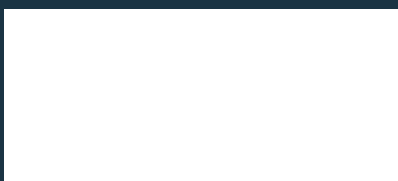


User Guide



pco.flm camera system with Inscoper Imaging Solution



An Excelitas Technologies Brand

INSCOPER
MORE THAN MICROSCOPY SOFTWARE

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1. INTRODUCTION

Thank you for purchasing the Inscoper Imaging Solution.

Please read this manual carefully before using the product. For future reference, please keep it in a safe place.

While every effort has been made to ensure the accuracy of this manual, some errors may remain. Please contact us if any points are unclear.

1.1. Disclaimer

The information contained in this manual is provided on an “as is” basis, without any warranties, conditions or representations of any kind, whether express, implied, statutory or otherwise, including, but not limited to, any warranties of merchantability, non-infringement or fitness for a particular purpose.

In no event shall Inscoper be liable for any loss or for any direct, indirect, special, incidental, consequential or other damages, regardless of the cause, whether arising in contract tort or in connection with the use of the information provided herein.

1.2. Copyright

The copyright in this document and the associated drawings are the property of INSCOPER and all rights are reserved. This document and the associated drawings are issued on condition that they are not copied, reprinted or reproduced, nor their contents disclosed except in cases and places where the system is used.

The publication of information in this document does not imply freedom from any patent or proprietary right of Inscoper or any third party.

INSCOPER and the INSCOPER logo are trademarks of INSCOPER Company (INSCOPER SAS - 12 square du Chêne Germain - 35510 Cesson-Sévigné - FRANCE). INSCOPER includes technology covered by the following patents:

- US Patent No. US10330911,
- EP Patent No. EP3123149,
- FR Patent No. FR3019324,

Changes will be made to the product on a periodic basis and these will be incorporated into new editions of the manual. New versions of all Inscoper manuals will be available at www.inscoper.com.

1.3. Contact

If you have any questions regarding the use of this product, please contact us by e-mail at: support@inscoper.com.

Please specify the following information about your system:

- Product serial number,
- Contact details,
- Any problem(s) you may have.

1.4. FCC/IC certification

Any changes or modifications to this equipment not expressly approved by INSCOPER may cause, harmful interference and void the FCC authorization to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

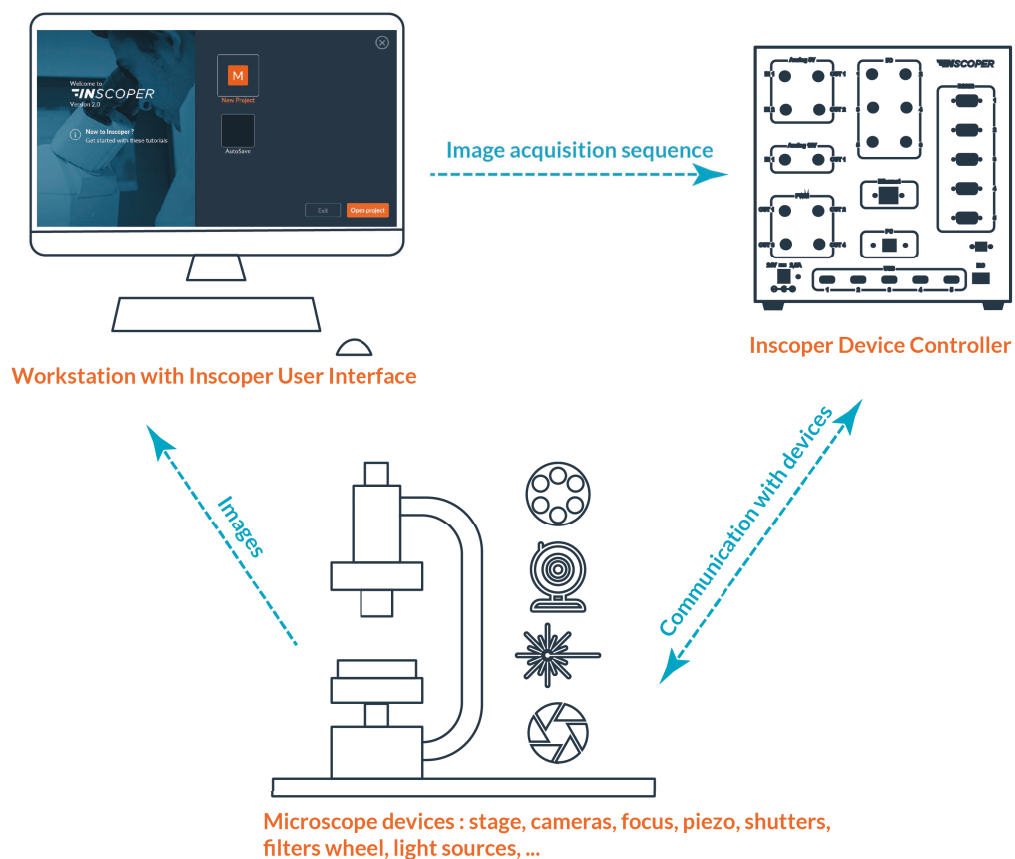
This device must be professionally installed.

2. INSCOPER APPROACH

Inscoper Imaging Solution is a turnkey hardware solution that completely revolutionizes the way in which fluorescence microscopes are controlled in live cell imaging.

Inscoper's fundamental new approach involves dissociating the two functionalities managed by the acquisition software:

1. **User Interaction:** to configure the acquisition sequence, receive the acquired images, and display and save them;
2. **Device Control:** to communicate with the different devices in the microscopy system and run the acquisition sequence defined by the user.



This separation means that the Inscoper Imaging Solution is free from hardware constraints. Therefore, regardless of the type of microscope, the Interface remains simple, easy to use and focused on user requirements rather than hardware issues.

3. TECHNICAL FEATURES

3.1. Inscoper Electronic Unit

3.1.1. Warnings and cautions



Always check that the INSCOPER unit is powered up before starting the computer. If in doubt, restart the computer.



The equipment can only be powered through Safety Extra Low Voltage that also complies with the limits of 6.3.1/6.3.2 of IEC 61010-1:2010



Never use cables longer than 3 meters to connect devices (except for the Ethernet cable).



Please note that if the Inscoper Device Controller is used in a way that is not specified by INSCOPER, the protection provided by the device may be compromised.

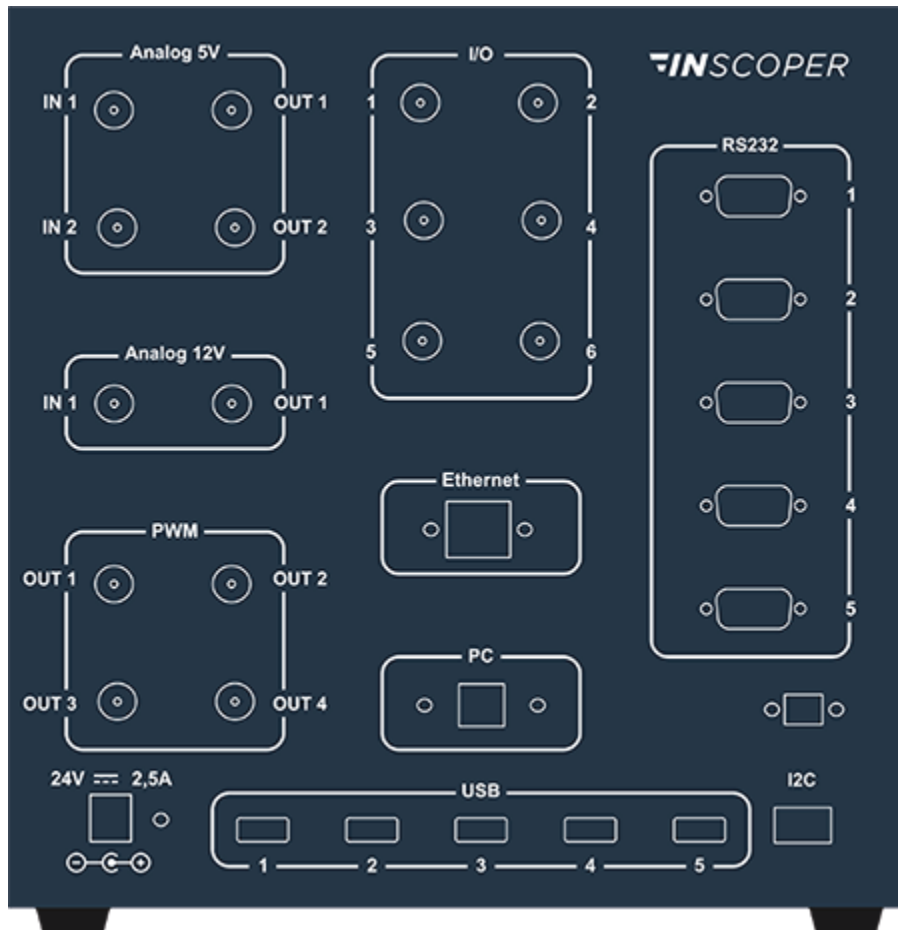
3.1.2. Operating specifications

Parameter	Specification
Weight	3.050 kg (6.724 lb.)
Dimensions (L*W*H)	230*230*230 mm (9.06*9.06*9.06 in.)
Operation temperature range	From 10 to 40 °C (from 50 to 104 °F)
Altitude	maximum 2000 m
Operating humidity range (non-condensing)	From 30 to 85 %
Storage temperature range	From 0 to 50 °C (from 32 to 122 °F)
Storage humidity range (non-condensing)	From 30 to 85 %
Power input	24 VDC @ 2.5 A



NB: All these data are valuable for indoor use only.

