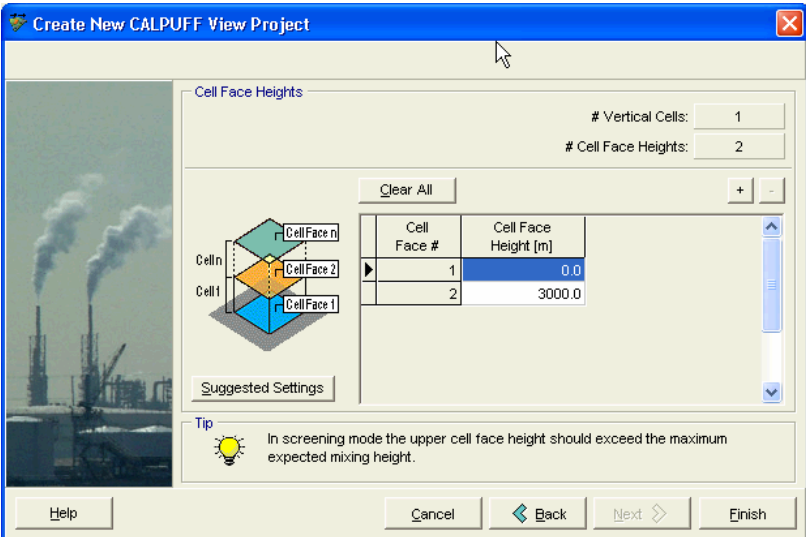
Topic	Feature Description																																										
CALPOST	<p>Double-Click to View Plotfiles</p> <p>The double-click functionality was implemented for the CALPOST Results listed under the navigation tree. Select the CALPOST result to view and double-click on it to display the original CALPOST results in a text file.</p>  <p>The screenshot shows the CALPUFF View application window with the following menu bar: File, View, Import, Export, BPIP, CALMET, CALPUFF, CALPOST, Run, Output, Tools, Help. The toolbar includes icons for New, Open, Print, Run, CalMet, CalPuff, CalPost, Geo, Met, and Species. The navigation tree on the left shows a hierarchy: 24 HOUR AVERAGE EXTINCTION VA, VISIB, 1 RANK (R24V1), 5 RANK (R24V1), 10 RANK (R24V1). A right-click context menu is open over the '1 RANK (R24V1)' item, showing options: View..., Delete, Options..., Select All, and Unselect All. A WordPad window titled 'R24V.DAT - WordPad' is open in the foreground, displaying the following data:</p> <table><tr><th colspan="2">3 RANKED</th><th>24</th><th>HOURLY AVERAGE</th><th>EXTINCTION</th><th>VALUES AT EACH P</th></tr><tr><th colspan="2">VISIB</th><th>B</th><th>_SN_</th><th></th><th></th></tr><tr><th>RECEPTOR (x, y) km</th><th></th><th></th><th>1 RANK</th><th>5 RANK</th><th>10 RANK</th></tr><tr><td>506.250</td><td>4906.250</td><td></td><td>2.0021E+01</td><td>1.6837E+01</td><td>1.6488E+01</td></tr><tr><td>512.500</td><td>4906.250</td><td></td><td>2.0021E+01</td><td>1.6837E+01</td><td>1.6488E+01</td></tr><tr><td>518.750</td><td>4906.250</td><td></td><td>2.0021E+01</td><td>1.6837E+01</td><td>1.6488E+01</td></tr><tr><td>525.000</td><td>4906.250</td><td></td><td>2.0021E+01</td><td>1.6837E+01</td><td>1.6488E+01</td></tr></table> <p>For Help, press F1</p>	3 RANKED		24	HOURLY AVERAGE	EXTINCTION	VALUES AT EACH P	VISIB		B	_SN_			RECEPTOR (x, y) km			1 RANK	5 RANK	10 RANK	506.250	4906.250		2.0021E+01	1.6837E+01	1.6488E+01	512.500	4906.250		2.0021E+01	1.6837E+01	1.6488E+01	518.750	4906.250		2.0021E+01	1.6837E+01	1.6488E+01	525.000	4906.250		2.0021E+01	1.6837E+01	1.6488E+01
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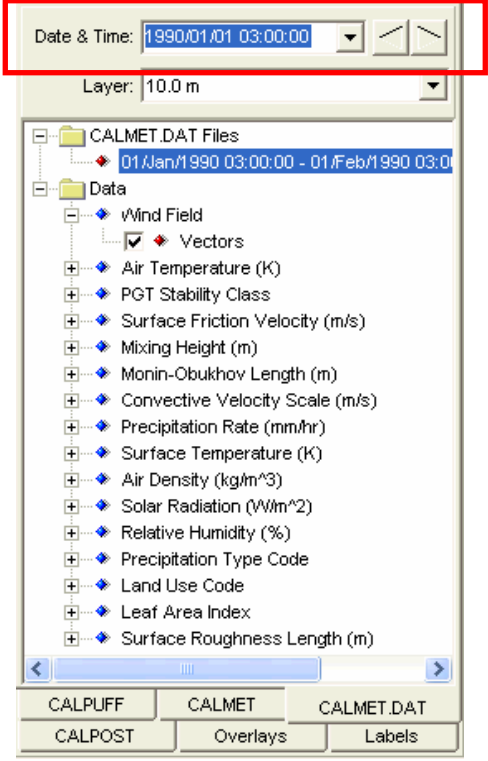
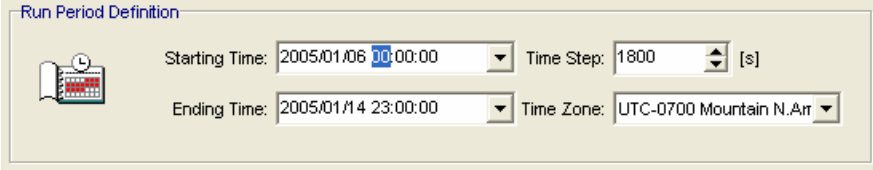
CALPUFF View™ Version 2.0

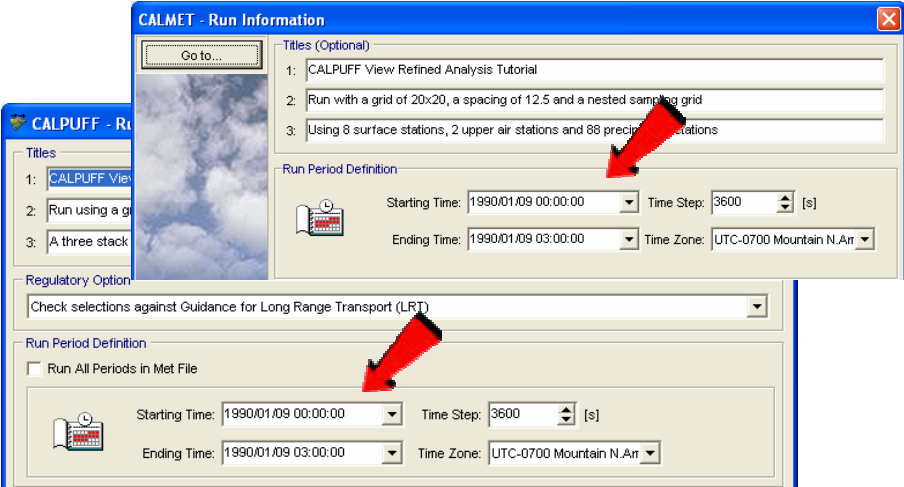
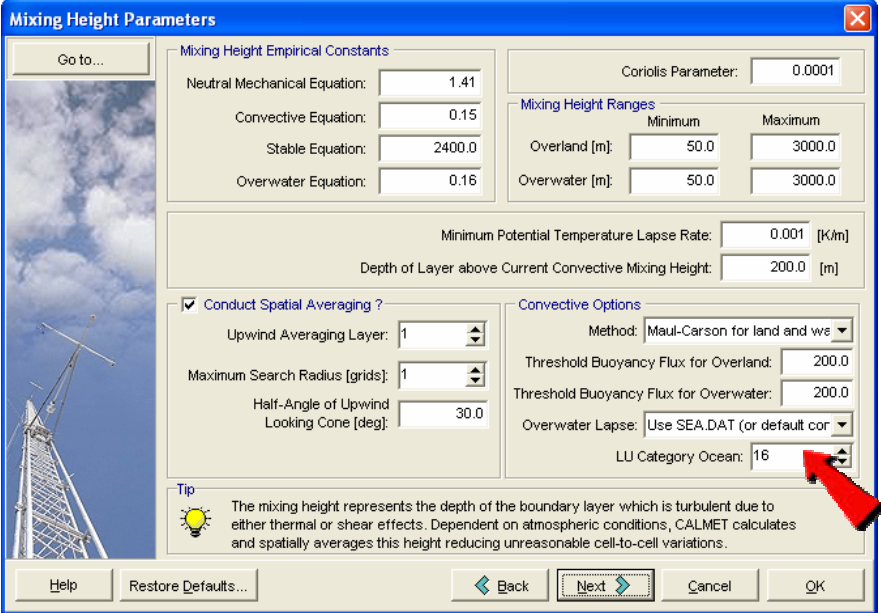
Release Notes November 14, 2006

