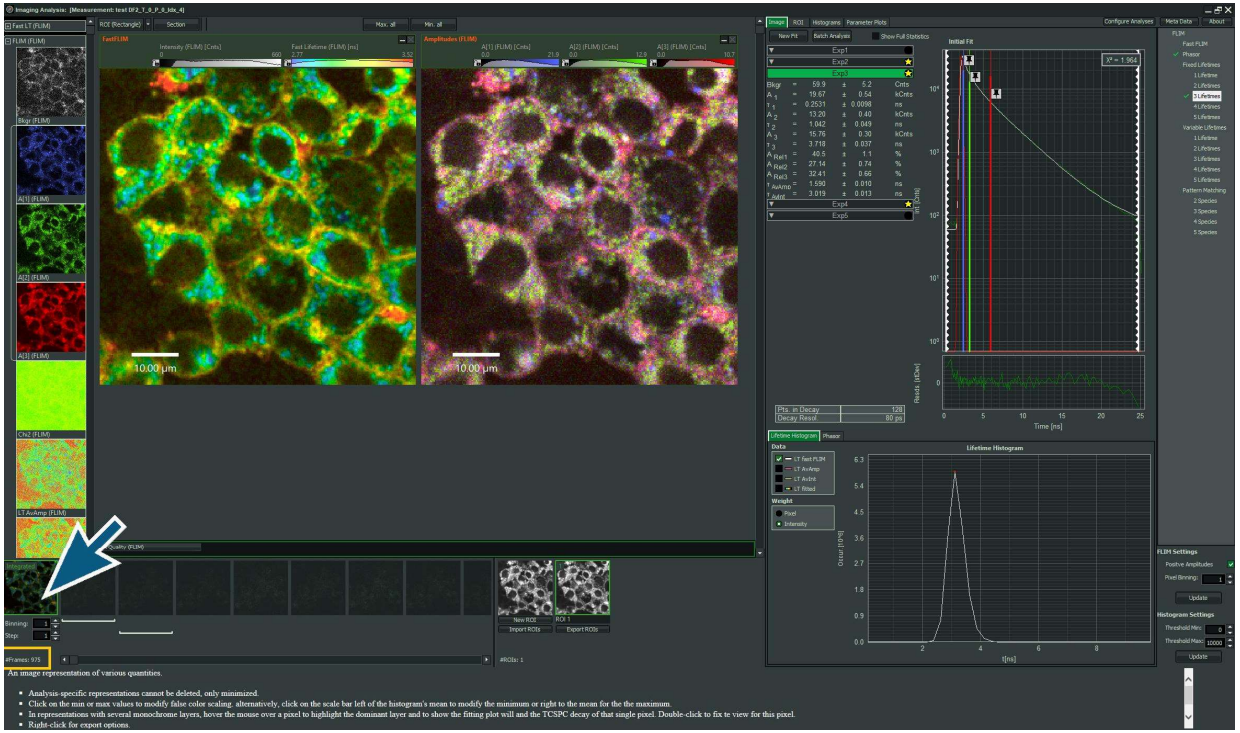
How to Perform Batch Analysis over Multiple Frames

I

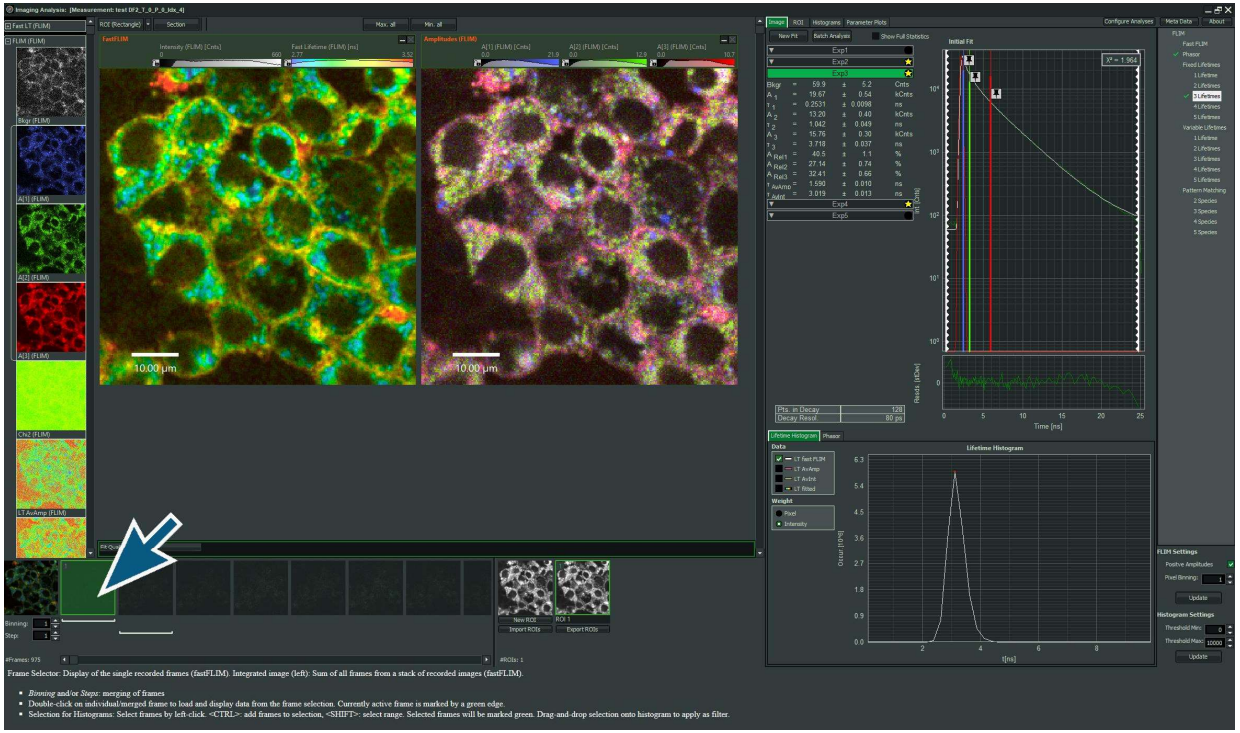
In this “How to” we work with a multi-frame acquisition. See the total number of frames. We have 975 frames. When the Analysis Opens, you see the integrated frame, i.e. all frames are summed together.



PicoQuant

2

By double-clicking on individual frames one can see a single frame.



