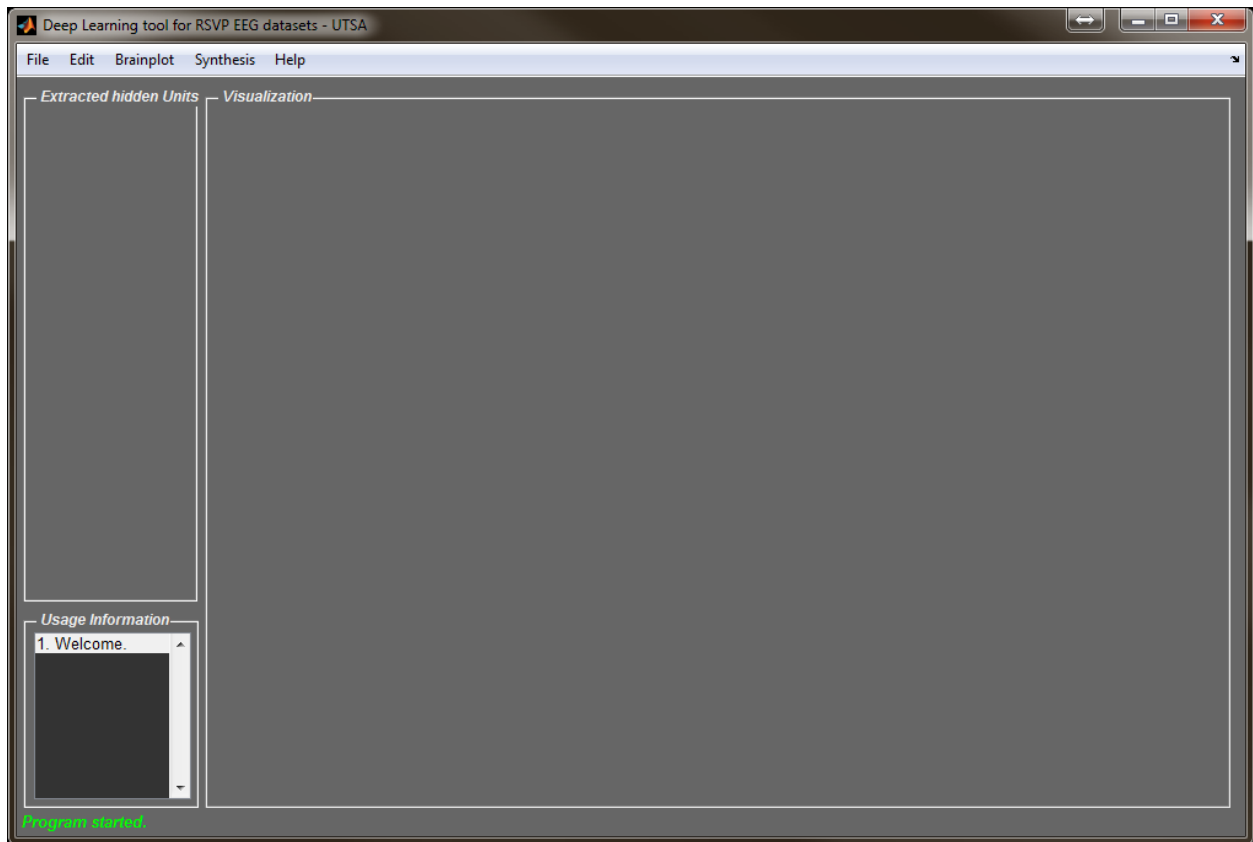


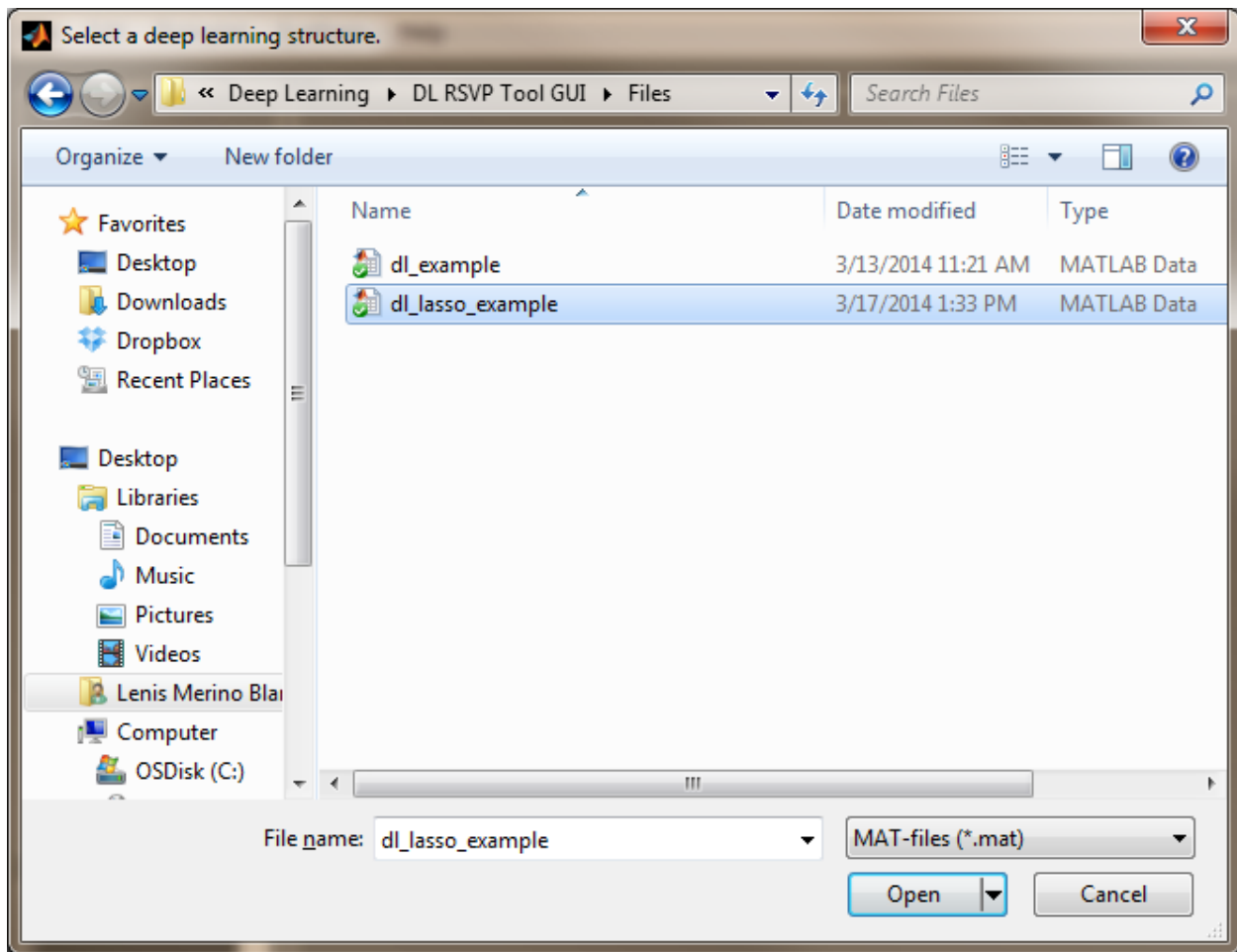
## USAGE INSTRUCTIONS

This is a demo for the Deep Learning representation for neural activity software. We include a set of previously computed results as the input files for illustration.

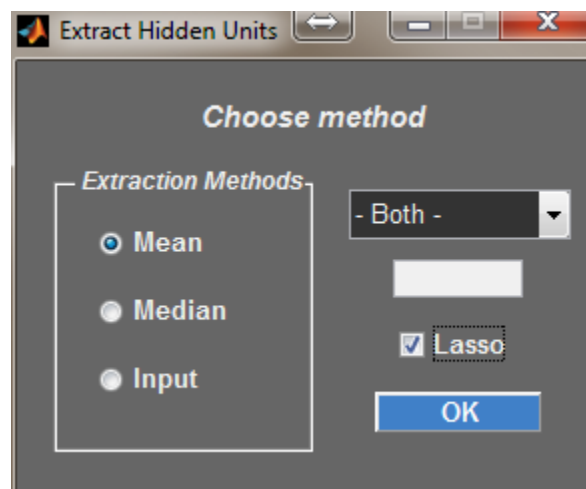
- Step 1: Go to **File** menu and then select **load saved results**.