3.1.3. Input / Output



Analog 5 V	2x analog inputs & 2x outputs (0-5 V) with resolution of 12 bits
Analog 12 V	1x analog input & 1x output (0-12 V) with resolution of 12 bits
PWM	4x outputs which modulate devices that need duty cycle modulation with 5 V signals
Power	Supplied by 24 V-2.5 A
I/O	6x TTL ports that can be used as digital inputs or outputs (0-5 V)
Ethernet	Control devices via TCP/IP
PC	1x USB device, B-type
USB	5x USB Host ports, A-type
RS232	5x 9-pin female, D-type
I2C	Connect another Inscoper Device Controller (auxiliary port)

3.2. System requirements

	Minimum requirements	Optimum configuration
Operating system	- Windows 7 / 10 32 bit / 64 bit - MAC OSX 10.5	- Windows 10 64 bit - MAC OSX 10.5
RAM	4 Go	16 Go
Hard disk drive	4 Go	128 GB SSD drive for fast image saving
Processor	Pentium 2 266 MHz	Core i5 3.2 GHz
Graphics card		- NVidia GeForce 8 and 100 series or higher - ATI Radeon HD 2400, 3000, 4000, 5000 and 6000 series - Intel GMA 4500 and GMA HD
Screen	Resolution 1920 x 1080	2 screens

3.3. Installation

The Inscoper Imaging Solution should only be installed by INSCOPER staff or appointed representatives. The customer and/or user can be involved in the installation process provided explicit consent has been given by an INSCOPER representative. In the event of intervention on the microscopy system with INSCOPER equipment or software without INSCOPER's consent, the company declines all responsibility for any consequences resulting from this intervention.

To **request installation** of Inscoper Imaging Solution on a microscope, the following three steps are necessary:

1. Send a list of all your devices connected to the microscope to contact@inscoper.com or via the dedicated form available at www.inscoper.com.
2. Give INSCOPER team **three-day access** to install the microscope.
3. **Test out** the microscope with your team: acquire images of your research samples and compare them with previous ones.

4. USING INSCOPER IMAGING SOLUTION

The Inscoper Imaging Solution is a user-friendly solution that gives microscope users a very efficient interface which interacts with their system:

- Configure acquisition sequences,
- Control the camera, receive, display and save the acquired images,
- Follow the state of the microscope in real-time,
- Save or load projects,
- Edit acquired images with some basic operations.

4.1. User journey

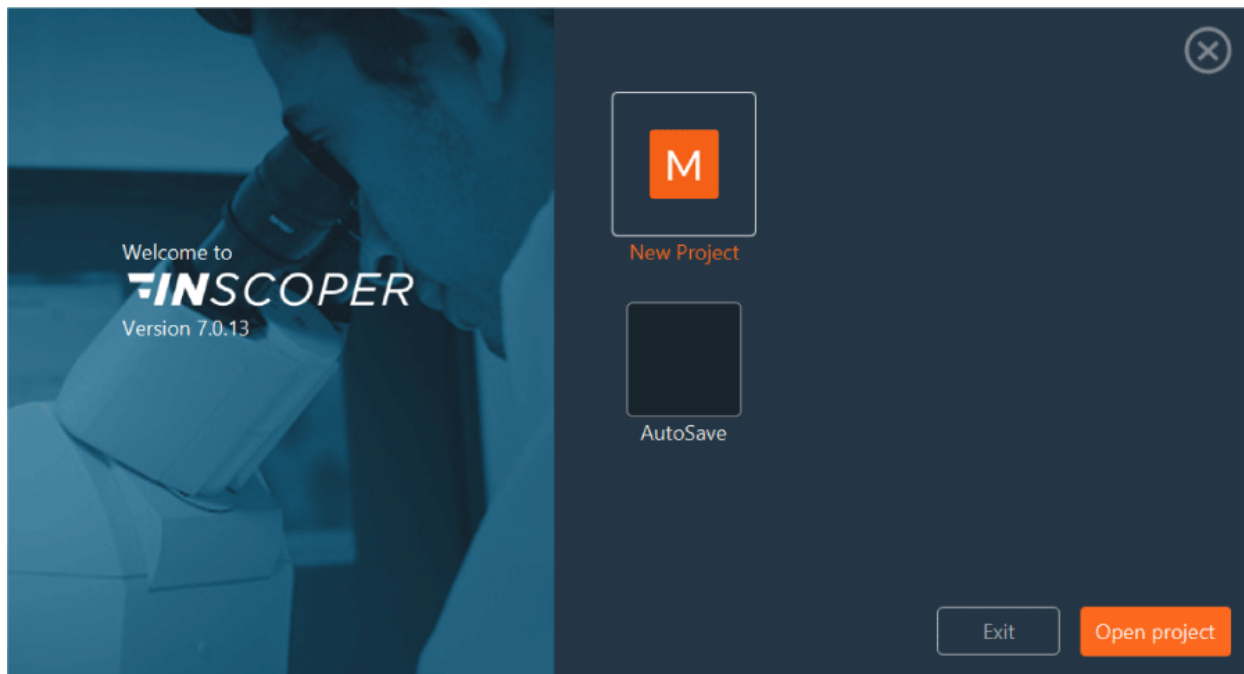
The Inscoper Imaging Solution interface was designed as a user journey to help new users get accustomed to it and make it enjoyable for frequent use by advanced users.



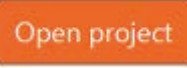
The user journey has four successive stages:

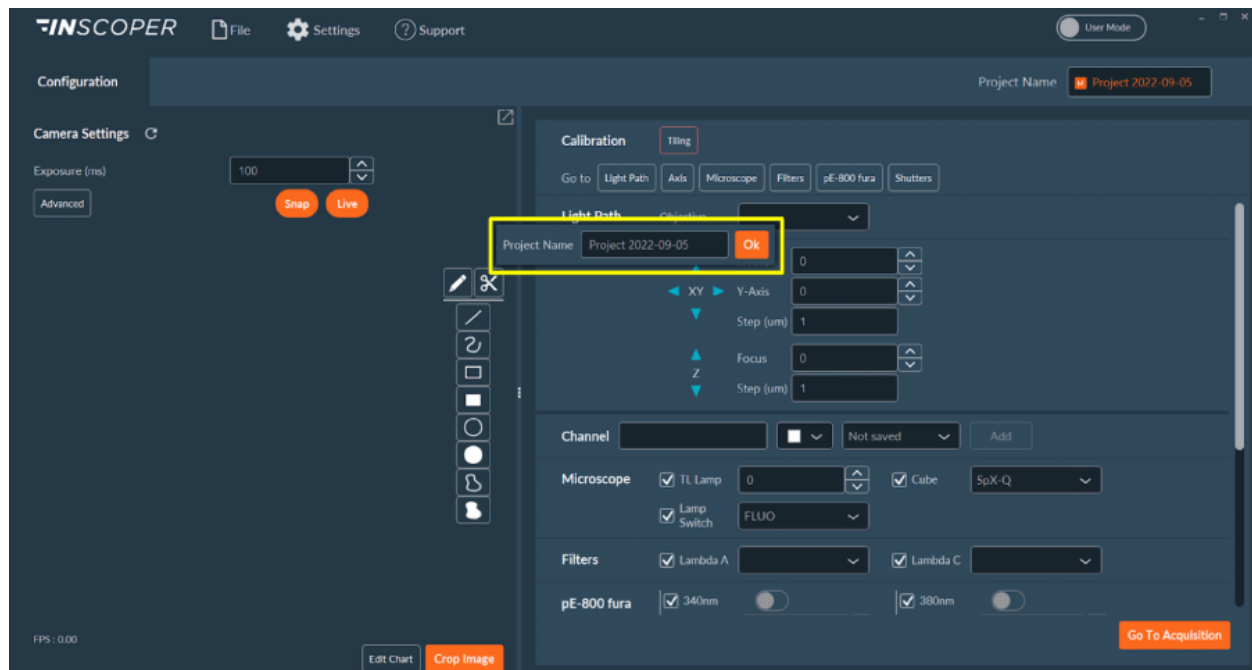
1. Configure the microscope's channels and general settings ([Configuration Tab](#)).
2. Define specific settings for the required image acquisition sequence. These settings are displayed as "dimensions" that can be combined and interlinked. Run the image acquisition sequence. Stop/Pause is possible.
3. View and/or manipulate acquisition results as raw images and graphics.

