

Automating the process of identifying, labeling, and quantifying the volume and shape of brain structures visible in MRI images

ClearPoint Maestro® Brain Model



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The ClearPoint Maestro® Brain Model is an anatomical segmentation analysis tool that has been developed with ClearPoint Neuro's partner, Philips.

The software is intended to automate the process of identifying, labelling, and quantifying the volume and shape of brain structures visible in MRI images. The unique methodology of the ClearPoint Maestro® Brain Model combines deformable surfaces with active shape models and machine learning.

Load DICOM

Identifies and labels

Start

Segmentation

Results

Export

- > Trained on T1-weighted MRI (3DTFE, MPRĂGE, FSPGR)
- > Approved on Philips, Siemens, GE
- > 1.5T and 3T

- brain regions
- > Defines boundaries of brain regions with shape detection
- Parcellates cerebral hemispheres into tissue
- Quantifies volumes of brain regions

Verify

Segmentation

- > Estimates shape boundaries of brain regions
- ➤ Report: Volumes (cm³) and charts with normative values
- ➤ Mesh: Segmentation results saved as triangular meshes
- > DICOM: Segmentation saved as bitmask in **DICOM** format



Automated identification for brain regions of interest

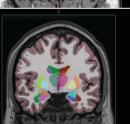


Establish correspondence across different subjects



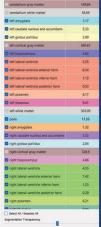
Compatible wih Philips, Siemens, and GE 1.5T/3T MRI Scanners











- Estimate therapy coverage **>>>>** and anatomical safety zones
- **>>>** Identify patient-specific volumes of interest

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