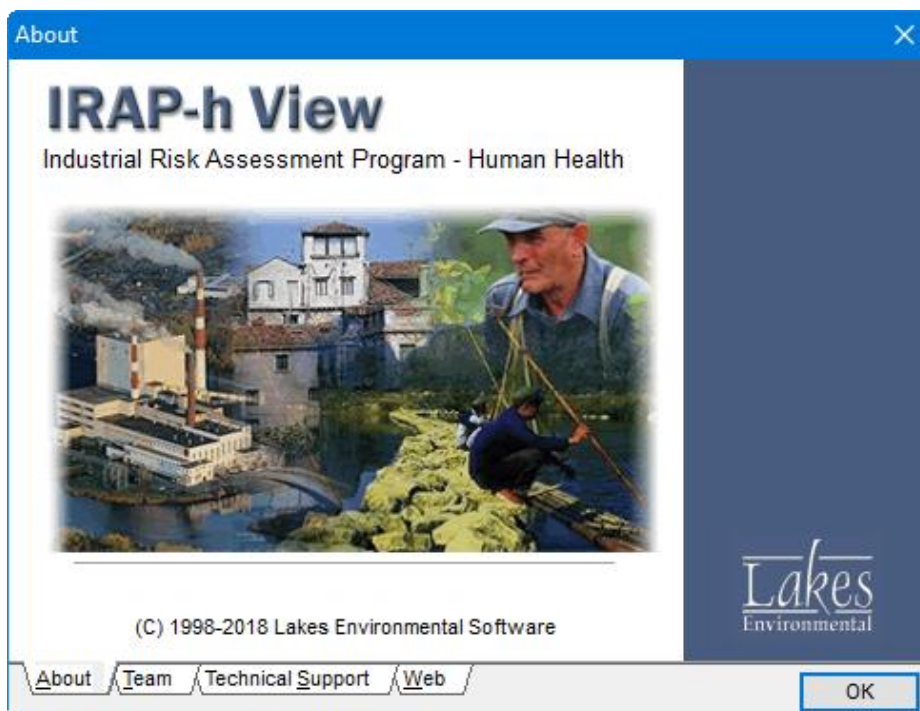


IRAP-h View™

Industrial Risk Assessment Program – Human Health

Release Notes

Version 5.0



Lakes Environmental Software
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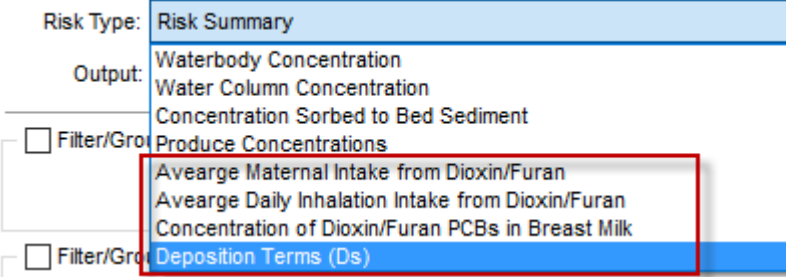


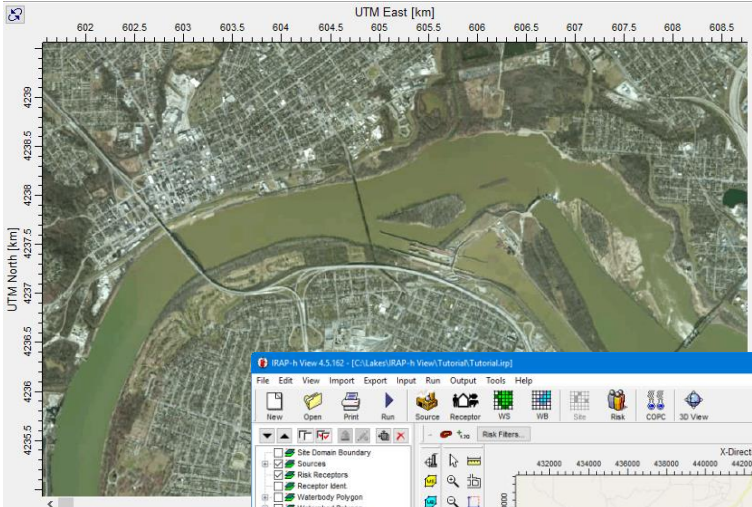
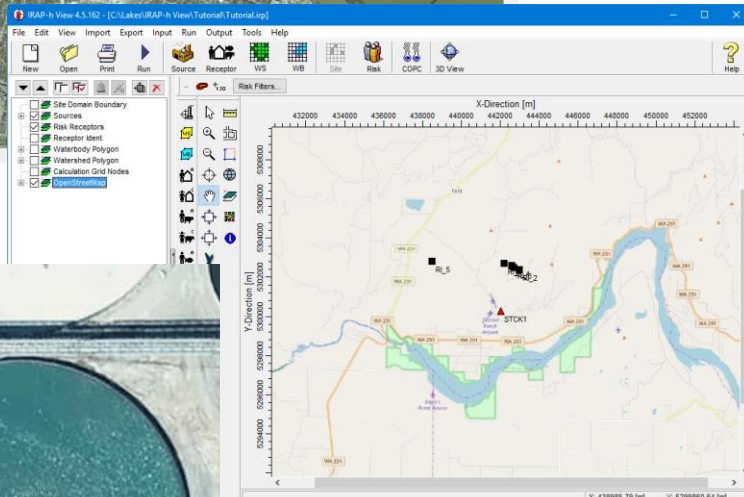

