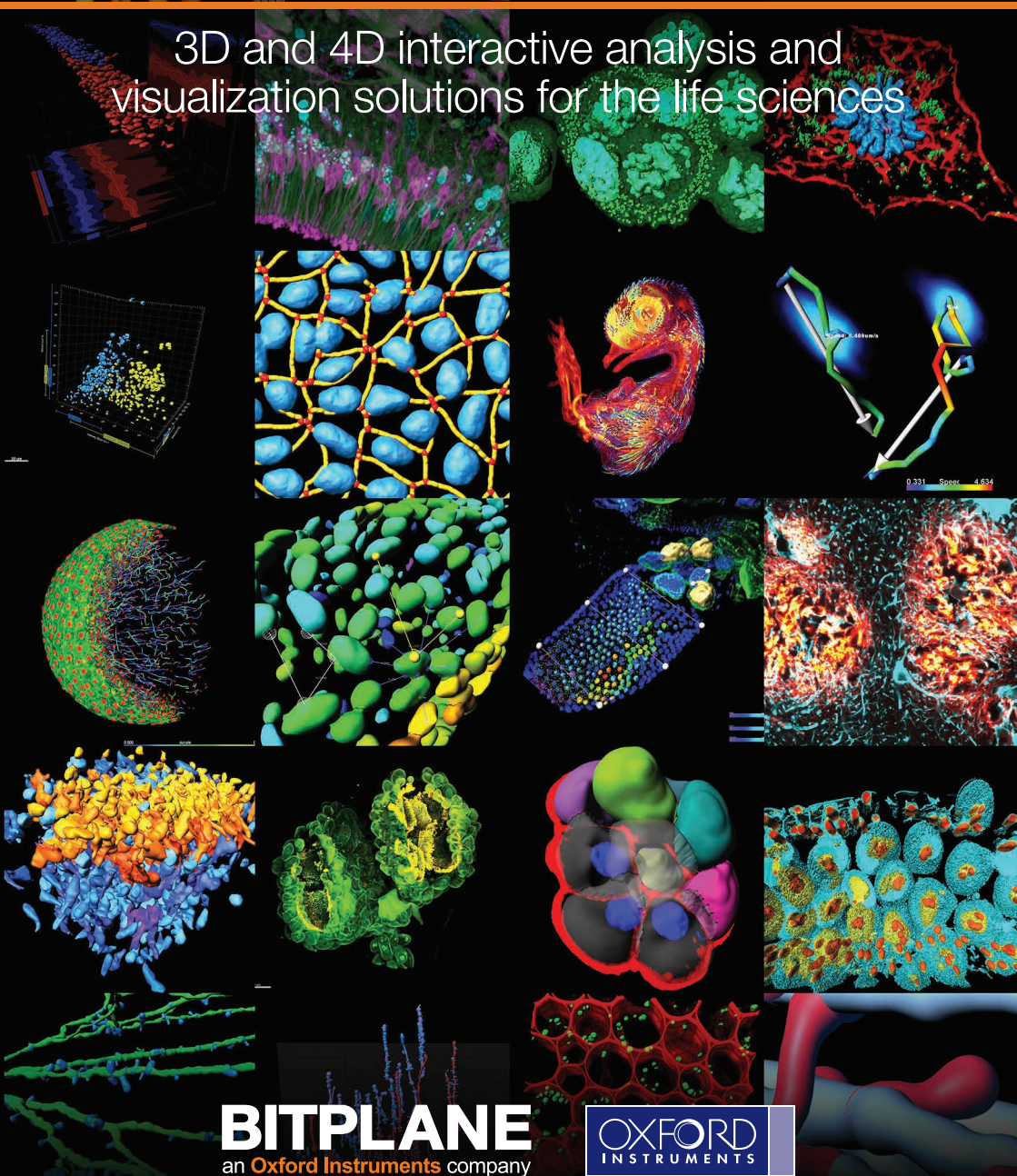
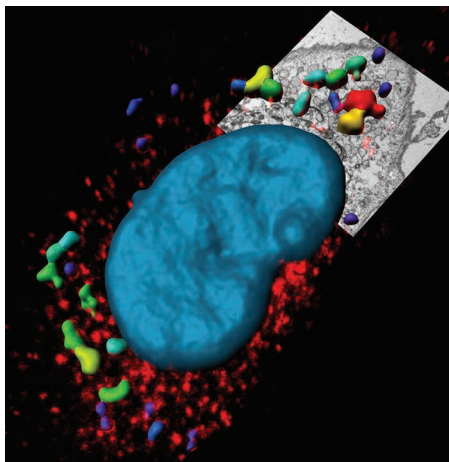


Imaris

3D and 4D interactive analysis and
visualization solutions for the life sciences



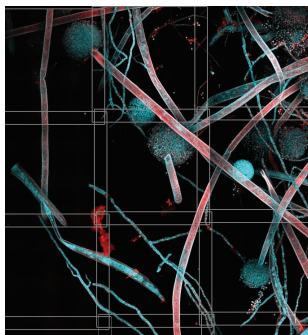
Imaris®



Imaris

State of the Art Image Visualization and Analysis

Over the last 25 years Imaris has continuously improved upon its visualization 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, visualize, (batch) analyze, 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.



