Dear Avizo User,

With this document we would like to inform you about the most important new features, improvements, and changes in this version. Please read these Release Notes carefully. We would appreciate your feedback regarding this version. If you encounter problems, but also if you have suggestions for improvement, please report them to vsghotline@fei.com. We would like to thank you in advance for your efforts.

June 2014, the Avizo and Amira team

Avizo 8.1.1 is a maintenance release including issue fixes, enhancements and new features. For major changes introduced in Avizo 8.0 and Avizo 8.1, please refer to the Avizo 8.0 Release Notes, Avizo 8.1 Release Notes, What's new in Avizo 8.0 and What's new in Avizo 8.1 documents.
ENHANCEMENTS AND NEW FEATURES

New Spreadsheet display for Spatial Graph objects

A spreadsheet displaying the information which can be found in the Spatial Graph object is accessible using a new Table port. Three tables are displayed, one for each kind of graph elements: Nodes, Points and Segments and gather the Nodes and Points tables are composed of the IDs, attributes, and 3D coordinates. The Segments table is composed of the segments ID, attributes, source ID, target ID, and the list of the points ID composing the segments. This spreadsheet can be exported in Microsoft XML Spreadsheet 2003 format.

When a Spatial Graph View module is connected to a Spatial Graph object, it is now possible to highlight nodes, points and segments by selecting them in the Spatial Graph inner spreadsheet.

New Breadth3d measure

The new measure Breadth3d has been added to the list of individual label measures for quantification. Breadth3d computes the largest distance between two parallel lines touching the object without intersecting it and lying in a plane orthogonal to the maximum 3D ferret diameter.
### SOLVED ISSUES

Avizo 8.1.1 maintenance release provides various enhancements and solutions to known problems including the following:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>22735</td>
<td>Tables Panel</td>
<td>A new command has been implemented to disable or enable the automatic display of the Tables panel: <code>theMain enableTablesPanelAutoDisplay 0/1</code></td>
</tr>
<tr>
<td>23244</td>
<td>Segmentation Editor</td>
<td>Selection interpolation between slices and with large data could fail in some cases. This has been fixed.</td>
</tr>
<tr>
<td>23541</td>
<td>DICOM Import</td>
<td>Slice orientation stack break criterion happened to generate several substacks of images when only one stack was expected. This has been fixed.</td>
</tr>
<tr>
<td>23565</td>
<td>Porosities Analysis Wizard</td>
<td>Getting back to previous steps of the wizard could cause an internal error. This has been fixed.</td>
</tr>
<tr>
<td>23961</td>
<td>Ortho Views</td>
<td>The crosshair has been fixed to fit correctly to a transformed data.</td>
</tr>
<tr>
<td>24048</td>
<td>Image Ortho Projections</td>
<td>It is now possible to set independently the two components of &quot;Depth+Max&quot; mapping and project compatibility has been restored.</td>
</tr>
<tr>
<td>28491</td>
<td>Interactive Thresholding</td>
<td>The filter preview has been fixed to match correctly the result.</td>
</tr>
<tr>
<td>28601</td>
<td>Slice</td>
<td>The filters related ports that are dynamically displayed are now numbered according to the corresponding filters number.</td>
</tr>
<tr>
<td>28802</td>
<td>Transformation</td>
<td>The following modules now copy transformation of their source to their result data:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• FFT Filter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Interpolate Labels</td>
</tr>
<tr>
<td>28827</td>
<td>Watershed Segmentation</td>
<td>At thresholding steps, the threshold colormap and MainOrthoSlice colormap now match.</td>
</tr>
<tr>
<td>29461</td>
<td>Segmentation Editor</td>
<td>A dialog now prevents the user from trying to create two materials with the same name.</td>
</tr>
<tr>
<td>29669</td>
<td>Surface Distance</td>
<td>Surface Distance could fail with surfaces with geometric transformation since bounding boxes intersection was incorrectly detected.</td>
</tr>
<tr>
<td>Issue Number</td>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
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</tr>
<tr>
<td>LDA Conversion</td>
<td>When converting a stack of images to LDA and choosing to extract only a single channel, conversion could fail. This has been fixed.</td>
<td></td>
</tr>
</tbody>
</table>
| New License Activation System | The FlexNet License Server Installation and Configuration webpage has been updated with many new details and troubleshooting tips:  
  - Minimal version for server FlexNet Tools  
  - Avoiding mcslmd services conflict  
  - Using lmgrd  
  - Installing Imadmin on Mac OS /RHEL 6  
  - Updating license server port with Imadmin  
  - And more... |
| New License Activation System | It is now possible to specify the TCPIP port number of a license server. |
| Interactive Thresholding | An issue has been fixed in Interactive Thresholding. The maximum value of the Threshold port was not included in the threshold range, causing the resulting label image to be different from the preview. The resulting label field being wrong, the results of the label analysis were wrong too. The threshold range now includes the maximum value, as it used to. |
| New License Activation System | In some cases Avizo could take a long time to start. This has been fixed. |
| Image Filters | An issue could cause wrong results while reloading networks containing image filters. Filters were applied several times instead of once as expected. This has been fixed. |
| Installation on Ubuntu | An error that could prevent the installation has been fixed. |