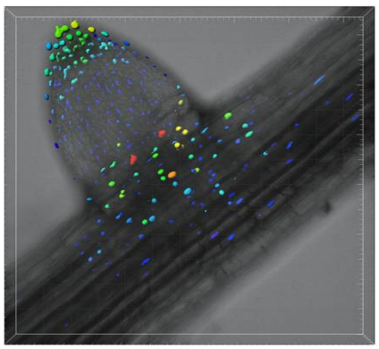
Imaris is Biplane's core software module that delivers all the necessary functionality for **data visualization, analysis, segmentation and interpretation** of 3D and 4D microscopy datasets. Combining speed, precision and ease-of-use, Imaris provides a complete set of features for working with three- and four-dimensional multi-channel images of any size, from a few megabytes to multiple gigabytes in size. Conveniently load, process and visualize images acquired from almost any confocal and wide field microscope to gain new and groundbreaking insight from your image data.

Modules for Imaris:

Imaris MeasurementPro



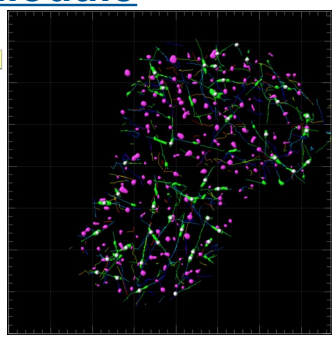
Average

Variable	Min	Max	Mean	StdDev	Median	Sum	Count	Unit	Category
Area	149.80	4004.55	706.36	791.95	374.20	27547.90	39.00	um^2	Surface
Area	147.63	3986.25	746.10	814.41	393.40	27605.50	37.00	um^2	Surface
Area	161.04	4039.29	723.83	814.54	378.09	27505.60	38.00	um^2	Surface
Area	159.42	3971.70	702.55	798.72	370.15	27399.30	39.00	um^2	Surface
Area	148.79	3966.69	754.25	803.60	382.97	27907.20	37.00	um^2	Surface
Area	168.62	4479.36	960.60	1151.97	399.64	29778.60	31.00	um^2	Surface
Area	170.30	4572.17	950.55	1150.27	407.20	30417.50	32.00	um^2	Surface
Area	174.64	4716.78	1010.85	1216.28	424.91	31336.20	31.00	um^2	Surface
Area	179.81	4825.33	999.15	1201.56	437.02	31972.80	32.00	um^2	Surface
Area	179.16	4858.25	1008.49	1208.22	438.58	32271.80	32.00	um^2	Surface
Area	182.49	9353.59	1052.29	1707.40	443.18	32621.10	31.00	um^2	Surface
Area	184.75	4957.68	1025.10	1228.15	448.80	32803.20	32.00	um^2	Surface
Area	187.79	9439.86	1060.70	1721.74	448.33	32881.80	31.00	um^2	Surface
Area	186.33	9490.93	1105.68	1757.64	454.47	33170.30	30.00	um^2	Surface
Area	185.20	9559.20	1074.18	1743.32	457.83	33299.60	31.00	um^2	Surface
Area	186.07	9533.81	1071.39	1738.68	456.68	33213.20	31.00	um^2	Surface
Area	183.48	5039.92	1037.67	1243.19	460.70	33205.50	32.00	um^2	Surface
Area	185.26	9517.20	1069.00	1734.08	452.87	33139.00	31.00	um^2	Surface

Imaris MeasurementPro enables researchers to extract critical statistical parameters from their microscopy images thus allowing for the quantification of scientific findings. MeasurementPro adds shape, size, and intensity based measurement capabilities to the volume rendering, surface rendering and object detection features of Imaris. It allows researchers to interactively classify, group, and filter segmented objects based on any of the calculated statistics.