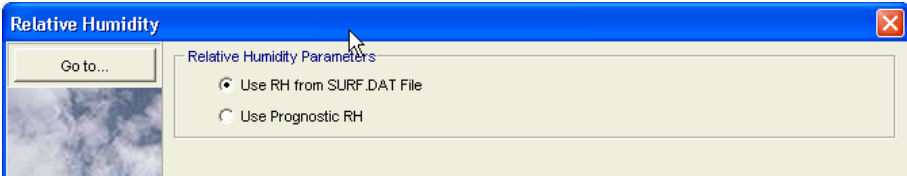
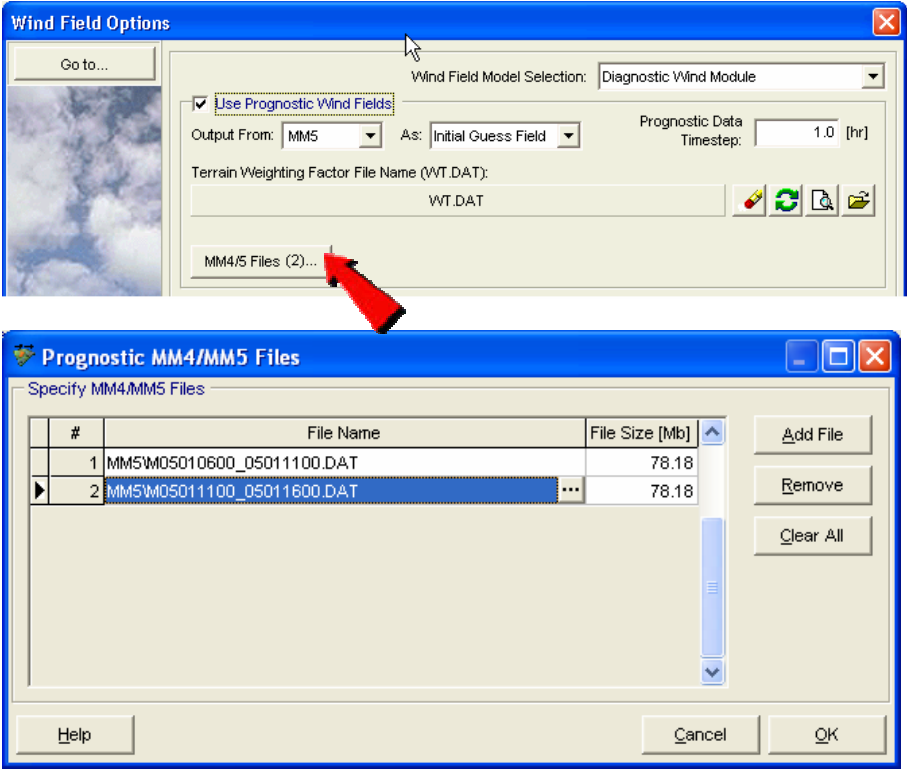
Topic	Feature Description
Models	<p>CALPUFF View Support for Version 6 Models</p> <p>CALPUFF View Version 2.0 contains the latest model enhancements and updates to the TRC CALPUFF modeling system (Version 6). The following Version 6 models are supported by CALPUFF View:</p> <ul style="list-style-type: none"> ◆ CALPUFF - Version 6.112 - April 12, 2006 ◆ CALMET - Version 6.211 - April 14, 2006 ◆ CALPOST - Version 6.131 - April 10, 2006
General	<p>CALPUFF View - Model Preferences</p> <p>You can now switch seamlessly between the VISTAS Recommended, Version 6 and EPA Approved CALPUFF Models. Model executables are specified independently for each setting. This option is available by selecting File Preferences from the menu and then selecting the Model Version panel.</p> <p>CALPUFF-Version 6 Models: Download the latest models from TRC's web site and place the exe files under the Models_6 folder within the installation folder (C:\Lakes\CALPUFFView\Models_6)</p> <p>Download CALPUFF-Version 6 Models from TRC Web Site</p> <p>CALPUFF-VISTAS Models: Download the latest models from TRC's web site and place the exe files under the Models_V folder within the installation folder (C:\Lakes\CALPUFFView\Models_V)</p> <p>Download CALPUFF-VISTAS Models from TRC Web Site</p> <p>CALPUFF- EPA Approved Models: Download the latest models from TRC's web site and place the exe files under the Models folder within the installation folder (C:\Lakes\CALPUFFView\Models)</p> <p>Download CALPUFF-EPA Approved Models from TRC Web Site</p> 

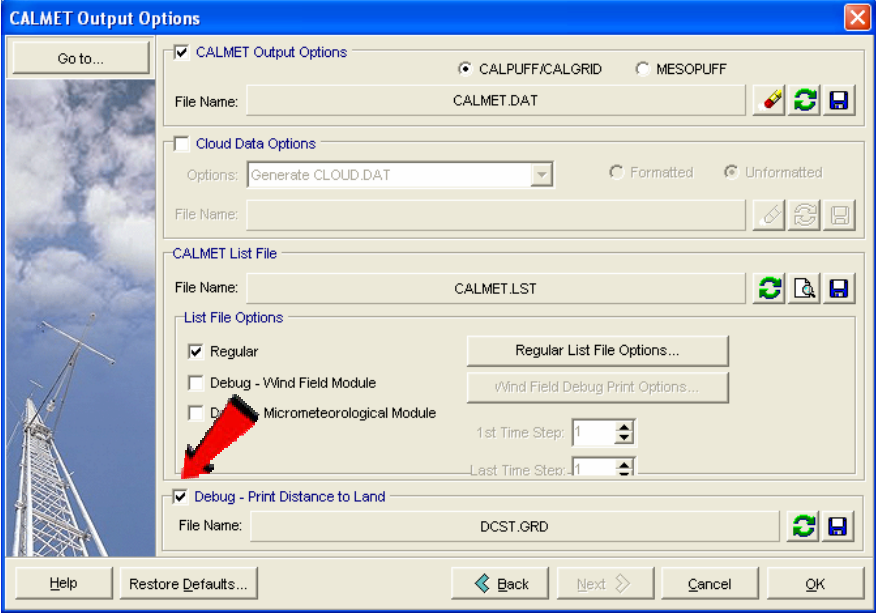
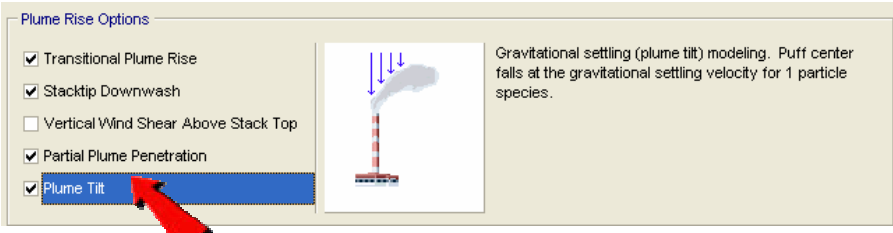
Topic	Feature Description
General	<p>Checking for All Supported Model Versions</p> <p>The Models Check tool (select Tools Models Check menu option), can test for the availability and correct location of all the model EXE files necessary to run each one of the three supported model versions:</p> <ul style="list-style-type: none"> • EPA Approved (Version 5) • VISTAS Recommended • Version 6 

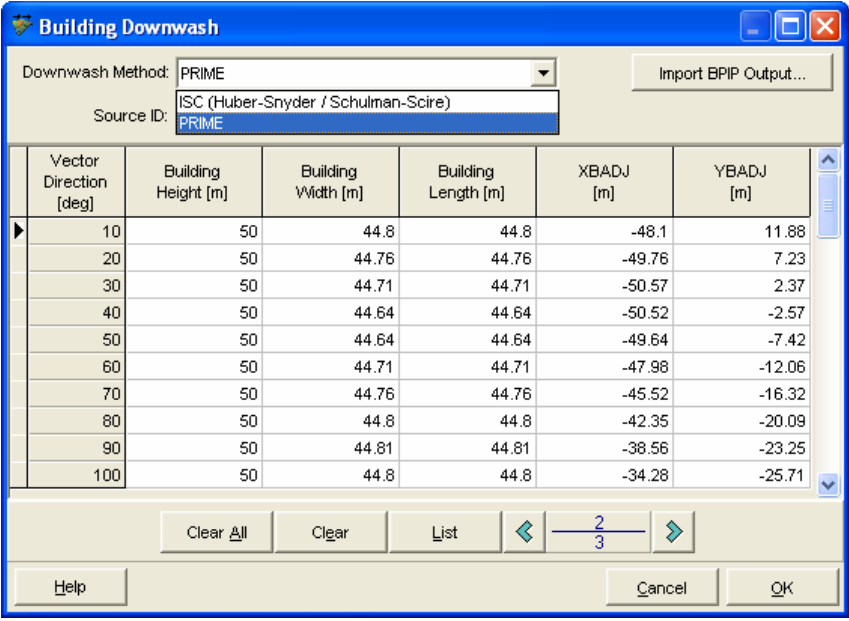
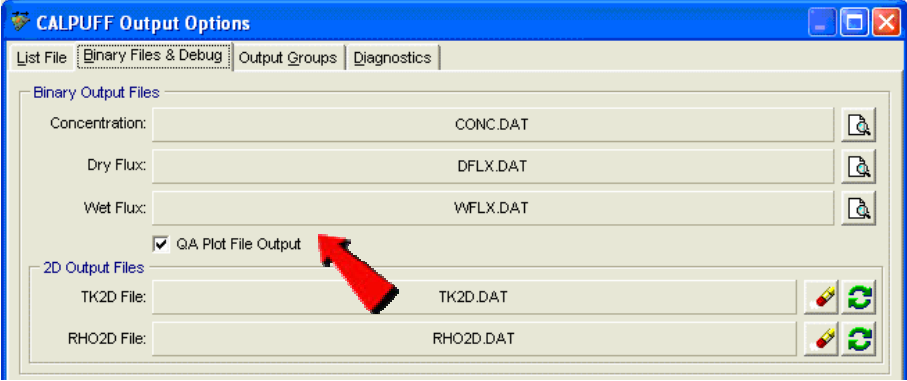
Topic	Feature Description																				
General	<p>Cell Face Heights</p> <p>Cell Face Heights can now be also specified in the Create New CALPUFF View Project Wizard. Default values are available for both the Refined and the Screening modes.</p>  <p>Cell Face Heights</p> <p># Vertical Cells: 9 # Cell Face Heights: 10</p> <p>Clear All</p> <table border="1"> <thead> <tr> <th>Cell Face #</th> <th>Cell Face Height [m]</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.0</td></tr> <tr><td>2</td><td>20.0</td></tr> <tr><td>3</td><td>40.0</td></tr> <tr><td>4</td><td>80.0</td></tr> <tr><td>5</td><td>160.0</td></tr> <tr><td>6</td><td>320.0</td></tr> </tbody> </table> <p>Suggested Settings</p> <p>Help Cancel Back Next Finish</p>  <p>Cell Face Heights</p> <p># Vertical Cells: 1 # Cell Face Heights: 2</p> <p>Clear All</p> <table border="1"> <thead> <tr> <th>Cell Face #</th> <th>Cell Face Height [m]</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.0</td></tr> <tr><td>2</td><td>3000.0</td></tr> </tbody> </table> <p>Suggested Settings</p> <p>Tip In screening mode the upper cell face height should exceed the maximum expected mixing height.</p> <p>Help Cancel Back Next Finish</p>	Cell Face #	Cell Face Height [m]	1	0.0	2	20.0	3	40.0	4	80.0	5	160.0	6	320.0	Cell Face #	Cell Face Height [m]	1	0.0	2	3000.0
Cell Face #	Cell Face Height [m]																				
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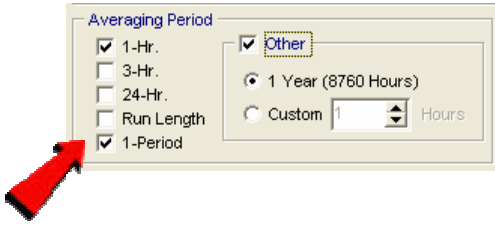
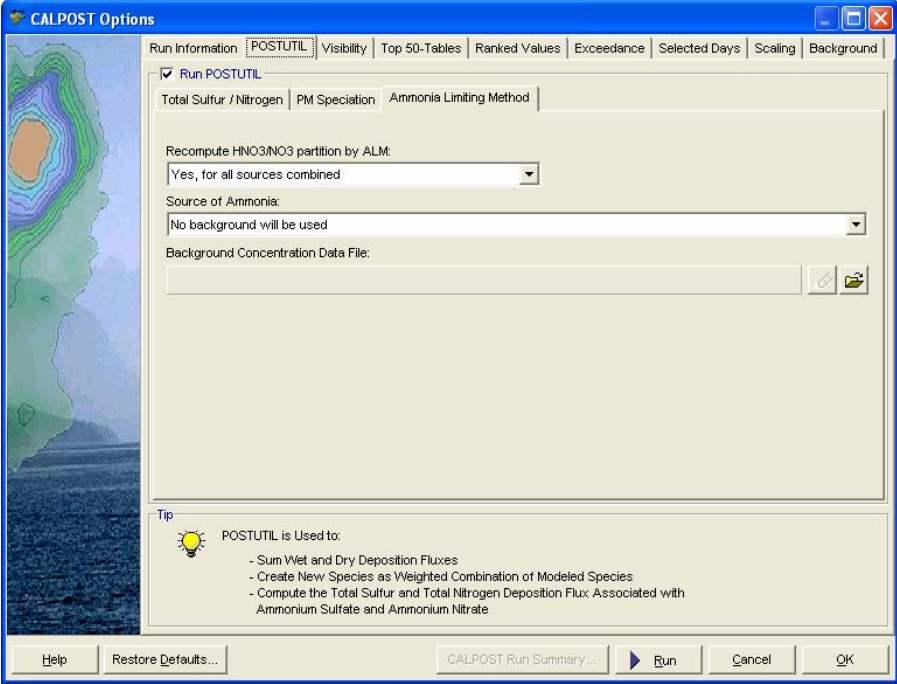
Topic	Feature Description
General	<p>Date & Time Selector</p> <p>An improved Date & Time selector has been implemented in CALPUFF View and CALPUFF 3D to allow time steps less than one hour.</p> 
CALPUFF CALMET CALPOST Options (Version 6)	<p>Version 6 and VISTAS Model Options</p> <p>Interface options implemented in CALPUFF View Version 1.9 to support the VISTAS Version of the models (CALMET, CALPUFF, CALPOST) were also implemented to support the Version 6 of the models. For a description of these options, please see the Release Notes for CALPUFF View Version 1.9.</p>
CALPUFF CALMET CALPOST Option (Version 6)	<p>Run Period Definition</p> <p>The Run Period Definition options for the Version 6 of the CALMET, CALPUFF and CALPOST models are now defined by a starting and ending time, rather than a starting time and a run length. A time step of less than one hour (3600 s) is now allowed.</p> 

