

# Automate End-to-End Image Analysis Pipelines.



## **ZEISS arivis Pro**

Powerful, flexible software solution for demanding image analysis and visualization tasks

[arivis.com/products/pro](https://arivis.com/products/pro)



Seeing beyond



# Advanced Analysis that Fits Your Data.

Regardless of image source, format or size.

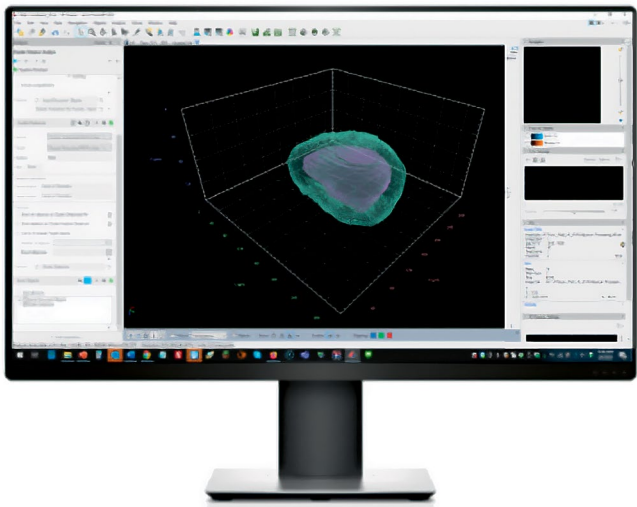
## Automated image analysis for reproducible results

**ZEISS arivis Pro** empowers you to automate image analysis pipelines. Leverage traditional methods or AI models effortlessly to create pipelines for any image size, dimension, or modality without the need to code.

The software supports and handles over 30 commercial file formats. Efficiently process large files with ease.

Pre-configured pipelines and standard assays are available for both simple and demanding analysis tasks. Or you can customize pipelines for your specific goals. It takes just one click to repeat your analysis for consistent, quantitative results.

Boost productivity, enhance throughput, and ensure reproducible results.



## Click-and-play solution for routine or customized workflows

Using a flexible toolset, start from scratch or enhance existing pipelines.

## Combine different operators

Denoising, segmentation, filtering and other analysis tasks are easily ordered in a clear pipeline with an interactive preview.

## Boost your research with AI

It is easy to use open-source models (such as Cellpose) and your custom models trained on **ZEISS arivis Cloud** or elsewhere.

## No coding needed

Start your image analysis today, even if you are not an image analysis expert or programmer.

## Analyze images from any system or manufacturer

- Confocal Microscopy
- Widefield Microscopy
- Lightsheet Microscopy
- Electron Microscopy
- CT/uCT/MRI
- X-Ray Microscopy
- Multiphoton Microscopy

## Image analysis software for various applications

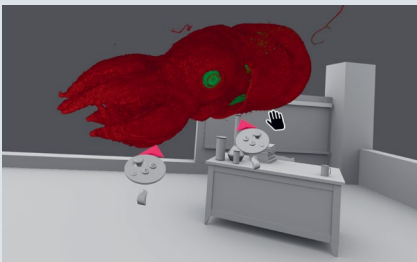
- Cell Biology
- Developmental Biology
- Cancer Research
- Neuroscience
- Immunology
- Translational Research
- Physiology

And many other fields.

## ZEISS arivis Pro VR

Get a new perspective on your sample with an immersive virtual reality experience.

- Explore your sample in 3D
- Observe details from diverse angles
- Collaborate with colleagues for a live review of your sample and results
- Easy voice and hands-on control
- Effective, interactive proofreading and editing of automatic analysis results.