IRAP-h View™ Version 5.0

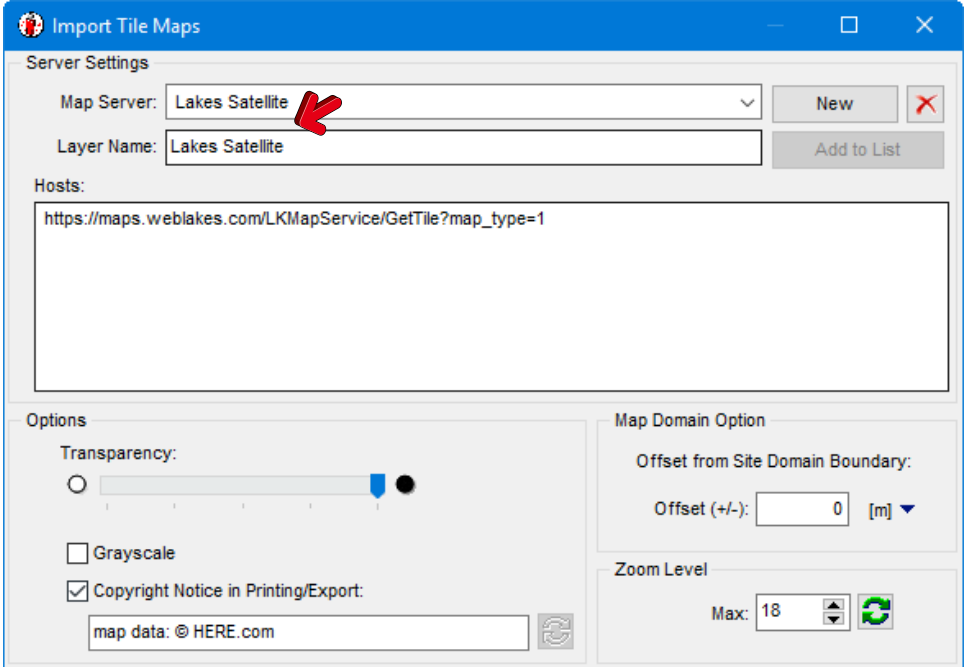
Release Notes

April 4, 2018

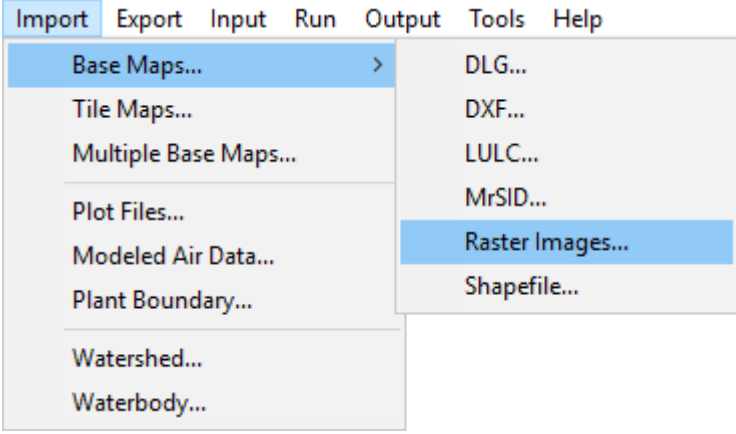
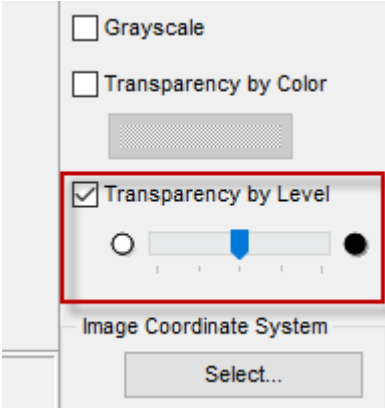
New Features

