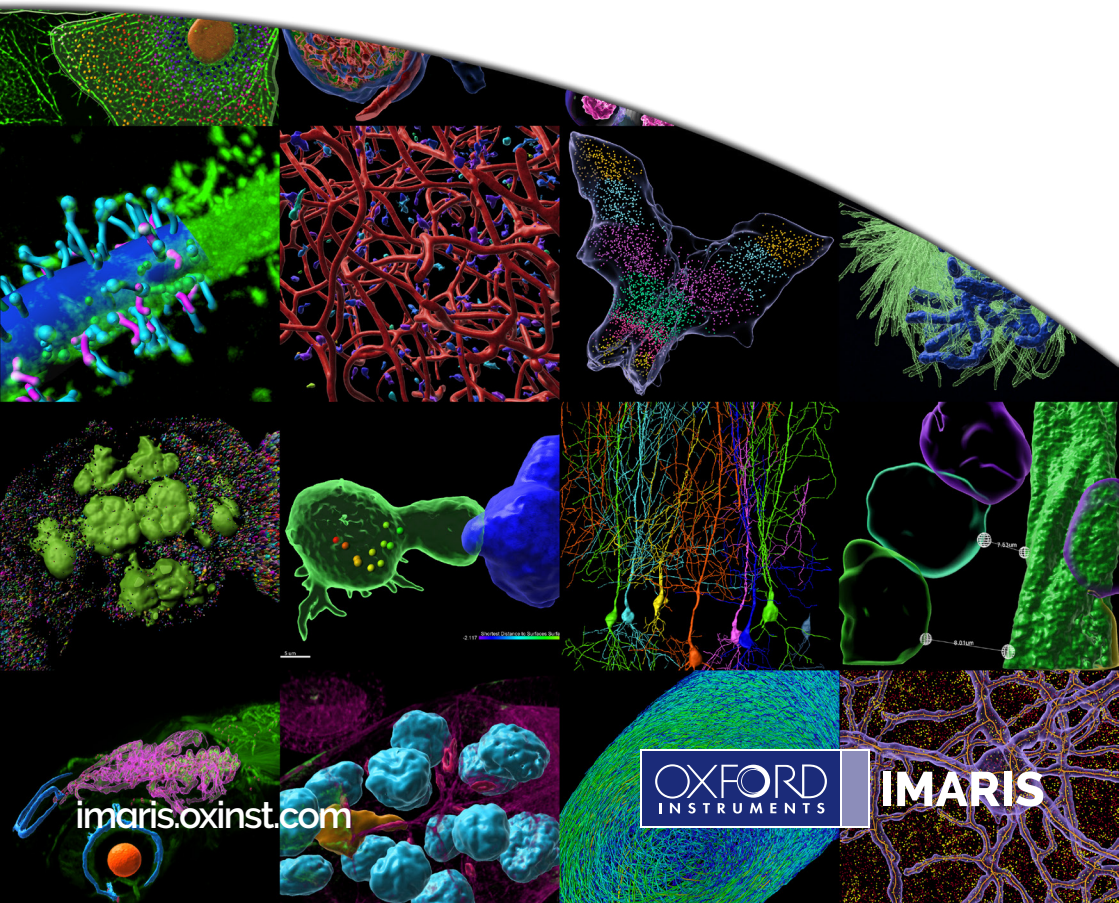


# IMARIS

3D/4D Visualisation ● Analysis  
Stitching ● Deconvolution



[imaris.oxinst.com](http://imaris.oxinst.com)

OXFORD  
INSTRUMENTS

IMARIS

# Raw Images to Scientific Insights

## IMARIS Workflow

Imaris provides the full workflow for researchers to manage and analyse their microscopy image data from browsing images on different drives, through analysis and interpretation to various ways of sharing the results.

### Browse

Use Imaris Arena to manage your microscopy images on local or network drives.

### Visualise

Visualise your 2D/3D/4D images up to Terabytes in size in Imaris or Free Imaris Viewer.

