



What's new in Avizo 7.1

Avizo 7.1 beta 1

July 2012

What's new with Avizo 7.1 beta 1 - main changes

- New extensions XLab Electro and XLab Diffusion for Avizo Fire
- New Animation Producer
- Colormap port enhanced
- New readers for .vgi and .xtekct
- Enhanced support for cast shadows
- Surface rendering optimized
- New surface colorfield mapping mode
- New modules Ruled Surface, Extract Images for ruled surfaces, Curve Morphing
- Curve Editor auto-trace option
- XPand changed port constructors, Visual Studio compatibility
- Many issues fixed

*This document illustrates the main enhancements in Avizo 7.1 beta 1
Please refer to release notes for more details.*

New products in XLab extensions for Avizo Fire :

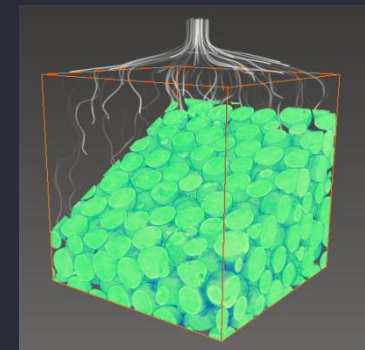
XLab Diffusion

XLab Electro

Avizo Fire XLab is a software environment for research, corporate or service labs willing to accelerate sample analysis or material design.

Available options:

- XLab Hydro for Absolute permeability
- XLab Diffusion for Molecular Diffusion
- XLab Electro for Electrical Resistivity / Formation Factor

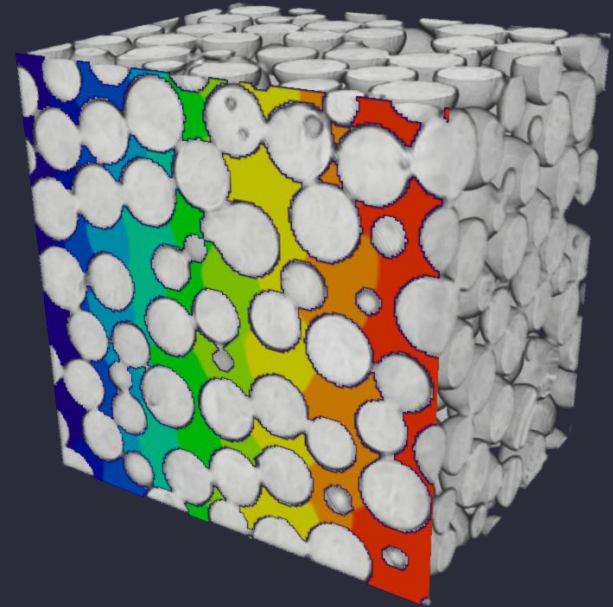


Simulator for physical properties

Computes directly molecular diffusivity from 3D label image. Includes two modules:

- Molecular Diffusivity Tensor Calculation, providing information about rates of diffusion along any direction of space.
- Molecular Diffusivity Experiment Simulation.

- Fick's 2nd law solver using a finite volume method
- No need to extract a 3D mesh

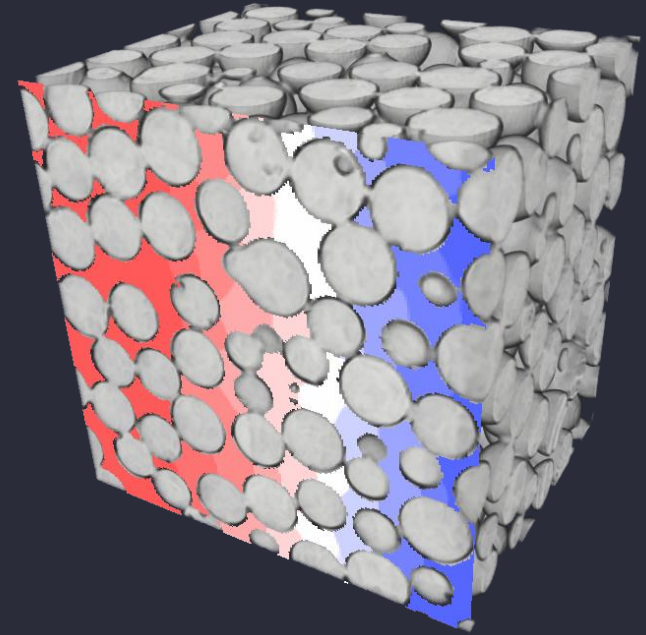


Simulator for physical properties

Computes directly formation factor (electrical resistivity) from 3D label image. Includes two modules:

- Formation Factor Tensor Calculation, providing information about resistivity along any direction of space.
- Formation Factor Experiment Simulation.