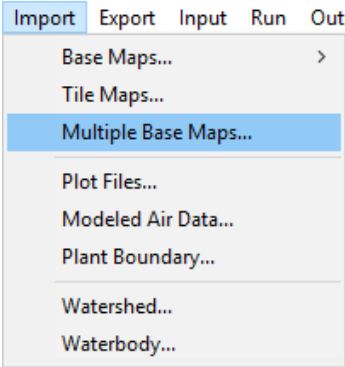
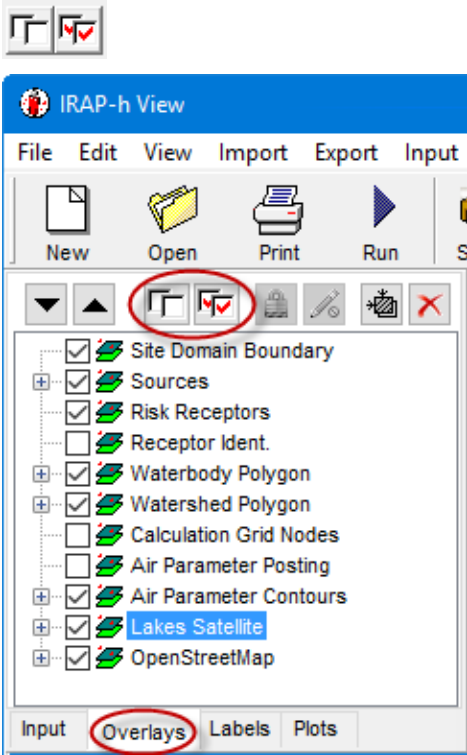
Topic	Feature Description
<p>Risk Types</p>	<p>New Risk Types Available</p> <p>The Risk Types list was expanded to include the following:</p> <ul style="list-style-type: none"> • Average Maternal Intake from Dioxin/Furan • Average Daily Inhalation Intake from Dioxin/Furan • Concentration of Dioxin/Furan PCBs in Breast Milk • Deposition Terms (Ds) 
<p>Site Parameters</p>	<p>Updated Site Parameters Tables</p> <p>Additional parameters have been added to the various Site Parameters tables for increased visibility of default values and removal of legacy parameters not implemented in the final HHRAP.</p> <p>Note: Default values for Soil Mixing Zone Depth (z) & Produce Soil Mixing Zone Depth (z_p) were clarified in the Risk Receptor Site Parameters table. Since the default value depends upon whether land is tilled or un-tilled, users are required to input a parameter before risk calculations may be performed.</p>
<p>COPC Database</p>	<p>Chemical Type & Subtype List Refreshed</p> <p>When identifying the Chemical Type and Chemical Subtype of a user-defined COPC, the tables have been updated to reflect possible Type-Subtype combinations.</p>



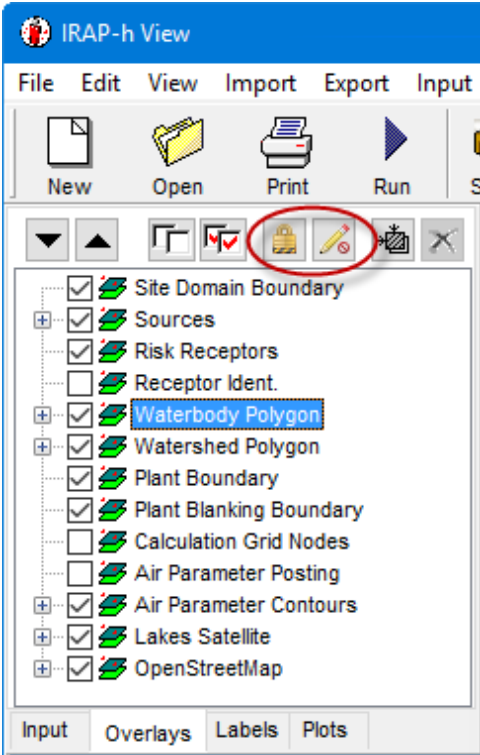
Topic	Feature Description
<p>Tile Maps</p>	<p>Automated Download of Worldwide Geo-Referenced Base Maps</p> <p>The Import Tile Maps feature allows users to import imagery from various online resources. The program comes loaded with 3 different Map Servers which range from road maps (Open Street Map, Open Cycle Map) to high-resolution Satellite photography (Lakes Satellite). Users can add additional Map Servers. Map coverage may vary depending on location.</p>  <p><i>Lakes Satellite</i></p>  <p><i>Open Street Map</i></p>  <p><i>Extremely high resolution with new imagery</i></p>

