

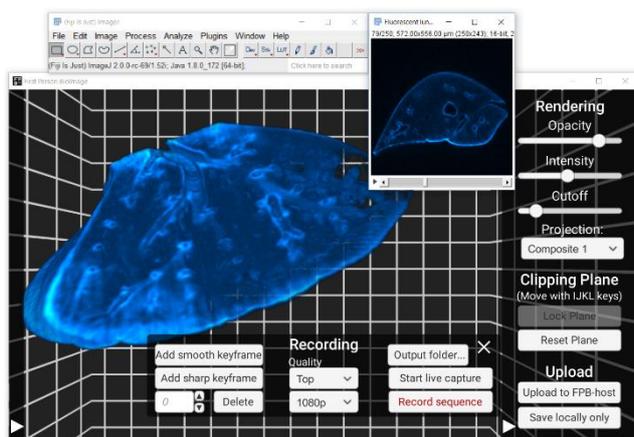
THE FPBIOIMAGE PLUGIN FOR IMAGEJ

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FPBioimage provides volumetric visualisation directly in the web browser [1], allowing light-sheet volumes, optical projection tomograms, confocal stacks, and any other 3D data to be shared directly with colleagues and collaborators around the world. The tool has been designed with ease-of-use as the top priority, so viewing data in FPBioimage is intuitive, requiring no training or downloads. This can be verified at the demo site, <https://fpb.ceb.cam.ac.uk/demo/>.

In response to requests at FOM 2018, FPBioimage has now been developed as an ImageJ/FIJI plugin, providing the same intuitive user interface found in the web app. With one click the 3D data stack opens in the native FPBioimage app (supporting Windows, MacOS, and Linux) to investigate in detail. The advanced yet easy-to-use rendering features, including transparency, voxel slicing, and a first-person (FP) perspective camera, allow unique exploration of the data.



A mouse lung, captured with OPT [2], is opened in the FPBioimage Windows app through the ImageJ plugin to record a fly-through video

privacy, an FPBioimage webpage can be saved locally for upload to a personal server with a custom website security protocol.

This talk will include a short tutorial on using FPBioimage to produce publication-quality videos and to share volumetric data in one click. If you wish to actively follow along with the live tutorial, download the FPBioimage plugin in ImageJ by clicking Help → Update → Manage update sites → FPBioimage.

[1] M. Fantham and C. F. Kaminski. “A new online tool for visualization of volumetric data.” *Nature Photonics* 11.2 (2017).

[2] P. Vallejo-Ramirez et al. “OptiJ: Open Source Optical Projection Tomography for large organ samples.” *bioRxiv* (2019).

As a native app, FPBioimage now supports rendering high-quality videos of the volumetric data suitable for publication [2]. A straightforward keyframe system allows impressive fly-through videos to be created, which previously required expensive commercial software.

Finally, a single button click uploads the volumetric data to the FPB-host cloud, producing a link which can immediately be shared with colleagues anywhere in the world. Upon opening the link, the third-party will be able to explore the data for themselves in the web browser, without any need of plugins or downloads. For added