### Analyse + Classify

Get quantitative information with Imaris reporting 100s of statistics for individual objects and relative to each other.

### Detect

Detect all structures of interest using powerful and easy to use Imaris analytical tools.

### Preprocess + Decon

Use deconvolution and other image processing filters to improve your signal to noise ratio.

### Batch

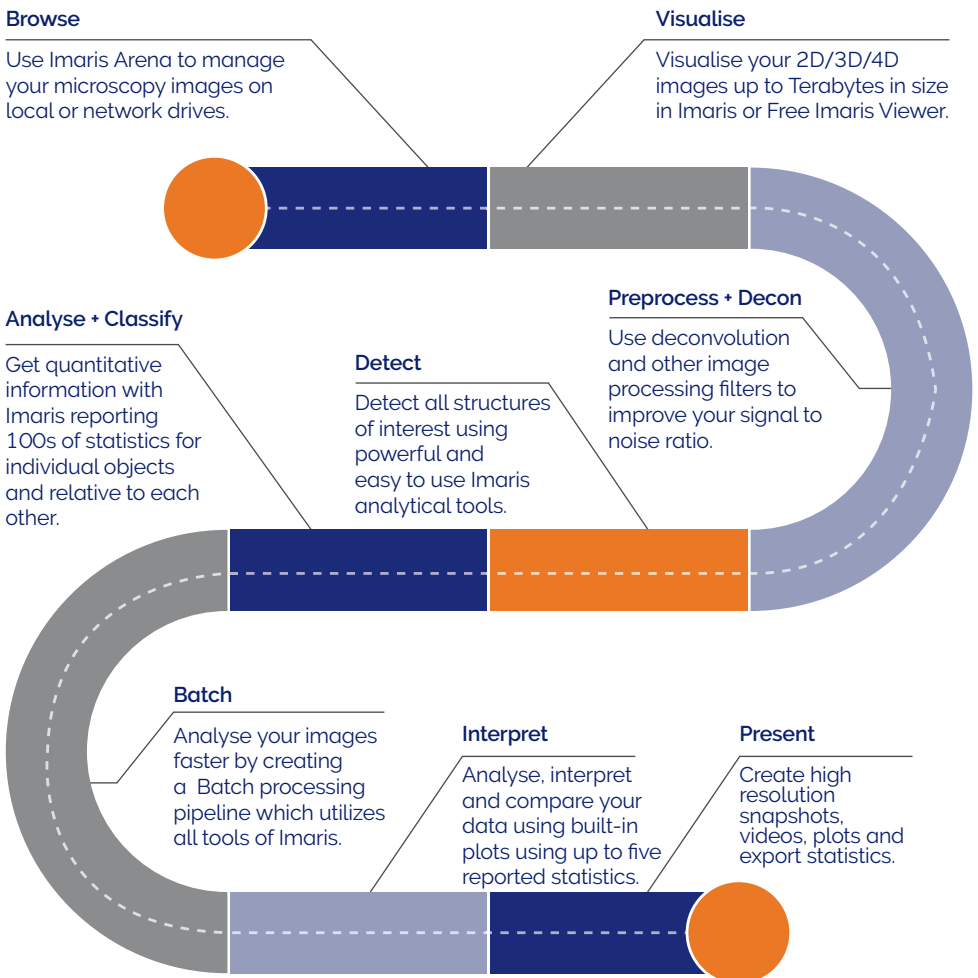
Analyse your images faster by creating a Batch processing pipeline which utilizes all tools of Imaris.

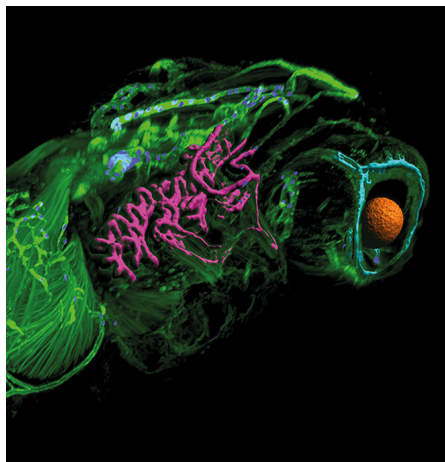
### Interpret

Analyse, interpret and compare your data using built-in plots using up to five reported statistics.

