

INSOPER

Imaging Software
for automated and smart microscopy

9.3 Release
January 2026



A clear step forward

Designed to grow with researchers and their experiments

Built on a solid and stable foundation, this release strengthens core usability and reliability while introducing new capabilities to support advanced microscopy workflows over time.

New capabilities at a glance

Improved ergonomics

- 1. Refined user experience
- 2. Icon set & interaction
- 3. Mouse navigation & stage control

Smarter exploration

- 4. Tiling preview
- 5. Tiling scan modes
- 6. Z-Stack control
- 7. Tiling & Stitching
- 8. Shading correction
- 9. TIRF calibration
- 10. 3D rendering
- 11. Standalone Viewer

Expanded modalities

- 12. LiveDRIM
- 13. Custom Scripting
- 14. Emulation mode
- 15. New drivers integrated

Improved ergonomics

#1 Refined User-Experience

A smoother, more consistent everyday experience

Key
Innovation

9.3 release delivers a noticeably smoother and more intuitive user experience, with ergonomics refined to support confident operations.

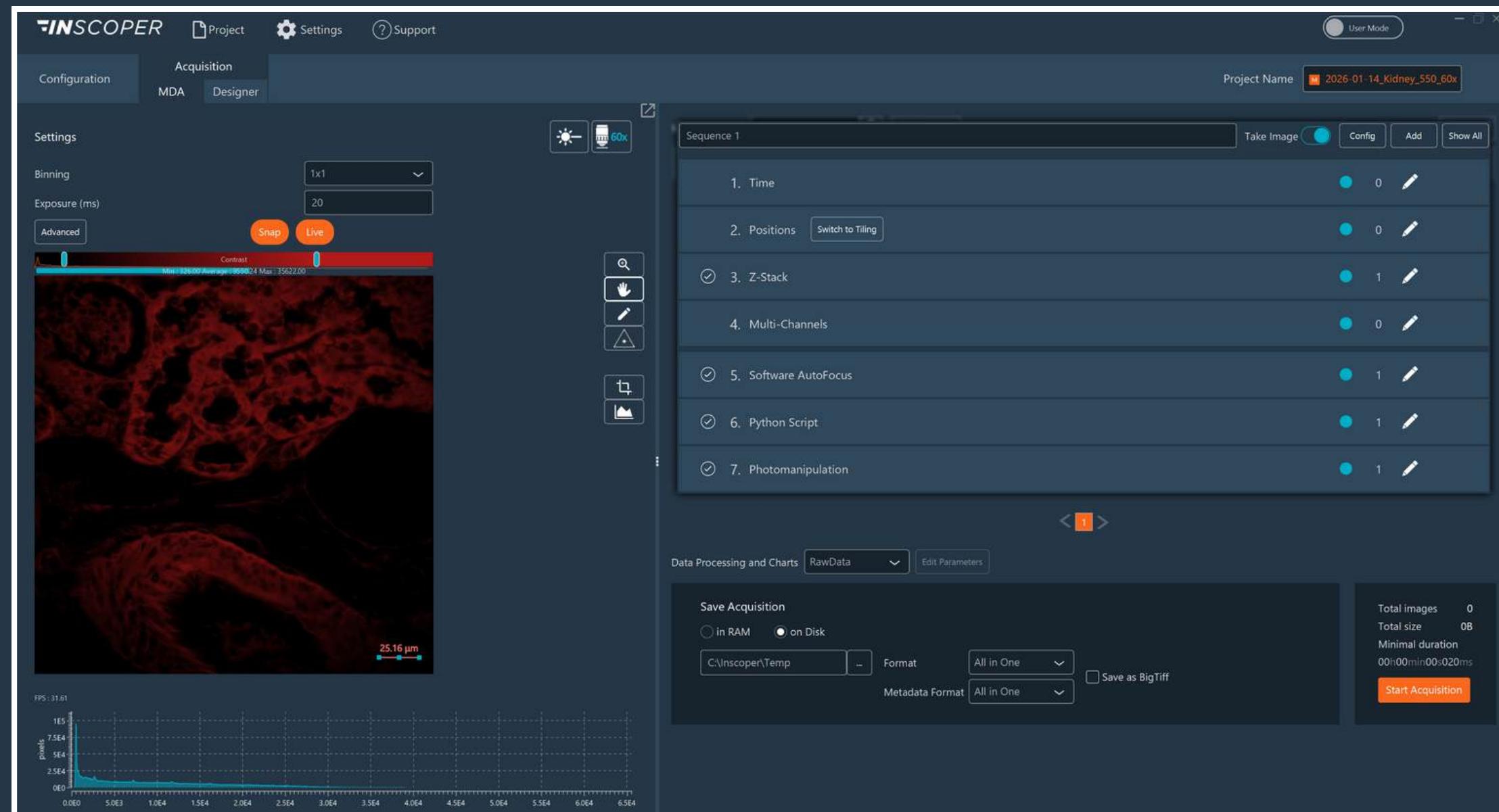
The interface interactions are more stable and responsive.

System performance has been optimized for demanding imaging workflows.

Configuration steps are now more automated, helping users operate running with greater ease.

Overall, 9.3 feels more predictable consistent and comfortable.

Researchers stay focused on their science rather than unintuitive interface.

