Vesselucida[®] 360

Quantitative and Visual Analysis for Blood Vessels and Microvasculature



Quantify Vasculature Accurately

Use Vesselucida 360 to quickly model complex vasculature in an intuitive 3D workspace. Generate reliable quantitative data on the length, connections, and complexity of microvessels to empower your research on conditions that affect microvasculature, including angiogenesis in cancer, diabetic retinopathy, and stroke and traumatic brain injury.



Automatically Segment and Reconstruct Vasculature in 3D, then Edit to Match Ground Truth

Collect more data in less time using Vesselucida 360.

- Sophisticated algorithms designed to automatically detect micro vasculature, even in challenging specimens
- Examine networks at multiple levels, including nodes, anastomoses, puncta, and multiple orientation and distance measurements
- Analyze individual segments' surface and volume, as well as numbers of branch points and reconnections

Work with images of Virtually Any Size in Virtually Any Format

Visualize your specimens using techniques that fit your research paradigm. Images obtained using micro-CT, confocal, two-photon, multichannel fluorescence, and light sheet microscopes are all compatible. New image and data handling engines load large images up to 5000X faster in 3D and up to 250X faster in 2D than before. Open large, complex images instantaneously—even in 3D.

Request a free trial: mbfbioscience.com/vesselucida360-free-trial

Vesselucida[®] Explorer

Turn Your Data into Results



Quantitative Analysis of Data from Vesselucida and Vesselucida 360

Vesselucida Explorer is the analytical software companion included with Vesselucida 360. Use it to perform extensive quantitative morphometric analyses designed specifically for microvasculature models and serial section reconstructions.

A Mountain of Data without the Data Overload

Find answers in your data and present to others using Vesselucida 360 and Vesselucida Explorer.

- Obtain morphology data that meet FAIR principles (findability, accessibility, interoperability, and reusability) and are compatible with open-science objectives.
- Load multiple data sets into Vesselucida Explorer for rapid, batch quantitative data analyses with no scripting or programming skills needed.

Far More than Just Numbers

Perform dozens of analyses that calculate and graph hundreds of metrics to characterize structure, distribution, orientation, and colocalization of features in your microvasculature models. Generate comprehensive quantitative data tables that you can easily export for use in statistical and spreadsheet software. Create graphical displays to visualize quantitative results in intuitive ways and use these high-quality displays in figures for publications and presentations.



Learn more: mbfbioscience.com/vesselucida-explorer

About MBF Bioscience

A rich history of creating the future of neuroscience.

MBF Bioscience develops advanced tools for collecting and analyzing accurate, reproducible data from histological specimens, 2D and 3D microscope images, and freely moving *C. elegans* so that scientists can better understand brain diseases and processes at a cellular level.

Our products have helped researchers publish over 15,000 peer reviewed papers.

What our customers say

After examining different vessel quantification tools for use with neovessel formation in the heart, we chose Vesselucida 360 as it offered us flexibility in viewing & adjusting vessel geometries in 3D to accurately represent our microCT dataset. Dr. Kareen Coulombe

Vesselucida 360 enables us to visualize and quantify microvascular networks in a way that has not been done before.
The ability to render 3D maps is integral to analysis of network structure, remodeling and blood flow distribution.

Dr. Nicole Jacobsen University of Missouri