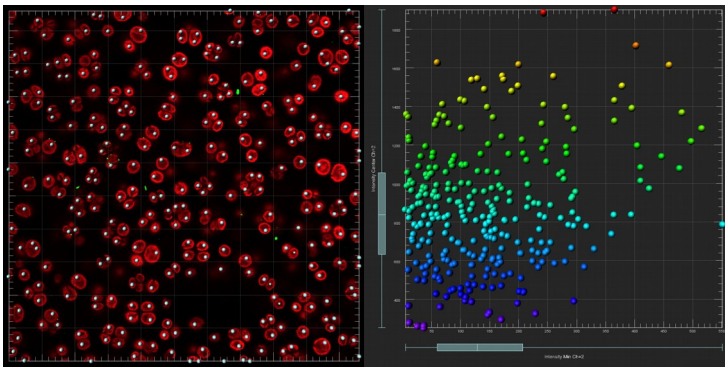
ImarisTrack - Tracker Module

0.05 um/s	Surface	1	1000000000	0
0.07 um/s	**Surface**	**1**	**1000000001**	**1**
0.25 um/s	Surface	1	1000000002	2
0.09 um/s	Surface	1	1000000003	3
0.06 um/s	Surface	1	1000000004	4
0.09 um/s	Surface	1	1000000005	5
0.03 um/s	Surface	1	1000000006	6
0.02 um/s	Surface	1	1000000007	7
0.29 um/s	Surface	1	1000000008	8
0.16 um/s	Surface	1	1000000009	9
0.05 um/s	Surface	1	1000000010	10
0.08 um/s	Surface	1	1000000011	11
0.16 um/s	Surface	1	1000000012	12
0.09 um/s	Surface	1	1000000013	13
0.16 um/s	Surface	1	1000000012	12
0.09 um/s	Surface	1	1000000013	13



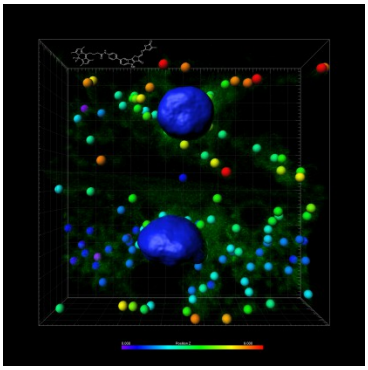
ImarisTrack is the most powerful commercially available tracking program that rises to the challenge of monitoring temporal changes in biological systems (2D and 3D images over time). Based on a choice of multiple sophisticated automatic tracking algorithms, the ability to manually edit and correct tracks if needed, and the ability to work on extremely large and complex data sets, ImarisTrack allows researchers to answer even the most demanding live-cell imaging questions.

Spots, Segmentation and Interaction



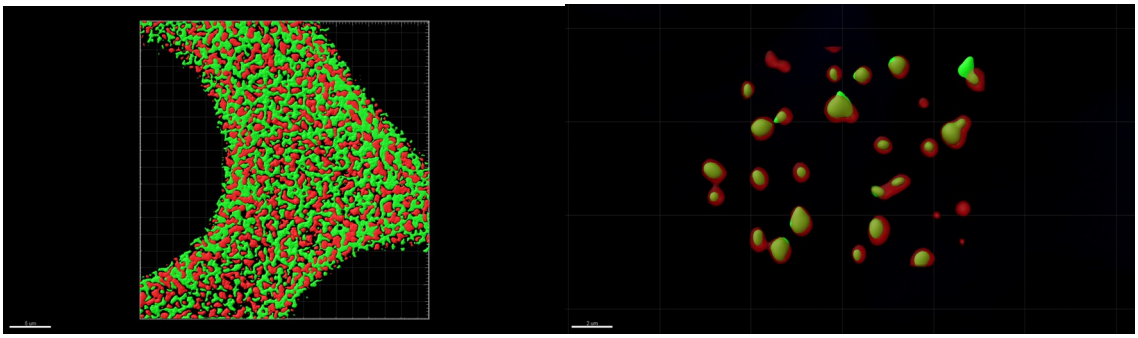
The “Spot Object” is available to model point-like structures in the data. Like the “Surface Object” above, a Creation Wizard guides the user through the step-by-step procedure to automatically detect point-like structures, an editor to manually correct detection errors if necessary, and a viewer to visualize the point-like structures as spheres. The advantage of the “Spots Object” is that local maxima can be identified and images with 10’s or 100’s of thousands of objects can be individually identified quickly.

ImarisCell



ImarisCell is an Imaris module specifically designed for the analysis of 2D, 3D, and 4D images of cells and their components.