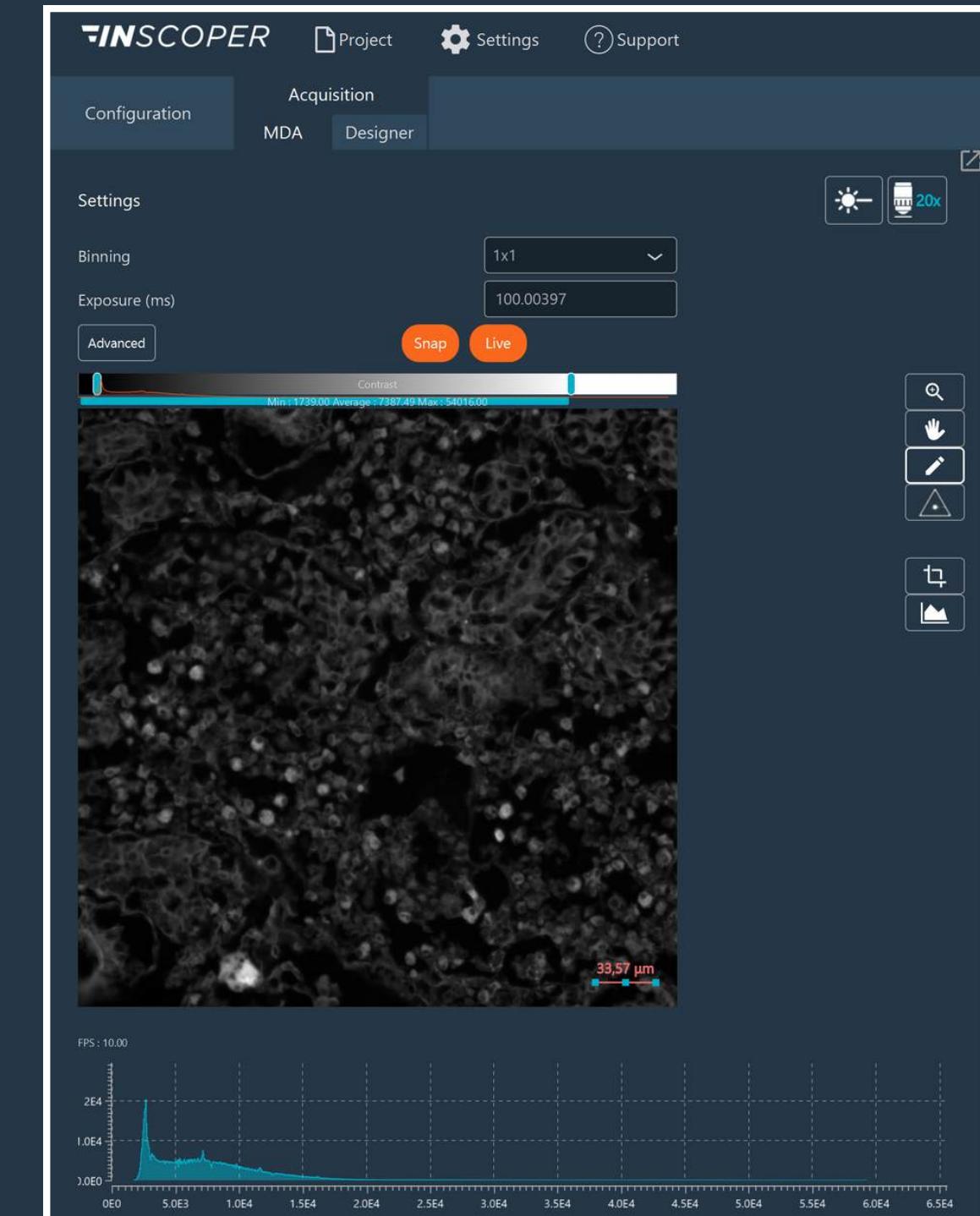


#2 ICON SET & INTERFACE CONTROLS

A refreshed icon set improves clarity, making actions easier to access and reproduce.

New icons include:

- **Imaging channel selection:** Quickly select and switch imaging channels with clear visual feedback.
- **Objective selection:** Safely choose the appropriate objective at anytime and prevent lens or sample damages.
- **Fire-on-Click FRAP:** Define photobleaching regions instantly with a more direct, interactive workflow.
- **Improved histogram visualization:** A clearer histogram with optional display modes supports precise parameter tuning when needed.



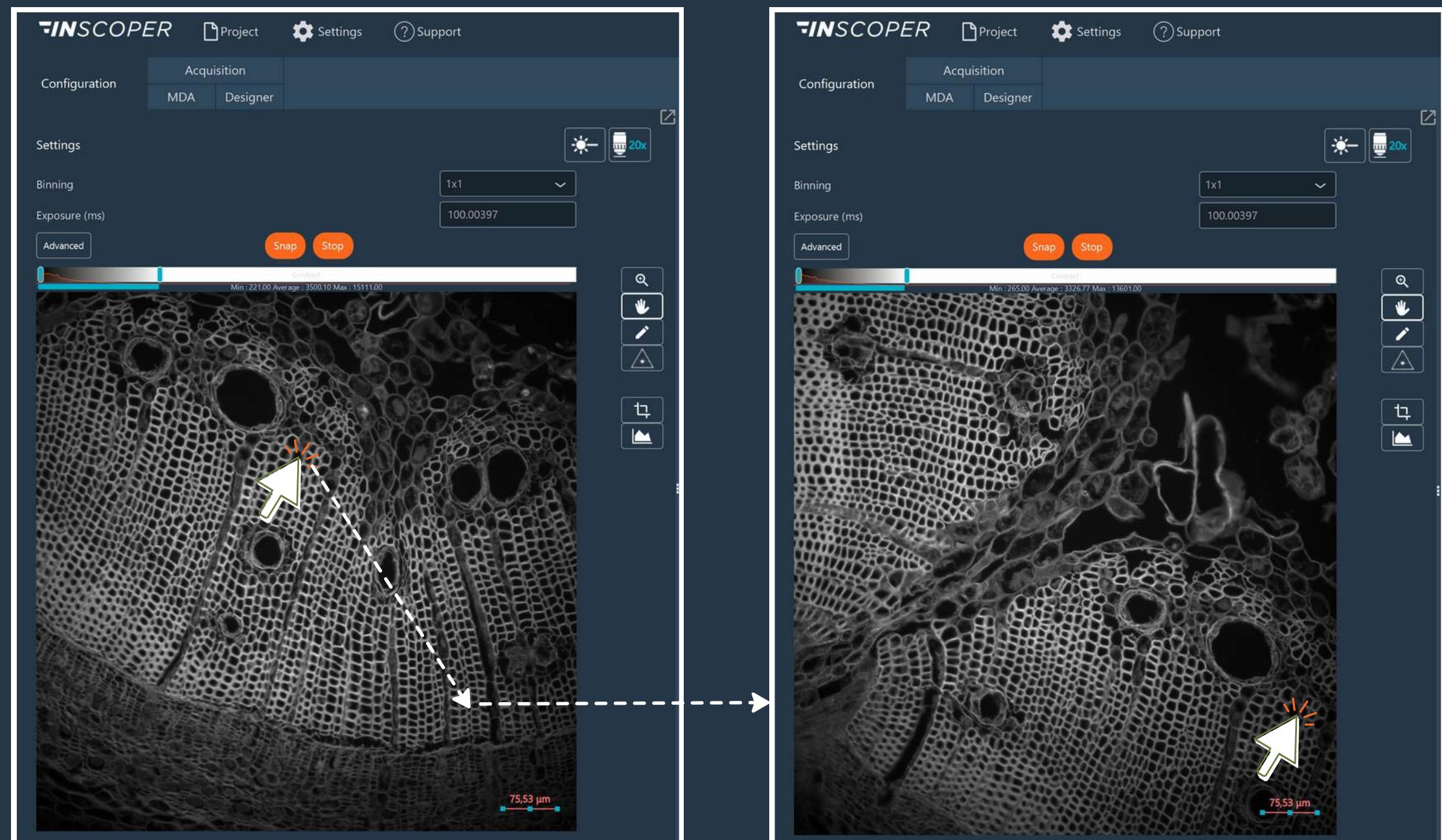
#3 MOUSE-CONTROLLED EXPLORATION

A familiar, comfortable way to move across large biological samples

Navigation during acquisition is now easier with mouse-driven controls.

Users can zoom into images and control XYZ stage movements directly with the mouse, making wide sample exploration more intuitive and precise.

This reduces reliance on joystick-based control and offers a comfortable way to interact with large biological samples.