4.2. Getting started



When you launch the INSCOPER software, the start window will appear. You can choose between several options:

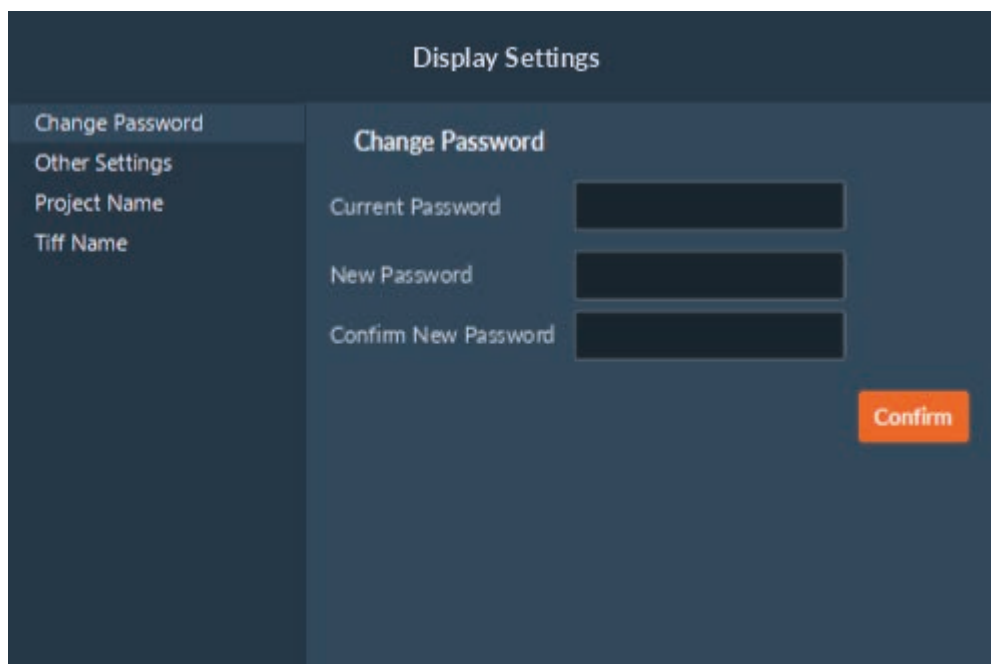
 New Project	New Project	To create a new acquisition sequence, click on New Project . A loading screen will appear while the interface recognizes the devices of the microscope. Wait until it disappears before starting your project.
 AutoSave	AutoSave	The AutoSave button opens the most recently created project, even if it has not been saved. If the configuration settings have been saved, you can resume from where you left off.
	Open Project	To open an existing project, click on Open Project . A window will open. Select your file in the tree structure, then click on Open . Your project will open with the settings that you saved.



You can name your different projects. If you don't want to, the current date will be added by default.

4.3. Display settings

To access the interface settings, click on **Settings > Display Settings**.



1. Set or change the password to switch from user mode to expert mode.
2. Choose the units of measurement.

3. Set the default name of your project.
4. Change the default name of the images saved during the acquisition.

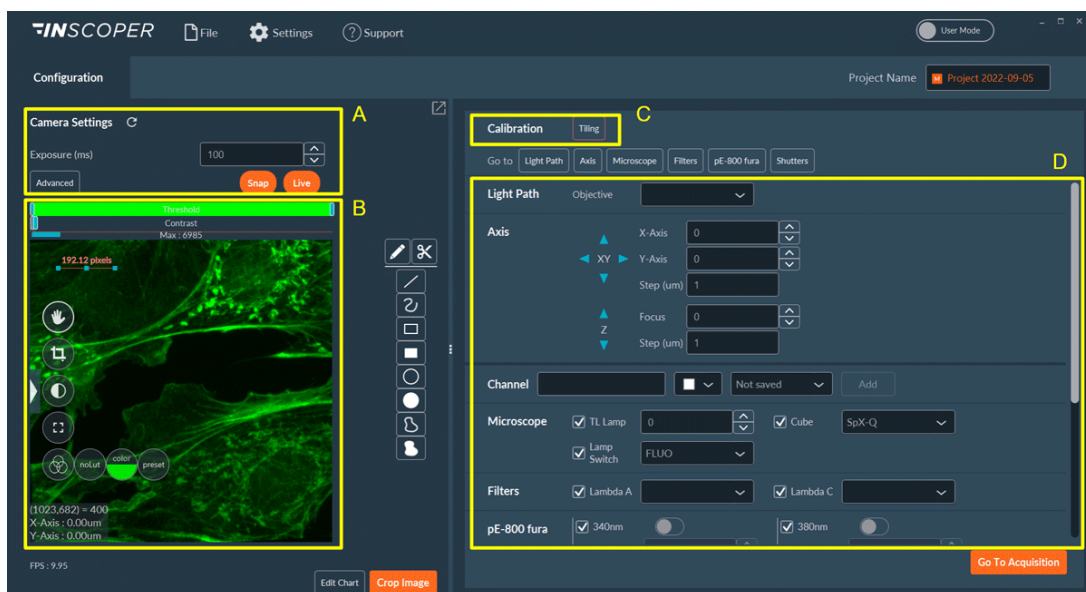
4.4. Display modes: Expert and User

Expert Mode allows access to all settings and parameters of the system, without any restriction. **User Mode** allows a restricted access to some settings and parameters. The restrictions are fully customizable, from basic channel configuration to most advanced settings of the camera(s) or any other devices. Switching from **User Mode** to **Expert Mode** is possible at any time. A password can be set to access the **Expert Mode**.



4.5. Configuration - Step 1

You can use this tab to control the state of each motorized device of the microscope in order to find the working focus plan and select the optimum parameters of the camera being used.



The screen can be divided into 4 parts:

- A - camera settings,
- B - live image viewing,
- C - calibration protocols,
- D - control of the motorized devices of the microscope. Here, users can create and save channels so that you can select them during acquisition.

Remember to name the project in the top-right corner of the screen. The default file name can be set later in the settings.



NB: the window display may change depending on the devices of your microscopy system.

4.5.1. Camera settings

1. Select the camera you wish to use for your project in the drop-down list next to the camera entry.

You can select up to four cameras. Don't forget to refresh the list of the cameras by clicking on .

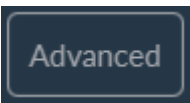
2. Set the exposure time and binning.

3. Move the camera settings tab by clicking on .

A camera settings window will open. You can move it to a second screen if necessary.

4.5.2. Process images

4.5.2.1. Camera settings

	Advanced Settings	In the Advanced Settings , you can adjust the properties of the camera and filter them according to what you are looking for.
  	Snap Live / Stop	You can view the sample live to have a video preview or take a snap.
	Measuring Tool	You can use this tool to see the scale of the picture and measure anything you want in your sample by moving the blue squares.
	Hand Tool	You can move the X/Y axis of the camera by using the Hand Tool to click and drag to reach the observation area.
	Crop The Screen	You can use this function to keep only what you need in your acquisition.
	Contrast	This button allows you to choose whether you wish to set the contrast automatically or manually. If you wish to set it manually, adjust the blue sliders on top of the camera view.
	Full Screen Mode	Press this button to switch to full screen mode. To close this mode, press this button again or click on the cross in the top-right corner.
	LUT	You have three LUT options: select no LUT choose any color choose preset colors.
	Coordinates	This function displays the X/Y coordinates with display intensity.

