At the cutting edge of 3D and 4D interactive analysis and visualization since 1993

**Imaris** is Bitplane’s core scientific software module that delivers all the necessary functionality for data visualization, segmentation, analysis 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 several gigabytes.

**Imaris** delivers all the necessary functionality for interpreting cellular and molecular patterns present in your sample that were revealed by light microscopy. With **Imaris** you can:
- Visualize volume images and objects in real time using a rich selection of rendering modes.
- Automatically or manually identify objects based on morphology, intensity, size and many more parameters.
- Validate segmentation by superimposing objects on the original volume image.
- Interact dynamically with individual objects.
- Create the most impressive pictures, animations and stunning movies for your publication with just a few mouse clicks.

**Imaris**’ rendering quality, speed, precision and interactivity are unrivalled. With a large variety of segmentation options, **Imaris** provides you with the most effective tools to segment even the toughest datasets allowing you to identify, separate and visualize individual objects. The interface of **Imaris** has been carefully designed by scientists for scientists who want to spend their time doing research, not mastering their imaging software. Visualization capabilities of **Imaris** are further enhanced by a range of additional analytical companion modules to provide the researcher with an impressive range of analytical and annotating tools and options.

Main Image: **Imaris** renders the most complex structures in real time. This fascinating image has been created using a combination of volume and surface rendering. Mastocyte with CD36 labelled lissosomes (green), phalloidin tagged actin (red) and DAPI stained DNA (blue). Image courtesy of Dra. Constance Oliver (USP, Ribeirao Preto, Brazil).
Imaris
Leading Image Processing Solutions for the Life Sciences

The surpass view contains object statistics (bottom left panel), 3D view (main panel) and an object properties dialog (top left). The frame object provides a customizable scale and size reference. Users have complete control over color, shading, reflection and transparency. Red channel: labeled kinetochores; green channel: tubulin; blue channel: DAPI.

Your Benefits
Premier Volume Rendering - use MIP, blend and shadow projections to produce exceptional 3D and 4D images. Manage colors, reflections, shading and transparency of objects in real time.

Interactive and Intuitive Navigation - rotate, zoom in and out of the object and fly through the volume in real-time. Enhance 3D interaction with "InMotion," a depth cueing tool that is unique in the microscopy market.

Image handling of huge datasets - Imaris works with images of 50 GB or more. Load, open and render huge sets instantaneously and easily process them in Imaris where other programs fail.

Surfaces Object Segmentation and Interaction - generate and identify multiple objects using isosurfaces based on local maxima, split touching objects, use orthogonal planes to cut through the plane of interest and apply the "magic wand" to create surfaces semi-automatically.

Spots Object Segmentation and Interaction - the Spots object includes spherical and ellipsoid spots (adjusted in the Z-dimension). The spherical spots option is well suited to detect point or sphere like features. However, when the object of interest is stretched in Z, due to imaging artifacts/limitations and/or because of its real shape, the ellipsoid spots option is the solution. When compared to the classic spherical spots the ellipsoid spots offer a much more accurate volume measurement of real features. (Note: Surfaces offer the most accurate volumetric measurements). Overall, Spots analyses are faster (1.7x) and consume less RAM than surface creation. Spots benefit from all the interaction options present for Surfaces and other Imaris objects.*

Key Frame Animation - create precise, convincing animations and storyboards for your presentations - complex fly-throughs can be transformed into a smooth, animated movie. Imaris uses Standard Scientific Notation throughout.

Get published with Imaris
Imaris has been the primary tool for image visualization and analysis since its launch in 1993. With over 3D readable file formats it can visualize and analyze images from most confocal setups on the market. Between January and September 2012 Imaris was used and referenced in over 650 peer-reviewed publications.

Easy to learn. Simple to use. Powerful.
Imaris enables rapid, real-time interactive inspection of your data sets with a vast array of image viewing tools. With its capability to work with 50+ GB images and a range of intuitive image processing functions, Imaris is ideally suited to challenging image analyses spanning from anatomy through to cell biology, neuroscience and electron microscopy.

The speed and performance of Imaris is enhanced through the use of advanced computer graphics and multithreading technology to deliver real-time image handling and analysis.

Interactive Vision in the Life Sciences
A key strength of Imaris is its usability. The automated and intelligent image processing wizards, synonymous with Imaris, allow users to focus on experiments and not on the technicalities of the software. Imaris also provides the necessary tools to edit datasets manually if more control is required. By delivering leading edge innovations, such as real-time object detection and tracking, automated filament structure, cellular component analysis, and innovative data visualization, Imaris expands your analytical capabilities. With dedicated modules to address daily challenges in life science imaging you can take your research to the next dimension.

Imaris MeasurementPro, FilamentTracer, ImarisCell, ImarisTrack, ImarisVantage, ImarisXT, ImarisBatch and ImarisColoc
Imaris and its modules comprise of a 3D and 4D imaging software suite that is unmatched in the market today. When you rely on the accuracy and integrity of your 3D/4D imaging data, the right choice is Imaris.

PC Operating system requirements
- MS Windows Professional XP x64/Vista x64/Windows 7 x64
- 16 GB RAM
- 3.3 GHz CPU (Inteli 4 core
- ATI Radeon HD 5870 1024 MB
- Multiple Fast Hard Disks or SSDs
- Monitor: 1280 X 1024 pixels or better
- Mouse: 3 button wheel

Mac Operating system requirements
- OS: OS X 10.6 or later
- CPU: Intel with more than 2.8 GHz clock speed, 4 core
- RAM: Recommended 16 GB
- Graphics: Board based on ATI Radeon HD2600XT with 512 MB on-board memory
- Monitor: 1280 X 1024 pixels or better
- Mouse: 3 buttons

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

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Making movies is easy with the Key Frame Animation tool bar, shown here with a few key frames of a 3D+time data set. Select the working view and click “Add” to designate a key frame. Key frames can be copied, edited, and re-sequence. Several preview and recording options are available.

*Warning: This is an academic analysis. For full list of supported hardware please visit bitplane.com/go/support/system-requirements