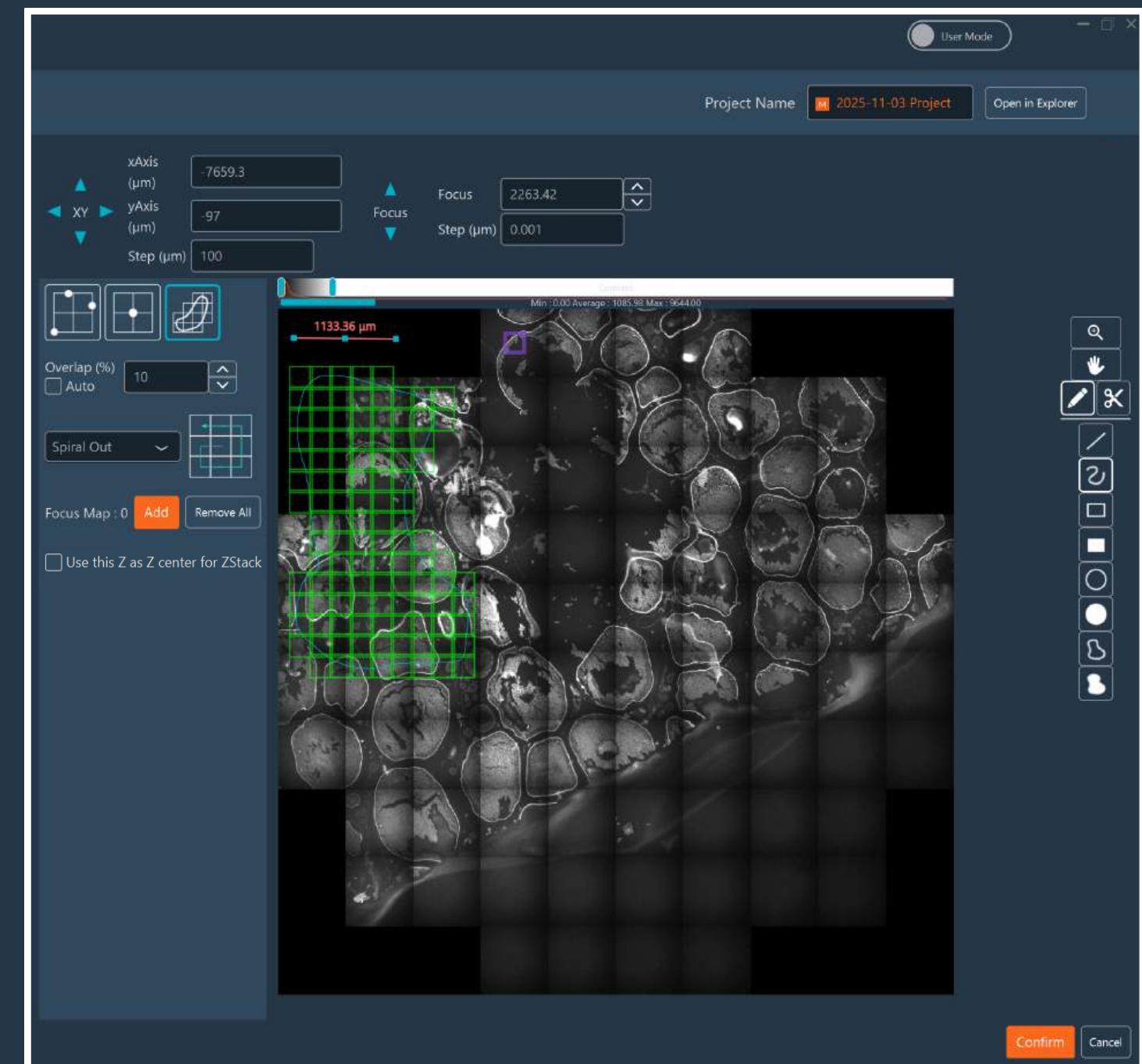
#4 TILING PREVIEW

Exploration of the whole sample

Easily select regions of interest with freehand shapes that match the true form of the specimen.

Combined with flexible stage movements, navigation feels more intuitive and consistent when scanning large samples.

Preview at low magnification, define ROIs, and then switch objective to image at the right resolution that optimizes acquisition accuracy while adapting imaging to the shape and needs of each sample.



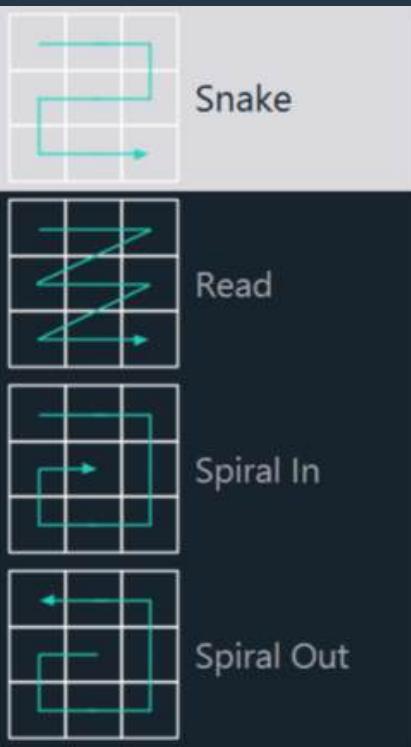
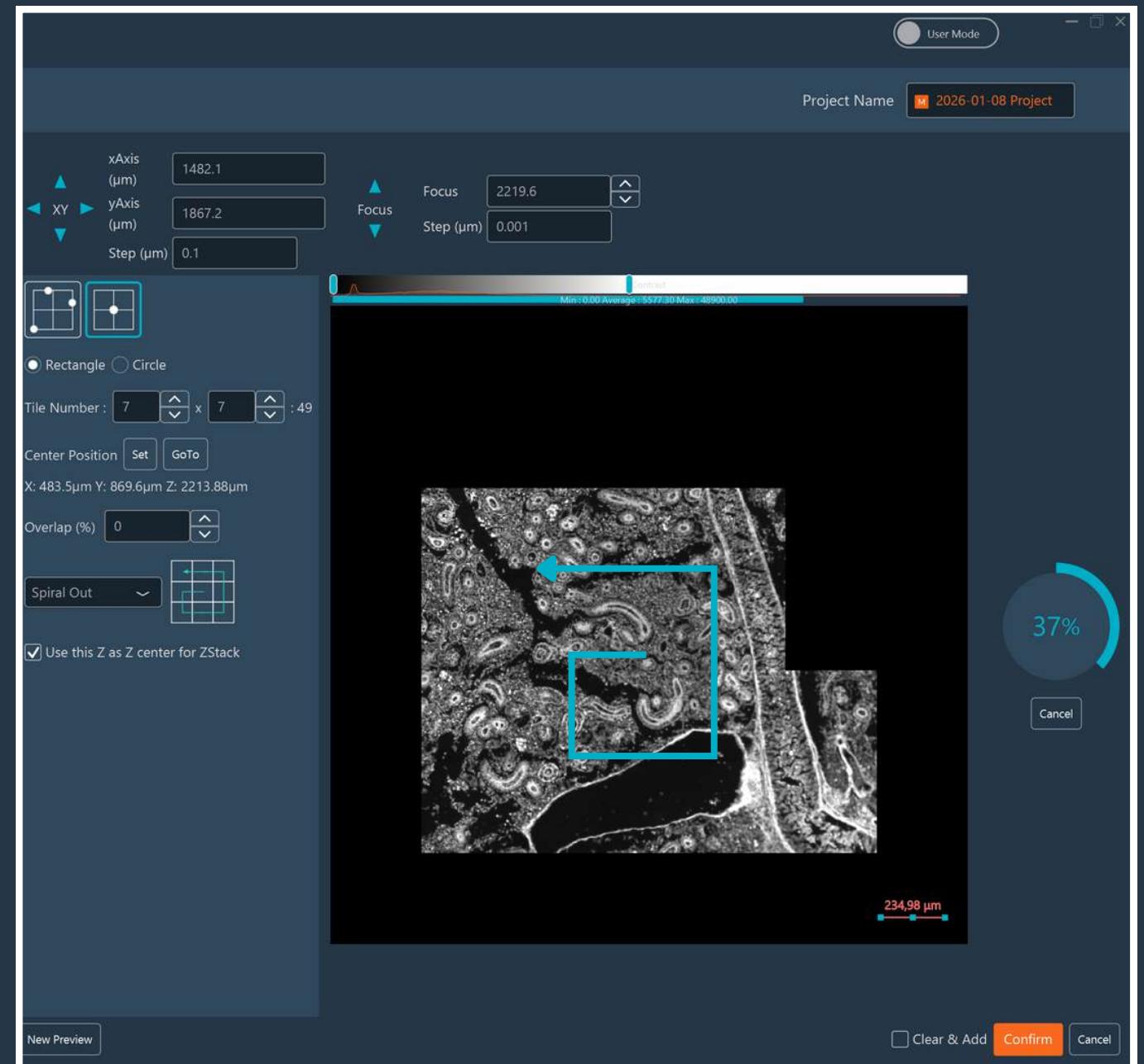
Smarter exploration

#5 TILING SCAN MODE

Path modes (Read / Snake / Spiral In / Spiral Out)

Users can choose how regions of interest are scanned depending on the sample geometry and exploration goal.

This provides more control over acquisition strategy, helping users adapt imaging to fragile samples, large areas, or time-sensitive workflows.