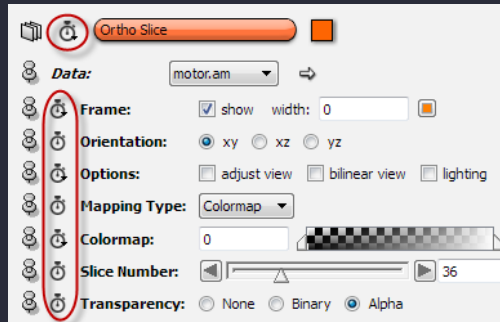
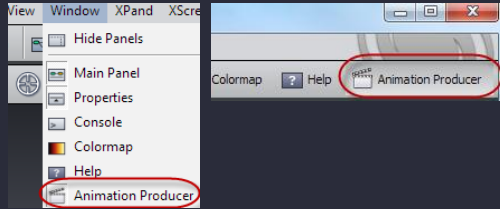
- Ohm's law solver using a finite volume method
- No need to extract a 3D mesh



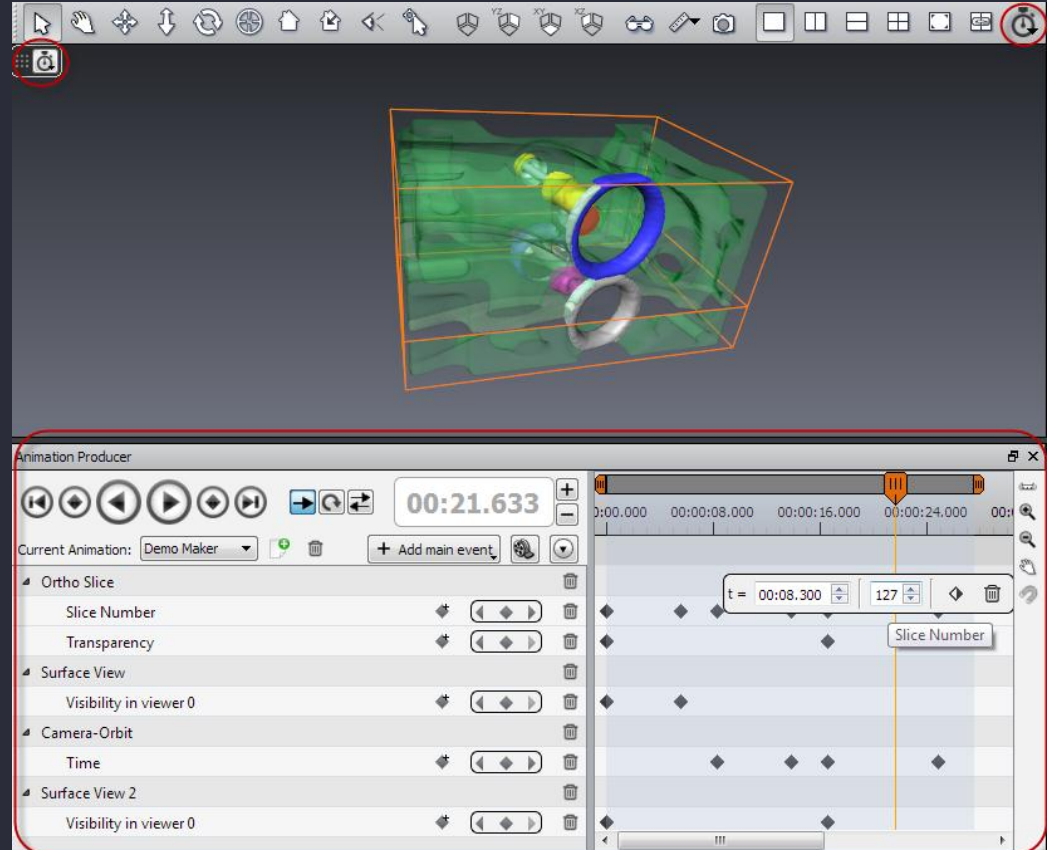
Avizo all editions - New features and enhancements

New Animation Producer

- Key frame editor superseding the Demo Maker module

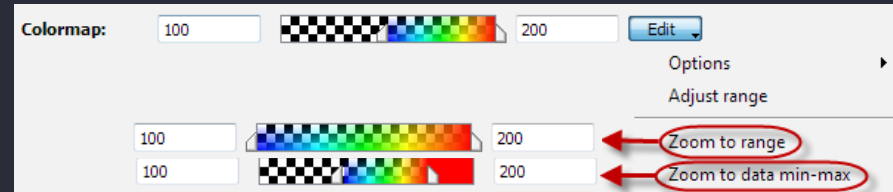
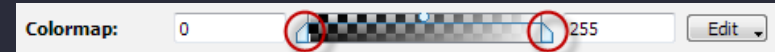
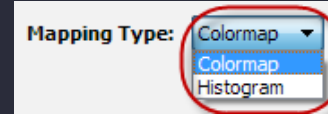


- Add events in timeline with chrono icons
- Edit event tracks with timeline



Enhanced colormap port

- Supersedes linear port range (Data Window)
- Subrange buttons
- Zoom colormap display
- Reverse colormap
- Background histogram (Avizo **Fire**)