4.5.2.2. Select a ROI



To select a ROI in the camera entry, you have the following options. Select one or more ROI according to the size and shape you want, whether full or not.

First, you can choose between two modes:

	Pen	You can use the pen mode to draw squares or rectangles, just like the Rectangle option. This mode allows you to add one or multiple shapes.
	Scissors	The scissors mode allows you to cut (subtract) into a full shape while retaining the surrounding selected area.

Then, use the shape tools to draw desired shapes:

	Line	This button allows you to draw a completely straight line.
	Curve	You can draw a freehand line with this tool.
	Rectangle	You can use the Rectangle to draw squares or rectangles, just like the Pen option. Please note that this tool only draws the edges of the shape.
	Full Rectangle	The Full Rectangle allows you to draw filled squares or rectangles.
	Circle	You can use this button to draw circles in the camera view. Please note that this tool only draws the edges of the shape.
	Full Circle	You can use this button to draw filled circles in the camera view.
	Free Form	Use this button to draw freeform shapes in the camera view. Please note that this tool only draws the edges of the shape.
	Full Free-Form	Use this button to draw the shape you want in the camera view and fill it.

4.5.3. Configure acquisition devices

For each device (Microscope, Axis, Shutter, Light Source, Filters, Piezo or other devices), you can choose to enable or disable certain elements by clicking on the activation button. For more precise settings, you have various options to assign specific settings to each device:

	Activation Button	This button is used to turn a device on or off. Even if a device is off, the interface takes it into account. For example, it allows you to open or close a shutter.
	Checkbox	When the checkbox is disabled, the interface does not take the device into account.
	Text Box	The text box allows you to adjust the power or speed of a device, for example. You can also adjust these settings using the arrows on the right of the text box.
	Drop-Down List	The drop-down list allows you to choose items. For example, you can select a channel or the filter you require.
	Light bulb Symbol	The button can be activated (blue) or deactivated (grey) by clicking on it. Activating the light bulb allows you to illuminate the sample at the desired time (during acquisition), only if the shutter/laser has been previously activated.

Make sure you assign a channel name to these settings and click on the Add button to save your changes if you wish to add

other settings. If you wish to use one or more channels, give them a name. To add it, click on

Add



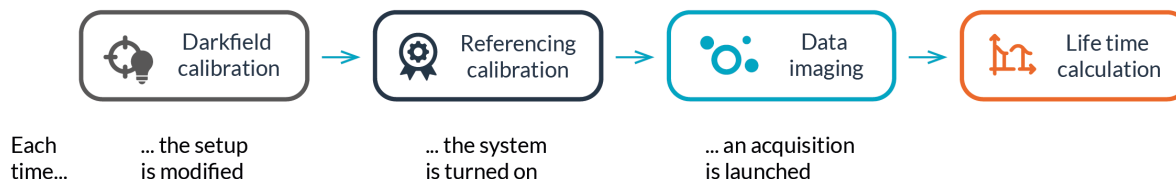
NB: Save you settings and click on

Go To Acquisition

to go to the next tab.

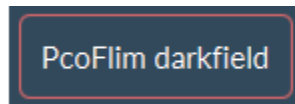
4.5.4. pco.flim calibration

To ensure optimal performance of the pco.flim camera system controlled by Inscoper Imaging Solution, it is necessary to start with two calibration steps: **Darkfield calibration** to measure the background noise in non-light conditions and **Referencing calibration** to calculate the phase and the modulation lifetime of the reference sample and to determine the zero-phase angle situation of the system also called instrument response function. The values obtained during these two calibration steps are essential for the calculation of the real time lifetime of the studied sample.



1. pco.flim darkfield calibration

- a. Create and choose the channel that does not pass any light (lasers off, shutters closed, etc.)
- b. Click on the PcoFlim Darkfield button in [Configuration - Step 1](#).



NB: Once the calibration is completed, the frame of this button turns green.

- c. Indicate the number of times to take the image.

A dark blue horizontal panel. On the left, the word "Repetition" is followed by a text input field containing the number "10". To the right of the input field are two small square buttons with up and down arrows. Further right is an orange "Confirm" button, and to its right is a grey "Cancel" button.


NB: The higher the number of repetitions, the more precise but longer the calibration will be.

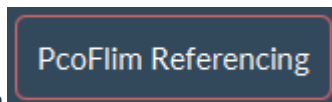
- d. Click on .

2. pco.flim referencing



The **Referencing calibration** must be done each time the system is turned on, or if the frequency or the absolute laser power, or the number of phase samples were changed.

- a. Put the homogeneous sample with known lifetime on the microscope stage.
- b. Switch to live mode and focus the sample in order to see it correctly.



- c. Click on . Once the calibration is completed, the frame of this button turns green.

- d. Indicate the number of images of your reference sample to acquire and its lifetime .

A dark blue horizontal panel. It contains two rows of input fields. The first row has the label "Repetition" followed by a text input field with "10" and two arrow buttons. The second row has the label "Reference Lifetime" followed by a text input field with "1", two arrow buttons, a unit selector dropdown showing "s", and a small downward arrow. To the right of these fields is an orange "Start Calibration" button, a grey "Edit Lifetime Only" button, and a grey "Cancel" button at the bottom right.

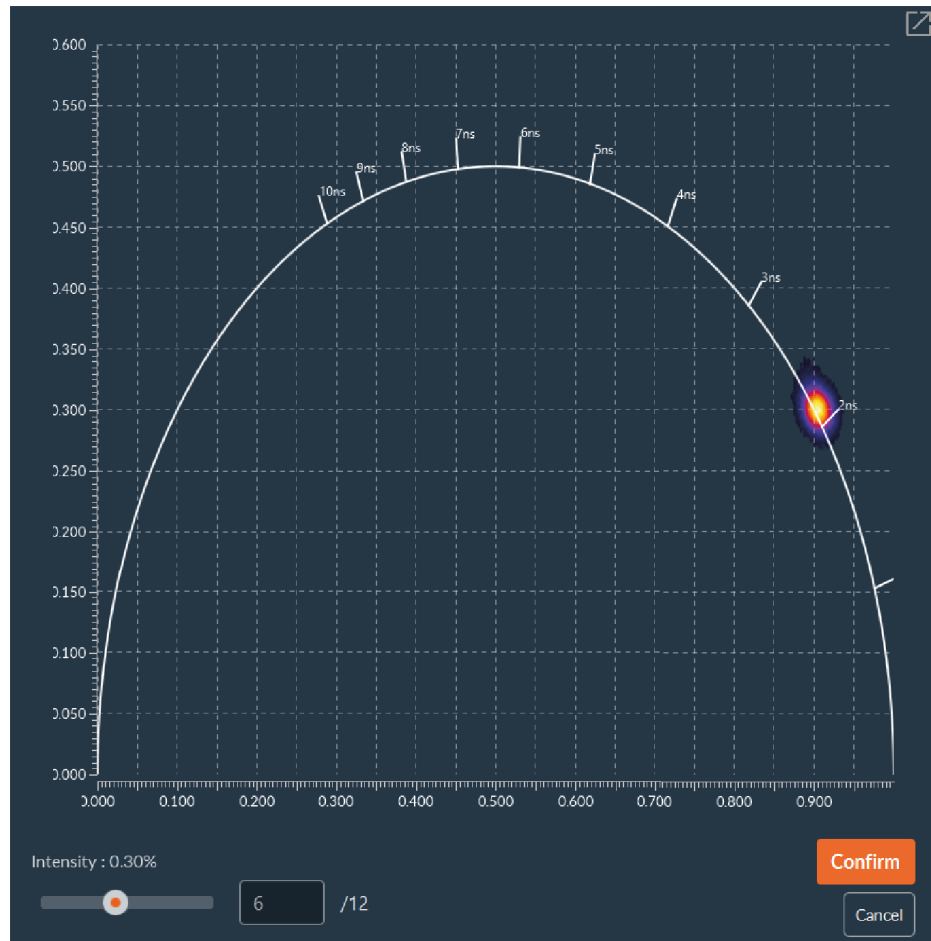


NB: The higher the number of repetitions, the more precise but longer the calibration will be.

Start Calibration

e. Click on

The left part of the interface will display the phasor plot with the indicated lifetime. They allow to check if the calibration went well and to see if the values are coherent according to the intensity.



f. Click on

Confirm

Your system is now ready for the acquisition.