#6 Z-STACK

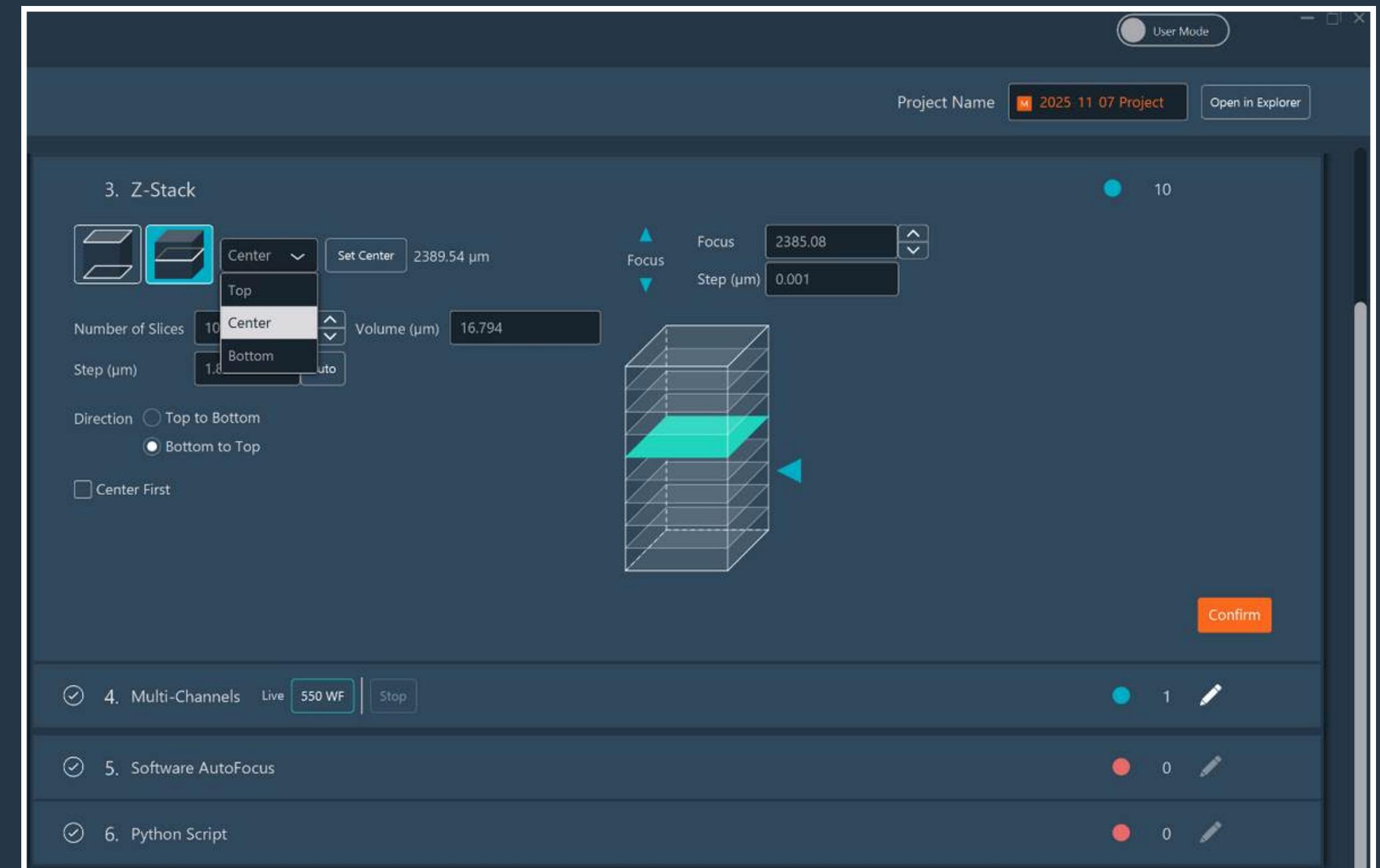
Visual Z-Stack definition

Visually define the depth range to explore and acquire.

An intuitive graphic lets users select the desired volume and number of slices.

The software automatically links volume, step size, and slice count.

This makes it easier to set up consistent, well-sampled Z-Stacks adapted to sample thickness.