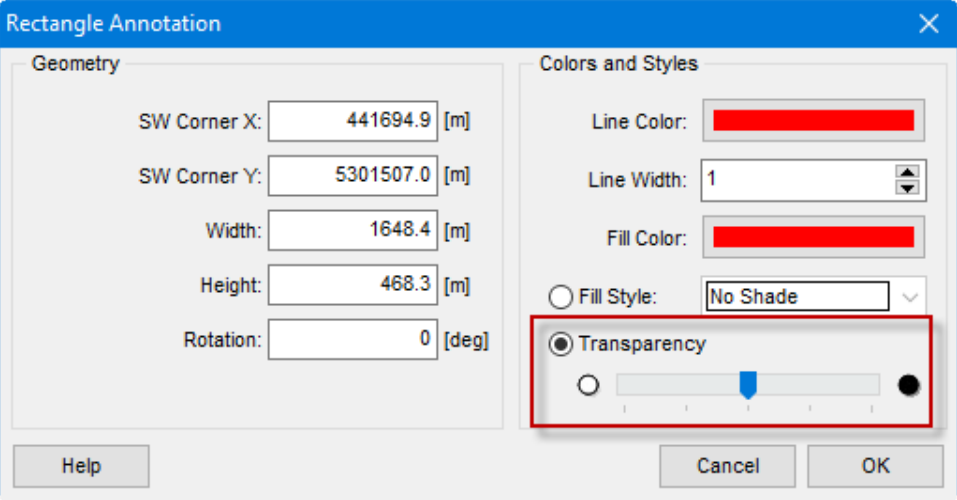

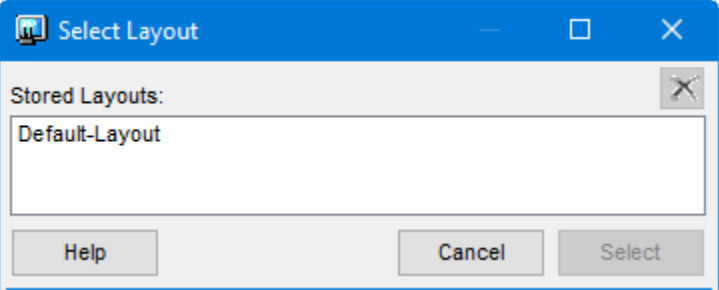
Topic	Feature Description
<p>Tile Maps</p>	<p>Simple Steps:</p> <p>Step 1: Create your IRAP-h View project</p> <p>Step 2: Select Import Tile Maps menu option</p> <p>Step 3: Select Map type (e.g., OpenStreetMap) and click OK</p>  <p>Downloaded imagery is stored locally. Check the File Preferences World Map Settings to add Proxy Server details.</p> <p>Important 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.</p>

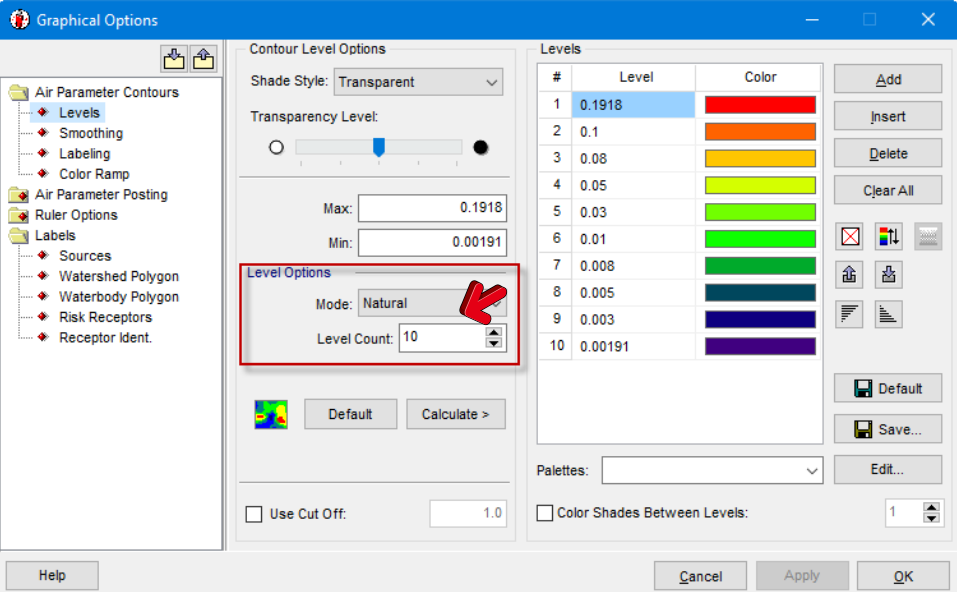
Topic	Feature Description
<p>Tile Maps</p>	<p>Quality Selector for Printing and Exporting Tile Maps Imagery</p> <p>Users can now select the quality level for imported Tile Maps which are included in Print and Print to PDF options. Higher quality levels require additional downloading and processing time.</p> <p>This feature is available in the File Preferences Settings World Map Settings.</p> <div data-bbox="431 558 1421 800" style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <p>World Map Options</p> <p>Quality in Print & 3D View: Ultra ▼ (affects downloading/processing time)</p> <ul style="list-style-type: none"> <li style="border: 1px solid #0070c0; padding: 2px;">Low <li style="border: 1px solid #0070c0; padding: 2px;">Medium <li style="border: 1px solid #0070c0; padding: 2px;">High <li style="border: 1px solid #0070c0; padding: 2px;">Very High <li style="border: 1px solid #0070c0; padding: 2px; background-color: #0070c0; color: white;">Ultra </div> <div data-bbox="431 831 1421 1801" style="border: 1px solid #ccc; padding: 5px;"> <p>map data: © OpenStreetMap-contributors</p> <p>STCK1 / Waterbody total (wet & dry) depos. - particle phase (unitized) sm² year</p> <p>Risk Summary / Total Cancer Risk / Resident Child</p> <p>0.002 0.003 0.005 0.008 0.010 0.030 0.050 0.080 0.100 0.152</p> </div>