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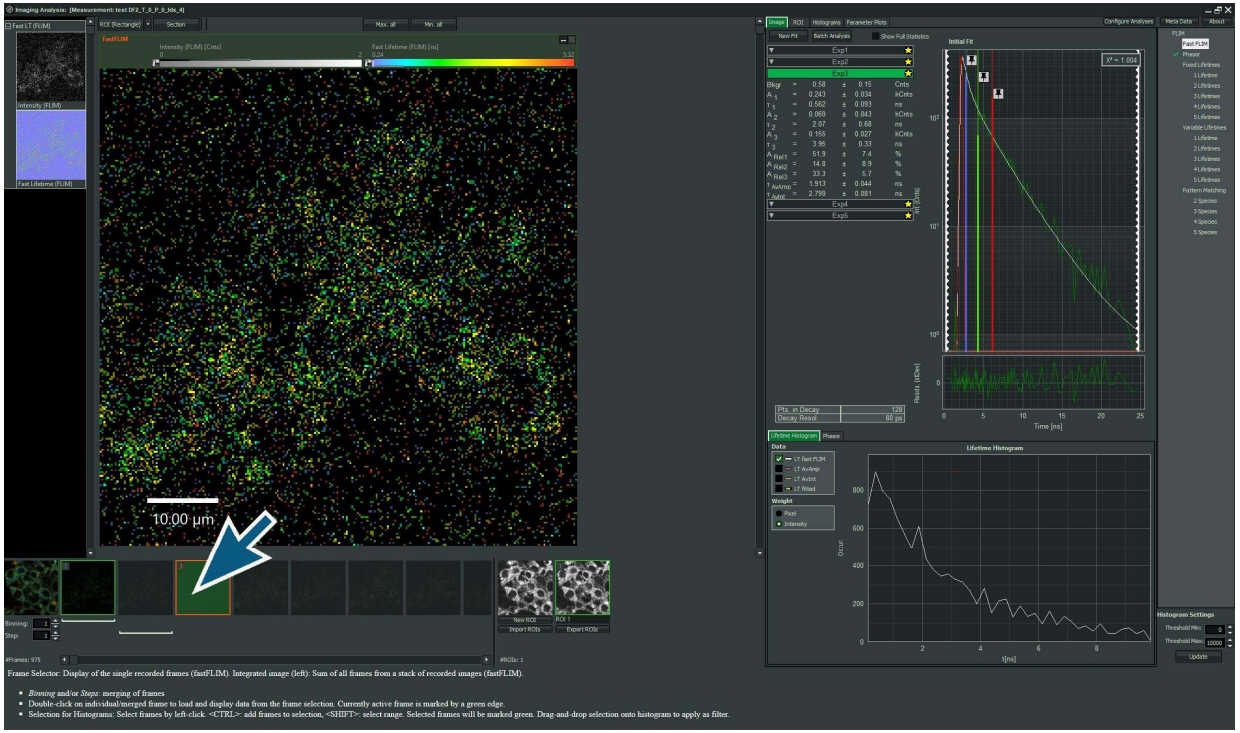
3

By double-clicking on individual frames one can see a single frame. he active frame gets a green square for highlighting the selection.



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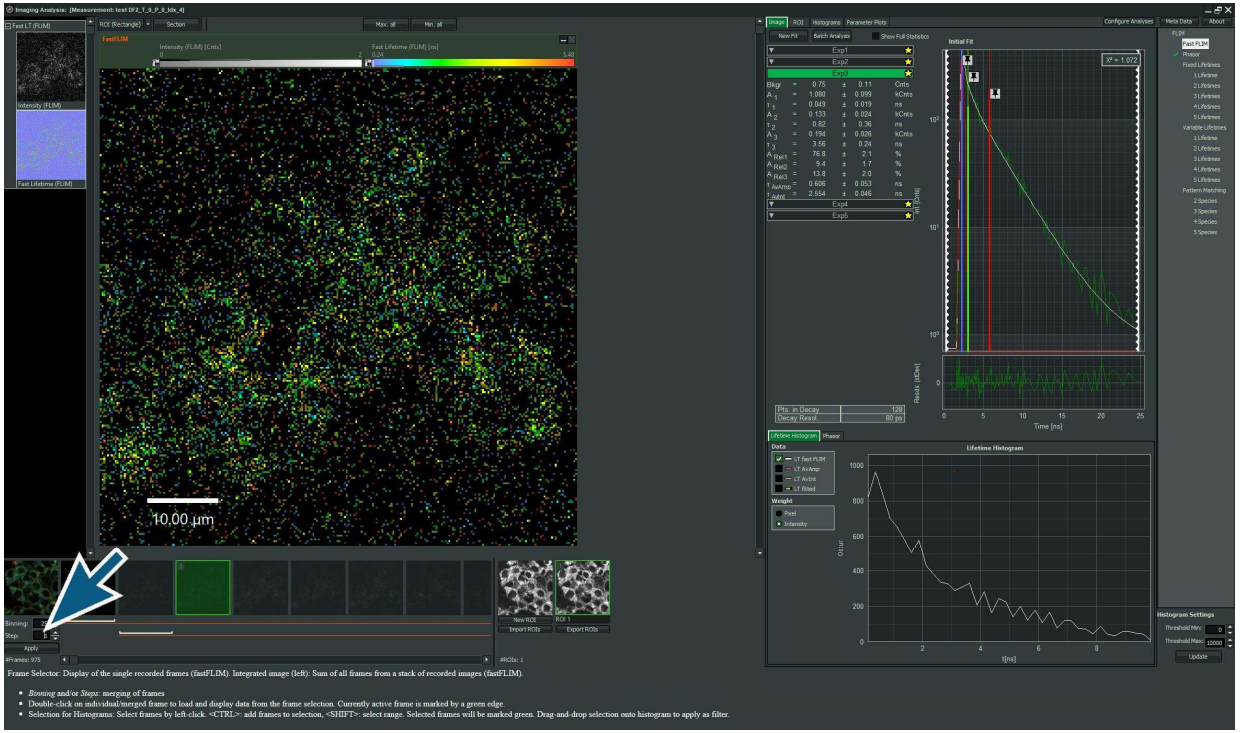
4

One can change the binning of the frames. Here for example we chose a 25-frame-binning i.e. 25 frames are summed together.