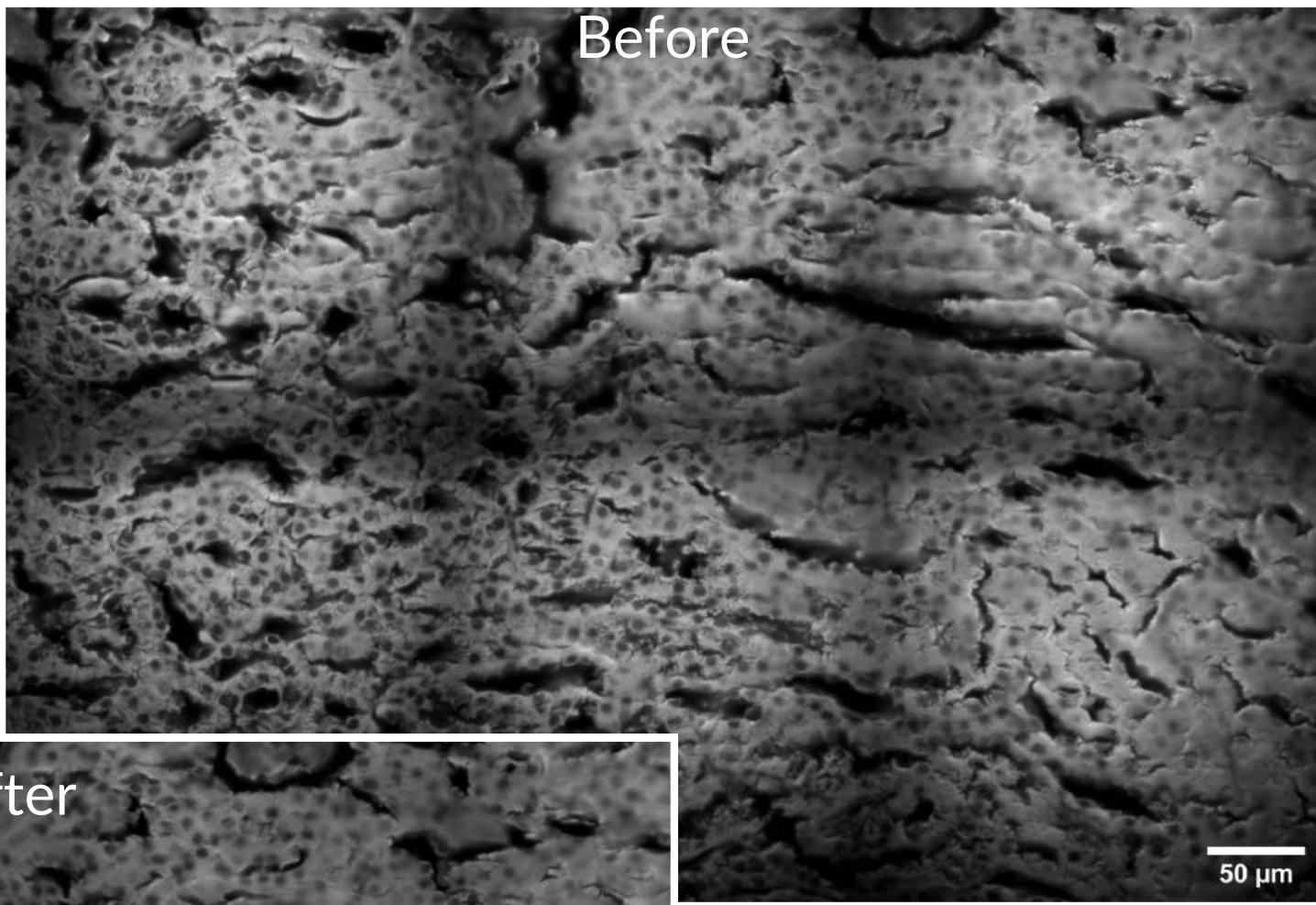
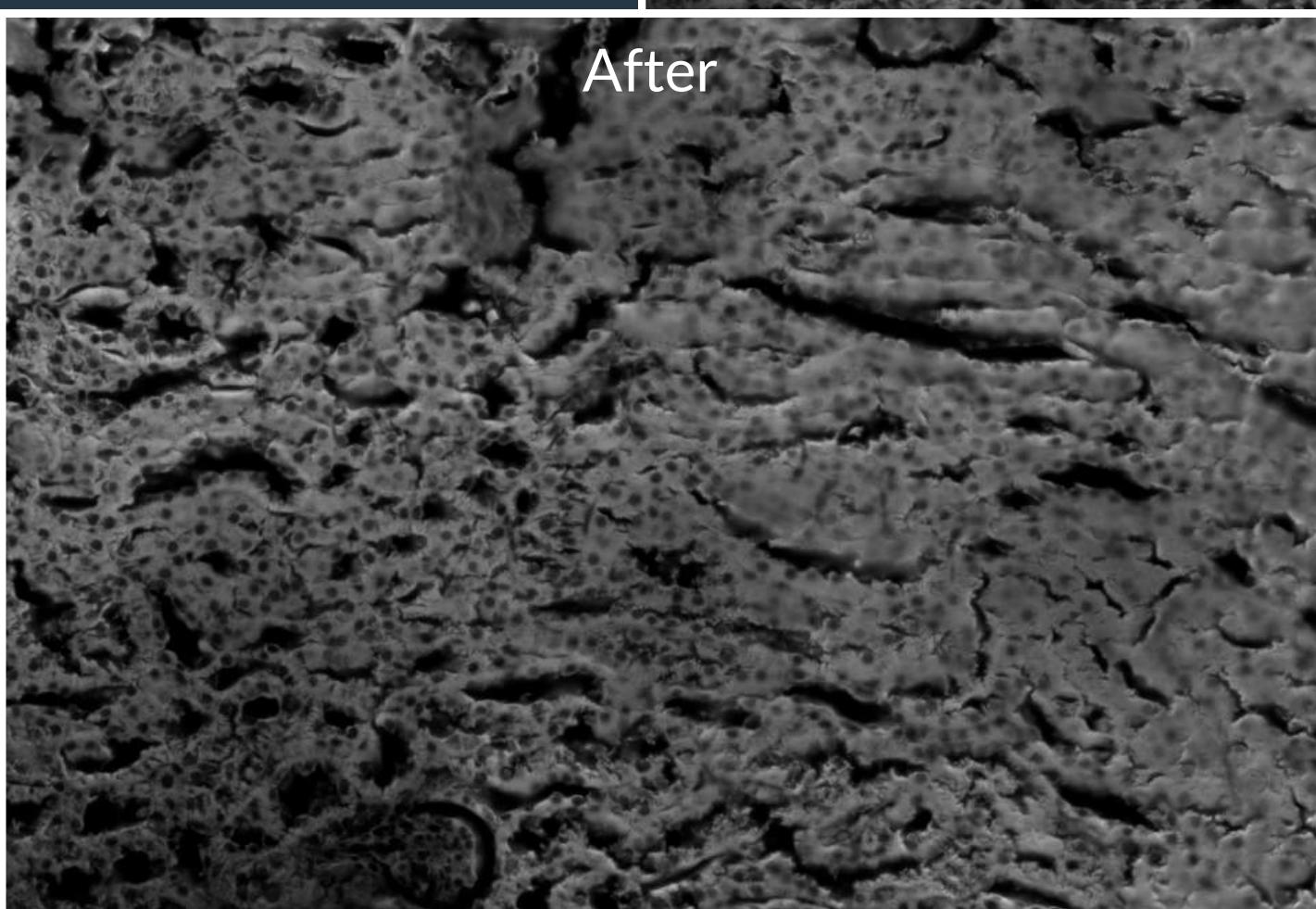


#7 SHADING CORRECTION

Channel, objective and camera dependent

To prevent uneven illumination, shading correction has been upgraded to produce homogeneous acquisitions and improve image consistency across channels, objectives and cameras.

It is especially important for quantitative imaging and stitched mosaics.



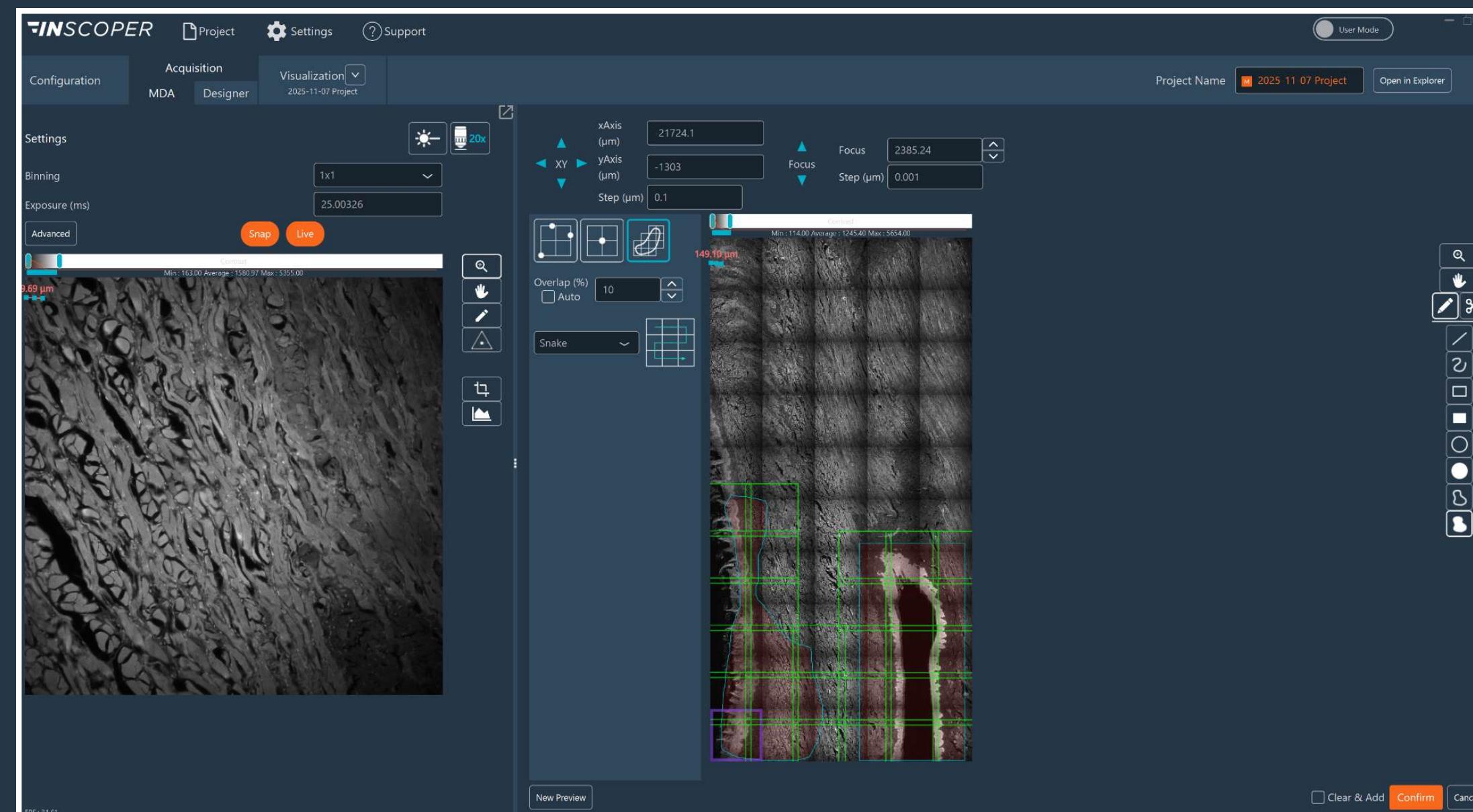
Smarter exploration

#8 TILING & STITCHING

Faster setup, cleaner mosaics

Tiling workflows are now easier to configure and more robust, with one-click ROI selection for multi-position or stitched mosaics.

