

phoenix | MICRON[®] InSight 3D



Phoenix MICRON intelligent segmentation software, InSight, and its OCT imaging software, Reveal, can provide unique views.

Intelligent Segmentation of Rodent OCT Images

Automatic Segmentation

Using Phoenix MICRON OCT data, Phoenix MICRON InSight employs a robust algorithm to generate automatic segmentation of the retinal layers. When abnormal pathology is present, Phoenix MICRON InSight's interactive controls allow you to easily create or adjust segmentation.

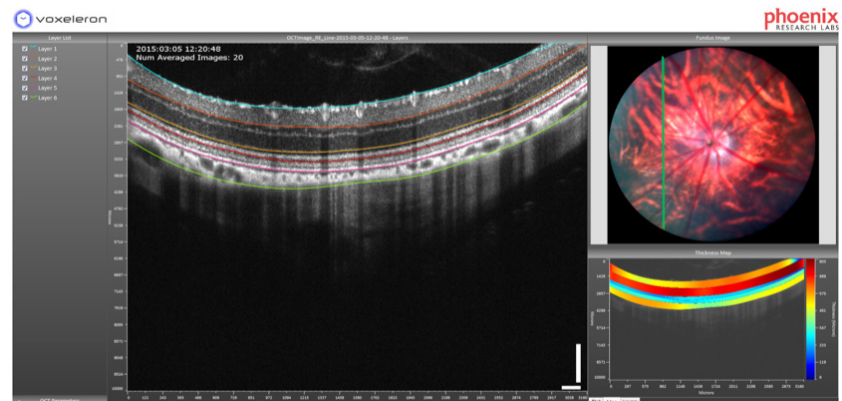
Built-in Editing Tools

Built-in calipers allow you to quickly measure layer thickness. Tools for: coloring your layers, adding annotations directly on your image, and add or remove segments are built into Phoenix MICRON InSight. When your session is complete, you can export images and numerical data for further study.

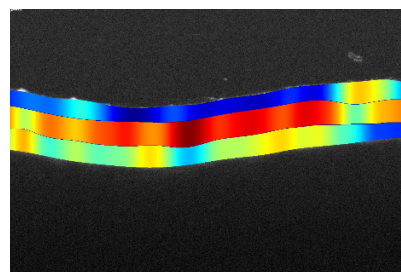
Easy export for publication

Retinal location, OCT scan data, and segmentation results are available during the study session and can be saved for comparison after each session.

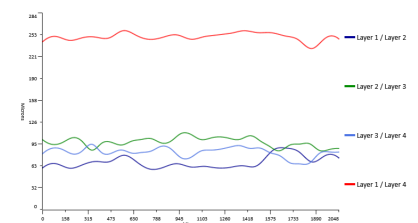
The structural analysis results are available in the traditional tomography display with lines delineating the layers and thickness plots, in the Phoenix MICRON unique color banded/coded display, or as numeric data. Determining progressive changes in retinal structure has never been easier.



Phoenix MICRON OCT data is captured and easily automatically segmented

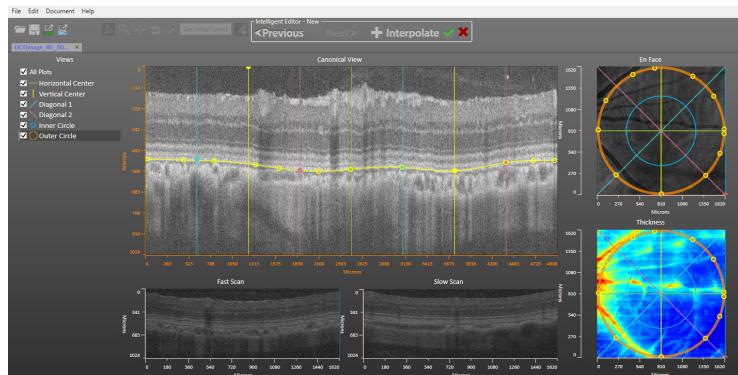


Phoenix MICRON color coded presentations graphically display layer thickness



Data gathered by InSight can be exported in numerical format for further analysis.

Retinal Volumetric and Quantitative Analysis A Unique 3D Retinal Thickness Analysis Tool for Longitudinal Studies



3D Segmentation and Volume

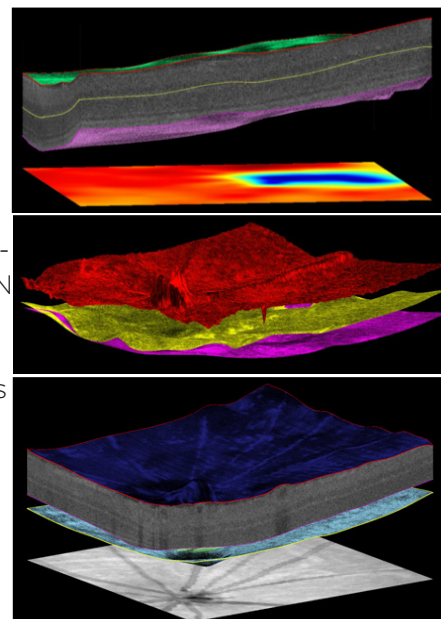
Phoenix MICRON InSight 3D is a powerful tool for measuring volumes of a defined retinal area. Longitudinal information on areas of interest, such as tumors or retinal thickening, can be made with a few simple edits.

Using images acquired with the Phoenix MICRON IV and the Phoenix MICRON OCT2, researchers can define an area of interest directly on the bright field or enface OCT image. Layer definition can be added automatically or with full user control.

Using the canonical view, (shown above, right) layers can be manually edited to ensure shared points (from Outer Circle, Inner Circle, etc) are accurately intersected. A heat map of the layer thickness is displayed in real time during editing.

Interactive 3D Visuals

Measure and display 3D volumes in many ways, including projection onto both the enface and fundus image. Phoenix MICRON InSight 3D has easy to use robust measurement and analysis tools.



3D segmentation (Top to bottom): volume and heat map, "potato chip" layers, and volume and enface.

Image-Guided Capture of 3D Information

Easily capture 3D Volumes up to 0.81 mm x 0.81 mm, 1.4 mm deep on a mouse retina, and 1.6 mm x 1.6 mm, 1.4 mm deep on a rat.

InSight & InSight 3D Specifications:

Layer identification	Automatic or interactive
Layer editing	Customizable layer names, display colors and annotations
Thickness map	Automatically generates color coded layer thickness map
Calipers	Accurately measure dimensions of key features
Data formats	PNG format (images), CSV format (data)