### Present

Create high resolution snapshots, videos, plots and export statistics.

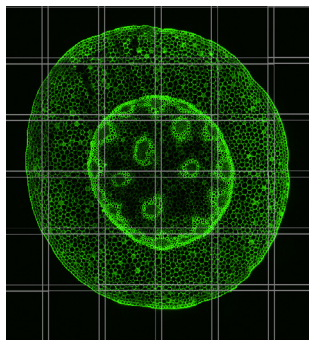




## Imaris

### State of the Art Image Visualisation and Analysis

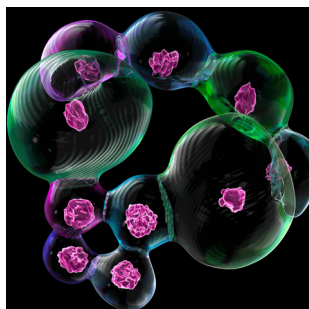
Over the last 25 years Imaris has continuously improved upon its visualisation technology for 3D/4D fluorescence images to accommodate ever increasing image sizes while introducing a range of analytical tools for cell biologists, neuroscientists and a wide array of other life science disciplines. At your disposal is a fully integrated platform to organize, visualise, (batch) analyse, and explore your images and their results allowing you to test hypotheses and present your conclusions in the best possible manner.



## Imaris Stitcher

### Big Data Capable Image Stitching

Imaris Stitcher is the newest member of the Imaris family and is a stand-alone application made for precise alignment and fusing of multiple microscopy image tiles into one 2D, 3D or 4D volume. Stitch multiple image tiles in XYZ while also correcting for a common acquisition condition: camera rotation relative to the microscope stage. Imaris Stitcher's interface and workflow allow you to easily align and stitch image tiles to export images terabytes in size.



## Imaris Viewer

### Share Your Data With The World

The Imaris Viewer allows you to open raw images as well as those analyzed within Imaris. The free and portable Imaris Viewer ensures the interactive 3D rendering of your images matching the original Imaris performance and quality. Sharing your data and presenting it on conferences was never easier.

# Measurement Pro

## Quantitative analysis of extremely large and complex images

Imaris MeasurementPro adds geometric and intensity measurement capabilities to Imaris.

Interactively render massive surfaces & millions of spots

Create Surfaces & Spots from extremely large images

Classify & label Spots and Surfaces using Machine

Learning Classifier or interactive filters

Report & compare parameters based on detected classes

Measure intensity on a per channel basis

Color-code detected objects based on any calculated parameter and intuitively select objects to extract key parameters

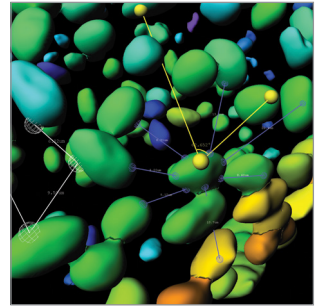
Calculate the distance and the overlap between objects

NEW

Object attraction and repulsion measurements compared to random distribution

NEW

Build and measure 3D objects based on 2D contours



# Imaris Track Lineage

## Explore motion and detect cell divisions

ImarisTrackLineage is the cutting-edge scientific solution for 3D and 4D object tracking

Automatically track objects in 2D or 3D + time

Choose from the multiple tracking algorithms

Handle thousands of objects per time point

FASTER

Handle thousands of time points

FASTER

Interactively edit, create and revise tracks and tracked objects

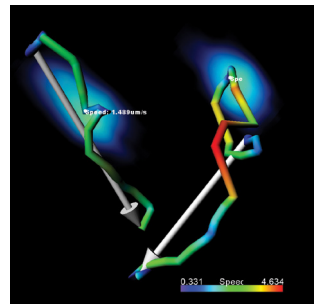
Report speed, displacement, intensity, size etc.