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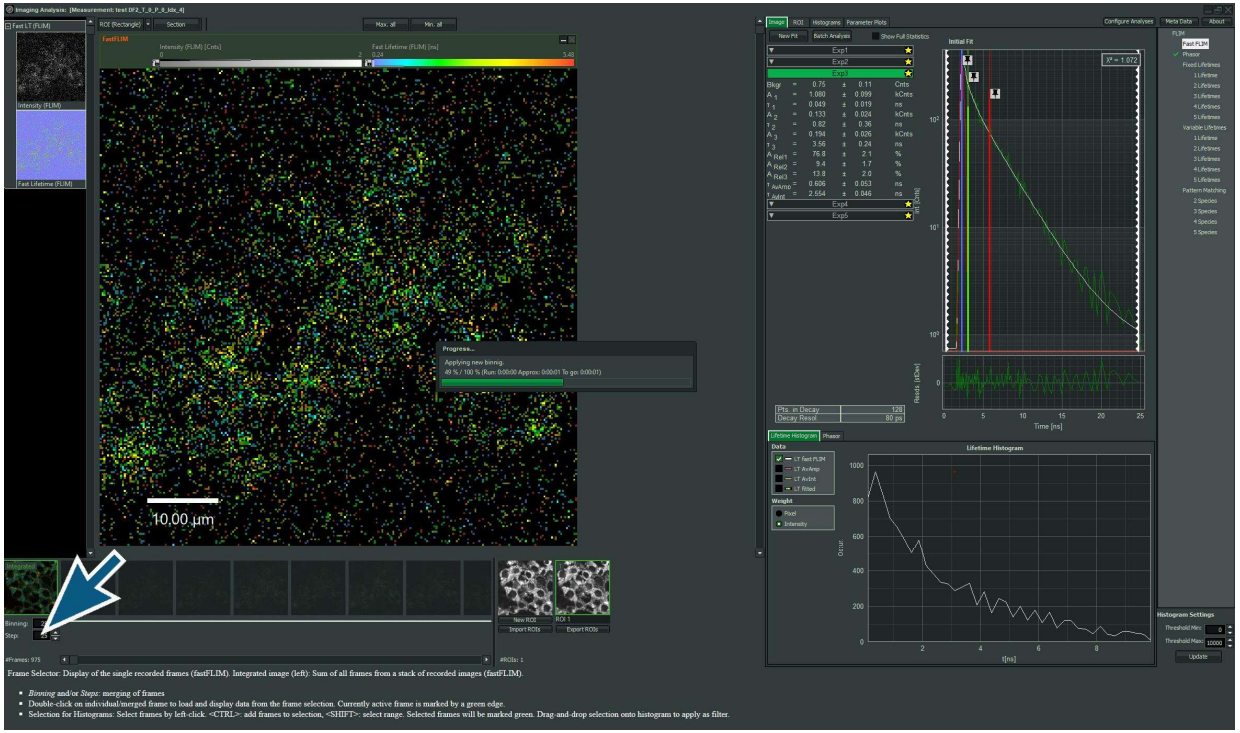
5

One can also set independently the step. With this option , the user can even create new frames which are “sliding averages ” of the original frames.

If the step is equal to the binning then there is no overlap between the newly created frames.



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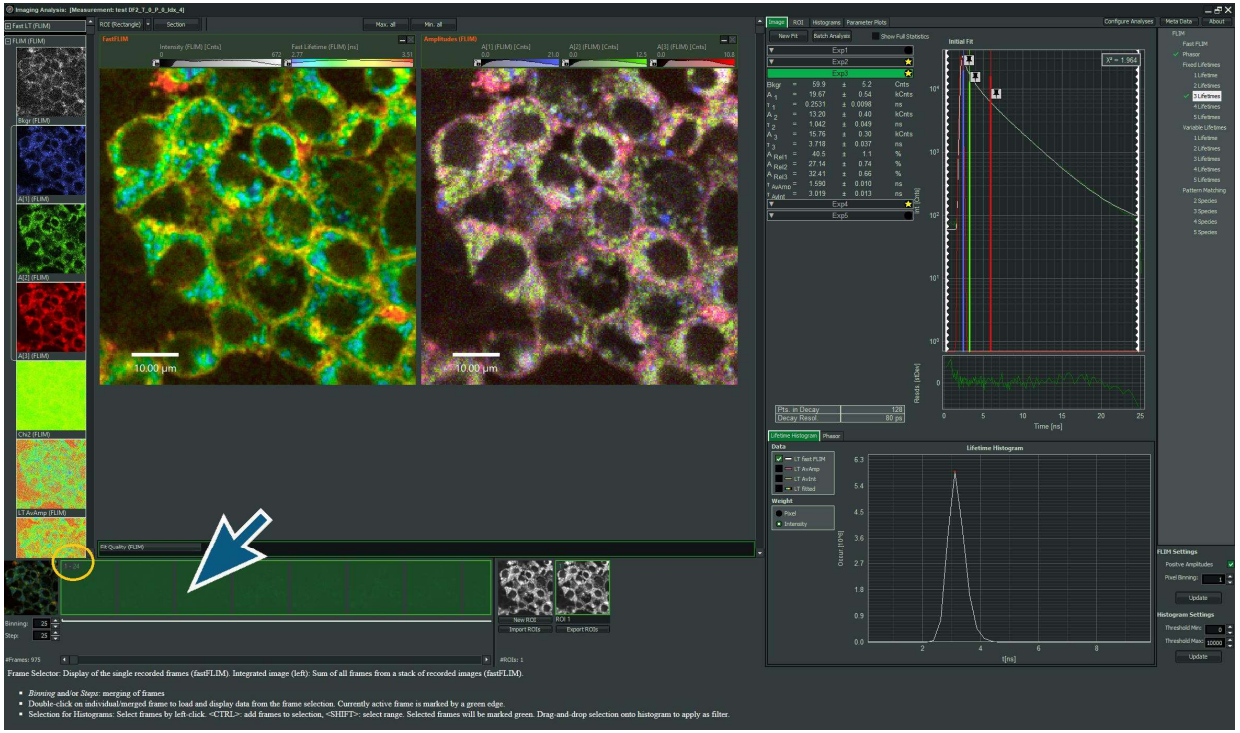
6

The newly created frames are then shown . On the top left corner of the new frames the number of included frames is shown. In this case 1-24.