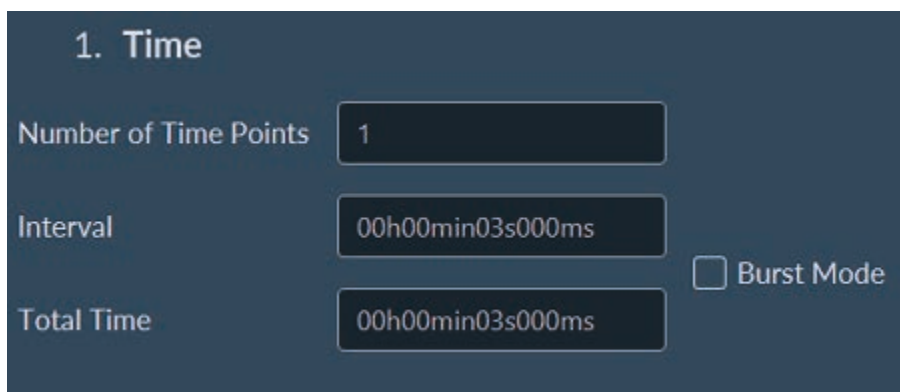
4.6. Acquisition - Step 2

4.6.1. Dimensions

The default dimensions are as follows: Time, Positions, Focus and Multi-Channels. You can also choose to disable certain dimensions by clicking on the blue dot, which will turn red once disabled.

To edit a dimension, click on .

4.6.1.1. Time



1. Determine the required number of time points,
2. Set an interval between each time point,
3. Check the Burst Mode checkbox if you want the images to be taken as fast as possible.

The total time will be set automatically.

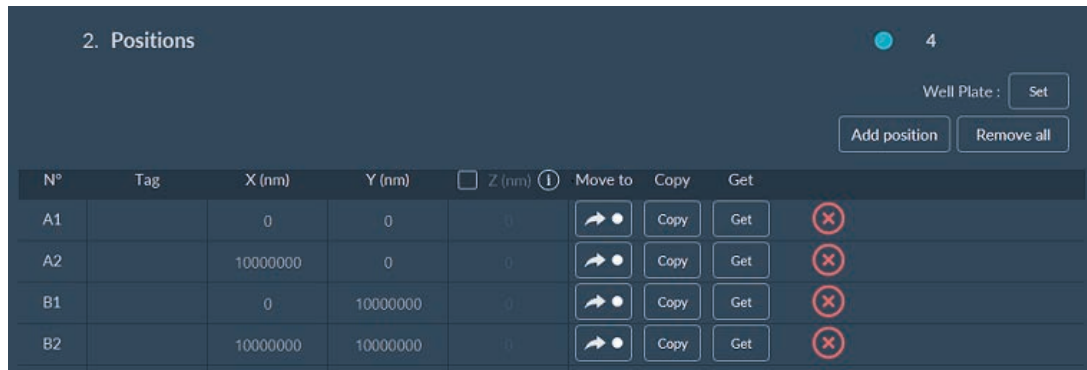


NB: once you have finished editing the dimension, click on  to save your settings.

4.6.1.2. Positions

In this dimension, you can choose the positions you need for the acquisition. You can enter them in two ways: by adding the position manually or by means of a well-plate.

Manually



	Set	If you have a well-plate, click on this button to select the wells you are interested in.
	Add Position	Add a position manually and enter its coordinates.
	Remove All	Delete all the positions.
	Move To	Move to the selected position.
	Copy	Copy the required coordinates.
	Get	Get the current coordinates of the stage.
	Delete	Delete the selected position.

Well-Plate

2. Positions 3

Supported plate: MyPlate

	1	2	3	4	5	6	7	8	9	10	11	12
A	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
C	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
D	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
E	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
F	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
G	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
H	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Origin Get

☐ Generate Random Points

Number of Points

Minimal Distance (nm)

Cancel Add Clear & Add

	Choose Your Plate	Select the well-plate you wish to use in the drop-down list.
	Select	Click on this button to select the wells you need.
	Move To	Move to the selected well.
	Get	Get the coordinates entered on the well-plate.
☐ Generate Random Points	Generate Random Points	By checking this box, the interface will choose several random points on the well-plate. If you check this box, be sure to enter the following information: the number of points, the minimum distance.
	Cancel	Click on this button to go back to the manual positions.
	Add	Add the positions you have chosen to the previous ones.
	Clear & Add	Delete all the previous positions and add the selected ones.



NB: once you have finished editing the dimension, click on  to save your settings.

4.6.1.3. Z-stack / Autofocus

For this dimension, you can choose between Z-Stack or Autofocus.

1. Z-Stack

- Choose between Min/Max Plan or Center Plan,
- Enter the required coordinates for Max and Min or Center,
- Choose the distance of the steps,
- end with the range.

- To switch to AutoFocus, click on

Switch to AutoFocus

2. AutoFocus

- Choose the interval,
- Enter a number of steps,
- Set the step measurement,
- Select the channel, camera and exposure.



NB: once you have finished editing the dimension, click on

Confirm

to save your settings.

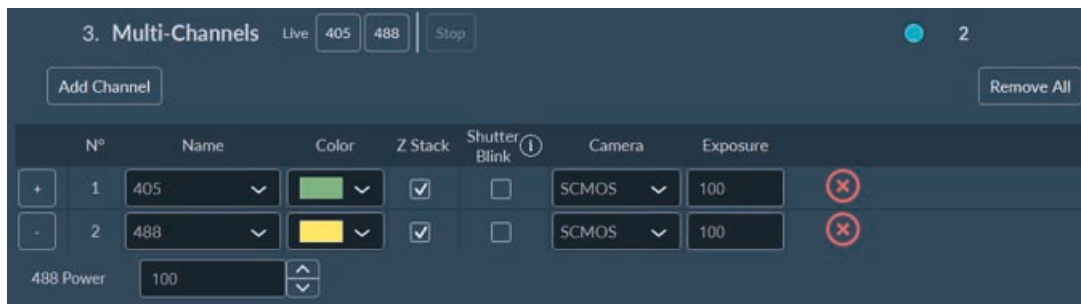
4.6.1.4. Multi-Channels

This dimension allows you to choose the channels you have set in the [Configuration - Step 1](#). To add a channel, click on

Add Channel

and to delete a channel, click on





1. Choose a channel and click on the cross if you wish to adjust its power,
2. Assign it a color,
3. Check the Z-Stack checkbox if necessary,
4. Select whether you want the shutter to be closed between each image,
5. Choose the camera and the exposure you wish to use.



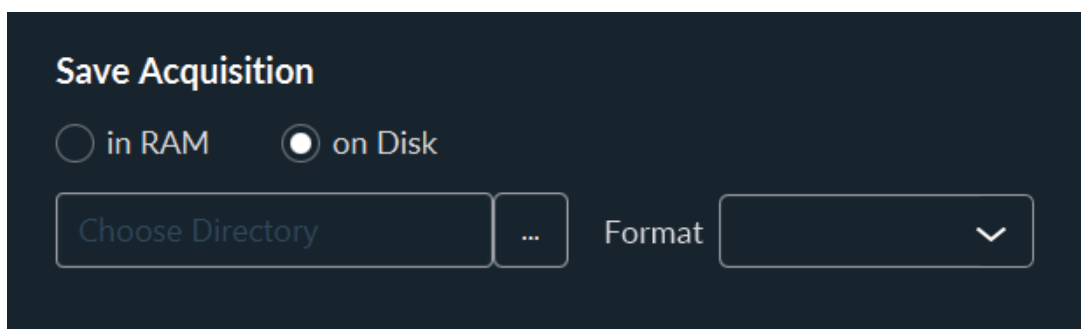
NB: once you have finished editing the dimension, click on **Confirm** to save your settings.

4.6.2. Organize the dimensions



Before going to the save settings, organize your dimensions: this icon appears next to each dimension. Click and drag the dimensions in order to position them in the order you want.

4.6.3. Save acquisition



You have two save options:

1. If you prefer to save on RAM:
 - a. Choose "in RAM",
 - b. Then click on **Start Acquisition**.
2. If you prefer to save on disk (recommended):

a. Choose "on Disk",



b. Click on  to select a save path,

c. Then choose the default name for your files previously set in the [Display settings](#).

4.6.4. FLIM image acquisition with pco.flim

This step describes the acquisition of FLIM images using the pco.flim camera system.

