



ITK is an open-source, cross-platform library that provides developers with an extensive suite of software tools for image analysis. Developed through extreme programming methodologies, ITK builds on a proven, spatially-oriented architecture for processing, segmentation, and registration of scientific images in two, three, or more dimensions.

USE CASES

ITK-SNAP, itk.snap.org, is a software application used to segment structures in 3D medical images. ITK-SNAP provides semi-automatic segmentation using active contour methods, as well as manual delineation and image navigation. In addition to these core functions, ITK-SNAP offers many supporting utilities.

3D Slicer, slicer.org, is an open source software platform for medical image informatics, image processing, and three-dimensional visualization. Built over two decades through support from the National Institutes of Health and a worldwide developer community, Slicer brings free, powerful cross-platform processing tools to physicians, researchers, and the general public.

Kitware, kitware.com, works with customers to solve the world's most complex scientific challenges through customized software solutions.

PLANNED FEATURES

- + ITK 5.2 improves and extends interfaces to deep learning, artificial intelligence (AI) libraries, with an emphasis on Project MONAI, the Medical Open Network for AI.
- + ITK 5.2 includes functional filter support for PyTorch tensors, adding to support for NumPy array-like's, e.g. Dask Array's, and Xarray DataArray's.
- + ITK 5.2 includes Python dictionary interfaces to itk.Image metadata, NumPy-based pixel indexing, 4D Python image support, and improved multi-component image support.

PROJECT NEEDS

Website modernization for the Insight Journal, and open science journal for scientific imaging.	\$3,000
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Bill Lorensen Memorial Award funds	\$4,000
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ITK Contributor Momento award funds	\$1,200
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For more information on ITK!, including our governance structure and project roadmap, please visit

www.insightsoftwareconsortium.org/

ITK is a Sponsored Project of NumFOCUS, a US 501(c)(3) public charity.

NumFOCUS Sponsored Projects rely on the generous support of corporate sponsors, institutional partners, and individual donors.

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