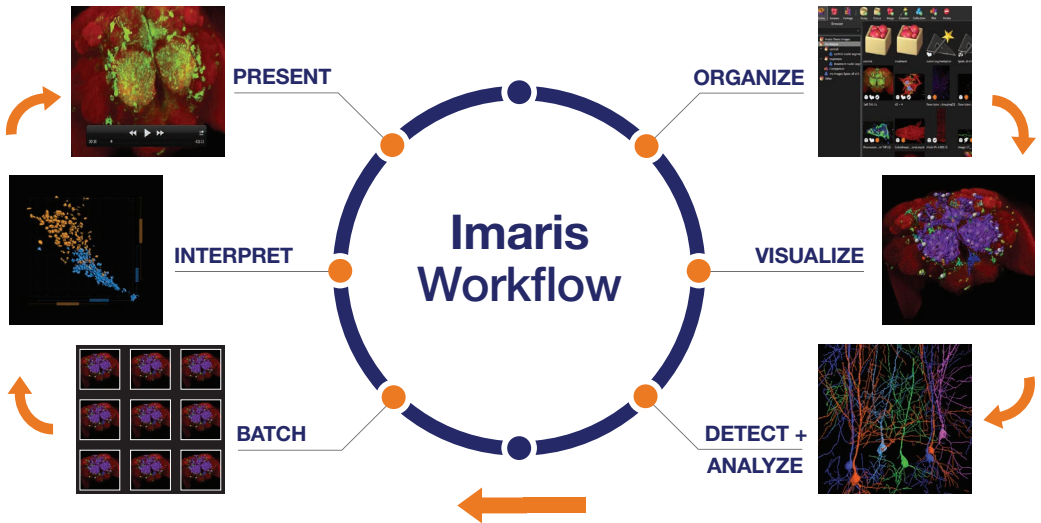
Imaris File Converter

The First Step for Fast Visualization

The Imaris File Converter allows you to save time by first converting your original image files to high performance IMS files. It excels at efficient batch conversion of multiple large images using configurable multi-threaded processing. The read-write progressses are constantly updated and new files can be added to the queue at any time. As soon as your files are converted to IMS use Imaris for immediate and interactive 3D rendering of your images.

Imaris®

Raw Images to Scientific Insights



Organize

The Arena View helps you organize your images and increases productivity as a result. Arena is the central hub allowing you to group images to preserve the experimental structure, while also linking creation parameters, analysis results and plots. With Arena you store your images and data on local or network locations.

Batch

Batch processing is integrated into all of the object detection tools of Imaris. Automatically apply previously created analysis protocols, via Arena, to analyze large groups of images. Batch processing makes use of all CPU power available making it the ultimate productivity tool.

Visualize

Imaris interactively displays 2D/3D/4D images up to terabytes in size with thousands of time points. The Surpass view offers a range of highly efficient, top quality visualization tools. Dissect even the most complex 3D biological spaces including correlative microscopy data sets using GPU accelerated Volume and Surface rendering.

Interpret

Vantage creates measurement plots based on your analysis, allowing for interactive comparison of groups of images to test your experiment's hypotheses. It maps five calculated parameters onto the 3D plot axes (x,y,z) and object properties (color and scale) and the 1D plots include statistical tests for easy comparisons.

Detect and Analyze

Imaris includes a vast array of powerful analytical tools – each of them presented in an easy-to-use and interactive wizard. The key application areas include: tissue, cellular and organelle detection, object motion tracking and filament tracing (e.g. dendritic trees, spines, cytoskeleton, vessels).

Present

Imaris offers a complete suite of tools to create professional - grade visual outputs. Use text annotations to label key features in 3D, frame your results in the best angle and lighting before capturing high resolution still images for publication and allow your creativity to run wild when defining the script for your video animation.

ImarisXT

Expanding horizons through customization

ImarisXT is an API that enables programmers to add functions to Imaris.

Extend the core functionality of Imaris with your own plugin (XTension)

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

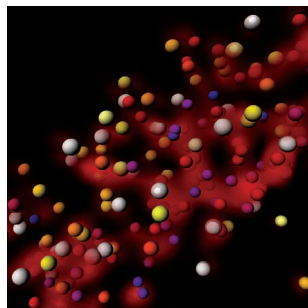
Supported by the Imaris Open web platform (open.bitplane.com)

Powered by Bitplane staff developers and the community members who are part of the “ImarisXT Developer Program”

Seamlessly integrate your XTensions into Imaris

XTensions for multiple applications including super resolution, cell tracking, filament tracing, object detection, GPU deconvolution, inter-object relationships, batch analysis, colocalization, image processing and plotting