Topic	Feature Description
General	<p>Date and Time Auto-Fill – Run Period Definition</p> <p>When a date and/or time is entered into either the CALMET or CALPUFF - Run Information dialog, this date and/or time will be automatically entered into the other Run Information dialog if these fields were previously empty.</p> 
CALMET Option (Version 6)	<p>Ocean Land Use Category</p> <p>When using the Version 6 Models, the ocean land use category may be specified in the CALMET – Mixing Height Parameters dialog.</p> 

Topic	Feature Description									
CALMET Option (Version 6)	<p>Relative Humidity Parameters</p> <p>The option to either use relative humidity parameters from the SURF.DAT file or to use the prognostic relative humidity was implemented under the CALMET – Relative Humidity dialog. This option is compatible with Version 6 of the CALMET Model.</p> 									
CALMET Option (Version 6)	<p>Multiple MM5 Files</p> <p>Version 6 of the CALMET Model now accepts multiple consecutive or overlapping MM5/MM4 meteorological data. This option is available under the CALMET – Wind Field Options dialog.</p>  <table data-bbox="485 1247 1192 1331"><thead><tr><th>#</th><th>File Name</th><th>File Size [Mb]</th></tr></thead><tbody><tr><td>1</td><td>MM5\M05010600_05011100.DAT</td><td>78.18</td></tr><tr><td>2</td><td>MM5\M05011100_05011600.DAT</td><td>78.18</td></tr></tbody></table>	#	File Name	File Size [Mb]	1	MM5\M05010600_05011100.DAT	78.18	2	MM5\M05011100_05011600.DAT	78.18
#	File Name	File Size [Mb]								
1	MM5\M05010600_05011100.DAT	78.18								
2	MM5\M05011100_05011600.DAT	78.18								

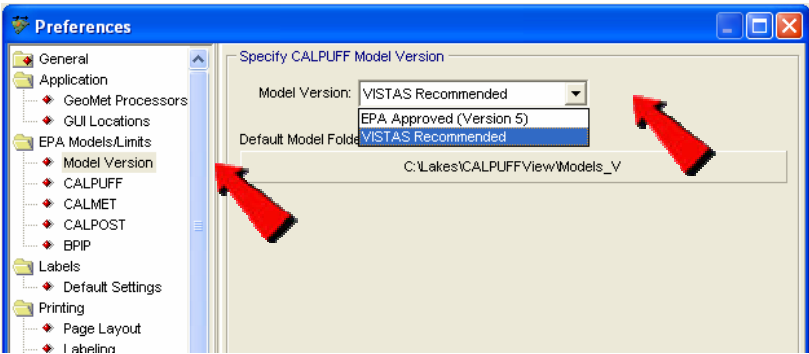
Topic	Feature Description
CALMET Option (Version 6)	<p>Debug - Print Distance to Land Output Option</p> <p>Version 6 of the CALMET model includes the option to print distances to land to an output file. This option was implemented in the CALMET Output Options dialog.</p> 
CALPUFF Option (Version 6)	<p>Plume Tilt – Plume Rise Option</p> <p>The Plume Tilt (gravitational settling) option was implemented in the CALPUFF – Plume Rise dialog. This is an option introduced in Version 6 of the CALPUFF model.</p> 


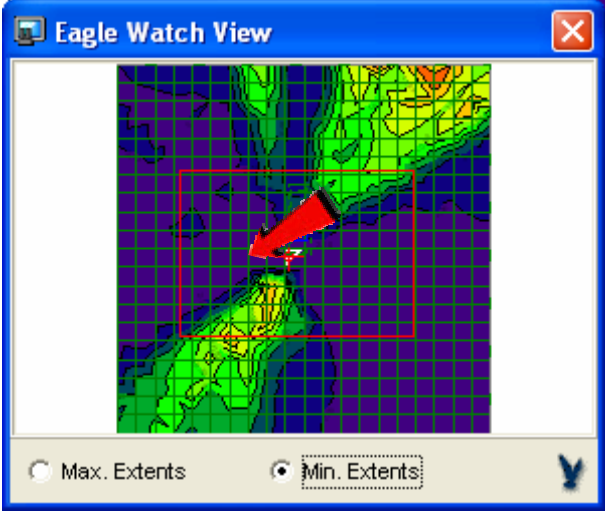

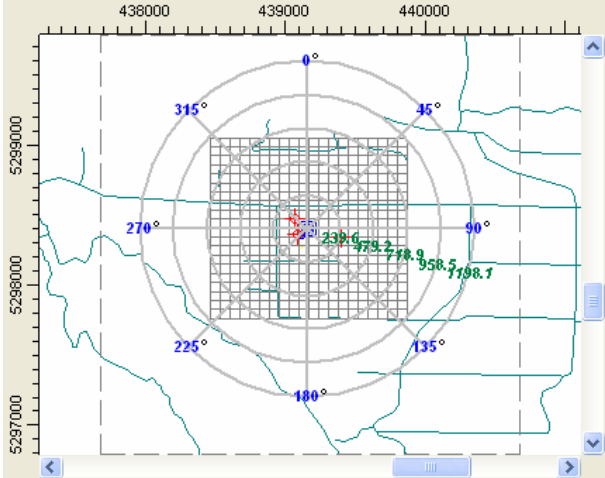
Topic	Feature Description
CALPUFF Option (Version 6)	<p>Building Downwash Calculated by CALPUFF</p> <p>Version 6 of the CALPUFF model has the capability of calculating building downwash using either the ISC (Huber-Snyder / Schulman-Scire) or the PRIME method directly. This eliminates the need to run the BPIP program separately.</p> 
CALPUFF Option (Version 6)	<p>QA Plot File Output Option</p> <p>Version 6 of the CALPUFF model has the option to output a QA plot file - a standard series of output files (e.g. locations of sources, receptors, grids ...) suitable for plotting. This option was implemented under the CALPUFF Output Options dialog – Binary Files & Debug tab.</p> 