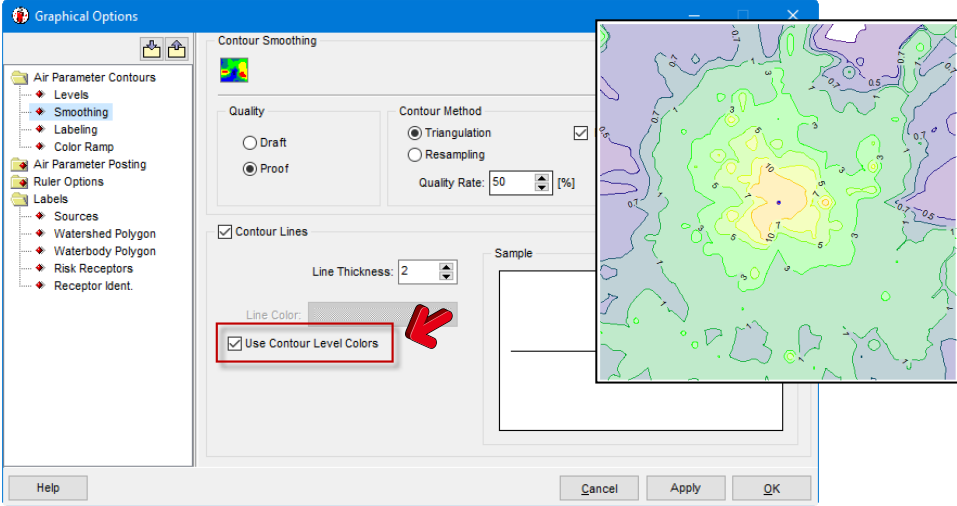
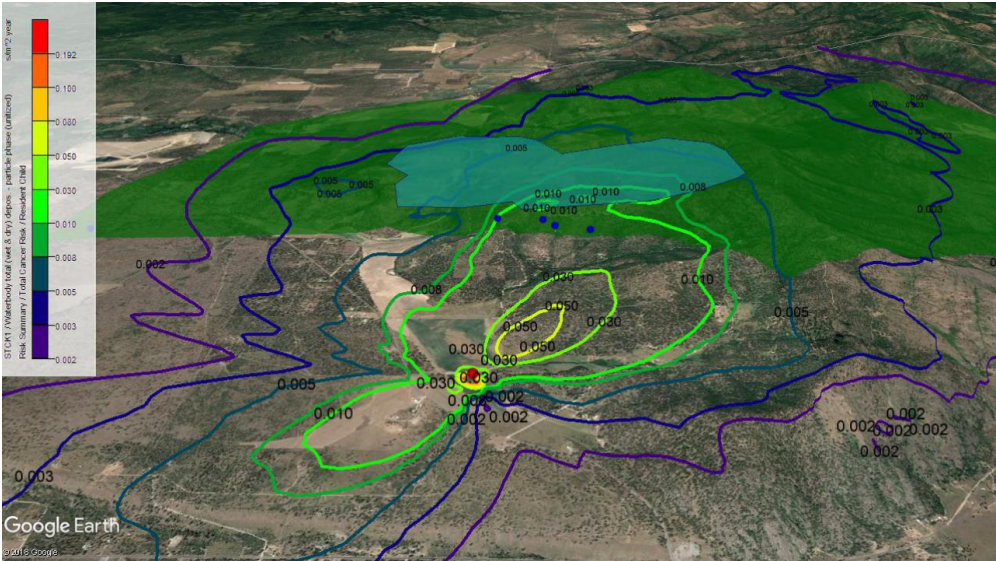
Topic	Feature Description
<p>Base Maps</p>	<p>Import Raster Images</p> <p>You can now import any supported raster image file (e.g., BMP, JPEG, TIFF, etc.) using the same option in the menu.</p>  <p>The screenshot shows a menu with 'Import' selected. The 'Base Maps...' option is highlighted, and its sub-menu is open, showing 'Raster Images...' as the selected option. Other options in the sub-menu include 'DLG...', 'DXF...', 'LULC...', 'MrSID...', and 'Shapefile...'.</p>
<p>Base Maps</p>	<p>New Import Formats Added for Base Maps</p> <p>You can now import base maps saved in .PNG and .GIF format via the Import Base Maps... Raster Images... menu item.</p>
<p>Base Maps</p>	<p>Transparency Option for Raster Images</p> <p>Users can set image transparency when importing raster image base maps.</p>  <p>The screenshot shows a dialog box with three transparency options: 'Grayscale' (unchecked), 'Transparency by Color' (unchecked), and 'Transparency by Level' (checked). The 'Transparency by Level' option is highlighted with a red box and includes a slider control. Below the options is a section for 'Image Coordinate System' with a 'Select...' button.</p>