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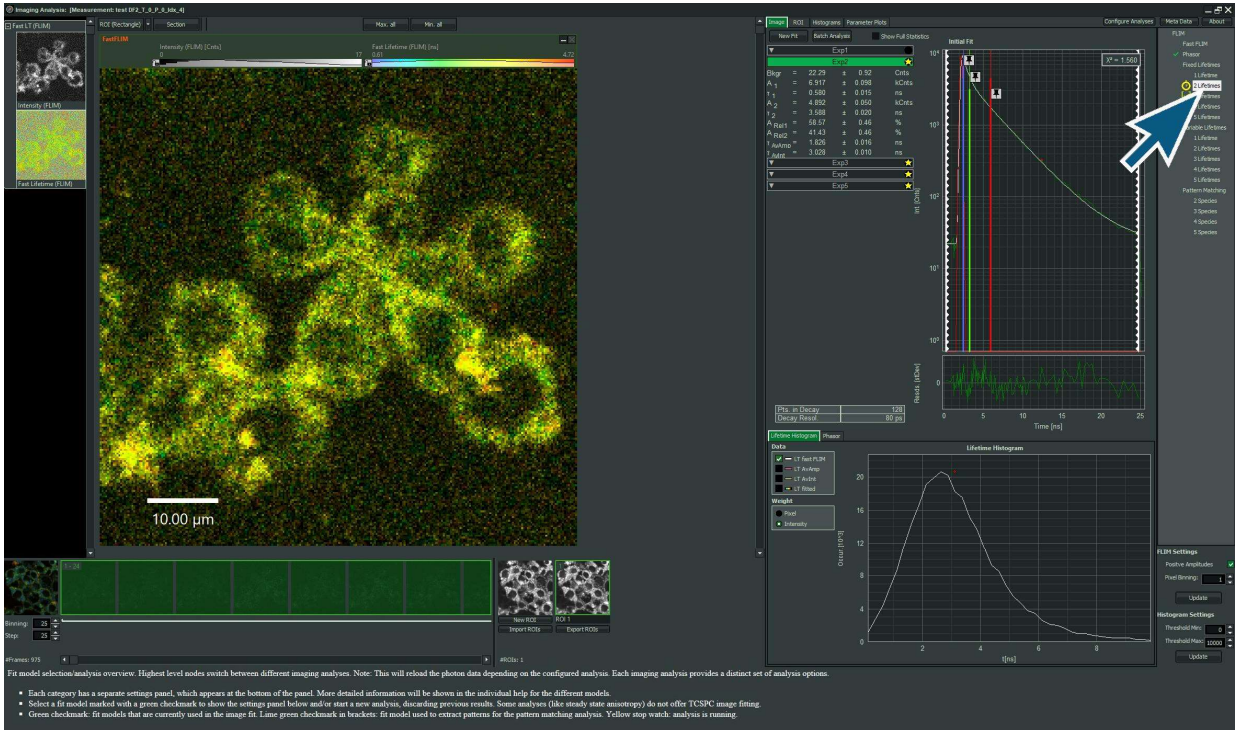
7

The newly created binned frames can be also selected and inspected individually.

In each frame the user can try all the available analysis and fitting options.



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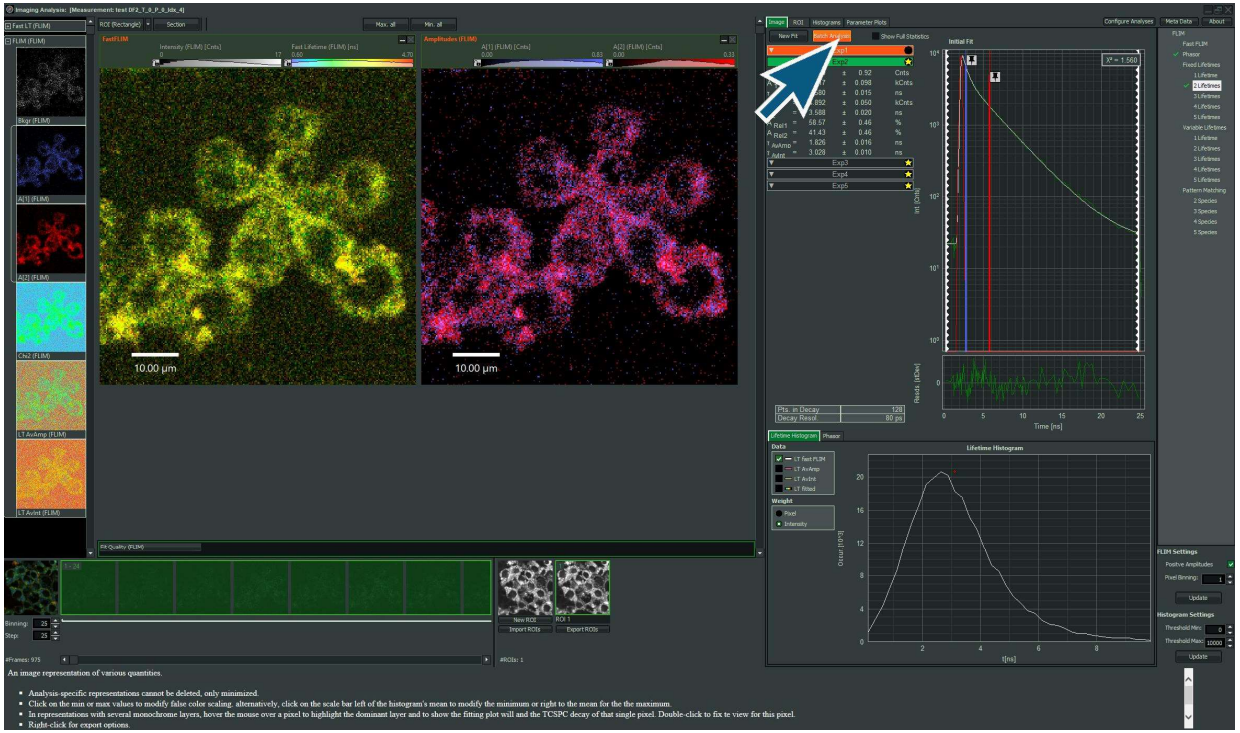
8

FOr the Batch Analysis of all pixel fits over all frames.e Batch Analysis of all pixel fits over all frames.

Select ‘Batch Pixel Fits’ from the menu.



