3D IMAGE ANALYSIS TOOL

(based on Seg3D)

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Intro

- ## What is BrainSeg3D?

  BrainSeg3D is a free volume (3D image) viewer and segmentation tool based on Seg3D*. The main goal of BrainSeg3D is to make segmentation of volumes easier, faster and more accurate by providing tools for semi-automated segmentation combined with a user friendly graphic interface. Those familiar with Seg3D will feel right at home using BrainSeg3D since the graphic interface is identical and includes certain enhancements that make working with several medical volumes more user friendly (e.g. image import based on drag-and-drop, highlighting the name of active layer, etc.) and provides a new semi-automated segmentation tools. This manual covers the usage of the semi-automated segmentation tools. For basic functionality of this software please refer to Seg3D documentation.

- ## Who is it for?

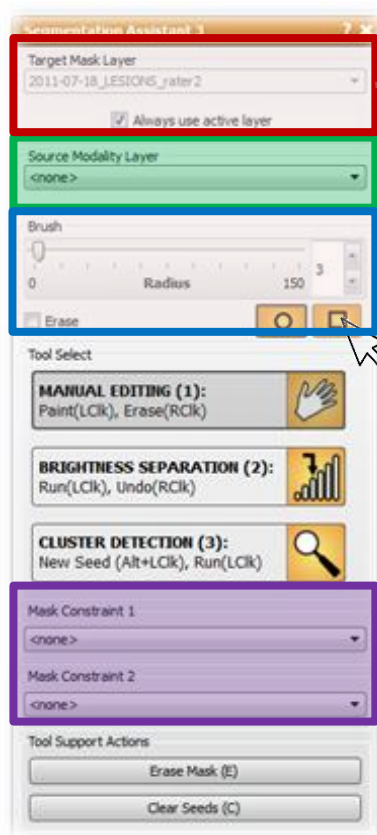 Medical professionals who need to perform image analysis as part of their research.

  Researchers working in the field of image analysis and/or are developing their own tools for image analysis.

* Seg3D is a free volume segmentation and processing tool developed by the NIH Center for Integrative Biomedical Computing at the University of Utah Scientific Computing and Imaging (SCI) Institute

Semi-automated segmentation

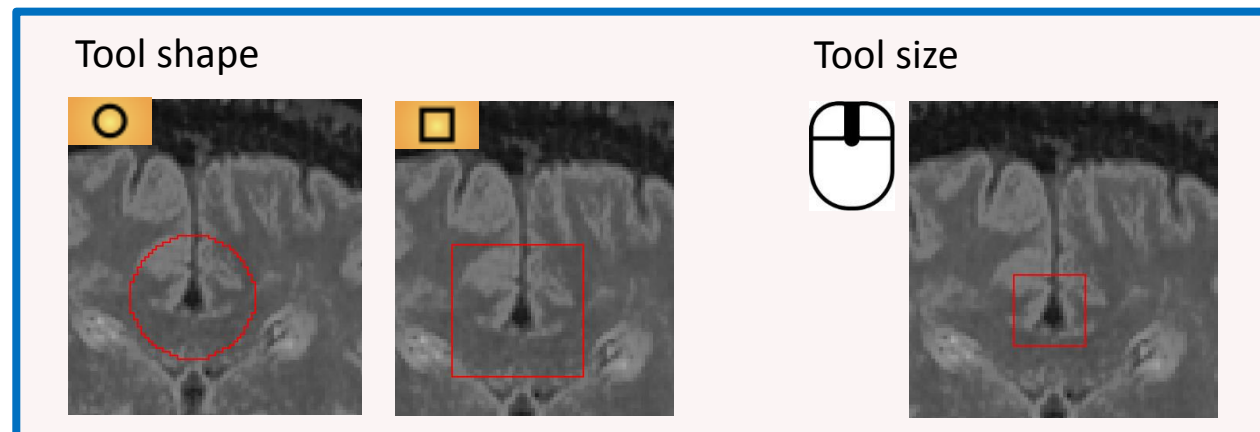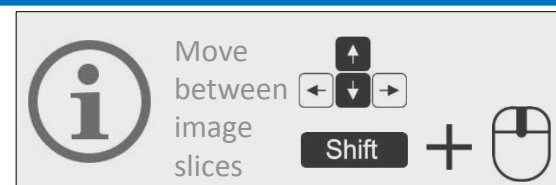- In the menu choose: LIT → Segmentation Assistant
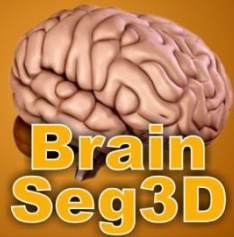

Segmentation mask to edit

Image you want to segment

Make sure to always choose the correct segmentation mask and image before you start segmenting

Tool shape

Tool size

Segmentation constraint masks

Move between image slices

Semi-automated segmentation

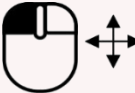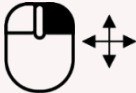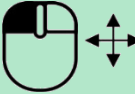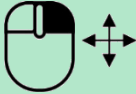**Tool Select**