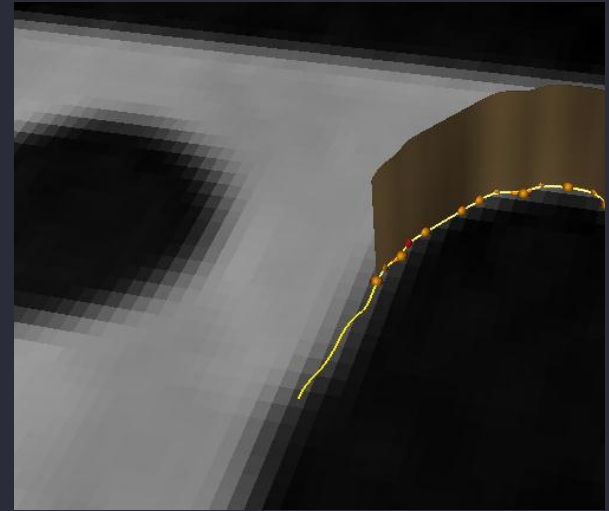


New file readers

- .vgi
- .xtekct

Curve Editor auto-trace option

New TCL commands setIconColor

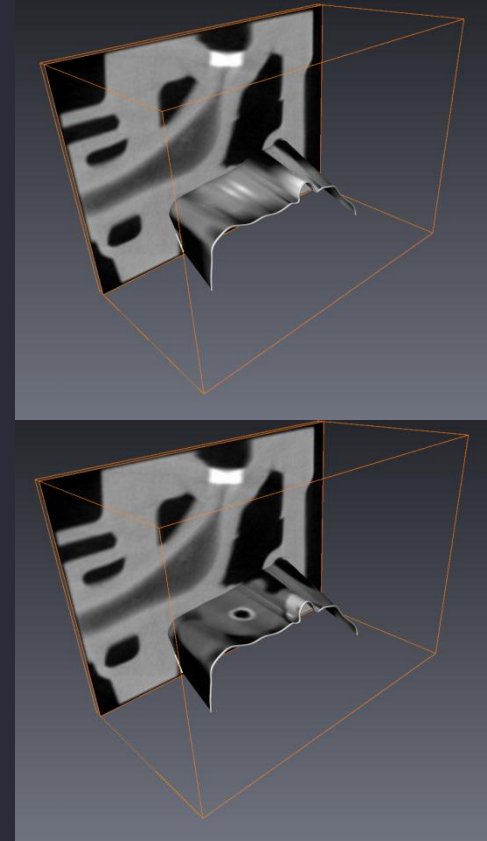


Surface rendering optimized

Enhanced support for cast shadows

New Surface View colorfield mapping mode

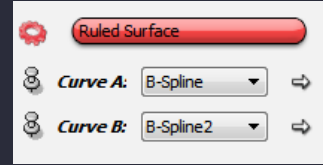
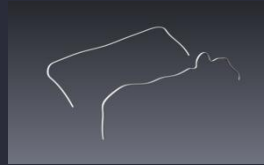
New TCL commands for Surface Editor



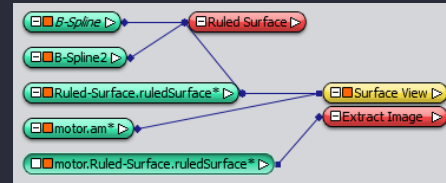
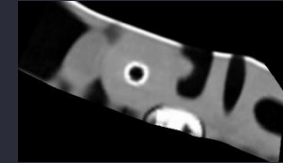
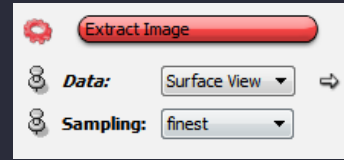
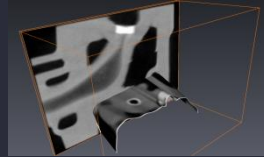
Surface View - per-voxel colorfield mapping

Avizo Fire Edition - improvements and new features

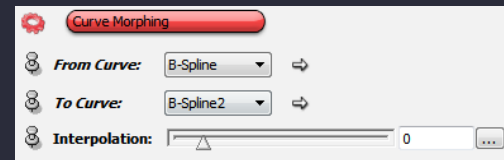
New module Ruled Surface



New module Extract Image for ruled surfaces



New module Curve Morphing



Avizo XPand eXtension for all editions - changes and improvements

Changed port constructors

- Changed signature for port constructors for future localization support

In previous versions:

```
portRange(this,"range",2) // two float fields
```

Now, you need to specify the port's label via Qt method as follow:

```
portRange(this,"range",QApplication::translate("MyModule", "Range"),2)
```

Simplified Visual Studio requirements - OpenMP disabled in debug mode

- You can now use Visual Studio 2008 Standard Edition or Visual Studio 2008 Express with Avizo XPand

ANNOUNCEMENT: end of support for Microsoft Visual Studio 2008 - Version 9

- After Avizo 7.1, next version of Avizo will no more support VC 9. Visual Studio 2010 (VC10) will be supported instead.



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