

DTI Post-Processing

Post-Process the DTI data in Paravision:

1. Drag the acquired data set to a viewport window and have the study highlighted in the scan control window
2. In the Image Display and Processing Window, Select *Processing-> DTI Tensor Reconstruction All Slices*. A new directory will be created where your processed data will be stored.

What are the computed data files?

1. The computed is stored as a set of image files with multiple images for each slice. For slice N of your data set you can find the compute image you need using the table below.

Property	Image #	Notes
Fractional Anisotropy	1	
Trace of Diffusion Tensor	2	—
A0 Image	3	
Trace Weighted Image	4	
Diffusion Tensor Components	5-10	regardless of actual b value(s) used in acquisition Order:
Eigenvalues 1, 2 and 3	11-13	Eigenvalues ordered from largest to smallest
Components of Eigenvector 1	14-16	Order: X, Y, Z
Components of Eigenvector 2	17-19	Order: X, Y, Z
Components of Eigenvector 3	20-22	Order: X, Y, Z

More Information on DTI

3. Paravision Manual O-7-88
4. Paravision Manual A-7-13
5. Mori, Susumi Introduction to Diffusion Tensor Imaging, Elsevier 2007.

DTI Reference Frame

The tensor and vector components in Bruker's implementation of the DTI post-processing are expressed in the image frame of reference [left-right, up-down, in-out]. This choice of reference frame is not universal.