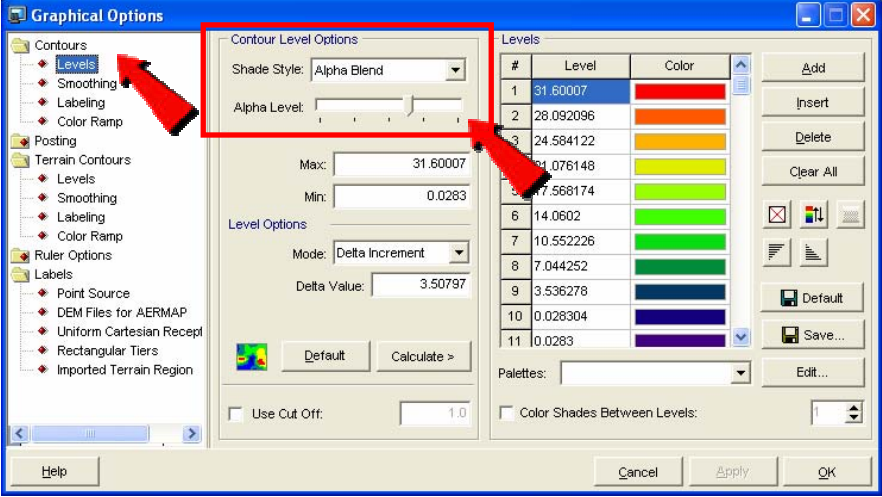
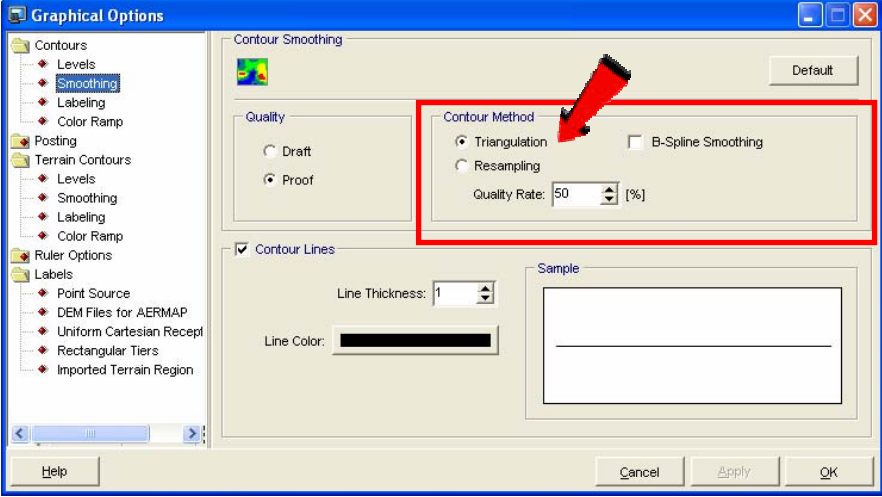
Topic	Feature Description
CALPOST Option (Version 6)	<p>New Averaging Period (1-Period)</p> <p>An averaging period equal in length to the CALPUFF time step is now available in CALPOST Options – Run Information tab. This option is compatible with Version 6 of the CALMET model only.</p> 
CALPOST Option (Version 6)	<p>One Step ALM</p> <p>The Ammonia Limiting Method in CALPOST may now be completed in a single step.</p> 

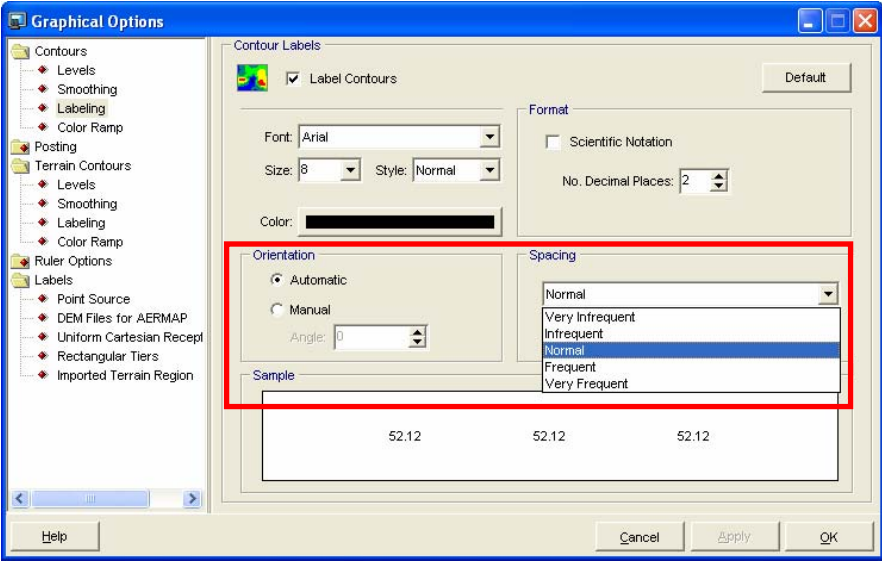
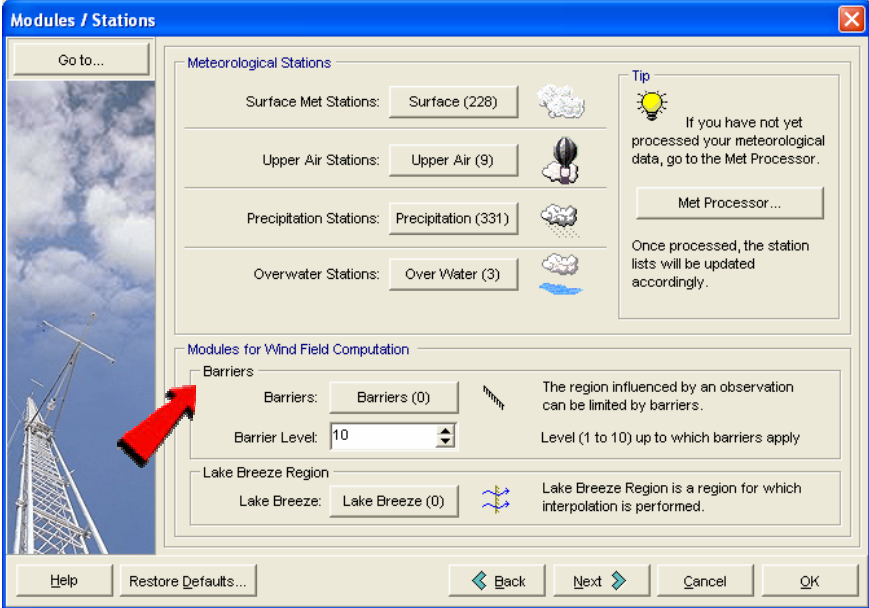
CALPUFF View™ Version 1.9

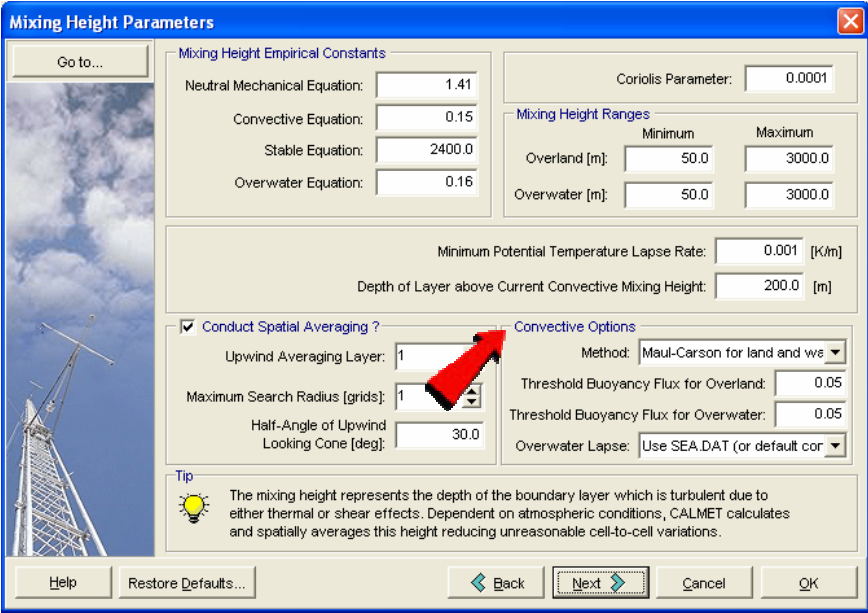
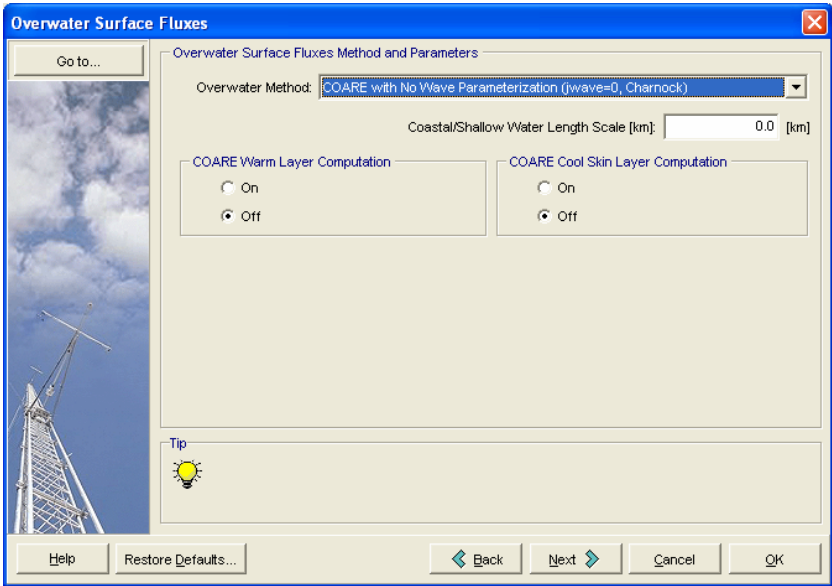
Release Notes July 13, 2006

