

Exercise 51 : T2 Projection

The MRI T2 Optimization Add-On provides the ability to enhance the relative contrast between different tissue types in T2 weighted MR images post-acquisition. The add-on uses a piecewise non-linear intensity transformation based on priori knowledge. The prior knowledge is derived from training multiple post-processed data sets acquired at different relaxation (TR) and echo (TE) times. The transformation does not make any assumption on the pulse sequence parameters associated with the image to be projected. This exercise will demonstrate how to use the add-on to enhance a T2 MRI data set.

1. Load the **MRI_T2.avw** data set from the **\$(\BIR\images\TutorialData)** directory.
2. Open the **T2 Projection** add-on (**Apps > T2 Projection**)
3. The input, or pre-enhanced, T2 data is displayed on the left side of the window, the post enhanced data is displayed on the right side
4. Click **Show Forward**, until Slice 15 is displayed.
5. The **Relaxation Time (TR)** can be adjusted by selecting a value from the **TR (msec)** drop-down menu. Select **1800**. Note that the post-enhanced display updates when a new value is selected.
6. Similarly, the **Echo Time (TE)** can be adjusted by selecting a value from the **TE (msec)** drop-down menu. Select **110**.
7. To save post-enhanced T2 select the **Create Projection** button. The projection will be saved to the Analyze workspace. Note the enhanced images are named according to the TR and TE values used. For example MRI_T2_1800-110.
8. Close all windows associated with the T2 Projection module before proceeding to the next exercise.

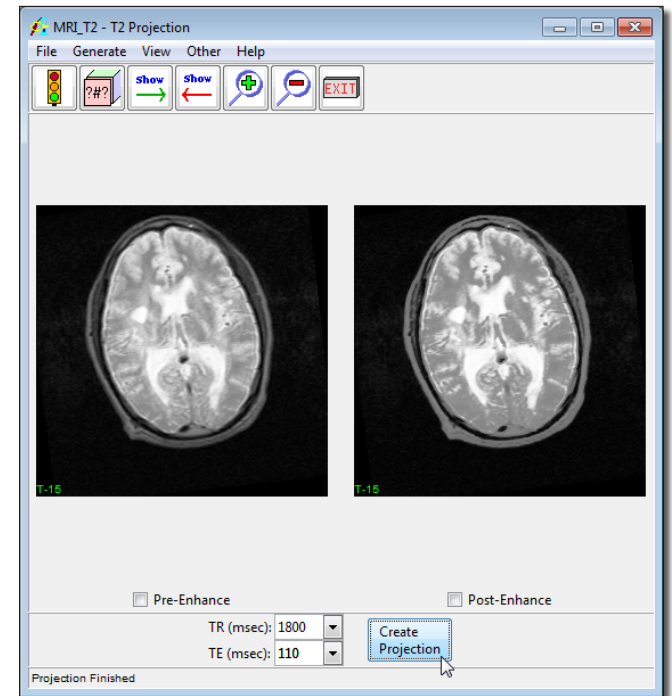


Figure 1