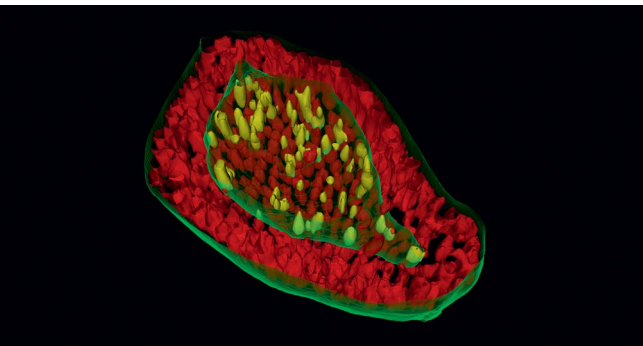
arivis.com/products/pro/vr

# ZEISS arivis Pro at Work.

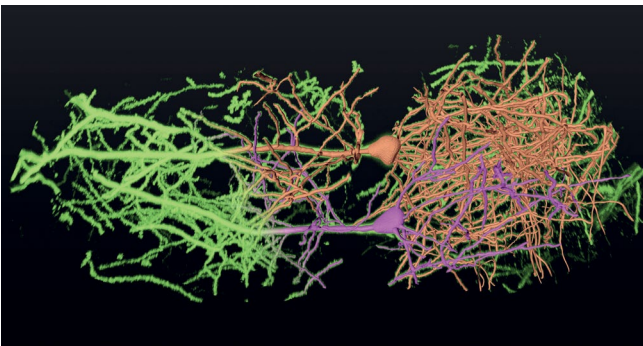
Processing any kind of multi-dimensional data.

Use **ZEISS arivis Pro** for seamless model integration into scalable, automated pipelines on your local workstation. Leverage **ZEISS arivis Hub** server or cloud-based processing to scale up image analysis across thousands of images in parallel.

## Get inspired by our solution examples



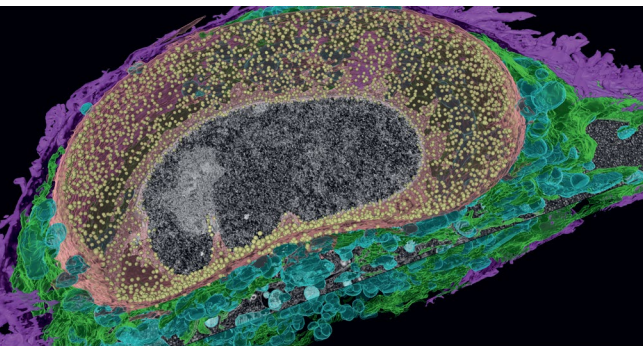
Intestinal gut organoid cross-sectional view magnified 20X on ZEISS Celldiscoverer 7 and analyzed with ZEISS arivis software family. Nuclei in the outer cell layer (red) and in the lumen (yellow) are highlighted.



The Automated Neuron Tracing module allows the examination of intricate structural networks in 2D or 3D multichannel images of any size. Acquired with ZEISS LSM 980 with Airyscan 2.

## High Content Screening

Complex disease drug discovery demands advanced image analysis methods such as screening against a broader view of cell or tissue phenotype, scalable from 2D to 4D. Train an AI model using ZEISS arivis software on the cloud or locally, and automate image analysis to save time, reduce human bias, and for consistent results.



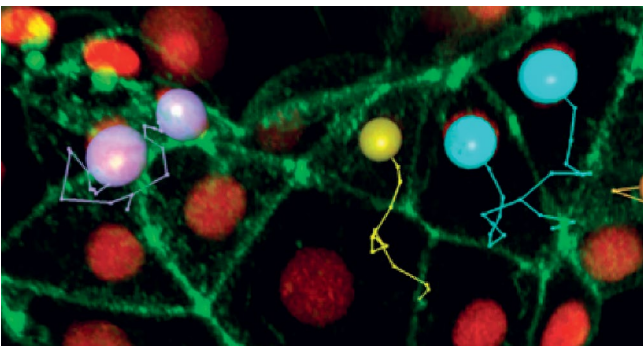
Detailed FIB SEM Volume Electron 3D image, which required AI for enhanced sub-cellular analysis. Courtesy of Anna Steyer and Yannick Schwab, EMBL.

## Advanced 3D Analysis

Boost results quickly with AI, even for complex tasks. Annotate slices in your Z-stack to train your model and then apply it to the whole dataset. Machine Learning and Deep Learning models for segmentation and classification form the core of your automated pipeline. Visualize results in 3D or create videos for a polished analysis report.

## Neurobiology

Deploy cutting-edge neuron tracing algorithms for automatic, repeatable analysis of diverse images with a single click. Quantify neurons, glia/ microglia cells, axons, and more even with low SNR. Edit traces easily, using our semi-automatic interactive and VR tools. Analyze past experiment data, no matter the image format.



Edit and proofread your cell tracks in VR.

## Tracking and Lineage

Quantify cell division and migratory phenotypes, and track changes in 2D and 3D image sets of any size. Use **ZEISS arivis Pro VR** to accurately proofread automatically generated tracks in an immersive VR environment. Easily reapply your pipeline to more datasets.



**[arivis.com/products/pro](https://arivis.com/products/pro)**

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