## Confocal Application Notes Vol. 4 July 2006

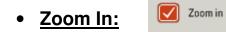


Zoom In

#### New Live Tools in LAS AF (From version 1.5.0 Build 767 and later)

Prepared by Myriam Gastard, Ph.D. Exton Support Group, Leica Microsystems, Inc.

In this July issue of our Application Notes, we are going to describe tools which can be extremely useful while scanning live.



This tool let you zoom in while in Live scanning. You can then recenter your scanning field if needed and zoom in the region of interest at will.

**1-** The "Zoom In" tool is accessible from the Acquire window as described below It can activated before or during Live scan.

⇒Acquire →	Acquisition  XY (drop down window)
	Leica Microsystems LAS AF - Simulator 🔻 File He
	Configuration Acquire Process
	Experiments Acquisition
	Acquisition Mode: xyz 2 2 2
	XY: 512 x 512   333 Hz   1   1.00 mm * 1.00 mm       Sourcet:       50umet:       512 x 512   \$   Pinhole
Zoom In	Speed : 333 Hz 🗢 Bidirectional X
$\sim$	
	Ріxel Size : 1.96 µm * 1.96 µm
	Line Average : 1   🗢 Auto Gain
	Frame Average : 1
	Rotation:

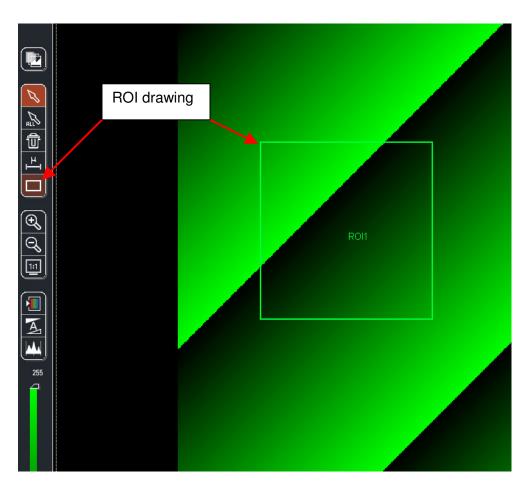
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**2-** Once activated and while you are in Live scanning Mode, you can draw a Region of Interest (ROI) in the field you need to zoom in.

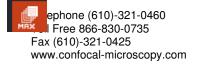


The ROI will delimit the new field of view and will zoom in automatically. The new Zoom Factor will be automatically noted as well as the new image dimensions.

Zoom factor :	Zoom factor : 3.69
Zoom in	
Image Size : 1.00 mm * 1.00 mm	Image Size : 270.75 μm * 270.75 μm
Pixel Size : 1.96 µm * 1.96 µm	Pixel Size : 529.85 nm * 529.85 nm
Before Zoom In	After Zoom In
	Aller Zoolli III

If your Panel Configuration is setup with an active Zoom knob then the new Zoom Factor will be displayed as well too.

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in the viewer screen to visualize the maximum

#### • Online Maximum Projection:

A Maximum Projection is now possible to view during data acquisition. This tool is useful while recording big z-stacks for instance, or when there is discrete cell movements in live cell recording.

### ⇒Configuration → Settings → Online Maximum Projection

Online Maximum Projection tool will need to be <u>activated before acquisition</u> of the zstack.

While acquiring the z-stack, click on projection of the live scanning z-stack.

Leica Microsystems LAS AF - Simulator ▼ File Help Configuration 0 Hardware Configuration Hardware Settings Settings 8-----H H 🔺 H H Panning Step Size: 10 % 0 Personal Configuration Line Average during Live Acquisition Line Average 120 Data Transfer Mode O Direct Enhanced Bit Depth: 8 Bit | + ne Maximum Projection during Acquisitio Online Maximum Projectio

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Fast search of the focal plan

### ⇒ Acquisition → Best Focus

By clicking on Best Focus, a search mode is triggered to find the best focal plan. This is based on:

- The image acquisition at different z-levels,
- The resulting image intensity per plane.

When activated, the Best Focus tool will trigger image scannings at different z-plans. Once the search is done, the best focus position will **automatically** be displayed.

XY: 512 x 512   400 Hz   2	13 T T 15.29 µn	n * 115.29 μπ	00
Format : 512 x 512	Ð	Pinhole	
Speed : 400 Hz	Ð	Bidir	ectional X
Zoom factor :			2.13
Zoom in		J	$\Delta \Box$
Image Size : 115.29 µm	* 115.29 µm	Ċ	$\odot$
Pixel Size : 225.62 nm	* 225.62 nm	13	$\overline{\mathcal{O}}$
Line Average : 🚺	Þ	Auto G	ain
Frame Average : 🛛 🚺	Ð		
Accumulation :	Ð		
Rotation:			0.0
Z-Stack: 0 µm   1 ste	aps		00
Best Focus			Live
Best Focus			Live 9

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