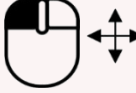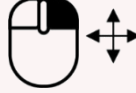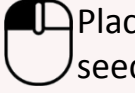**MANUAL EDITING (1):**
Paint(LClk), Erase(RClk)

BRIGHTNESS SEPARATION (2):
Run(LClk), Undo(RClk)

CLUSTER DETECTION (3):
New Seed (Alt+LClk), Run(LClk)

Mask Constraint 1

Press **1** to select — Draw — Erase

Press **2** to select — Draw — Erase

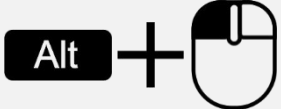Press **3** to select — Draw — Erase — **Alt** + Place seed

Tool Support Actions
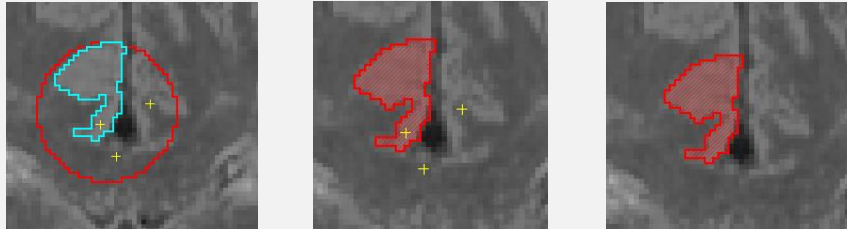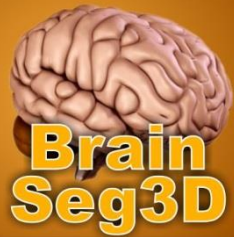
Erase Mask (E)

Clear Seeds (C)

E Clear segmentation on current slice
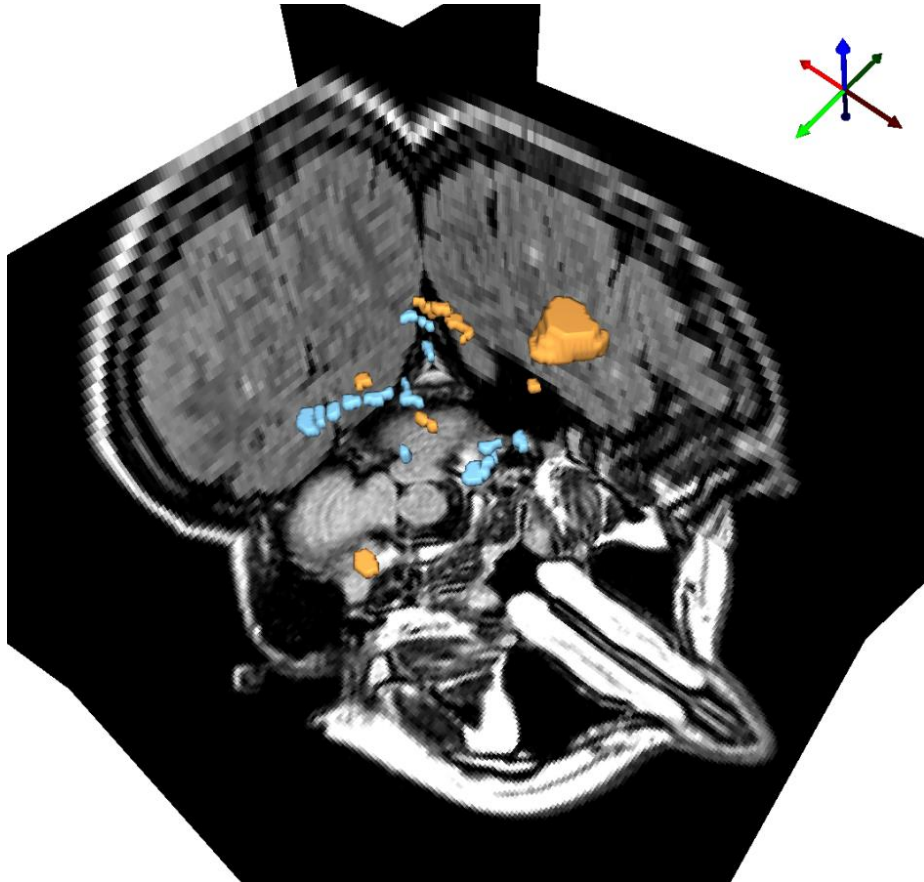
C Clear all seeds

Cluster detection tool usage example(3):
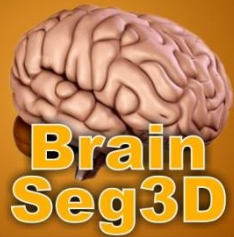
Alt + — — **C**

Feedback

If you have any feedback don't hesitate to contact us over email at:
ziga.lesjak@fe.uni-lj.si

All comments and suggestions are welcome.

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BrainSeg3D is based on open-source software Seg3D and uses the same license