Resource Summary Report

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XuvTools

RRID:SCR_005894
Type: Tool

Proper Citation

XuvTools (RRID:SCR_005894)

Resource Information

URL: http://www.xuvtools.org/

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Description: XuvTools (pronounced ex-you-vee-tools) is a fully automated 3D stitching software for biomedical image data, typically confocal microscopy images. XuvTools runs on Microsoft Windows XP and Vista, Linux and Apple Mac computers. It supports 32 and 64bit operating systems (with 64bit highly preferred). The goal of XuvTools is to provide tools, that combine multiple microscopic recordings to obtain a larger field of view (stitching) and a higher dynamic range (HDR recombination), or better resolution (multi view reconstruction), and to make these tools publicly available. What XuvTools can do: * Full 3D Stitching * Scaling, if the voxel sizes are known from image data * Fully automatic stitching modes * Manual pre-alignment modes * Arbitrary large datasets * Reads stage coordinates if available * free, no hidden costs * Reads many many input formats via LOCI Bio-Formats and Dmitry Fedorov''s BioImage. Limitations of XuvTools: (current limitations, we are working on it!) * No 2D Stitching: stacks need 4 Z-slices or more * No memory management: You need lots of RAM * No rotational alignment * The only supported output formats are: Imaris, HDF5 (No TIFF output support)

Abbreviations: XuvTools

Synonyms: www.XuvTools.org, XuvTools - the eXtend yoUr View Toolkit

Resource Type: data processing software, image processing software, software application, software resource

Defining Citation: PMID:19196411

Keywords: 3d microscopy, image stitching, bleaching, correlation, large scale microscopy, mosaic, virtual microscopy, 3d, confocal microscopy, microscopy

Funding: Landesforschungsschwerpunktprogramm des Landes Baden-W??rttemberg ; German Federal and State Governments ;

DFG

Availability: Free and Open unspecified license software, GNU GENERAL PUBLIC LICENSE

Resource Name: XuvTools

Resource ID: SCR_005894

Alternate IDs: nlx_149464

Record Creation Time: 20220129T080233+0000

Record Last Update: 20260905T132543+0000

Ratings and Alerts

No rating or validation information has been found for XuvTools.

No alerts have been found for XuvTools.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 22 mentions in open access literature.

Listed below are recent publications. The full list is available at PRECISE-TBI .

Valbuena S, et al. (2025) Early time window for memory ensemble allocation specifically depending on activity in Syt2+ early-born parvalbumin interneurons. Cell reports, 44(8), 116144.

Bhandari K, et al. (2024) Selective vulnerability of the ventral hippocampus-prelimbic cortex axis parvalbumin interneuron network underlies learning deficits of fragile X mice. Cell reports, 43(5), 114124.

Ighodaro ET, et al. (2023) A neuropathologic feature of brain aging: multi-lumen vascular profiles. Acta neuropathologica communications, 11(1), 138.

Guntur AR, et al. (2021) Zfh-2 facilitates Notch-induced apoptosis in the CNS and appendages of Drosophila melanogaster. Developmental biology, 475, 65.

Hartmann DA, et al. (2021) Brain capillary pericytes exert a substantial but slow influence on blood flow. Nature neuroscience, 24(5), 633.

Dunigan AI, et al. (2021) VTA MC3R neurons control feeding in an activity- and sex-dependent manner in mice. Neuropharmacology, 197, 108746.

Beaulac HJ, et al. (2021) Primed to die: an investigation of the genetic mechanisms underlying noise-induced hearing loss and cochlear damage in homozygous Foxo3-knockout mice. Cell death & disease, 12(7), 682.

Sekuli?? V, et al. (2020) Integration of Within-Cell Experimental Data With Multi-Compartmental Modeling Predicts H-Channel Densities and Distributions in Hippocampal OLM Cells. Frontiers in cellular neuroscience, 14, 277.

Bowers M, et al. (2020) FASN-Dependent Lipid Metabolism Links Neurogenic Stem/Progenitor Cell Activity to Learning and Memory Deficits. Cell stem cell, 27(1), 98.

Kotwica-Rolinska J, et al. (2020) Functional analysis and localisation of a thyrotropin-releasing hormone-type neuropeptide (EFLa) in hemipteran insects. Insect biochemistry and molecular biology, 122, 103376.

Sehadova H, et al. (2020) A re-evaluation of silk measurement by the cecropia caterpillar (Hyalophora cecropia) during cocoon construction reveals use of a silk odometer that is temporally regulated. PloS one, 15(2), e0228453.

Delloye-Bourgeois C, et al. (2017) Microenvironment-Driven Shift of Cohesion/Detachment Balance within Tumors Induces a Switch toward Metastasis in Neuroblastoma. Cancer cell, 32(4), 427.

Murray K, et al. (2017) Neuroanatomy of the spleen: Mapping the relationship between sympathetic neurons and lymphocytes. PloS one, 12(7), e0182416.

Guldner IH, et al. (2016) An Integrative Platform for Three-dimensional Quantitative Analysis of Spatially Heterogeneous Metastasis Landscapes. Scientific reports, 6, 24201.

Susaki EA, et al. (2016) Whole-body and Whole-Organ Clearing and Imaging Techniques with Single-Cell Resolution: Toward Organism-Level Systems Biology in Mammals. Cell chemical biology, 23(1), 137.

Rock C, et al. (2016) An inhibitory corticostriatal pathway. eLife, 5.

Papa S, et al. (2016) Early modulation of pro-inflammatory microglia by minocycline loaded nanoparticles confers long lasting protection after spinal cord injury. Biomaterials, 75, 13.

Parihar VK, et al. (2015) What happens to your brain on the way to Mars. Science advances, 1(4).

Menelaou E, et al. (2014) Differences in the morphology of spinal V2a neurons reflect their recruitment order during swimming in larval zebrafish. The Journal of comparative neurology, 522(6), 1232.

Evans TA, et al. (2014) High-resolution intravital imaging reveals that blood-derived macrophages but not resident microglia facilitate secondary axonal dieback in traumatic spinal cord injury. Experimental neurology, 254, 109.