

Resource Summary Report

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3D Slicer

RRID:SCR_005619

Type: Tool

Proper Citation

3D Slicer (RRID:SCR_005619)

Resource Information

URL: <http://slicer.org/>

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Description: A free, open source software package for visualization and image analysis including registration, segmentation, and quantification of medical image data. Slicer provides a graphical user interface to a powerful set of tools so they can be used by end-user clinicians and researchers alike. 3D Slicer is natively designed to be available on multiple platforms, including Windows, Linux and Mac Os X. Slicer is based on VTK (<http://public.kitware.com/vtk>) and has a modular architecture for easy addition of new functionality. It uses an XML-based file format called MRML - Medical Reality Markup Language which can be used as an interchange format among medical imaging applications. Slicer is primarily written in C++ and Tcl.

Abbreviations: Slicer

Synonyms: Slicer, 3D Slicer: A multi-platform free and open source software package for visualization and medical image computing, 3D Slicer, 3DSlicer

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

Keywords: birn, diffusion, functional, na-mic (ncbc), nifti-1 support, registration, segmentation, visualization, volume, warping

Funding: NIH ;
NCRR ;
NIBIB ;
NCI ;
US Army ;
Telemedicine and Advanced Technology Research Center

Availability: 3D Slicer License

Resource Name: 3D Slicer

Resource ID: SCR_005619

Alternate IDs: nif-0000-00256

Alternate URLs: <http://www.nitrc.org/projects/slicer>

Record Creation Time: 20220129T080231+0000

Record Last Update: 20260912T195629+0000

Ratings and Alerts

No rating or validation information has been found for 3D Slicer.

No alerts have been found for 3D Slicer.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 3187 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

David MA, et al. (2026) Demystifying machine learning approaches in digital bone imaging using microCT and HRpQCT. Bone reports, 29, 101911.

Kong Z, et al. (2026) Covalent FAPI Imaging-Guided Precision Surgery in Patients with Medullary Thyroid Carcinoma: A Phase II Clinical Trial. Clinical cancer research : an official journal of the American Association for Cancer Research, 32(9), 1641.

Stoiber S, et al. (2026) [18F]FDG PET/CT multiomics identifies Hedgehog-driven HPV-negative head and neck squamous cell carcinoma. Molecular cancer, 25(1).

Kwon Y, et al. (2026) Enhancing cancer prognostics with group penalty models: a comparative study on radiomics feature selection in lung adenocarcinomas and meningiomas. Quantitative imaging in medicine and surgery, 16(2), 118.

Huang X, et al. (2026) Integrin/CD44-targeted liposomes remodel the pulmonary microenvironment to alleviate acute exacerbation of pulmonary fibrosis. Journal of controlled release : official journal of the Controlled Release Society, 389, 114427.

Yoshida SY, et al. (2026) Whole-organ and whole-body 3D atlases enable cellome-wide profiling. Cell, 189(6), 1836.

Palmér M, et al. (2026) Preoperative risk assessment of endometrial cancer using histogram analysis of weighted and quantitative MRI images. Abdominal radiology (New

York), 51(1), 346.

Menéndez LP, et al. (2026) μ CT scanning effects on aDNA and a multi-step workflow for archaeological petrous portions. *PloS one*, 21(4), e0334682.

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Sakai Y, et al. (2026) Explainable Machine-Learning Model to Classify Culprit Calcified Carotid Plaque in Embolic Stroke of Undetermined Source. *Journal of neuroimaging : official journal of the American Society of Neuroimaging*, 36(1), e70119.

Therkildsen J, et al. (2026) Mapping the bare area and transcortical pores in finger joints: co-location with bone erosions in rheumatoid arthritis. *RMD open*, 12(1).

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Huang W, et al. (2026) The value of an integrated multi-omics model in the diagnosis of benign and malignant pulmonary nodules. *Translational cancer research*, 15(2), 127.

Lee JW, et al. (2026) Association of body composition and nutritional status with survival in stage IV colorectal cancer patients who underwent resection: a retrospective cohort study. *Annals of surgical treatment and research*, 110(3), 170.

Dogan B, et al. (2026) Comparison of Manual, Semi-Automatic, and Automatic CT-Based Methods for Liver Volume Segmentation. *Diagnostics (Basel, Switzerland)*, 16(5).

Ikeda S, et al. (2026) Fgf10 Gene Dosage from a Single Allele Is Insufficient for Forming Multilayered Epithelial Cells in the Murine Lacrimal Gland. *International journal of molecular sciences*, 27(5).

Jiang N, et al. (2026) Integration of dual-energy CT parameters and radiomics features for non-invasive prediction of α -SMA and CD8 $^{+}$ T cell in non-small cell lung cancer. *Frontiers in medicine*, 13, 1792692.

Xue S, et al. (2026) Inner Ear Malformations with Transitional Forms between Cochlear Hypoplasia and Common Cavity: Embryological Insights, Imaging Characteristics, and Cochlear Implantation Strategies. *Journal of otology*, 21(1), 50.

Wang M, et al. (2026) An applied study on the assessment of concomitant pulmonary hypertension in patients with chronic obstructive pulmonary disease based on whole-lung CT imaging histologic features. *Journal of thoracic disease*, 18(1), 18.

Ji W, et al. (2026) Computational fluid dynamics simulation of upper airway flow and soft tissue deformation in a mouth-breathing patient: a case study. *BMC oral health*, 26(1).