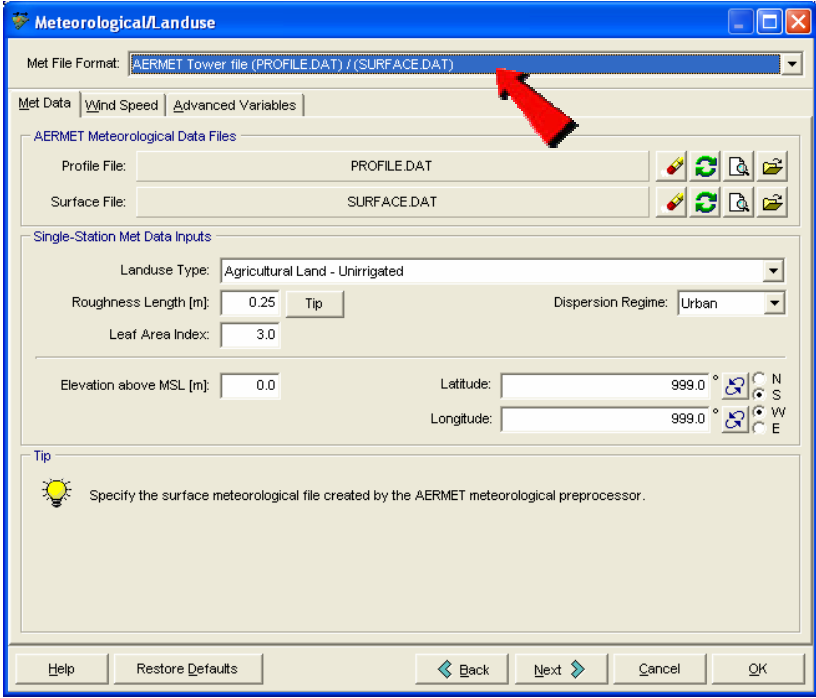
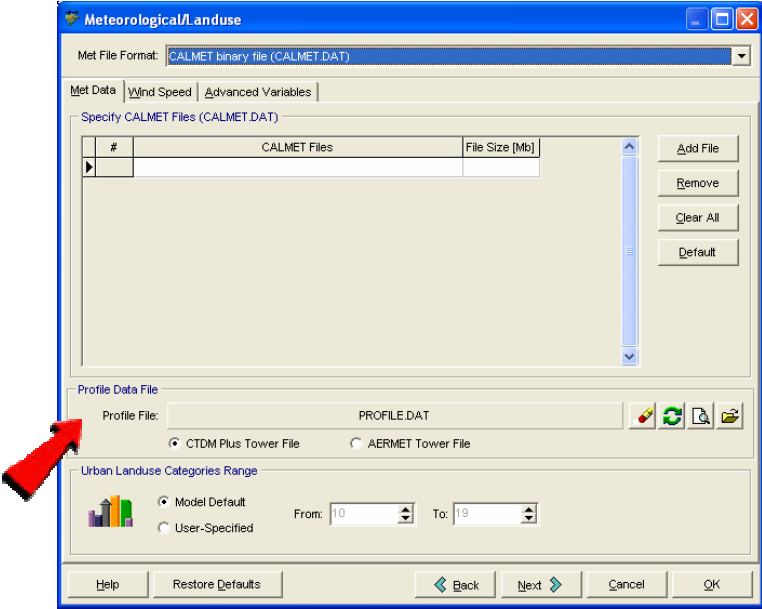
Topic	Feature Description
Models	<p>CALPUFF – VISTAS Recommended for BART Modeling The version of the CALPUFF modeling system recommended by VISTAS (and other Regional Planning Organizations) for Best Available Retrofit Technology (BART) analyses is now fully supported in the CALPUFF View interface. Model Versions supported by CALPUFF View Version 1.9 are:</p> <ul style="list-style-type: none"> ♦ CALPUFF - Version 5.754 - February 2, 2006 ♦ CALMET - Version 5.724 - April 14, 2006 ♦ CALPOST - Version 5.6393 - February 2, 2006
Models	<p>Model Preferences You can now switch seamlessly between the VISTAS Recommended and EPA Approved CALPUFF Models – model executables are specified independently for each setting. This option is available by selecting File Preferences from the menu and then selecting the Model Version panel.</p> <p>CALPUFF-VISTAS models: Download the latest models from TRC's web site and place the exe files under the Models_V folder within the installation folder (C:\Lakes\CALPUFFView\Models_V)</p> <p>Download CALPUFF-VISTAS Models from TRC Web Site</p> <p>CALPUFF- EPA Approved models: Download the latest models from TRC's web site and place the exe files under the Models folder within the installation folder (C:\Lakes\CALPUFFView\Models)</p> <p>Download CALPUFF-EPA Approved Models from TRC Web Site</p> 

Topic	Feature Description
Graphical Tool	<p>New Eagle Watch View Tool</p> <p> The Eagle Watch View tool displays a small window showing the full extents of your modeling domain with a red rectangle marking the area that is currently displayed in the main graphical area. In the Eagle Watch View window, you can use the mouse pointer to draw a new rectangle around the area that you would like to zoom in on. This will automatically update the display in the main window.</p> 
Graphical Tool	<p>New Web Annotation Tool</p> <p> The Web Annotation tool allows you to draw a polar grid with the option to specify rings, rays, and labels at specific distances for annotation purposes only. This annotation tool can be especially useful when used as a scaling tool for graphical visualization of the modeling area and its dimensions.</p> 

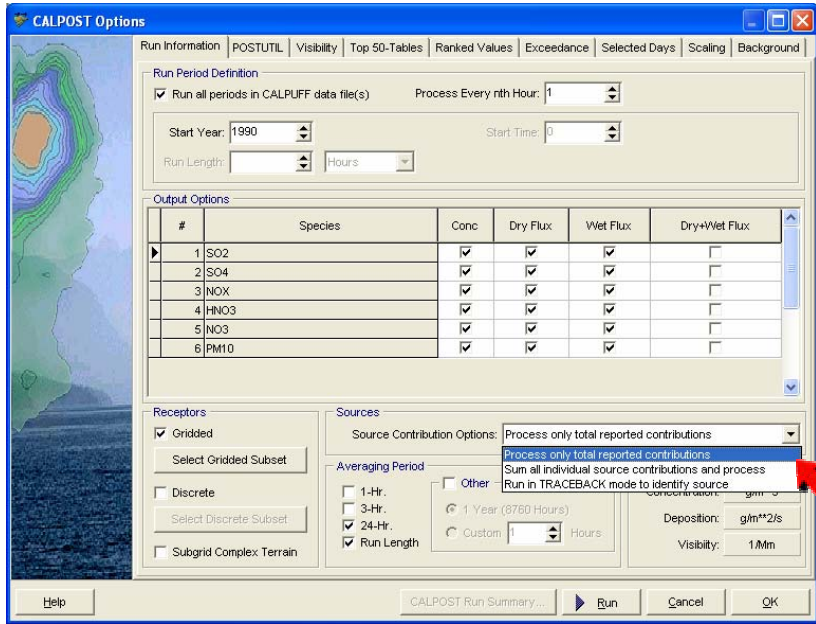
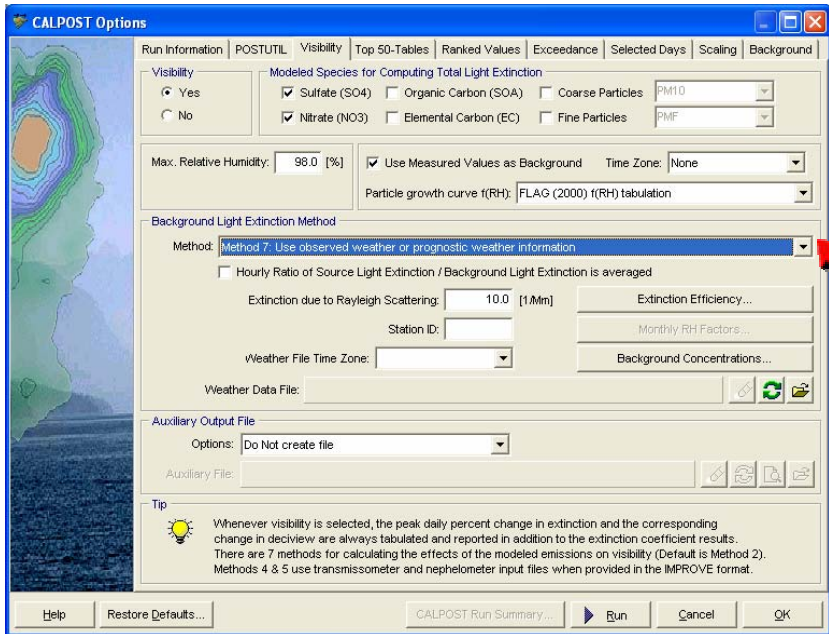
Topic	Feature Description
Graphical Options	<p>Transparency Option for Contours Using Alpha Blending</p> <p>Alpha Blending has been implemented to support real transparency of your concentration or terrain contours. You can access this option from the <i>Graphical Options</i> dialog, <i>Levels</i> panel, <i>Shade Style</i> drop-down list box.</p> 
Graphical Options	<p>New Contour Method – Triangulation</p> <p>A new contouring method, Triangulation, has been added to the Contour Smoothing options in the <i>Graphical Options</i> dialog. While the contours created by the <i>Triangulation</i> method may not be as smooth as those created by the <i>Resampling</i> method, they may be more representative in some cases.</p> 

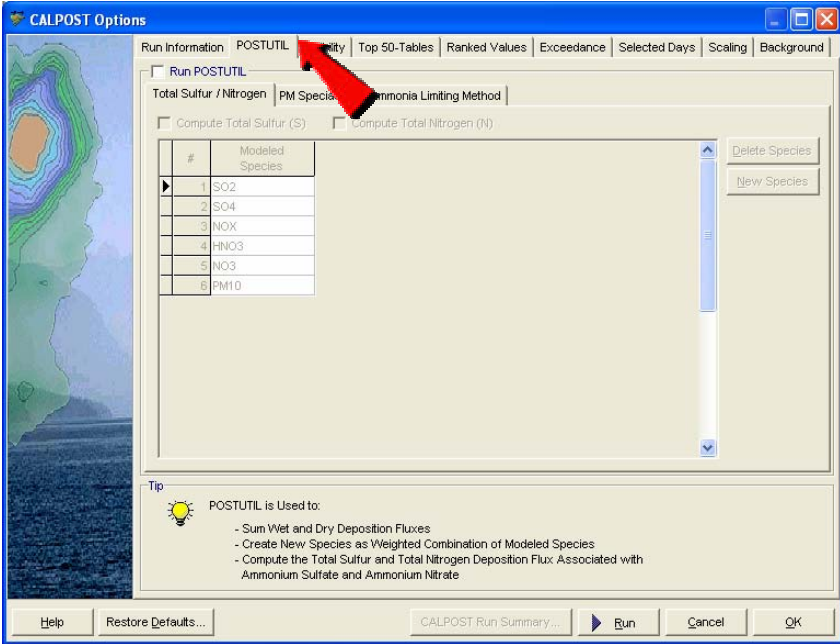
Topic	Feature Description
Graphical Options	<p>New Contour Label Options – Orientation and Spacing</p> <p>Two new contour label options are available, <i>Orientation</i> and <i>Spacing</i>. You can now specify the orientation angle, as well as the spacing between labels, for contour labels. These options can be accessed from the <i>Graphical Options</i> dialog, <i>Labelling</i> panel for concentration or terrain contours.</p> 
VISTAS CALMET	<p>Barrier Levels</p> <p>The VISTAS version of CALMET now includes barriers, which may be used to limit the influence of an observation.</p> 