Combined with improved stitching and enhanced shading correction, users can produce more uniform, high-quality large-field images with fewer manual adjustments, especially valuable for well plates and large-area screening.



#9 TIRF CALIBRATION

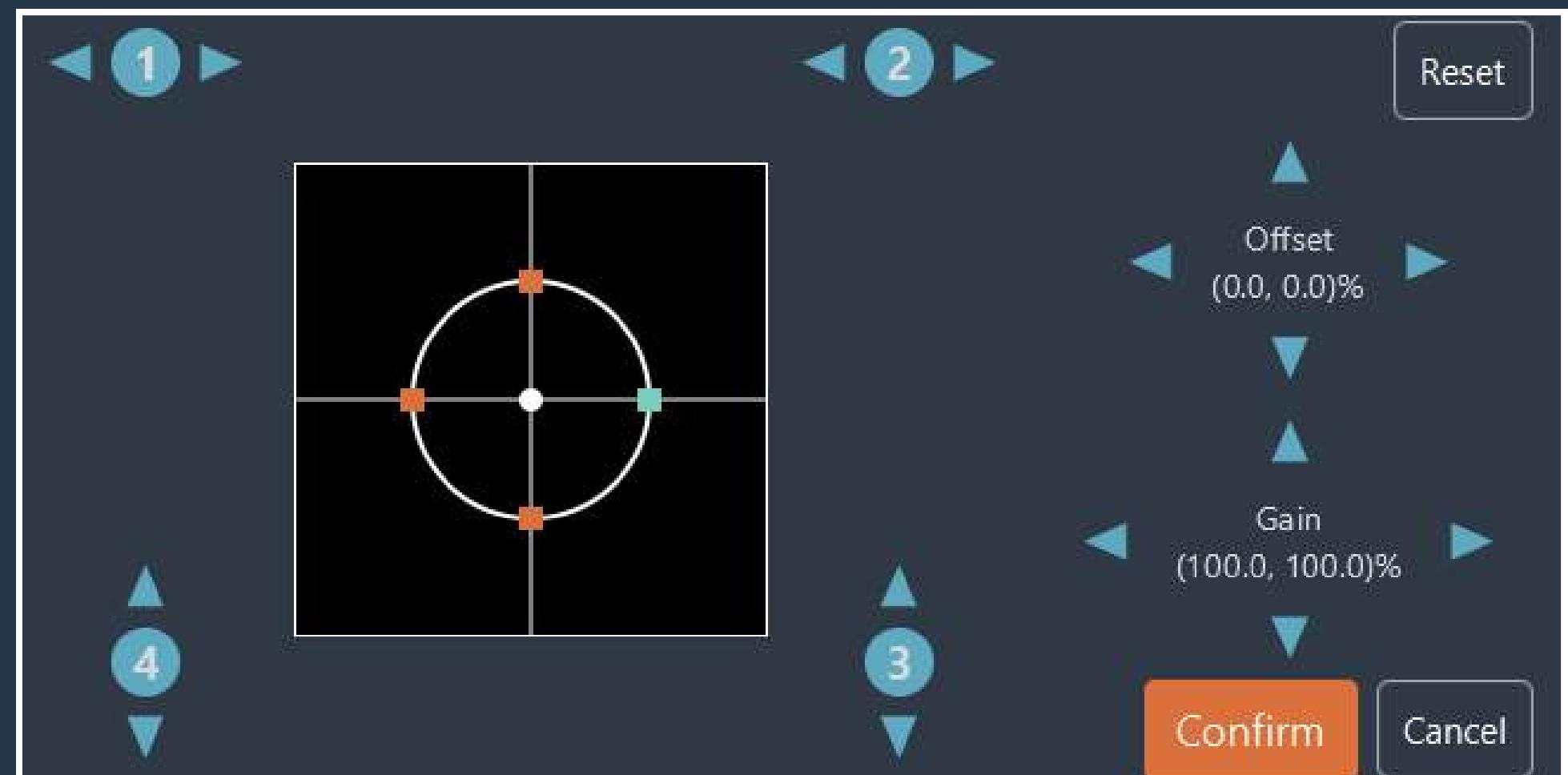
Calibrate with confidence

The improved TIRF calibration workflow is designed for azimuthal 360° TIRF illumination, and compatible with the iLas 2 unit from Gataca-Systems.

It replaces technical illumination parameters with intuitive, image-driven controls, making it easier to reach the desired penetration depth and illumination geometry across the full azimuth.

Users can tune TIRF conditions per channel with simple adjustments.

Advanced system calibration is performed once at installation to ensure stable, consistent performance across experiments.