Free download of 70+ documented XTensions



MeasurementPro Improved for Imaris 9.2

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

NEW

Create Surfaces & Spots from extremely large images

NEW

Measure intensity on a per channel basis

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

Interactively sort and classify objects based on calculated parameters

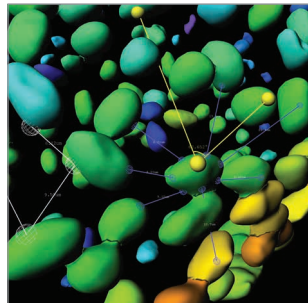
Determine angles and distances between points of interest

Calculate measurements relative to a specific position or orientation within an image

Select many objects and assign label names and colors

NEW

Build and measure 3D objects based on 2D contours



Imaris® - Enabling Scientific Research

ImarisColoc

Isolate, visualize and quantify colocalized regions

ImarisColoc enables you to obtain key information about the relative position of labelled components within a specimen.

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

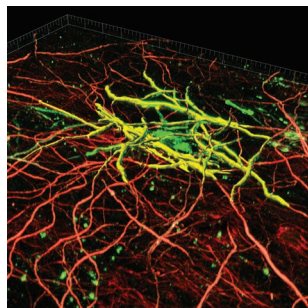
Obtain statistics in real time

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



ImarisTrackLineage

Improved for Imaris 9.2

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 depending on the motion type you need to study

Handle thousands of objects per time point **FASTER**

Handle thousands of time points **FASTER**

Interactively edit, create and revise tracks and tracked objects

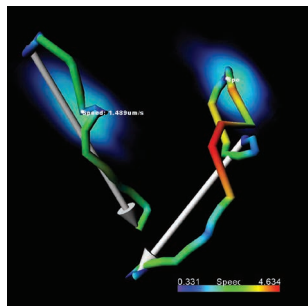
Report numerous object and track related parameters, such as speed, displacement, straightness, shape, intensity and size

Simultaneously visualize and interact with the raw image and the detected objects + tracks

Automatically detect cell division events to determine cell cycle duration and generation

Label tracks and cell lineages with names and colors

4-way interactive lineage tree (raw data, segmented data, tree, calculated parameters)



*In addition to these modules we also provide AutoQuant.

Scientific Discovery Since 1992

ImarisCell

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)

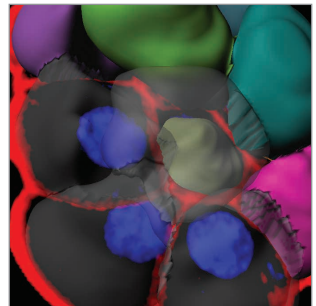
Detect and classify multiple populations of vesicular objects

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

Numerous XTensions available for Cell specific applications (requires ImarisXT)



ImarisBatch

The ultimate Imaris productivity tool

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

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

Reproduce exact analytical procedures

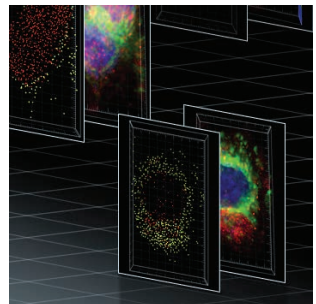
Interactively define the image analysis protocol which will be applied to “n” images

Seamlessly integrated into the Imaris workflow (Arena-Surpass-Vantage)

Automatic concatenation of batch results

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)



FilamentTracer

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

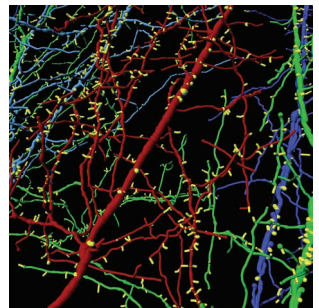
Facilitated tracing in dense neural networks with Imaris Torch™ tool

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)



ImarisVantage

Created for scientific discovery

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

Select from five classes of plots: gallery, xyz “real world”, xyz “time”, xyz “scatter” and side-by-side univariate plots

Box and Whisker Plots, 5-Number Summary and Projection Plots

Compare two or more groups of images (control with test groups)

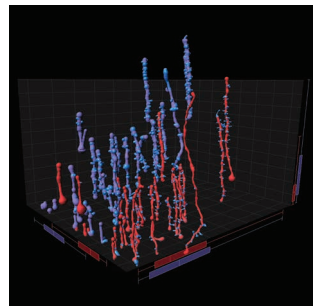
Use calculated parameters to drive each of the axis, color coding, scale and display order (in gallery view)

Identify trends and outliers

Get preview of 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

Create 3D/4D annotations within the Surpass view; annotations can be free text or a real-time display of statistical parameters





Imaris Maintenance Services

Much more than a maintenance contract

Find out more today at bitplane.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:

- Two updates per year to the latest and most advanced version of Imaris
- 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 x64 7, 8.0, 8.1, 10



Mac OS X 10.9 - 10.12

Permanent node-locked and floating license options are available.

For full list of supported hardware please visit bitplane.com/system-requirements

International

Bitplane AG
Badenerstrasse 682
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Zürich

Email: sales@bitplane.com

Americas

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Email: ussales@bitplane.com

Find us on



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