Topic	Feature Description
VISTAS CALMET	<p>Convective Options</p> <p>A series of convective options have been introduced in the VISTAS version of CALMET.</p> 
VISTAS CALMET	<p>Overwater Surface Fluxes</p> <p>New methods for the calculation of overwater surface fluxes have been introduced in the VISTAS version of CALMET.</p> 

Topic	Feature Description
VISTAS CALPUFF	<p>New Met File Format</p> <p>AERMET tower file has been added as an accepted met file format.</p>  <p>The screenshot shows the 'Meteorological/Landuse' dialog box. The 'Met File Format' dropdown is set to 'AERMET Tower file (PROFILE.DAT) / (SURFACE.DAT)'. Below this, there are tabs for 'Met Data', 'Wind Speed', and 'Advanced Variables'. The 'Met Data' tab is active, showing fields for 'Profile File' (PROFILE.DAT) and 'Surface File' (SURFACE.DAT). There are also fields for 'Landuse Type' (Agricultural Land - Unirrigated), 'Roughness Length [m]' (0.25), 'Leaf Area Index' (3.0), 'Elevation above MSL [m]' (0.0), 'Latitude' (999.0), and 'Longitude' (999.0). A 'Tip' section at the bottom states: 'Specify the surface meteorological file created by the AERMET meteorological preprocessor.'</p>
VISTAS CALPUFF	<p>Profile Data file</p> <p>VISTAS CALPUFF accepts a profile data file to be used in addition to another met file (E.g. CALMET.DAT)</p>  <p>The screenshot shows the 'Meteorological/Landuse' dialog box. The 'Met File Format' dropdown is set to 'CALMET binary file (CALMET.DAT)'. Below this, there are tabs for 'Met Data', 'Wind Speed', and 'Advanced Variables'. The 'Met Data' tab is active, showing a table for 'Specify CALMET Files (CALMET.DAT)' with columns for '#', 'CALMET Files', and 'File Size [Mb]'. There are buttons for 'Add File', 'Remove', 'Clear All', and 'Default'. Below the table, there is a 'Profile Data File' section with a 'Profile File' field (PROFILE.DAT) and radio buttons for 'CTDM Plus Tower File' (selected) and 'AERMET Tower File'. At the bottom, there is a 'Urban Landuse Categories Range' section with radio buttons for 'Model Default' (selected) and 'User-Specified', and fields for 'From' (10) and 'To' (19).</p>

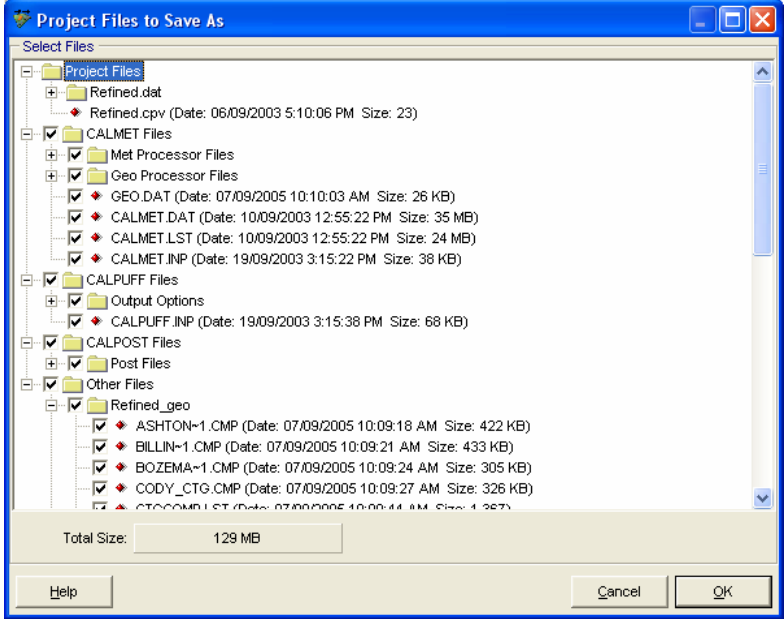
Topic	Feature Description
VISTAS CALPUFF	<p>Additional Dispersion Options</p> <p>Dispersion options have been added to the VISTAS CALPUFF, including turbulence data and Lagrangian timescale methods.</p>
VISTAS CALPUFF	<p>Platform Height</p> <p>The VISTAS version of CALPUFF now contains a platform height parameter for point sources.</p>

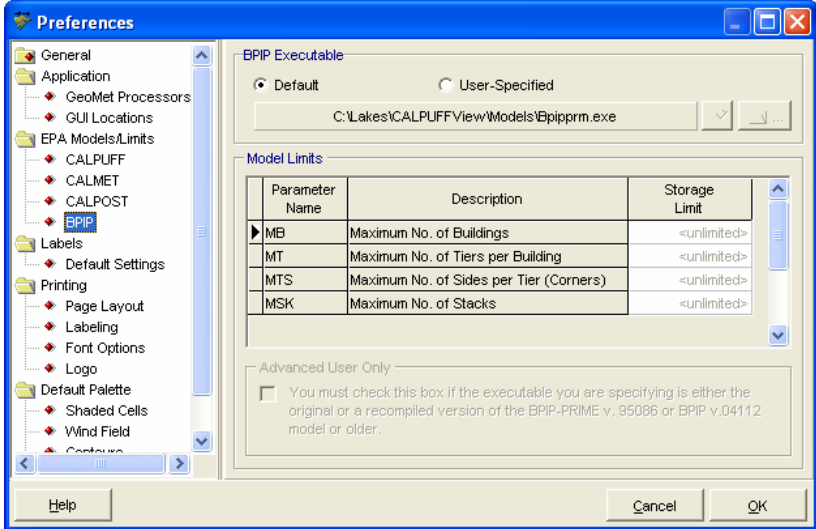
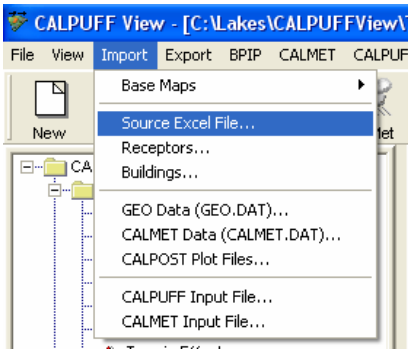
Topic	Feature Description																																										
VISTAS CALPOST	<h3>Source Contribution Options</h3> <p>The VISTAS version of CALPOST includes source contribution options.</p>  <p>The screenshot shows the 'CALPOST Options' dialog box with the 'Source Contribution Options' tab selected. The 'Source Contribution Options' dropdown is set to 'Process only total reported contributions'. A red arrow points to this dropdown. The 'Output Options' table shows the following species and their corresponding checkboxes:</p> <table><thead><tr><th>#</th><th>Species</th><th>Conc</th><th>Dry Flux</th><th>Wet Flux</th><th>Dry+Wet Flux</th></tr></thead><tbody><tr><td>1</td><td>SO2</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>2</td><td>SO4</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>3</td><td>NOX</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>4</td><td>HNO3</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>5</td><td>NO3</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>6</td><td>PM10</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table> <p>The 'Receptors' section has 'Gridded' selected. The 'Sources' section has 'Source Contribution Options' set to 'Process only total reported contributions'. The 'Averaging Period' is set to '24-Hr'. The 'Run Length' is set to '1' hour. The 'Deposition' is set to 'g/m**2/s' and 'Visibility' is set to '1/Mm'.</p>	#	Species	Conc	Dry Flux	Wet Flux	Dry+Wet Flux	1	SO2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	SO4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	NOX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	HNO3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	NO3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	PM10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
#	Species	Conc	Dry Flux	Wet Flux	Dry+Wet Flux																																						
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6	PM10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																						
VISTAS CALPOST	<h3>New Light Extinction Methods</h3> <p>A seventh method of light extinction – “use observed weather or prognostic weather information” – has been added to the VISTAS CALPOST.</p>  <p>The screenshot shows the 'CALPOST Options' dialog box with the 'Background Light Extinction Method' tab selected. The 'Method' dropdown is set to 'Method 7. Use observed weather or prognostic weather information'. A red arrow points to this dropdown. The 'Modeled Species for Computing Total Light Extinction' section has 'Sulfate (SO4)', 'Nitrate (NO3)', and 'Elemental Carbon (EC)' checked. The 'Max. Relative Humidity' is set to '98.0 [%]'. The 'Use Measured Values as Background' checkbox is checked. The 'Time Zone' is set to 'None'. The 'Particle growth curve f(RH)' is set to 'FLAG (2000) f(RH) tabulation'. The 'Background Light Extinction Method' section has 'Method 7. Use observed weather or prognostic weather information' selected. The 'Hourly Ratio of Source Light Extinction / Background Light Extinction is averaged' checkbox is unchecked. The 'Extinction due to Rayleigh Scattering' is set to '10.0 [1/Mm]'. The 'Station ID' is empty. The 'Weather File Time Zone' is empty. The 'Weather Data File' is empty. The 'Auxiliary Output File' section has 'Options' set to 'Do Not create file'. The 'Auxiliary File' is empty. A tip at the bottom states: 'Whenever visibility is selected, the peak daily percent change in extinction and the corresponding change in deciview are always tabulated and reported in addition to the extinction coefficient results. There are 7 methods for calculating the effects of the modeled emissions on visibility (Default is Method 2). Methods 4 & 5 use transmissometer and nephelometer input files when provided in the IMPROVE format.'</p>																																										