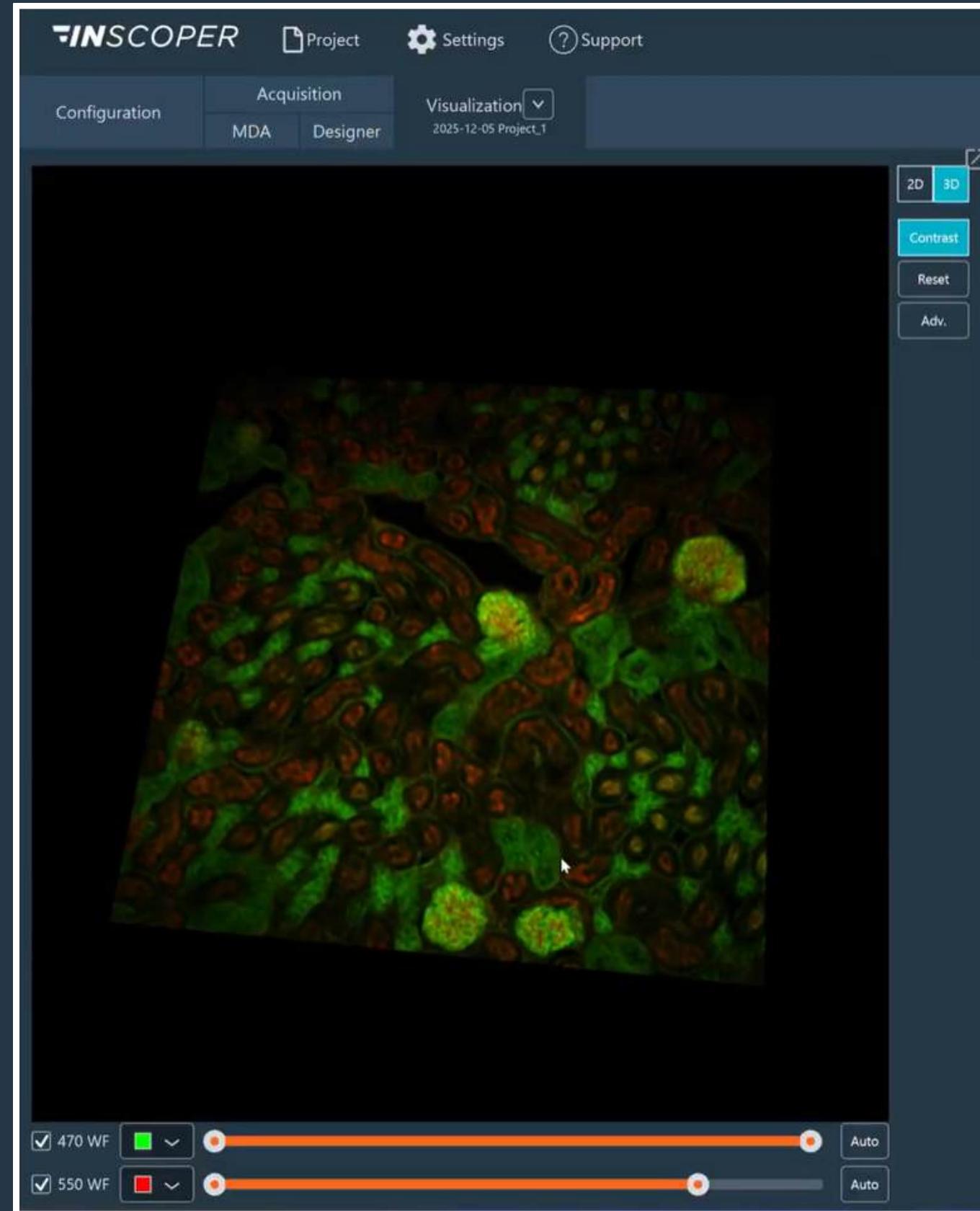
Smarter exploration

#10 3D RENDERING

Precise image volume exploration

Intuitive 3D and Z-Stack planes explorations.

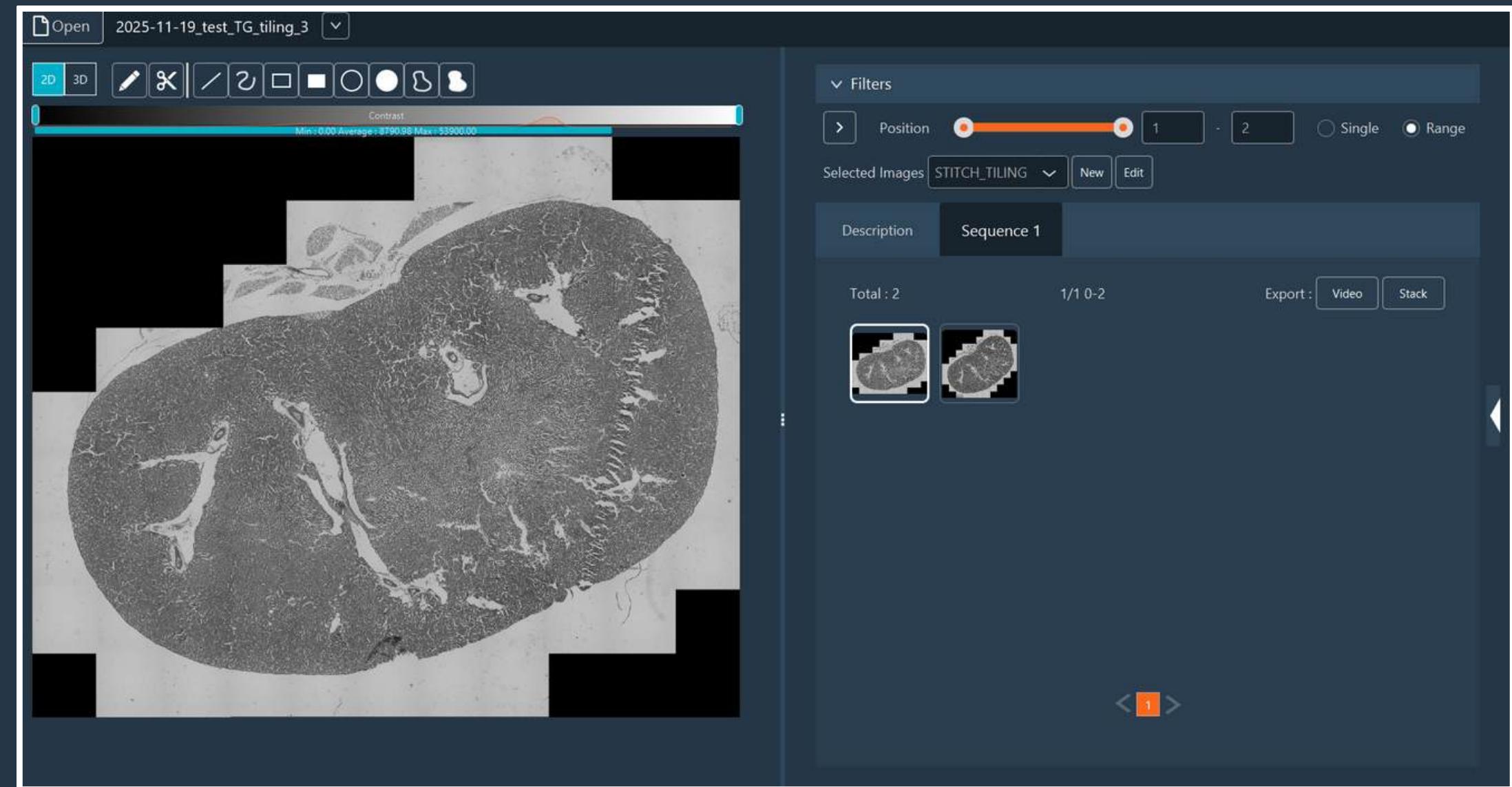
This helps users better understand sample structure in 3D and navigate volumetric data more comfortably during exploration and review.



#11 STAND ALONE VIEWER

Explore and stitch without the microscope

Large datasets can be stitched at sub-pixel precision and explored offline without blocking valuable microscope time.