1. In the dimension [Multi-Channels](#) choose the channel needed for the FLIM manipulation, and Click on .

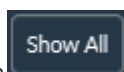
N°	Name	Z Stack	Z Offset	Shutter Blink	Camera	Exposure (ms)
1-32	pco.flim	☒	0	☐	Camera1	600

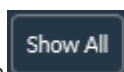


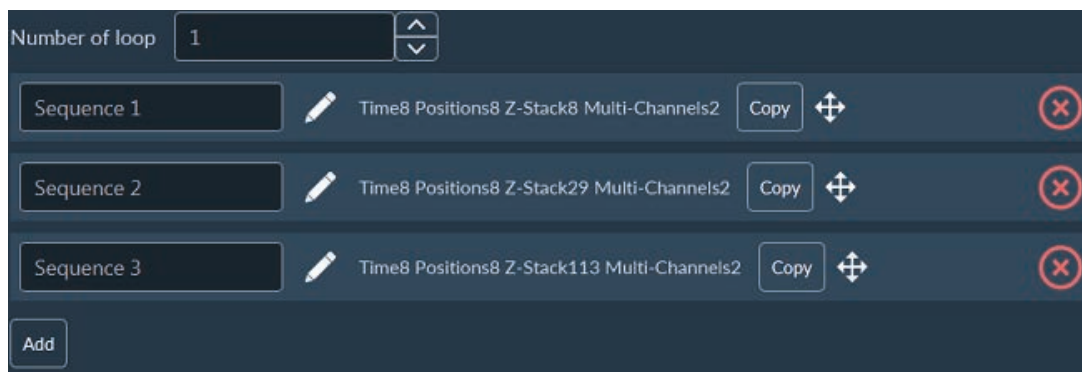
NB: Column N° indicates the number of phases taken by the camera.

2. Select the processing associated with pco.flim in **Data Processing and Charts** and click on .

4.6.5. Multi-sequence acquisition

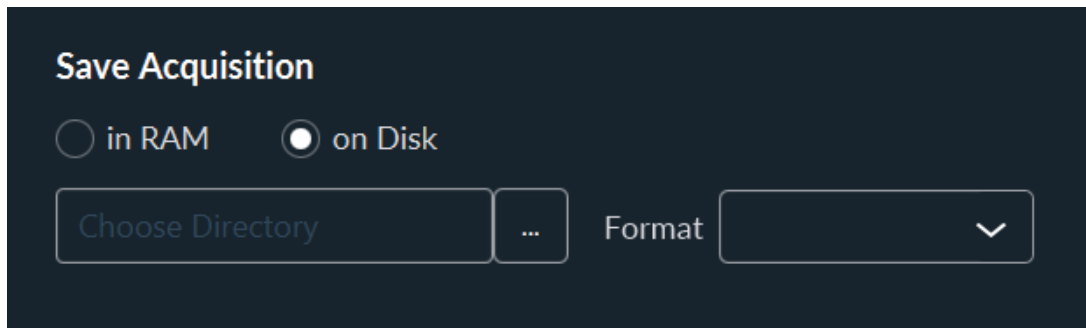


Once all of your dimensions have been edited, click on  to set more sequences. The following display will appear:



Number of loop	1	Number of loop	Set the number of times you wish to repeat all the sequences that you have set.
		Edit	Edit the dimensions within a sequence.
		Copy	Copy-paste your required sequence if you need the same one later.
		Move	Use this function to change the sequence order.
		Delete	Click on this button to delete a sequence.
		Add	Click on this button to add a new sequence. You will also have to set the different dimensions (see Dimensions)

4.6.6. Save acquisition



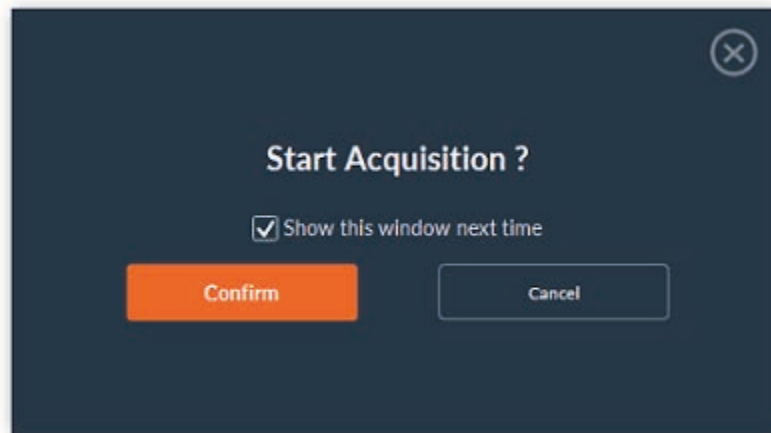
You have two save options:

1. If you prefer to save on RAM:
 - a. Choose "in RAM",
 - b. Then click on .
2. If you prefer to save on disk (recommended):
 - a. Choose "on Disk",
 - b. Click on  to select a save path,
 - c. Then choose the default name for your files previously set in the [Display settings](#).

4.6.7. Start acquisition

Before starting an acquisition, make sure that no warning symbol  is displayed in the bottom-right of the window. If there is a warning symbol, click on it to find out what is wrong.

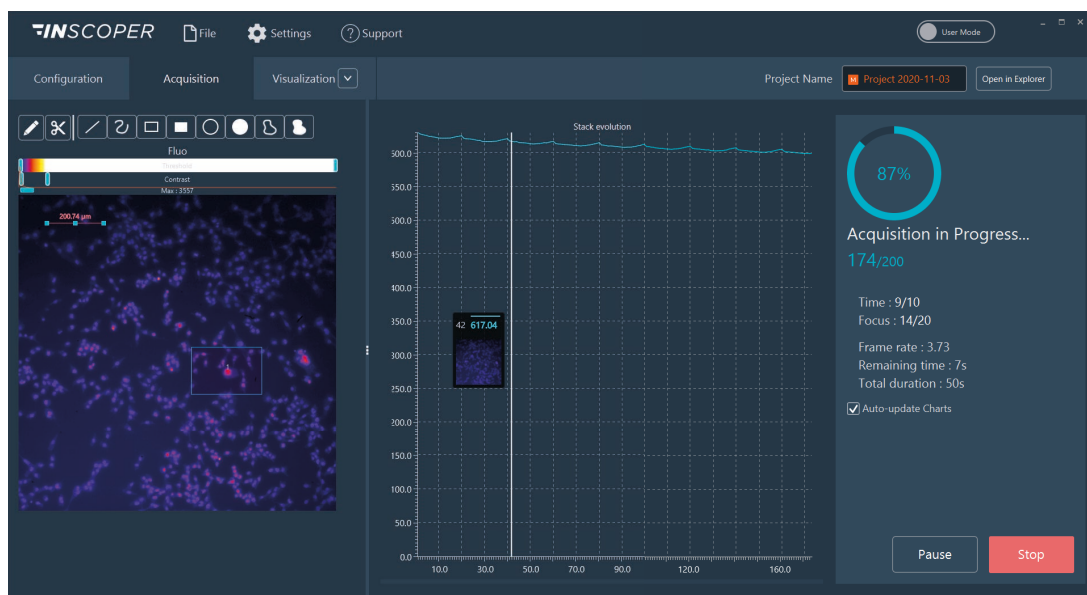
1. Click on .
- A loading wheel will appear. Please wait for the next window to load (it may take up to 30 seconds).
2. The following window appears:



- Click on  to start the acquisition.
- Otherwise, click on .

4.7. Acquisition in progress

On this screen, you can see that the window is divided into three main parts.



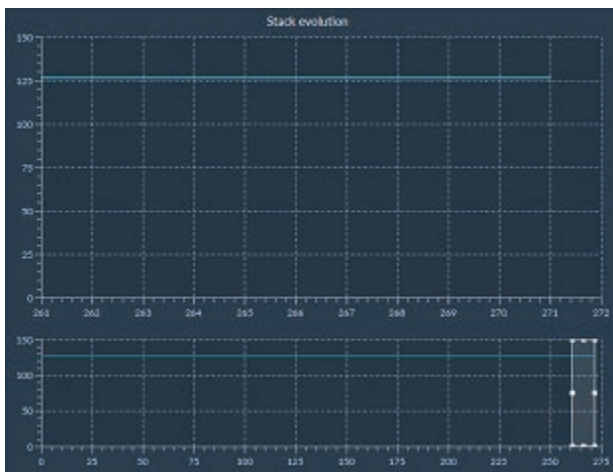
4.7.1. Camera view

By hovering over the image with your mouse, you can access the various tools that you can use (see [Camera settings](#)).



4.7.2. Stack evolution graphs

In this section, you can see two stack evolution graphs. The bigger graph is a zoom of the smaller one, so it contains more information. The graph is updated each time an image is taken.