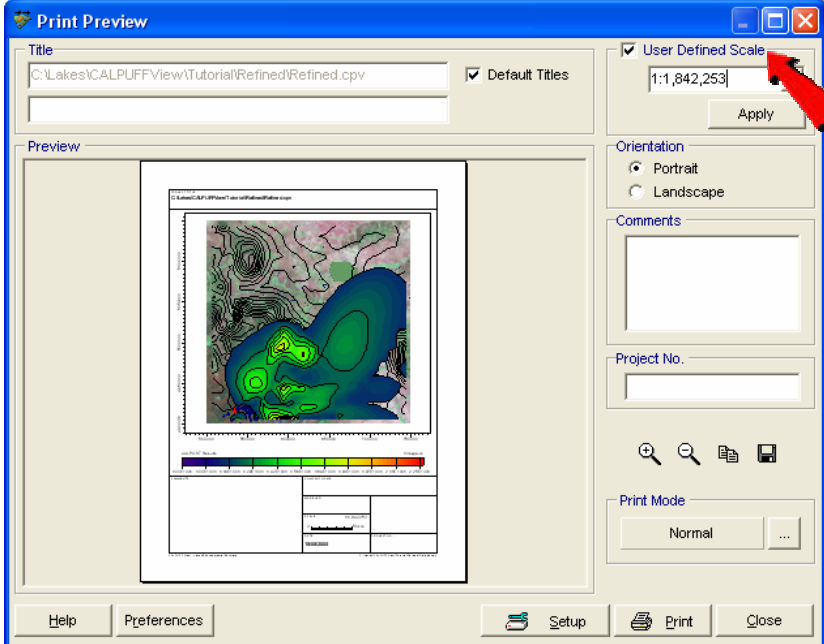
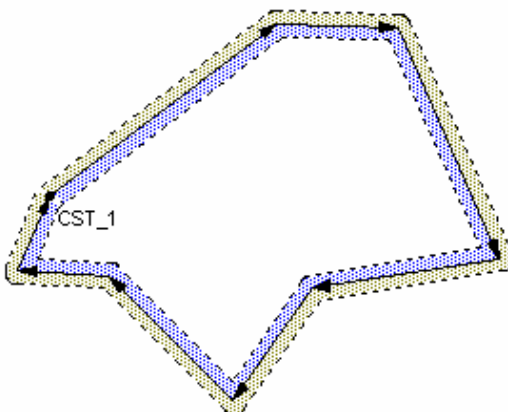
Topic	Feature Description														
VISTAS CALPOST	<p>POSTUTIL TAB</p> <p>In VISTAS mode, CALPOST contains a separate POSTUTIL tab.</p>  <p>The screenshot shows the 'CALPOST Options' dialog box with the 'POSTUTIL' tab selected. The 'Run POSTUTIL' checkbox is checked. The 'Total Sulfur / Nitrogen' tab is active, showing options to 'Compute Total Sulfur (S)' and 'Compute Total Nitrogen (N)'. A table lists modeled species: SO2, SO4, NOX, HNO3, NO3, and PM10. A tip section explains that POSTUTIL is used to sum wet and dry deposition fluxes, create new species as weighted combinations, and compute total sulfur and nitrogen deposition fluxes. The bottom of the dialog has buttons for Help, Restore Defaults..., CALPOST Run Summary..., Run, Cancel, and OK.</p> <table border="1" data-bbox="641 472 803 630"><thead><tr><th>#</th><th>Modeled Species</th></tr></thead><tbody><tr><td>1</td><td>SO2</td></tr><tr><td>2</td><td>SO4</td></tr><tr><td>3</td><td>NOX</td></tr><tr><td>4</td><td>HNO3</td></tr><tr><td>5</td><td>NO3</td></tr><tr><td>6</td><td>PM10</td></tr></tbody></table> <p>Tip</p> <p>POSTUTIL is Used to:</p> <ul style="list-style-type: none">- Sum Wet and Dry Deposition Fluxes- Create New Species as Weighted Combination of Modeled Species- Compute the Total Sulfur and Total Nitrogen Deposition Flux Associated with Ammonium Sulfate and Ammonium Nitrate	#	Modeled Species	1	SO2	2	SO4	3	NOX	4	HNO3	5	NO3	6	PM10
#	Modeled Species														
1	SO2														
2	SO4														
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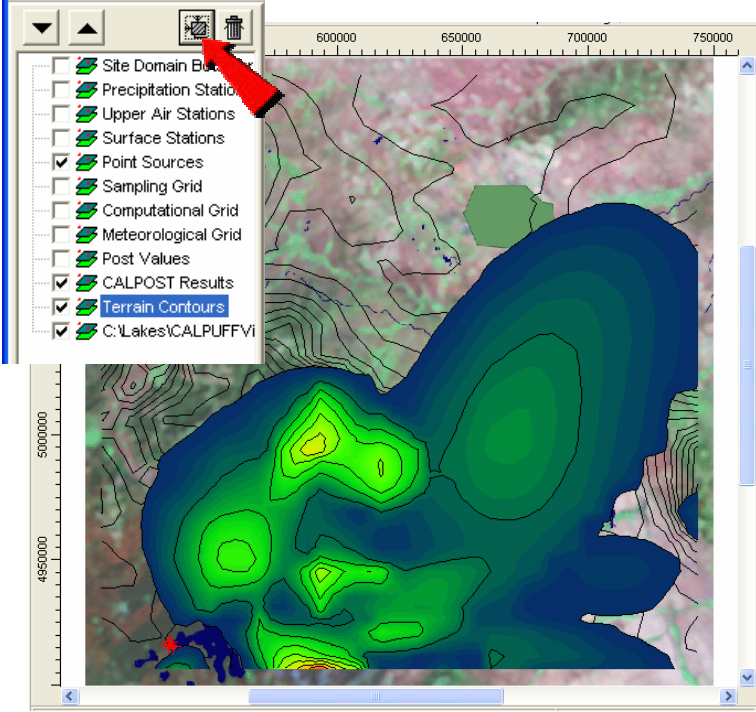
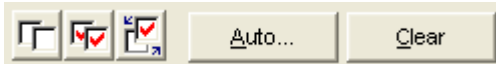
CALPUFF View™ Version 1.7

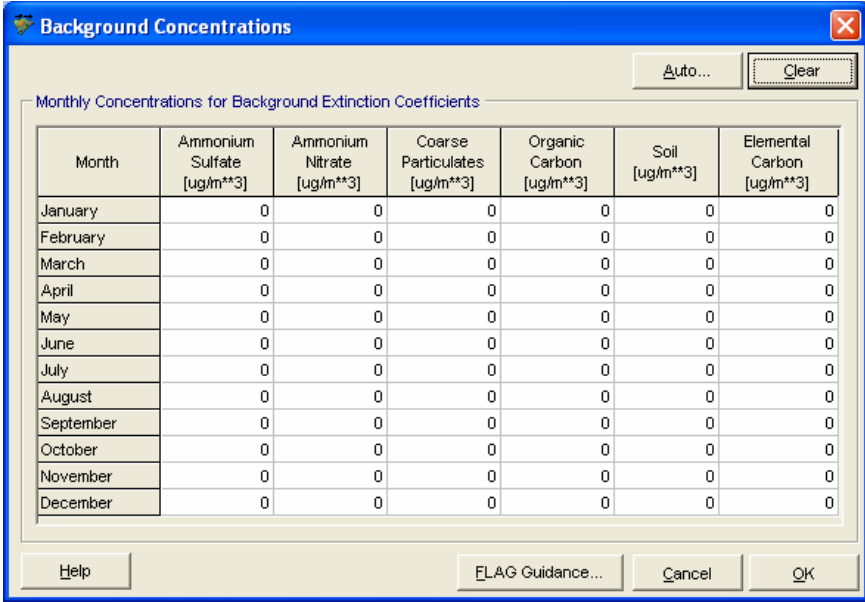
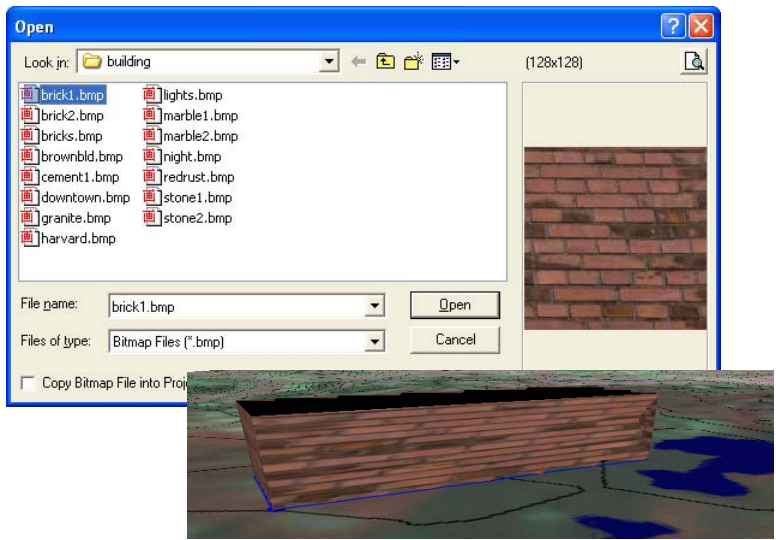
Release Notes Sep 27, 2005