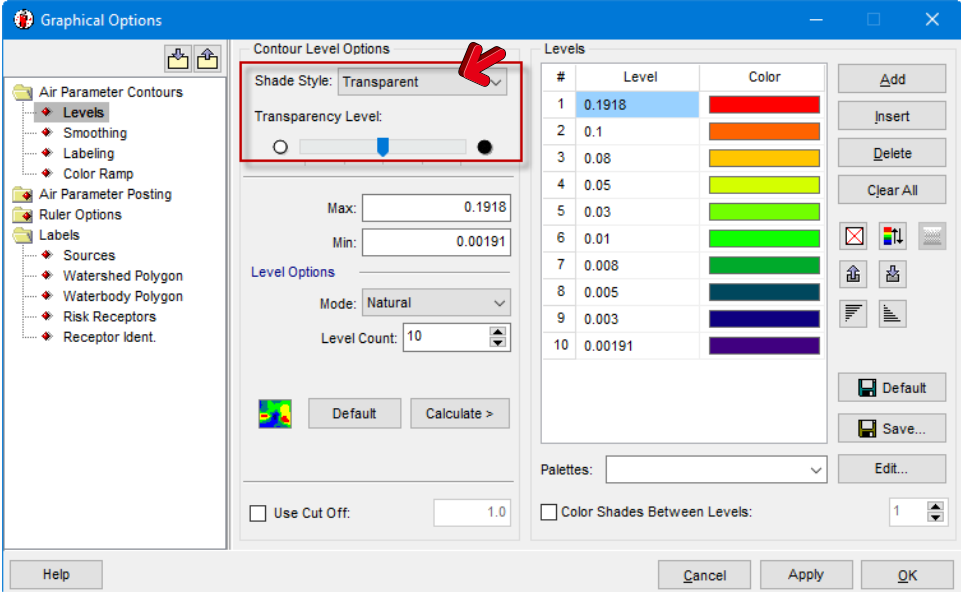
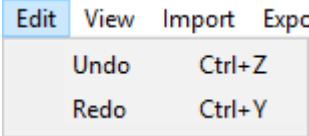
Topic	Feature Description
<p>Base Maps</p>	<p>Improved Method of Importing Multiple Base Maps</p>  <p>Using this feature allows you to search for multiple base maps located in the same folder (which already contain geo-referenced world files) and import them as either a single layer or as separate layers.</p>
<p>Overlays</p>	<p>Hide All/Show All Layers Buttons in Overlays Tab</p> <p>Two new buttons are now available under the Overlay tab allowing for easy manipulation of the visibility status of layers:</p> <ol style="list-style-type: none"> 1. Hide All Layers 2. Show All Layers 