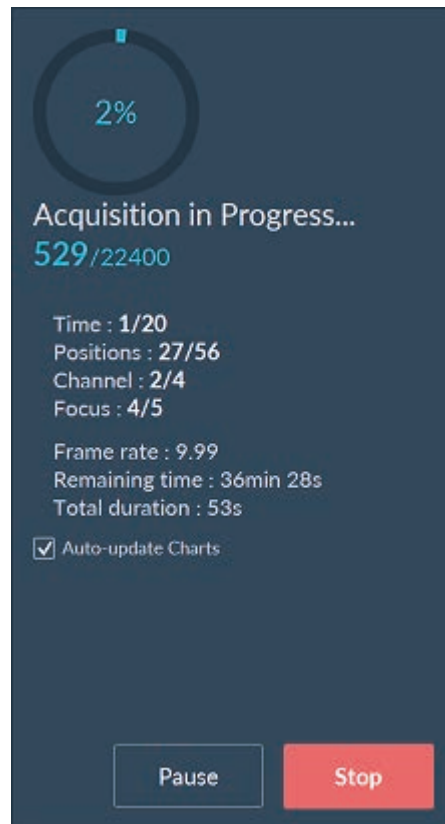
If you wish to return to an earlier time point in the sequence, you can click on the smaller graph. The acquisition will continue, but the camera will stop at the point you are looking at.

To return to the current images, check the box ☒ **Auto-update Charts** in the "Acquisition Evolution" section.

4.7.3. Acquisition evolution

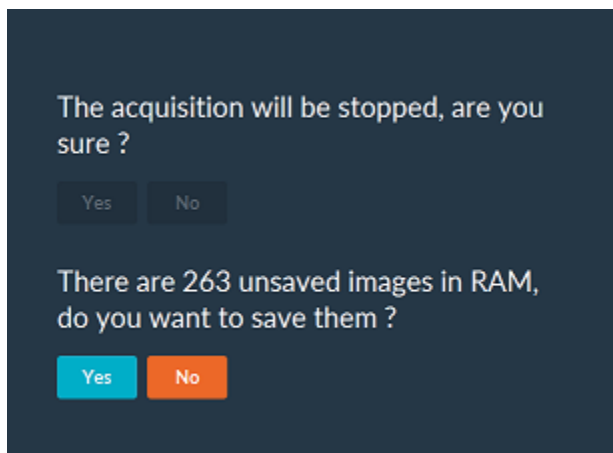
This section informs you about your acquisition:

- Number of images already taken,
- Total number of images,
- Dimensions chosen (time, position, channel and focus),
- The number of images by dimension.



4.7.4. Stop/Pause acquisition

You can click on **Pause** or **Stop** at any time during the acquisition. If you click on **Stop**, the following window will appear:

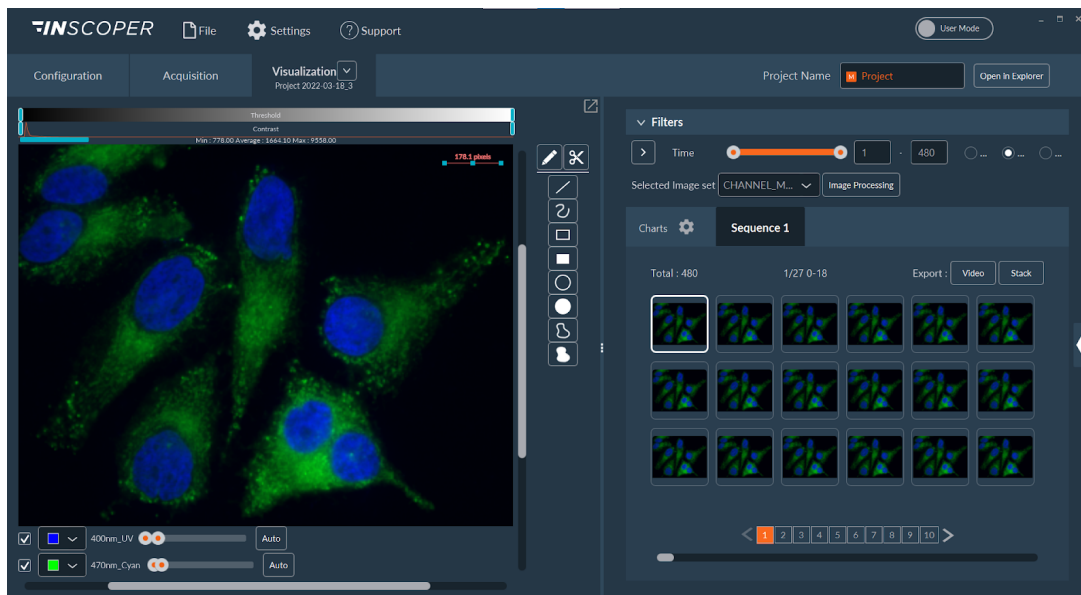


If you want to save the images taken, click on . A message will tell you that you have a number of images saved in RAM and ask you if you want to save them. If you do, click on ; otherwise click on .

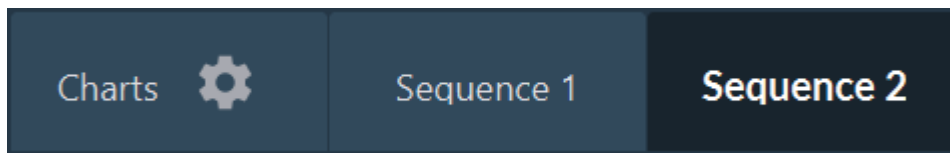
4.8. Visualization - Step 3

In the visualization tab, you have access to all the images collected by the interface during an acquisition. You can sort the images by dimensions to see only the ones you are interested in.

When you click on an image that interests you, it will appear in the camera view. You can then use the same tools that were available when you set up the camera (see [Camera settings](#)).



You can view and compare two or more acquisitions. Simply click on the required acquisition sequence.



4.8.1. Metadata

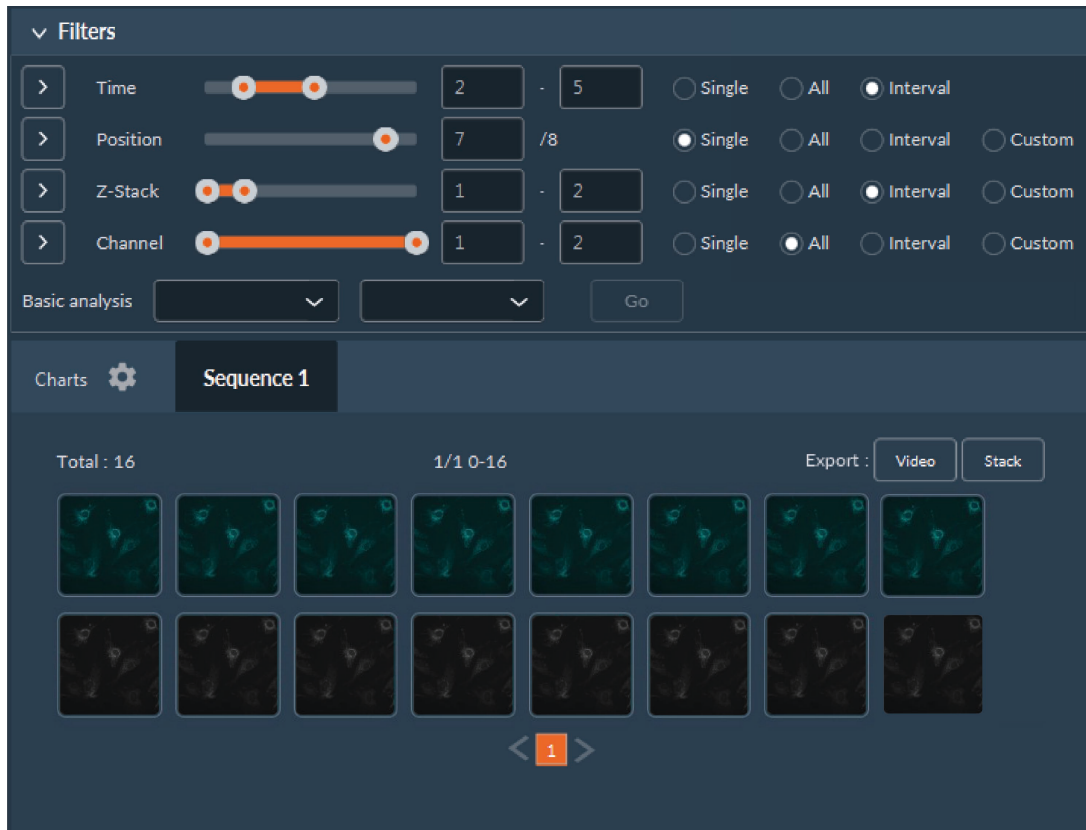
To check the metadata of each image taken, click on this arrow  at the right-hand side of the window.