Determine cell cycle duration & generation, while displaying a lineage tree

Automatically correct translational and rotational drift using Reference Frame

Synchronize measurements to Events in your timelapse

NEW



# Imaris® - Enabling Scientific Discovery Since 1992

## Imaris Coloc

### Isolate, visualize and quantify colocalized regions

ImarisColoc assesses the distribution of one label relative to another.

Multiple colocalization selection methods including an automatic mode based on an established algorithm

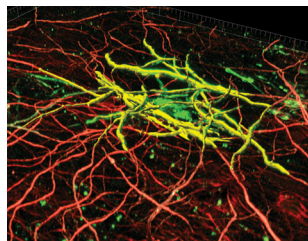
Obtain statistics in real time

Present data as a new 3D or 4D color channel

Expand or narrow the computed histogram region

Perform analysis on specific ROIs

Co-localization of entire time series analyzed in fewer steps



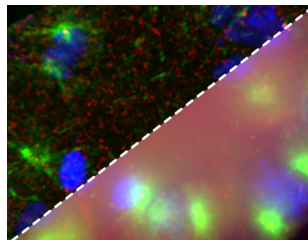
## Imaris ClearView

### GPU-Accelerated Deconvolution

Imaris ClearView includes integrated deconvolution algorithms.

Optimized for GPU processing on NVidia and AMD boards

Available for both Mac and PC computers



## Imaris XT

### Expanding horizons through customization

ImarisXT is an API that enables programmers to add functions and transfer data to and from Imapris.

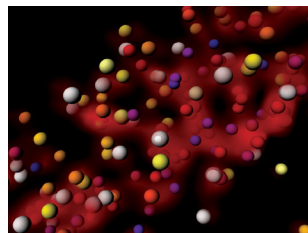
Extend Imapris functionality with your own plugin (XTension)

Two-way data exchange between Imapris and Matlab, Java and Python

Supported by the Imapris Open web platform  
([open.bitplane.com](http://open.bitplane.com))

Powered by members of the "ImarisXT Developer Program"

Free download of 70+ documented XTensions





# Filament Tracer

## Intelligently trace neurons in 3D image with Torch™

FilamentTracer allows for the detection, tracing and analysis of filament like structures.

Interactive 3D tracing methods available: Wizard Guided Automatic or AutoPath and AutoDepth revised for optimal performance in big images

Automatic detection and morphological characteristics of dendritic spines

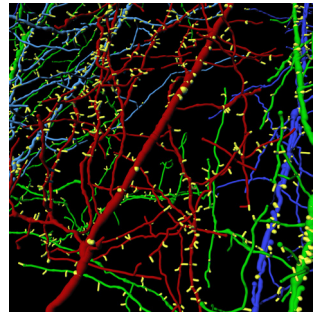
Facilitated tracing in dense neural networks with Imaris Torch™ tool

Statistics such as branch length, diameter, area, volume, spine density, filament topology and many more

Direct interaction with the whole filament, individual branches, segments or particular points with multiple editing possibilities

Premier 3D filament and spine model visualization options (e.g. size, color) together with non-filamentous objects

Tracking and detection of temporal changes in shape and position (with ImarisTrackLineage)



# Imaris Cell

## Making sense of your cells' relationships

ImarisCell allows analysis of cell groups and individual cells and their components on a per cell basis.