Expanded modalities

#12 LiveDRIM - Dynamic Random Illumination Microscopy

See sharper, explore deeper, capture faster and observe long-term

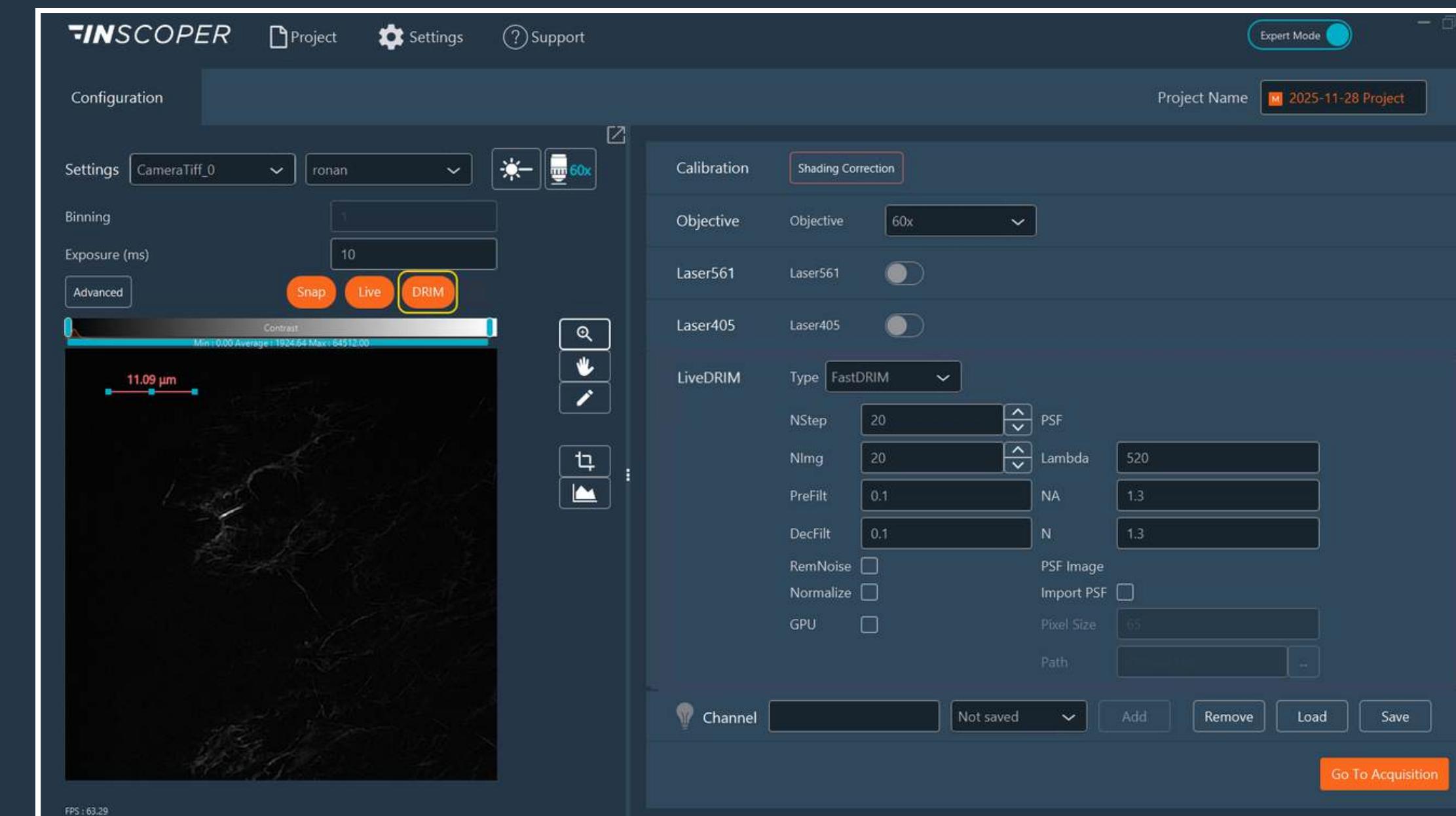
Key
Innovation

LiveDRIM unlocks super-resolved live imaging for dynamic biological samples without disrupting the routine workflow.

Using pseudorandom illumination and statistical reconstruction, liveDRIM delivers sharper images, faster acquisition, and long-term multicolor observation, while remaining robust to aberrations.

liveDRIM is ideal for cell biology, neurobiology, cancer research, tissue engineering, organoid dynamics or any application requiring fast, high-resolution imaging of living systems.

Compatible with MDA, tiling and well plates, designed to be easily integrated.



#13 CUSTOM SCRIPTING

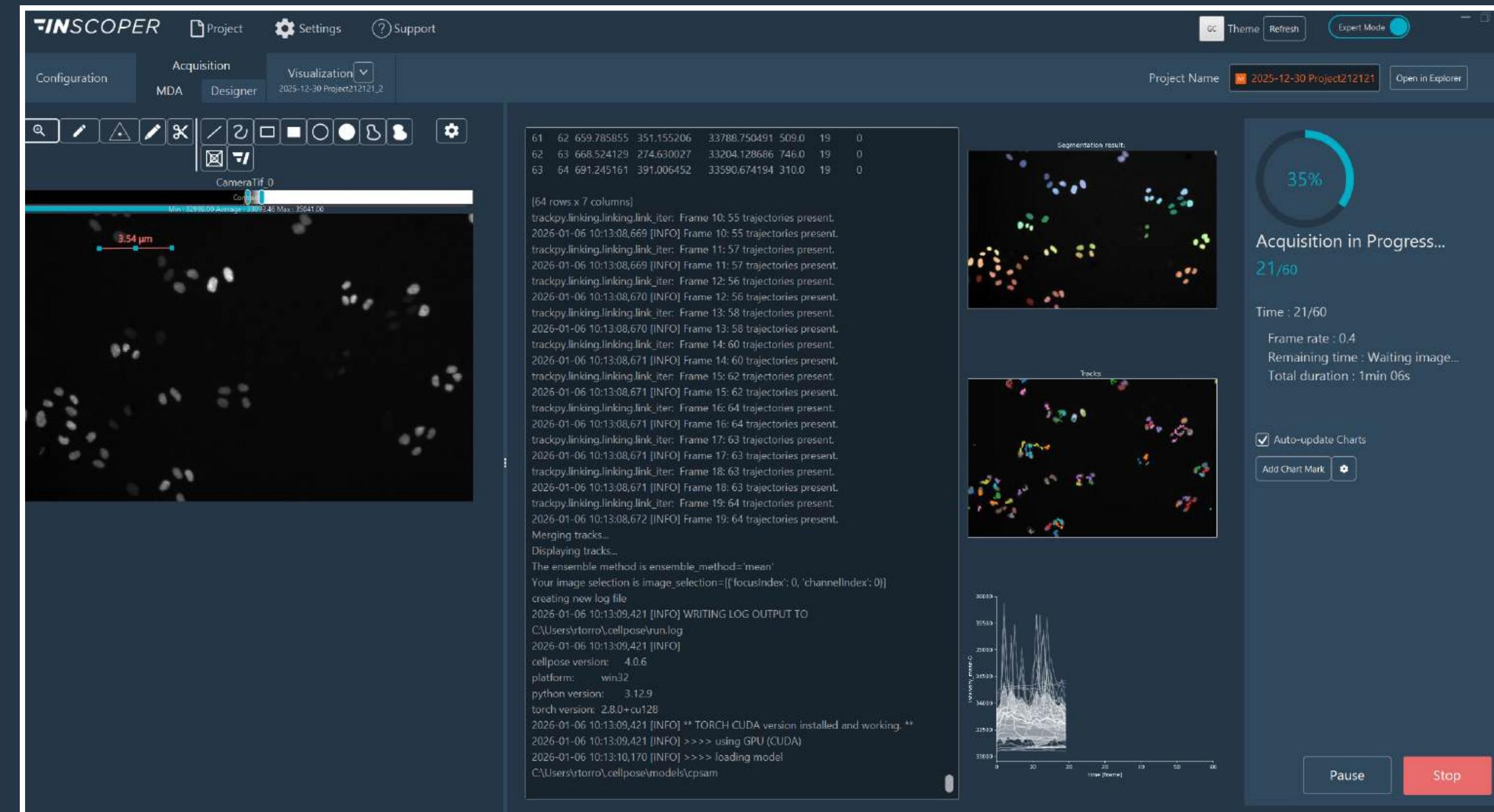
Smart, adaptive microscopy with Python

This Python-driven extension allows real-time image analysis to guide decisions during multidimensional acquisition workflows.

Users can integrate their own image analysis and decision-making scripts directly into the acquisition process. They can leverage familiar libraries within the Inscoper environment.

Researchers can configure complex acquisition sequences that dynamically respond to biological signals as they emerge, reducing data production.

By combining image analysis, deep learning and hardware control, researchers can automatically detect phenotypes, adapt experiments on the fly, and accelerate targeted imaging.



Expanded modalities

#14 EMULATION MODE

Train, configure, and support away from the microscope

The emulation mode allows the Inscoper solution to run on any computer without microscope access, enabling training, configuration validation, and remote support based on a specific customer setup.

Integrators can simulate workflows, troubleshoot configurations, and guide users through protocols without requiring instrument time or producing real image acquisitions.

It also provides a convenient way to review and validate configuration folders offline.



Expanded modalities

#15 EXPANDED DEVICE LIBRARY

More plug-and-play hardware support

Additional drivers for cameras, stages, illumination sources, and microscopes are available.

To name a few:

- LIVE SR - Super-resolution for spinning disk confocal
- PCO-FLIM camera version X
- Confocal NL AION and GAIA
- EVIDENT IX85
- Zeiss Axio Examiner Z1
- Prior Pure Focus 850
- Excite XT900 and XT600
- CoolLED pE-400 max
- Marzhauser Liquid Dispenser

A complete device compatibility list
is available on our website

<https://www.inscoper.com/supported-devices/>

Ready to see Inscoper Imaging Software 9.3 in action?

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