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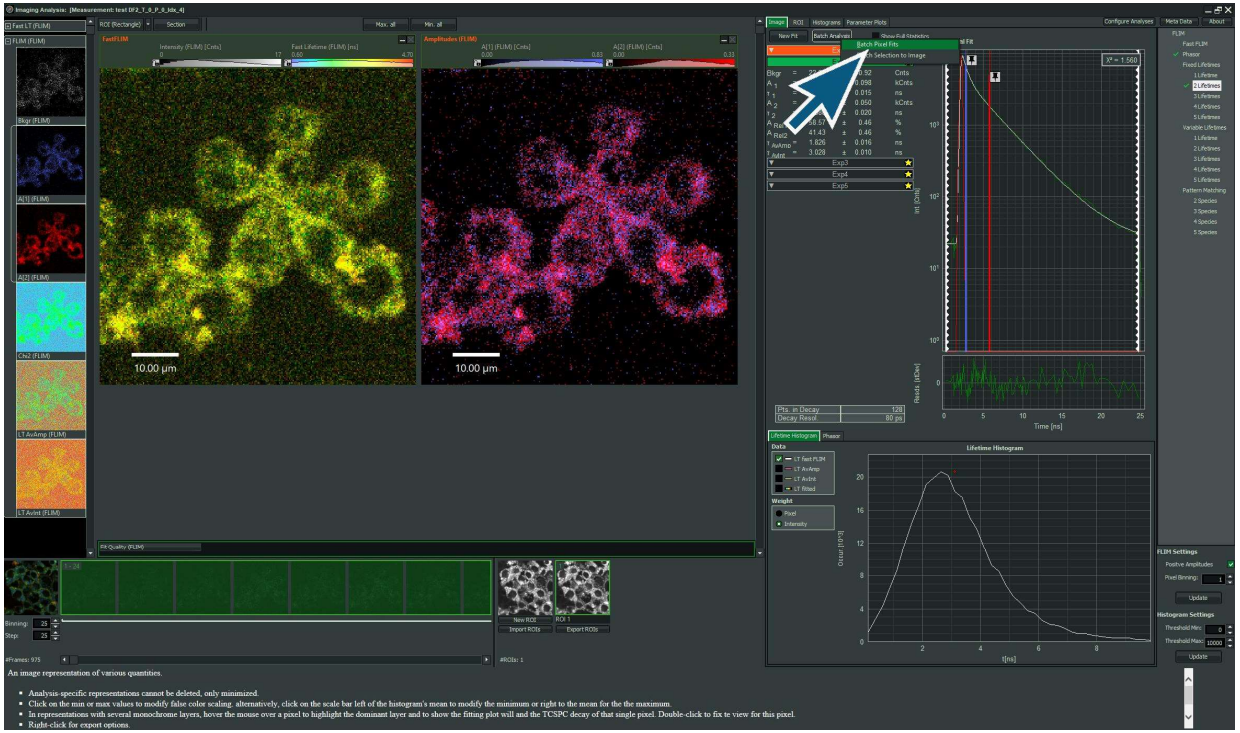
9

The user has two options. EIther “Batch Pixel Fits” or “Batch Selection to Image”.

“Batch Pixel Fits” : Multi exponential fits over all frames,

“Batch Selection to Image” : If the Phasor Selection to Image is already done for one frame. The analysis is applied over the whole frames.



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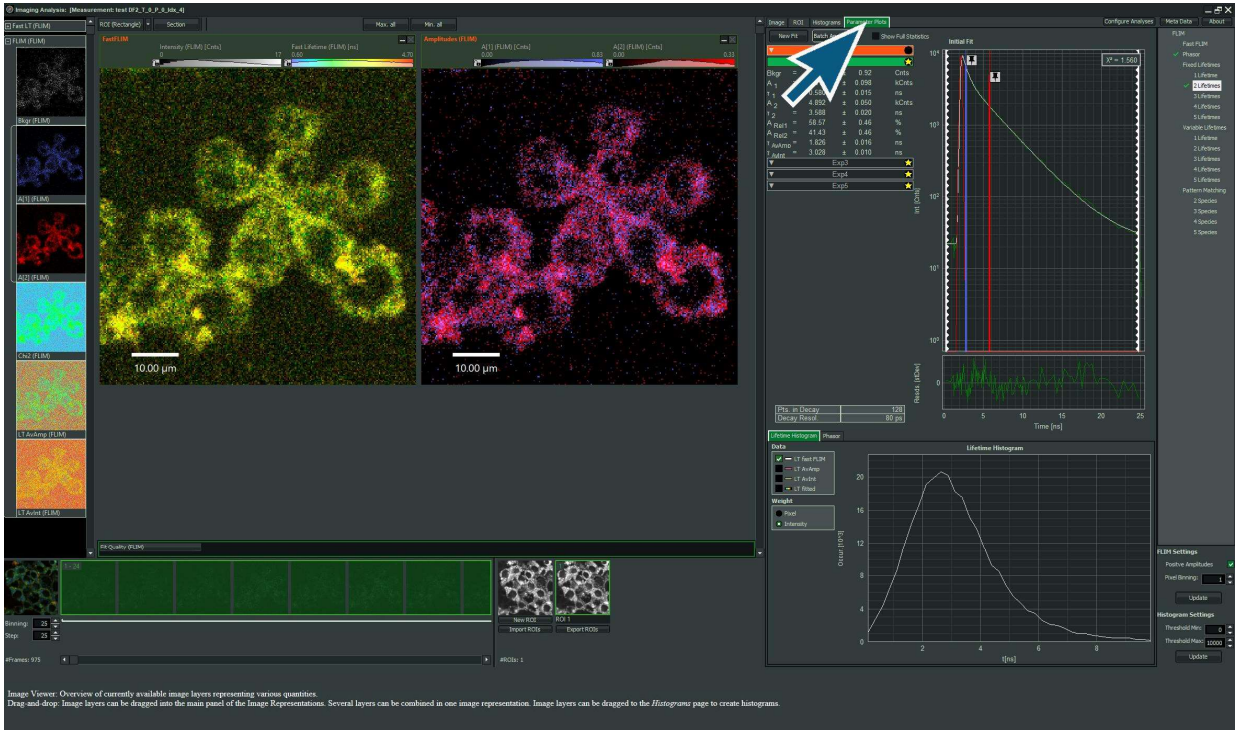
10

Once the Batch -Analysis is done.

Switch to tab ‘Parameter Plots’.



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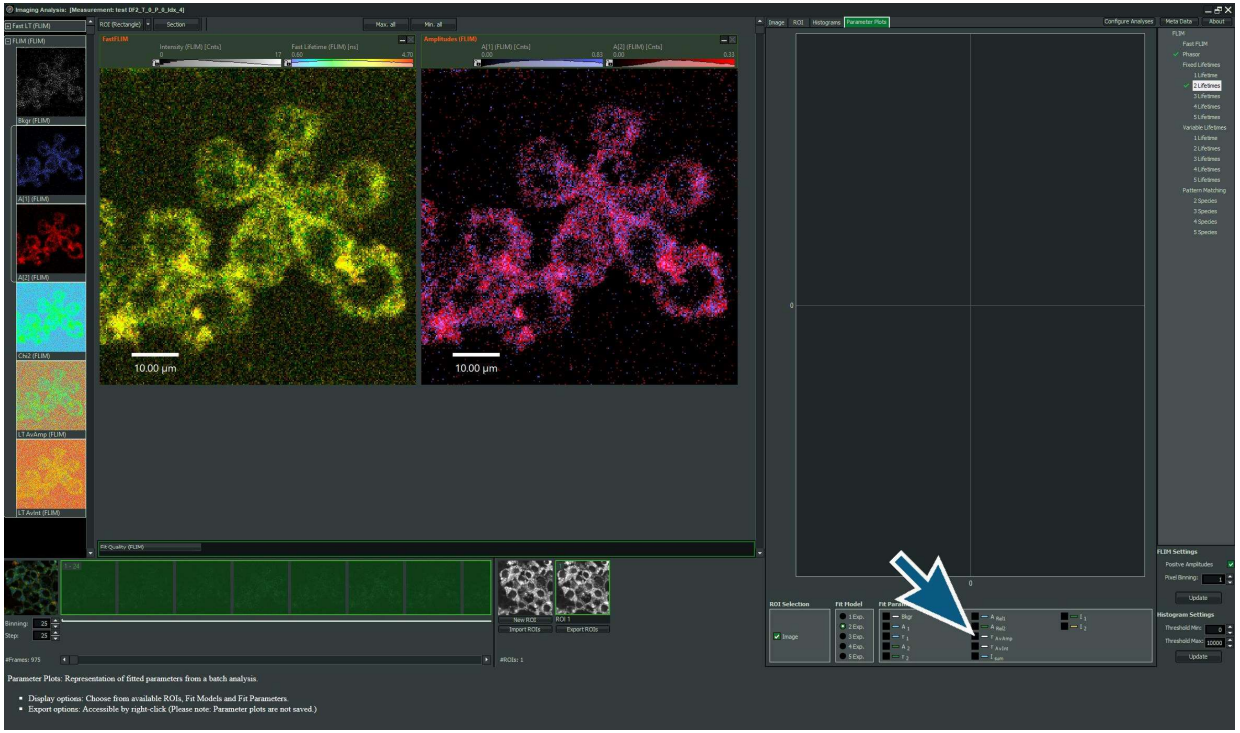
11