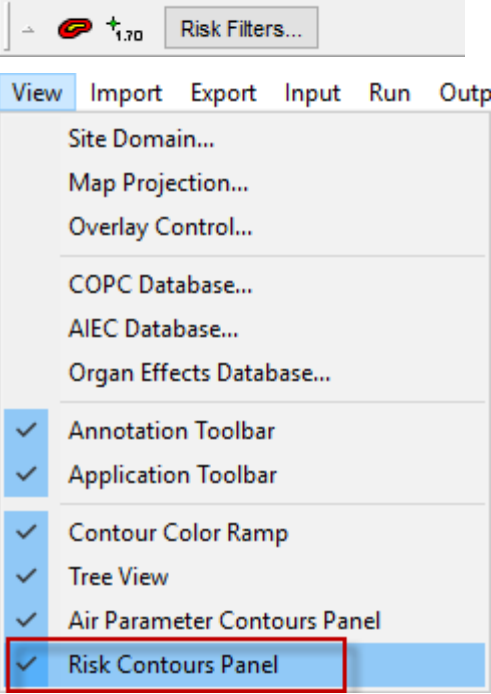
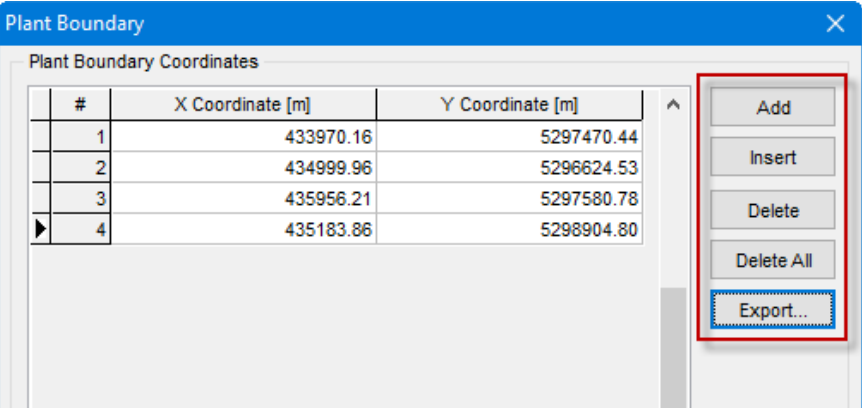
Topic	Feature Description
<p>Overlays</p>	<p>Additional Overlay Tools</p> <p>Two additional overlay tools are now available:</p> <ol style="list-style-type: none">  Disable selection  Disable graphical editing <p>These tools will help you disable certain overlays when using the select tool to edit or move objects in the graphical area.</p> 
<p>Annotation Toolbar</p>	<p>Last Selected Annotation Settings</p> <p>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.</p>

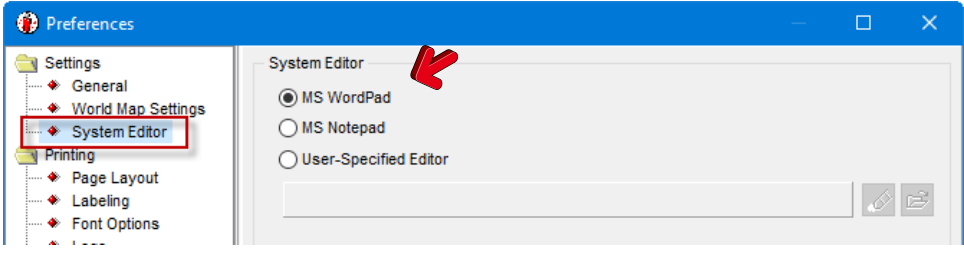
Topic	Feature Description
<p>Annotation Toolbar</p>	<p>Transparency Option for Annotations</p> <p>A transparency level can be set for all annotation objects.</p> 
<p>Graphical Options</p>	<p>Save Graphical Options to a Layout</p>  <p>The Graphical Options window now contains Import Layout and Export Layout buttons. The following Graphical Options will be saved to the layout.</p> <ul style="list-style-type: none"> • Contours: Levels, Smoothing, Labeling, and Color Ramp • Posting 