The following tab will open. If you are interested in specific properties, you can filter them by typing the words you are looking for. Move the scroll bar to view the values of each image.

Metadata	
Filter	
Property	Value
Binning	1
BitDepth	8
Camera	SCMOS
CameraChannelIndex	0
Channel	405
ChannelIndex	0
Core-AutoFocus	
Core-AutoShutter	1
Core-Camera	SCMOS
Core-ChannelGroup	
Core-Focus	
Core-Galvo	
Core-ImageProcessor	
Core-Initialize	1
Core-Shutter	
Core-SLM	
Core-TimeoutMs	5000
Core-XYStage	
ElapsedTime-ms	0
Exposure-ms	100.0
Frame	0
FrameIndex	0
Height	512
ImageNumber	0
PixelSizeUm	0.0

4.8.2. Apply filters

You can apply filters to your acquisition in order to select certain images.



- Click on the Play button  to see the selected images of a dimension.
- Adjust the filters by choosing between Single, All, Interval and Custom.
- You can also click on the **Charts** tab to view a chart about your acquisition.

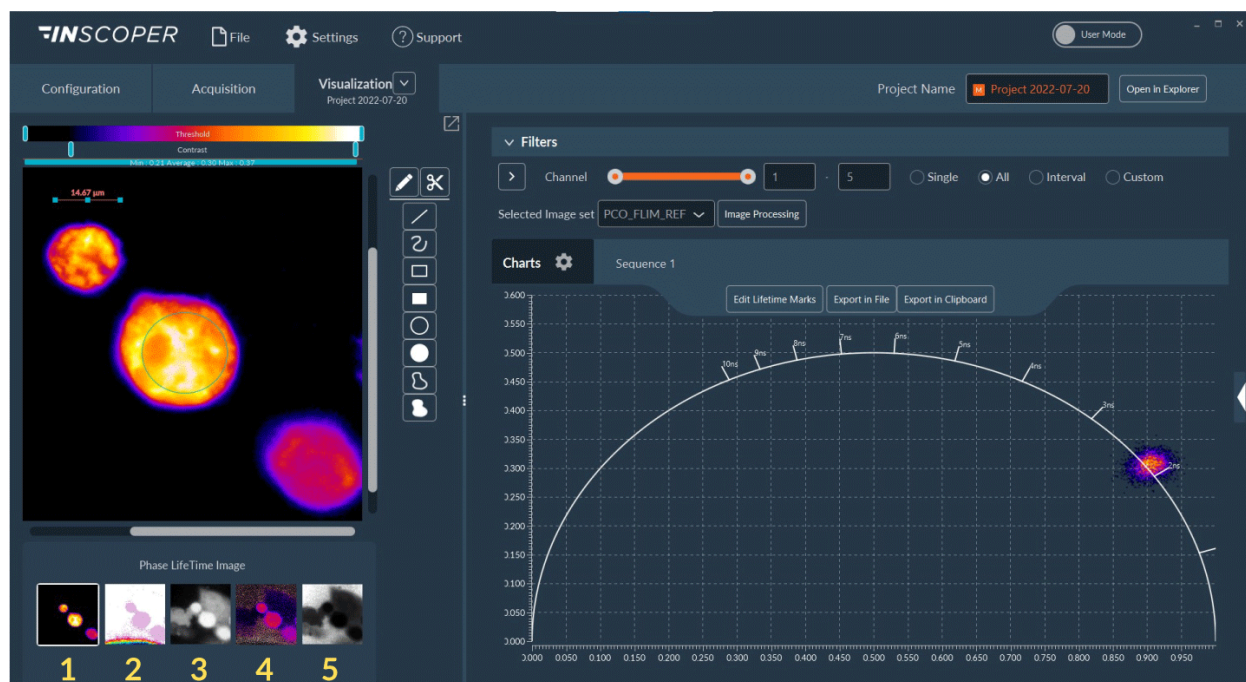


- In the Charts tab, you can also modify the curves simply by splitting them. To access the chart filters, click on the Settings icon in the tab.

The following window will open. Check the boxes that interest you.

The 'Chart Filter' dialog box is shown. It has a title bar 'Chart Filter'. Below the title, there are two sections. The first section is 'Split by' with four checkboxes: 'Channel', 'Time', 'Z', and 'Positions'. The second section is 'X Value' with two radio buttons: 'Image Index' (selected) and 'Elapsed Time'.

4.8.3. pco.flim FLIM image visualization



On the left, in the camera view, by clicking on the thumbnails in the **Phase LifeTime Image** area, the user visualize calculated images. The images numbered from 1 to 5 correspond to the following processing:

- 1- Normalized average of raw images/camera phase,
- 2- Phase angle (degree),
- 3- Modulation index (dimensionless),
- 4- Calculated lifetime of the image 2,
- 5- Calculated lifetime of the image 3,

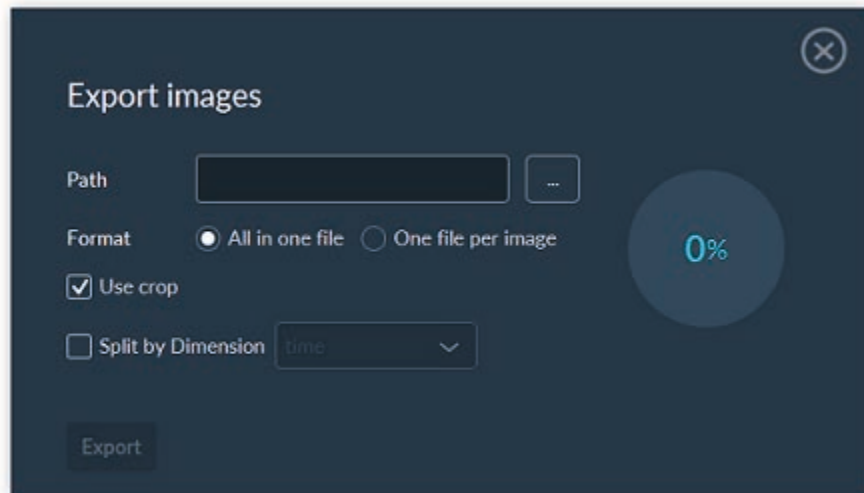
On the right, in the **Charts** tab the user will observe the phasor plot with the indication of the fluorescence lifetime of the sample. The phasor plot is dynamic depending on the ROIs on the image. It is possible to make the ROI on the phasor plot to visualize the corresponding pixels (at a given lifetime) on the image in the camera view.

The raw images can be visualized in the **Sequence** tab.

4.8.4. Export your acquisition

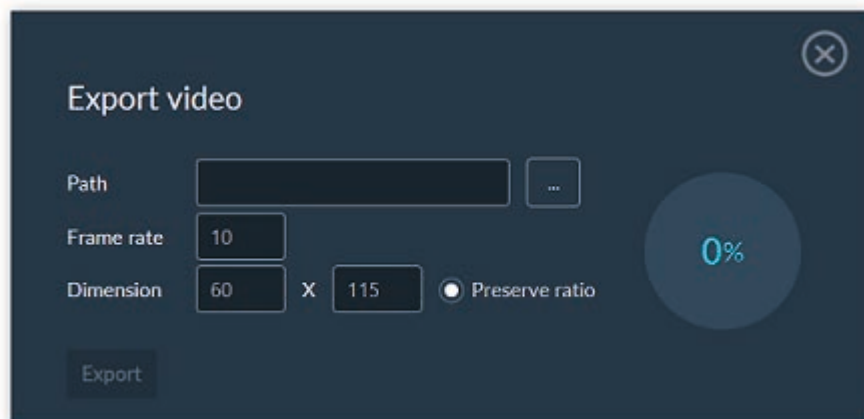
To export your files, you can use two buttons: Video or Image. Choose the filters you want to apply to your acquisition then click on **Video** or **Stack**.

1. Images



- Choose the path and name you wish to use,
- Select file format that you set in the [Display Settings](#),
- If you have used the crop tool, check the box **Use crop box**,
- If you want to split by dimension, check the box and select the dimension you wish to split,
- Click on **Export** and wait until the export is complete.

2. Video



- Choose the path and name you wish to use,
- Set a frame rate,
- Choose the dimensions you require for the video,
- Click on **Export** and wait until the export is complete.