In the parameter Plots tab, the user can select plotting any fitted parameter accross all frames.

One can customise the shown batch analysis results from the “tick boxes panel”.



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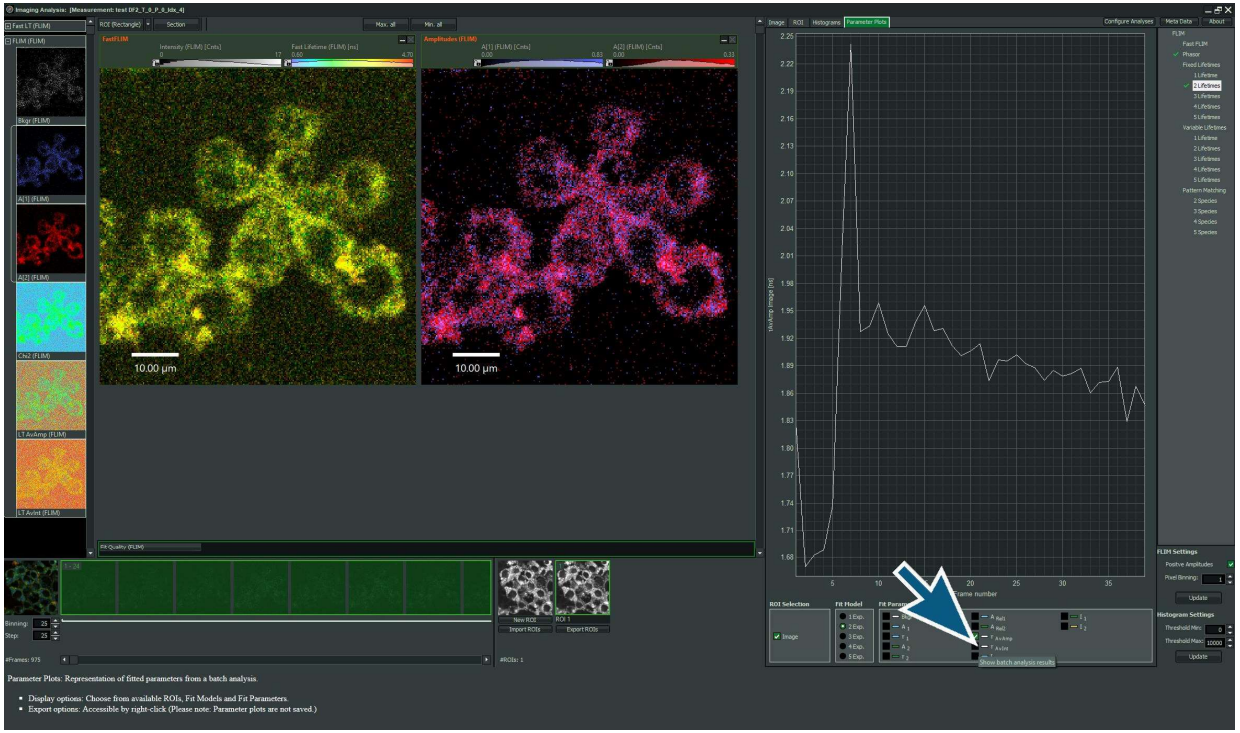
ROI Selection : By default the batch Analysis runs over the whole image. If ROIs are set before the batch Analysis the the batch analysis will run also for each individual ROI separately.

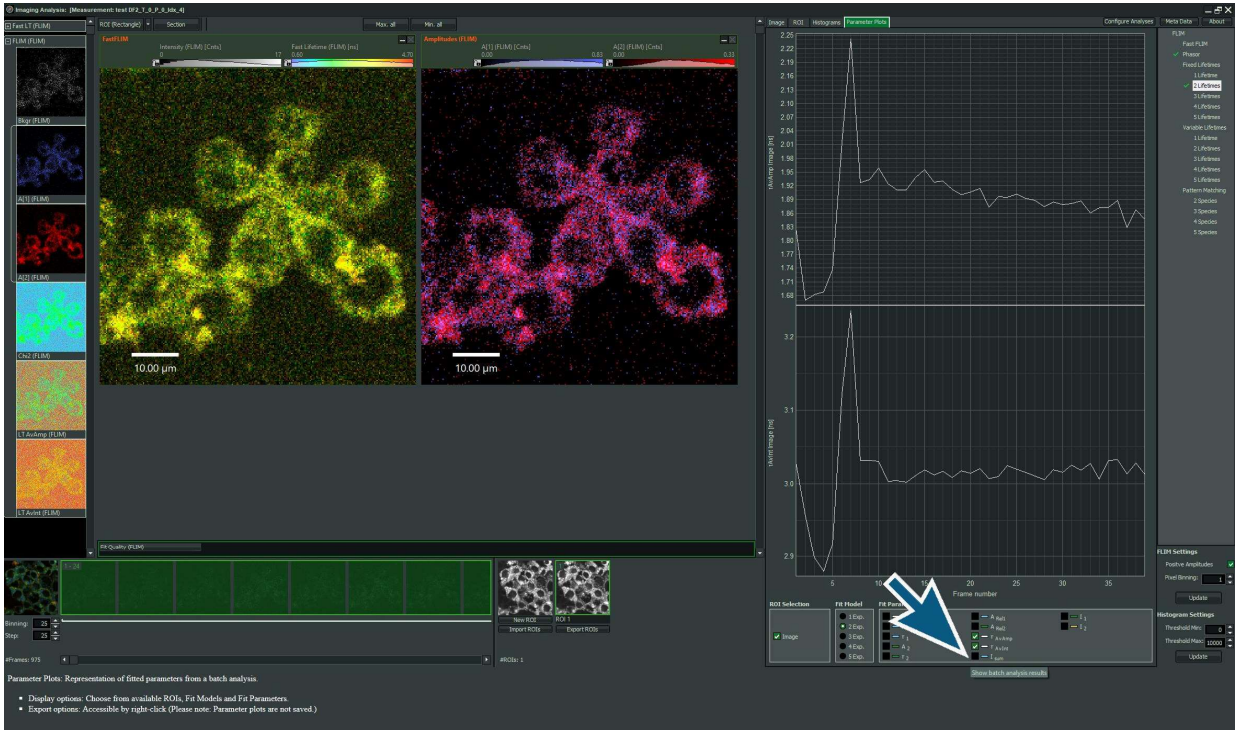
Fit Model: The user can view the results of many multi-exponential models.

