vesselknife

List of available image.
Visualization of images
in three color channels (RGB)
plus Alpha channel

Switches for selection
of color channel,
visible cross-section,
transparent rendering,
gray-scale range
and animation (4D data)

List of the created
3D vector models
of a vessel system

3D models visualization
switches
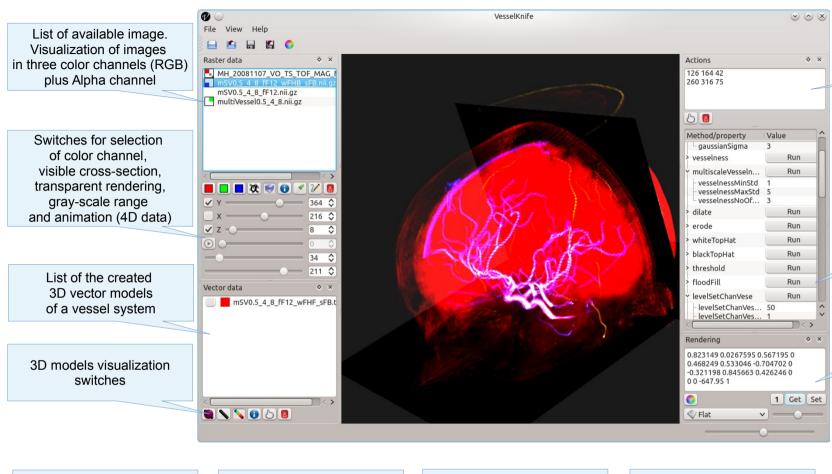
Seed coordinates.
Seeds are indicated
by the user.

GUI for the implemented
algorithms for raster image
processing (vessel
enhancement, segmentation,
volume growing, image
morphology...) and for
model building (vessel
tracking, tree building,
diameter estimation,
smoothing, editing...)

Transformation matrix
and rendering switches

VesselKnife

File   View   Help

Raster data

MH_20081107_VO_TS_TOF_MAG_
mSV0.5_4_8_fF12_wFHB_sFB.nii.gz
mSV0.5_4_8_fF12.nii.gz
multiVessel0.5_4_8.nii.gz

Y   364
X   216
Z   8
0
34
211

Vector data

mSV0.5_4_8_fF12_wFHF_sFB.t

Actions

126 164 42
260 316 75

Method/property : Value
gaussianSigma   3
vesselness   Run
multiscaleVesseln...   Run
vesselnessMinStd   1
vesselnessMaxStd   5
vesselnessNoOf...   3
dilate   Run
erode   Run
whiteTopHat   Run
blackTopHat   Run
threshold   Run
floodFill   Run
levelSetChanVese   Run
levelSetChanVes...   50
levelSetChanVes...   1

Rendering

0.823149 0.0267595 0.567195 0
0.468249 0.533046 -0.704702 0
-0.321198 0.845663 0.426246 0
0 0 -647.95 1

1   Get   Set

Flat

Input

Raster processing

Centerline tracking

Diameter estim., smoothing

Tree info
Disconnected groups: 1
Nodes: 6518
Branches: 503
Length: 3953.74
Joints: 257
Tips: 247
Radius: 0.393303 to 3.25009
OK

Export for simulation

MeshLab