Examine relationships between cells and cellular components within a cell

Utilize biologically meaningful image analysis units (cells, nuclei and vesicles)

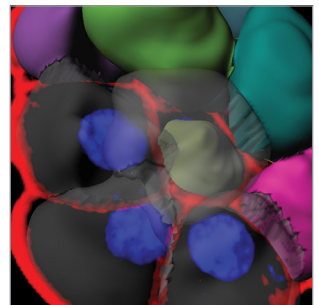
Detect cells based on cytoplasm or plasma membrane staining (new cell detection algorithm when only membrane labeling is available)

Detect and classify multiple populations of vesicular objects

Examine the behavior of cells in 2D to 4D data sets

Measure mechanical and structural cell functions involved in cell-to-cell communication

Save time by utilizing an advanced, structured and intuitive creation wizard



# Imaris Batch

## The Ultimate Imaris productivity tool

Imaris Batch allows for processing and analysis of multiple 2D/3D + time images in batch

Save valuable time by batch processing/analysis – apply an analysis protocol to large groups of images automatically

Reproduce exact analytical procedures

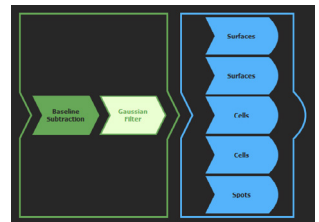
Interactively define the image analysis protocol which will be applied to "n" images

Seamlessly integrated into the Imaris workflow including machine learning classification

Unified pipeline of Image Processing into Object Detection

Run batch jobs for Spots, Surfaces, Cells and Filaments

Optimize the usage of Imaris licenses by running batch jobs autonomously when computing resources are less busy (e.g. overnight)



# Imaris Vantage

## Created for scientific discovery

Imaris Vantage allows users to interpret their results using interactive multi-dimensional plots.

Select from: side-by-side one parameter plot, 2 parameter scatterplot and object gallery view & scatterplots

Box and Whisker Plots, 5-Number Summary

Compare two or more groups of images (control with test groups). Compare labeled classes with one another

Use calculated parameters to specify dimensions, color coding and scale

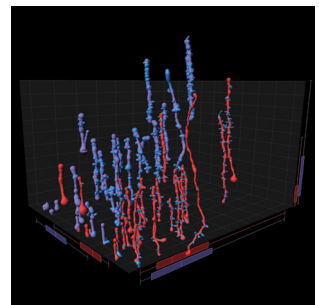
Identify trends and outliers

Get the results of: Wilcoxon, T-test, F-test and Kolmogorov-Smirnov and export the results for further statistical analysis

Create visually powerful data representations and at the same time facilitate a better understanding of intrinsically complex data

Spatial interactions plot and Time plot with Events

NEW



# Imaris Maintenance Services

Much more than a maintenance contract

Find out more today at [imaris.com/imaris-maintenance](https://www.imaris.com/imaris-maintenance)

The Imaris team works with you to understand your research needs and define the perfect image analysis protocol as a solution. Our aim is to establish a true collaboration so you receive the greatest Imaris benefits. As your needs change, we listen carefully to your feedback and work to bring you innovative image visualization and analysis tools in new versions of Imaris and our family of products.

## Our Maintenance Services Include:

- New releases on an average of 6 months cycle.
- Technical support
  - Phone, email and screen sharing / remote desktop options
- Image analysis & application support
  - Phone, email and screen sharing / remote desktop options
- Training
  - Onsite (Imaris Open day)\*; benefit from dedicated, expert hands-on advice and training in your laboratory or imaging center
  - Custom video tutorials
  - Custom text / image tutorials
  - Priority access to Imaris User Group Meetings (attendance fee may be applicable)
  - Additional training and education via regular web seminars and video tutorials

\*Conditions Apply

## System Requirements and Licensing Types



Windows 10



Mac OS X 10.12 - 10.15

Permanent node-locked and floating license options are available.

For full list of supported hardware please visit [imaris.com/system-requirements](https://www.imaris.com/system-requirements)

### International

Bitplane AG  
Badenerstrasse 682  
CH-8048,  
Zürich

Email: [sales@bitplane.com](mailto:sales@bitplane.com)

### Americas

Bitplane Inc.  
425 Sullivan Avenue, Suite #3  
South Windsor, CT 06074  
U.S.A.

Email: [ussales@bitplane.com](mailto:ussales@bitplane.com)

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