Fit Parameters: The user can select the parameter to be plotted.



13

Multiple Selection of fitted parameters are allowed.



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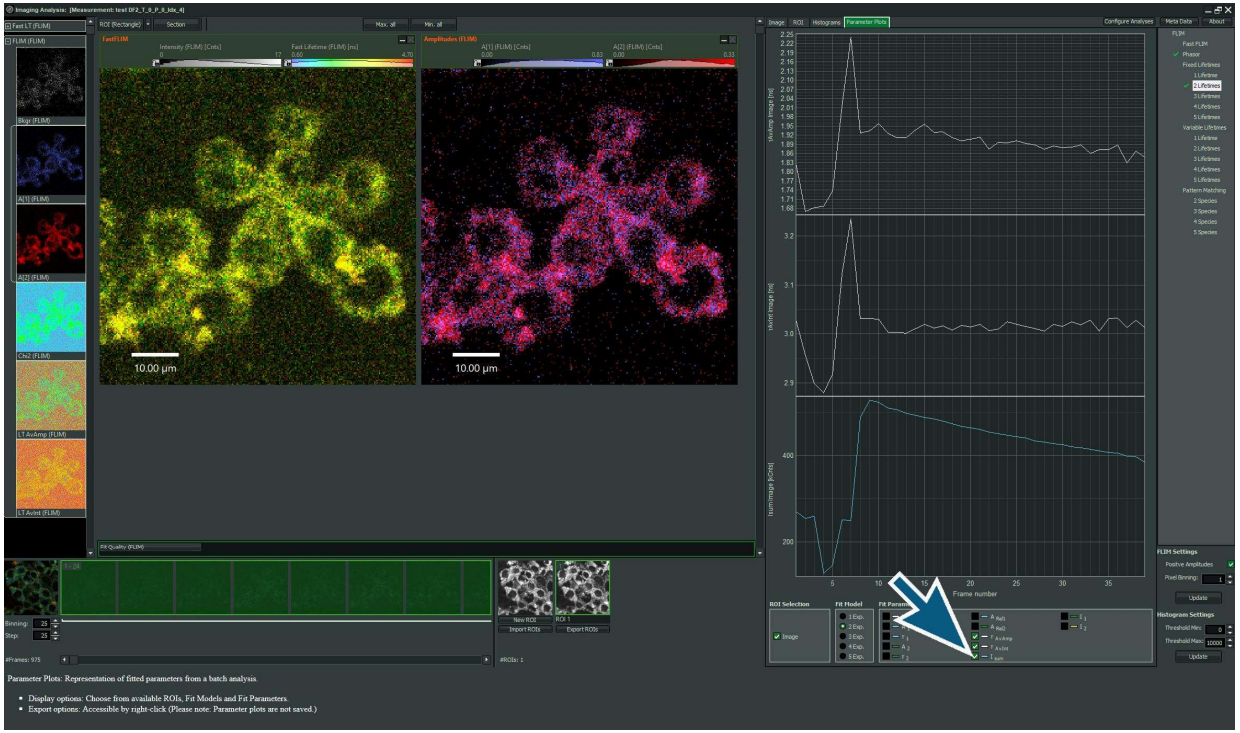
14

I_sum gives you the overall intensity in terms of total phtoons counts included per frame .



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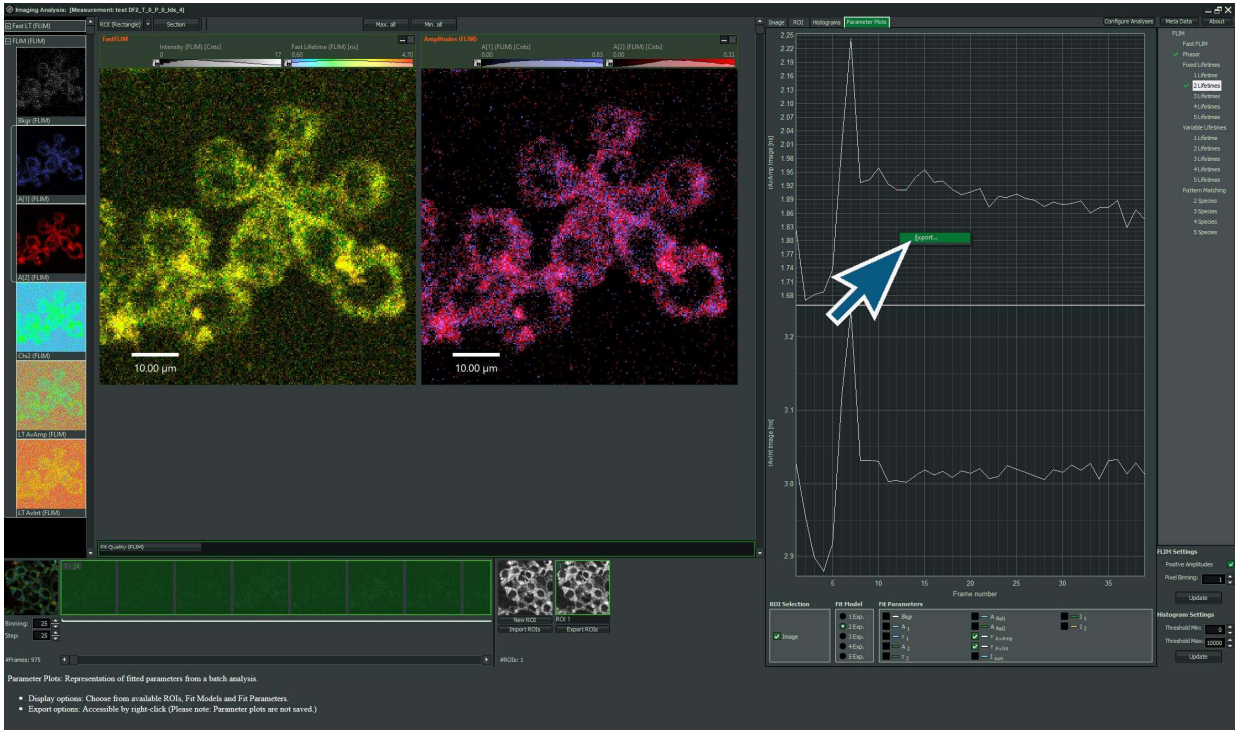
15

You can right-click on any active plot.