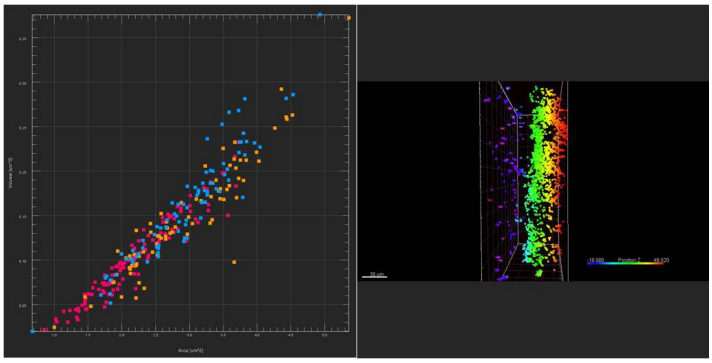
ImarisColoc - Colocalization module



% of ROI material B colocalized; 51.84;
Pearson's coefficient in dataset volume; 0.7317;
Pearson's coefficient in ROI volume; 0.7317;
Pearson's coefficient in colocalized volume; 0.5255;

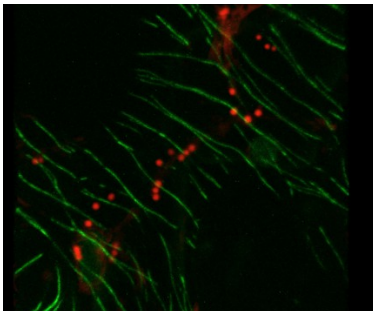
Obtaining accurate information about the position of stained tissue and cellular components is the primary goal of digital microscopy. ImarisColoc has been designed to give researchers the most powerful tool to quantify and document co-distribution of multiple stained biological components. Utilizing a choice of manual, semi - automatic, and automatic co-localization selection methods, ImrisColoc enables easy isolation, visualization, and quantification of regional overlap of multiple stains in 3D and 4D images.

ImarisVantage



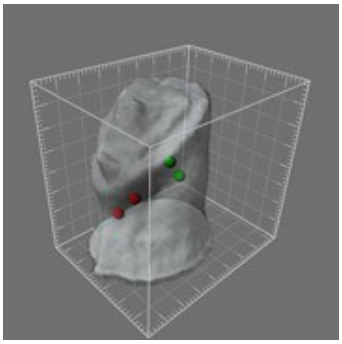
ImarisVantage is the perfect tool to explore differences between experimental groups (e.g. control vs test). It allows for the creations of interactive plots which help illustrate relationships/patterns/differences between objects or groups of objects. The users can produce informative and visually pleasing plots in which object data can be shown in multiple scalable dimensions overlaid with original 3D volume data.

Imaris FilamentTracer



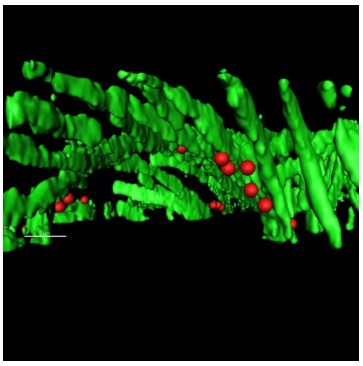
Imaris FilamentTracer is the most advanced software product for the automatic detection of neurons (dendritic trees, axons and spines), microtubules, and other filament like structures in 2D and 3D. FilamentTracer utilizes multiple automatic, semi automatic, and manual segmentation methods, that can be used in any combination, to successfully segment, then visualize and quantify the detected structures.

Imaris XT



ImarisXT acts as a two-way interface between Imaris and classic programming languages, (e.g. C++ and Matlab). It allows rapid development and integration of custom algorithms that are specific and tailored to scientific applications where generic image processing would fail. Imaris XT bridges the gap between complex code developed by image analysis specialists and the standardized, easy to use interface for visualization and analysis of Imaris.

ImarisBatch



ImarisBatch is an Imaris subsystem for the processing of 2D, 3D, and 4D image series in batch. This subsystem saves valuable time when running repetitive jobs because processing can be queued and completed without interaction from the user. From image processing to spot and surface detection to tracking - ImarisBatch does the job while researchers attend to other more important matters.