Topic	Feature Description																																	
<p>Graphical Options</p>	<p>New Default Level Options for Contours</p> <p>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.).</p> <p>The default minimum value is now defined as the maximum between the plot minimum value and the plot maximum value divided by 100. The maximum calculated value will be shown as the highest value in the color ramp.</p>  <p>The screenshot shows the 'Graphical Options' dialog box. On the left is a tree view with categories like 'Air Parameter Contours', 'Air Parameter Posting', and 'Labels'. The 'Air Parameter Contours' section is expanded, showing 'Levels', 'Smoothing', 'Labeling', and 'Color Ramp'. The 'Levels' sub-section is selected, showing 'Contour Level Options' with 'Shade Style' set to 'Transparent' and 'Transparency Level' at 0. Below this, 'Max' is 0.1918 and 'Min' is 0.00191. The 'Level Options' section is highlighted with a red box and a red arrow pointing to the 'Mode' dropdown, which is set to 'Natural'. The 'Level Count' is set to 10. At the bottom, there are 'Default' and 'Calculate >' buttons, and a 'Use Cut Off' checkbox with a value of 1.0. On the right, a 'Levels' table lists 10 levels with their corresponding colors. The table is as follows:</p> <table border="1" data-bbox="966 651 1258 976"> <thead> <tr> <th>#</th> <th>Level</th> <th>Color</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.1918</td><td>Red</td></tr> <tr><td>2</td><td>0.1</td><td>Orange</td></tr> <tr><td>3</td><td>0.08</td><td>Yellow</td></tr> <tr><td>4</td><td>0.05</td><td>Light Green</td></tr> <tr><td>5</td><td>0.03</td><td>Green</td></tr> <tr><td>6</td><td>0.01</td><td>Dark Green</td></tr> <tr><td>7</td><td>0.008</td><td>Teal</td></tr> <tr><td>8</td><td>0.005</td><td>Blue-Teal</td></tr> <tr><td>9</td><td>0.003</td><td>Blue</td></tr> <tr><td>10</td><td>0.00191</td><td>Purple</td></tr> </tbody> </table> <p>Buttons for 'Add', 'Insert', 'Delete', 'Clear All', 'Default', 'Save...', and 'Edit...' are on the right. At the bottom are 'Help', 'Cancel', 'Apply', and 'OK' buttons.</p>	#	Level	Color	1	0.1918	Red	2	0.1	Orange	3	0.08	Yellow	4	0.05	Light Green	5	0.03	Green	6	0.01	Dark Green	7	0.008	Teal	8	0.005	Blue-Teal	9	0.003	Blue	10	0.00191	Purple
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Topic	Feature Description
<p>Graphical Options</p>	<p>Colored Contour Lines</p> <p>Contour Lines can now be colored to match the contour level colors. This option is available under the Graphical Options – Smoothing panel.</p> <p>Contours can also be exported to Google Earth as Contour Lines only, as well.</p>  

Topic	Feature Description
<p>Graphical Options</p>	<p>Default Contour Shade Style Set to Transparent</p> <p>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 to Transparent option for easy understanding.</p> 
<p>Edit</p>	<p>Options to Undo/Redo Changes</p> <p>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.</p> 

Topic	Feature Description															
<p>View</p>	<p>Risk Contours Panel</p> <p>Added option to show/hide this toolbar via the View menu.</p>  <p>The screenshot shows the 'View' menu open. The 'Risk Contours Panel' option is checked and highlighted with a red rectangular box. Other visible options include Site Domain..., Map Projection..., Overlay Control..., COPC Database..., AIEC Database..., Organ Effects Database..., Annotation Toolbar, Application Toolbar, Contour Color Ramp, Tree View, and Air Parameter Contours Panel.</p>															
<p>Plant Boundary</p>	<p>Added Features</p> <p>The Plant Boundary dialog now include buttons to add, insert, delete row, and delete all coordinate pairs.</p> <p>Users can also export their Plant Boundary to *.rpb and *.xyz formats.</p>  <p>The screenshot shows the 'Plant Boundary' dialog box. It contains a table titled 'Plant Boundary Coordinates' with columns for '#', 'X Coordinate [m]', and 'Y Coordinate [m]'. The table has four rows of data. To the right of the table is a vertical stack of buttons: 'Add', 'Insert', 'Delete', 'Delete All', and 'Export...'. A red rectangular box highlights these five buttons.</p> <table border="1" data-bbox="459 1402 1073 1560"> <thead> <tr> <th>#</th> <th>X Coordinate [m]</th> <th>Y Coordinate [m]</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>433970.16</td> <td>5297470.44</td> </tr> <tr> <td>2</td> <td>434999.96</td> <td>5296624.53</td> </tr> <tr> <td>3</td> <td>435956.21</td> <td>5297580.78</td> </tr> <tr> <td>4</td> <td>435183.86</td> <td>5298904.80</td> </tr> </tbody> </table>	#	X Coordinate [m]	Y Coordinate [m]	1	433970.16	5297470.44	2	434999.96	5296624.53	3	435956.21	5297580.78	4	435183.86	5298904.80
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2	434999.96	5296624.53														
3	435956.21	5297580.78														
4	435183.86	5298904.80														

Topic	Feature Description
<p>Preferences</p>	<p>Select Default Text Editor</p> <p>Users can now specify the default text editor for opening project input and output files under the File Preferences options.</p> <p>You may choose between the two pre-defined text editors, WordPad and Notepad, or use the User-Specified Editor option to select any text editor installed on your machine.</p> 
<p>Install</p>	<p>Windows Compatibility & Installation Updates</p> <p>IRAP-h View Version 5 is compatible with 32-bit and 64-bit versions of Microsoft Windows 10, 8.1, & 8. In addition, the following changes were made in the product installation:</p> <ul style="list-style-type: none"> • Firebird database updated from version 1.5 to version 2.1.3 • Crystal Reports updated from version 10 to version 11.5
<p>Install</p>	<p>Web License Automatically Deactivated During Uninstall</p> <p>When IRAP-h View is uninstalled from the Windows Control Panel, the web license will be automatically deactivated if an internet connection was available during the uninstall.</p>