By selecting export one can export all active graphs as ASCII or bmp.



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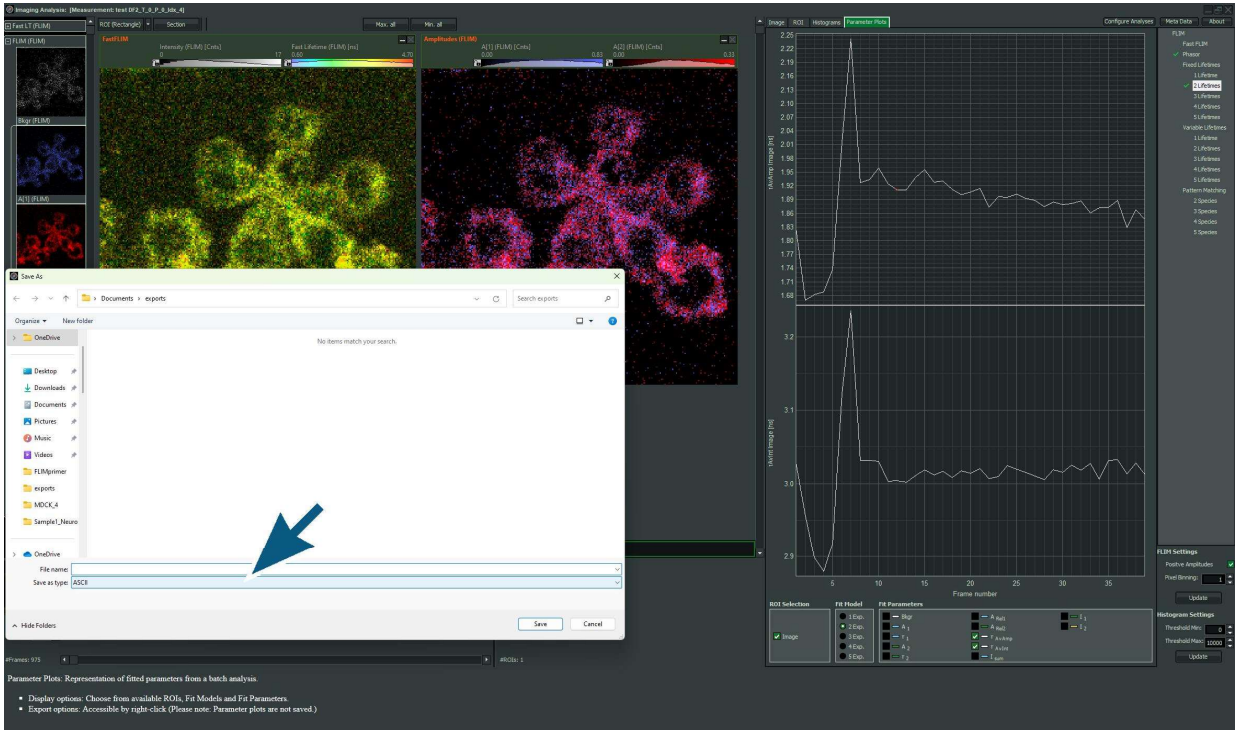
16

The user can select the path.



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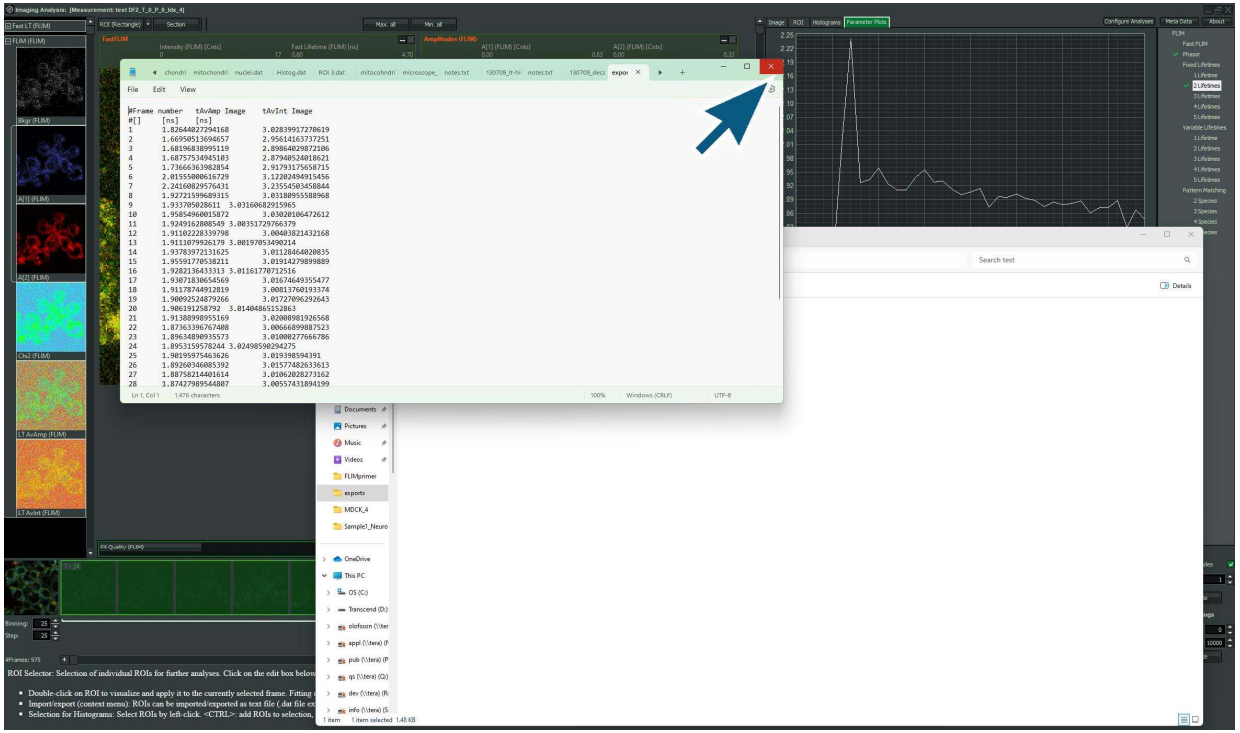
17

Example of the exported data.



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