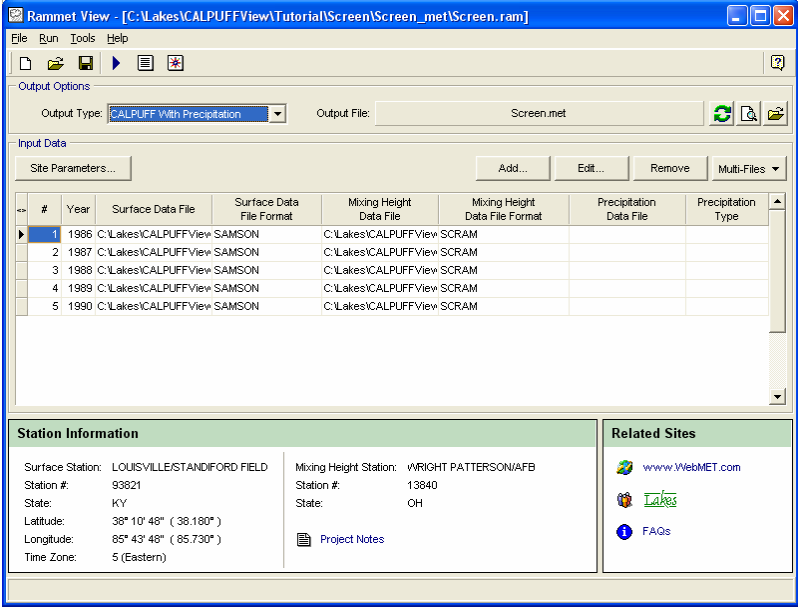
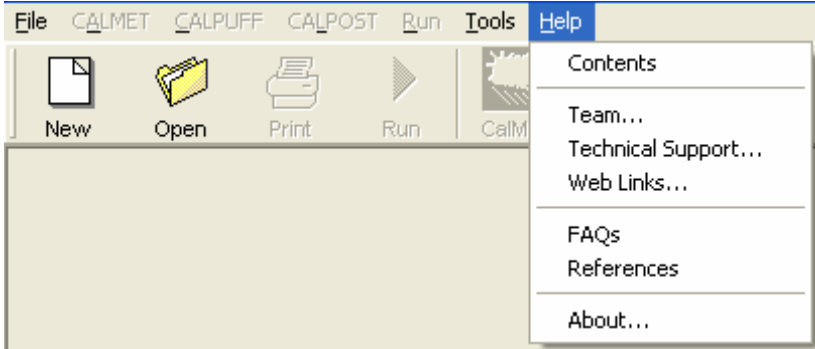
Topic	Feature Description
Installation	<p>Default Installation Path</p> <p>CALPUFF View is now being installed, by default, under C:\Lakes\CALPUFFView instead of C:\CALPUFFView. Tutorial files are also being included with the install.</p>
General	<p>Save Project As</p> <p>CALPUFF View now has a Save Project As feature that allows you to save your current project under another name. You may also choose which files you wish to include in the new project folder.</p> 

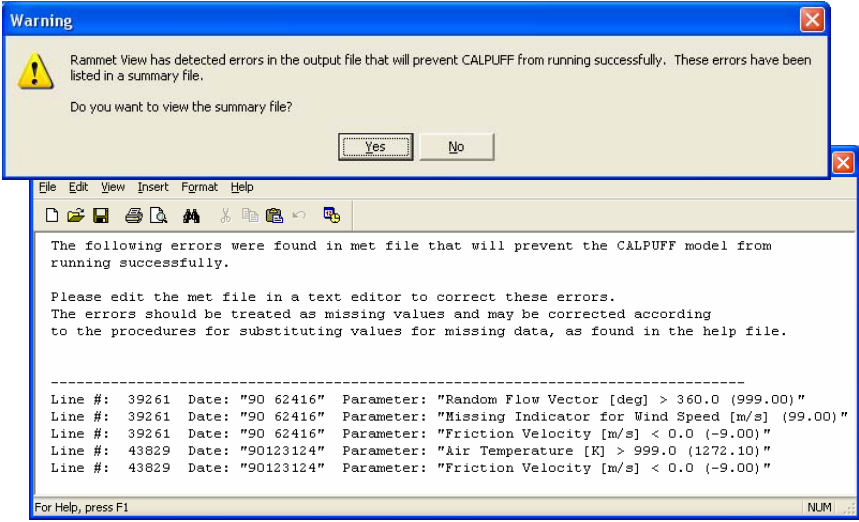
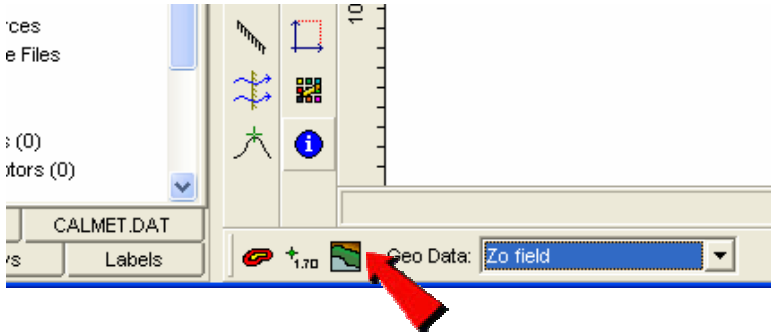
Topic	Feature Description															
BPIP	<p>Latest U.S. EPA BPIP PRIME Model</p> <p>The latest U.S. EPA BPIP model (BPIPRRM.EXE dated 04274) is now being included with this version. This latest model allows for an unlimited number of buildings, tiers, stacks, etc.</p>  <table data-bbox="774 609 1310 770"><thead><tr><th>Parameter Name</th><th>Description</th><th>Storage Limit</th></tr></thead><tbody><tr><td>MB</td><td>Maximum No. of Buildings</td><td><unlimited></td></tr><tr><td>MT</td><td>Maximum No. of Tiers per Building</td><td><unlimited></td></tr><tr><td>MTS</td><td>Maximum No. of Sides per Tier (Corners)</td><td><unlimited></td></tr><tr><td>MSK</td><td>Maximum No. of Stacks</td><td><unlimited></td></tr></tbody></table>	Parameter Name	Description	Storage Limit	MB	Maximum No. of Buildings	<unlimited>	MT	Maximum No. of Tiers per Building	<unlimited>	MTS	Maximum No. of Sides per Tier (Corners)	<unlimited>	MSK	Maximum No. of Stacks	<unlimited>
Parameter Name	Description	Storage Limit														
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MT	Maximum No. of Tiers per Building	<unlimited>														
MTS	Maximum No. of Sides per Tier (Corners)	<unlimited>														
MSK	Maximum No. of Stacks	<unlimited>														
General	<p>Import Sources from Excel</p> <p>Sources can now be imported directly from Excel; this includes source parameters and emission rates. The Excel file, Source-Parameters.xls, is being supplied in the installation under the folder "Templates". This file contains the format structure that your Excel file should have in order for CALPUFF View to successfully import sources parameters and emissions from your Excel file. See the help files for more information.</p> 															

Topic	Feature Description
General	<p>Printing to Scale</p> <p>You can now specify the scale of your printouts. Select from a predefined list, or type in the desired scale.</p> 
General	<p>Coastline Tool</p> <p>An improved coastline tool now maintains land/water color indicators for closed polygons.</p> 

Topic	Feature Description
General	<p>Zoom to Overlay Tool A Zoom to Overlay option has been added to the Overlays tab of the Tree View allowing you to zoom to a specified layer.</p> 
General	<p>Grid Spacing When creating a new project, the computational grid may now be specified with greater accuracy.</p>
General	<p>UTM Coordinate Check UTM coordinates are now checked to ensure they are within a valid range. A warning will be issued if they are not.</p>
General	<p>Import From ISC The "Create from ISC input file" tool has an improved ability to import rotated area sources.</p>
CALPOST	<p>Run Period Check The run period check in CALPOST has been corrected.</p>
CALPOST	<p>Select Tools New select tools have been added to CALPOST to help you enter your data more quickly.</p> 

Topic	Feature Description
CALPOST	<p>Monthly Concentrations for Background Extinction</p> <p>The default values for the Monthly Concentration for Background Extinction Coefficients have been changed to zero. In addition, a FLAG Guidance suggested values button has been added.</p> <div></div>
3D View	<p>Building Textures</p> <p>BITMAP files for the building textures in 3D View have been added to the CALPUFF View installation.</p> <div></div>

Topic	Feature Description
CALMET	<p>Run Period Check</p> <p>The CALPUFF run period is now checked for validity against the CALMET meteorological period.</p>
RAMMET	<p>Multi-Year Rammet View</p> <p>Rammet View can now easily process multiple years of data in its completely redesigned interface. You have the option to output a combined multi-year file in addition to individual year files. This avoids the need for multiple runs to create a multi-year file.</p> 
Documentation	<p>FAQs and References</p> <p>FAQs and reference articles are now available directly from the help menu. The FAQ page will require your user name and password, the references page will not.</p> 

Topic	Feature Description
General	Source Check Before running, CALPUFF will now check that all sources are within the computational grid.
Documentation	Help File and User's Guide The Help File, User's Guide, and Getting Started guide have been revised and improved.
RAMMET	Error Checking Rammet View now includes a built-in error checker that will search for and identify errors in the meteorological data file that will cause CALPUFF runs to fail. <div data-bbox="509 695 1364 1213">  <p>The following errors were found in met file that will prevent the CALPUFF model from running successfully.</p> <p>Please edit the met file in a text editor to correct these errors. The errors should be treated as missing values and may be corrected according to the procedures for substituting values for missing data, as found in the help file.</p> <pre> ----- Line #: 39261 Date: "90 62416" Parameter: "Random Flow Vector [deg] > 360.0 (999.00)" Line #: 39261 Date: "90 62416" Parameter: "Missing Indicator for Wind Speed [m/s] (99.00)" Line #: 39261 Date: "90 62416" Parameter: "Friction Velocity [m/s] < 0.0 (-9.00)" Line #: 43829 Date: "90123124" Parameter: "Air Temperature [K] > 999.0 (1272.10)" Line #: 43829 Date: "90123124" Parameter: "Friction Velocity [m/s] < 0.0 (-9.00)" ----- </pre> <p>For Help, press F1</p> </div>
General	Show Terrain Tool The Show Terrain Tool allows you to easily switch between hiding and viewing the terrain contours. <div data-bbox="553 1377 1320 1707">  <p>The screenshot shows the CALMET.DAT file interface. On the left, there are sections for 'Sources', 'Files', 'Contours (0)', and 'Contours (0)'. In the center, there is a toolbar with various icons. At the bottom, there is a 'Geo Data' field with a dropdown menu currently showing 'Zo field'. A red arrow points to this field.</p> </div>