

Exercise 52 : Volume Metrics

The Volume Metrics Add-On provides tools to assess the quality of multiple associated volumes, allowing the creation of a set of statistics based on the type of metric chosen. The add-on can be used to assess the similarity of two co-registered three dimensional volumes using 15 parametric or 12 non-parametric similarity indices. The add-on can also be used to assess the concordance of different segmentation results with ground truth data using 47 popular binary similarity metrics. This exercise will demonstrate how to compute similarity metric values for two related data sets.

Calculating and Logging Metrics

1. Load the **MRI_3D_Head.avw** and the **MRI_3D_Brain.avw** data sets from the **\\\$:\BIR\images\TutorialData** directory.
2. With both volumes selected, open the **Volume Metrics** module (**Apps > Volume Metrics**).
3. To calculate all of the statistics for a specific metric option, select the Metric Type [A], then click the **Calculate Metrics** button [B]. The metrics are calculated and displayed next to each Similarity Value [C].
4. To log the metrics in a log file, click on the **Log Metrics** button.
5. The **Volume Metrics Log** (figure 2) contains all of the metrics that are checked in the main window. To save the metrics log file to disk, right click in the log window and select **Save Log**.
6. Click **Done** to close the log screen.
7. Close all of the windows associated with Volume Metrics before proceeding to the next exercise.

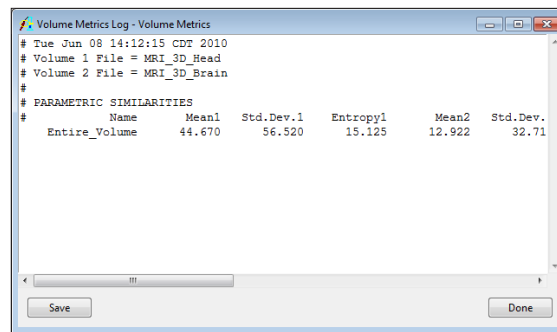


Figure 2

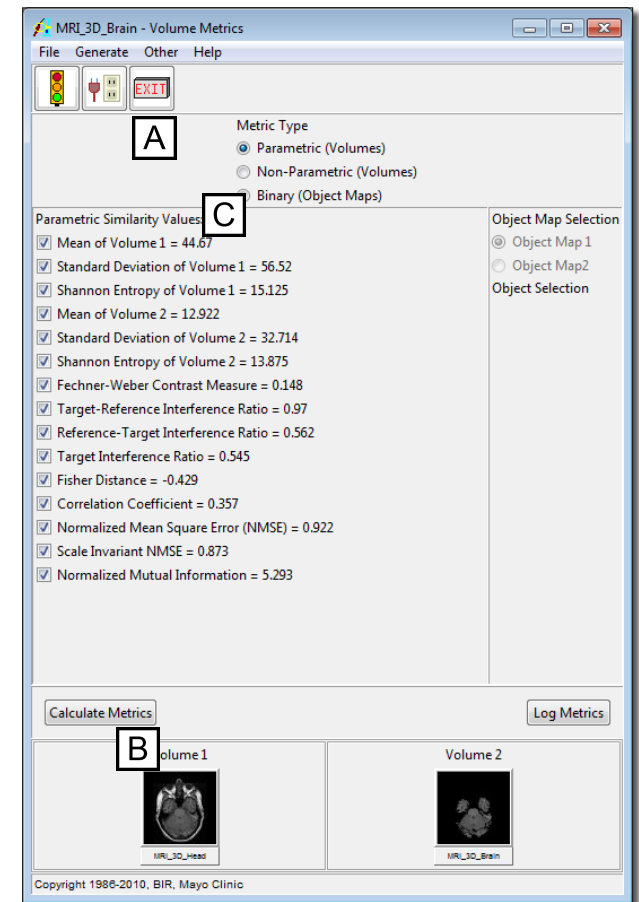


Figure 1

note | Volume 1 is the input volume, while
| Volume 2 is the comparison volume.