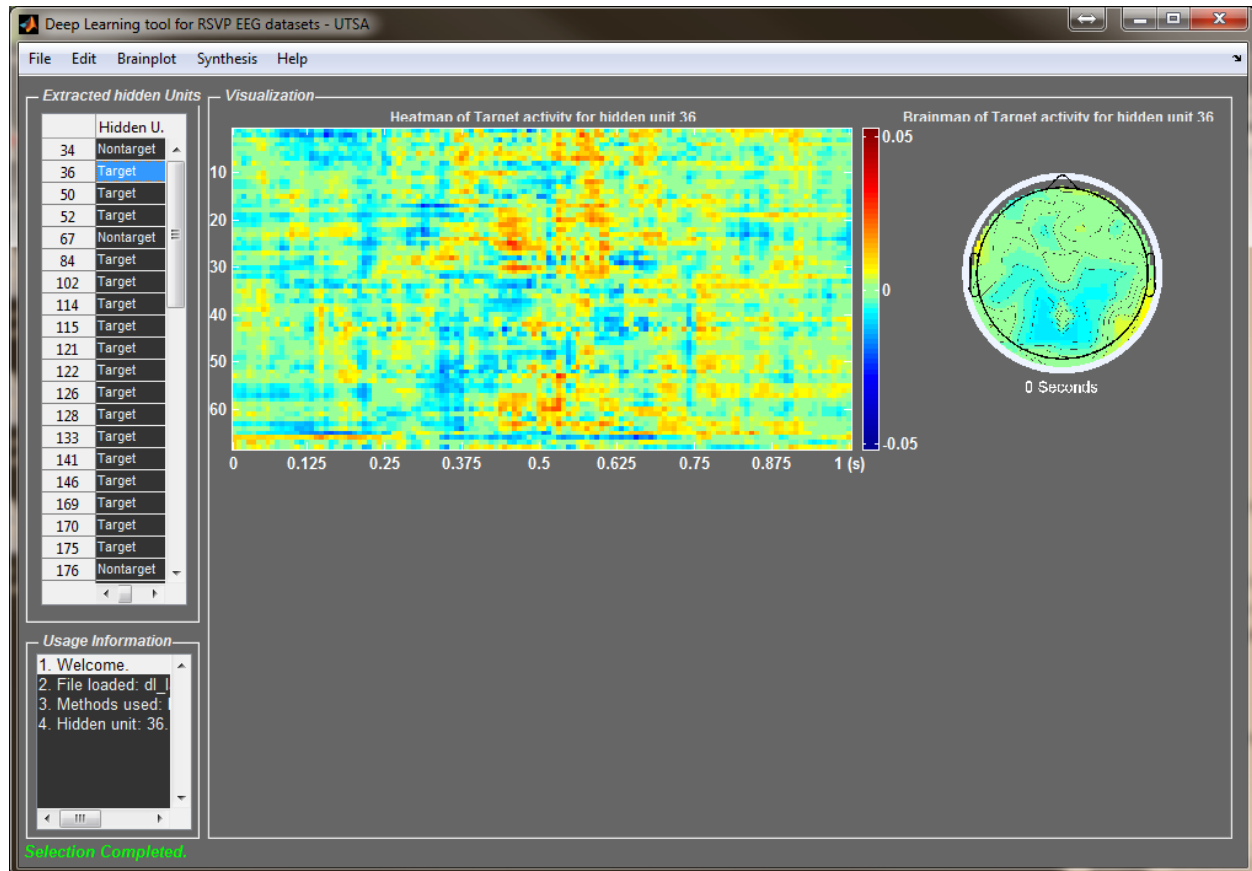
A new window is prompted locate on the upper folder the folder called Files, this contains two sample input files, **dl\_example.mat** and **dl\_lasso\_example.mat**. For this demo we suggest to select **dl\_lasso\_example.mat** which is the lasso sample file.



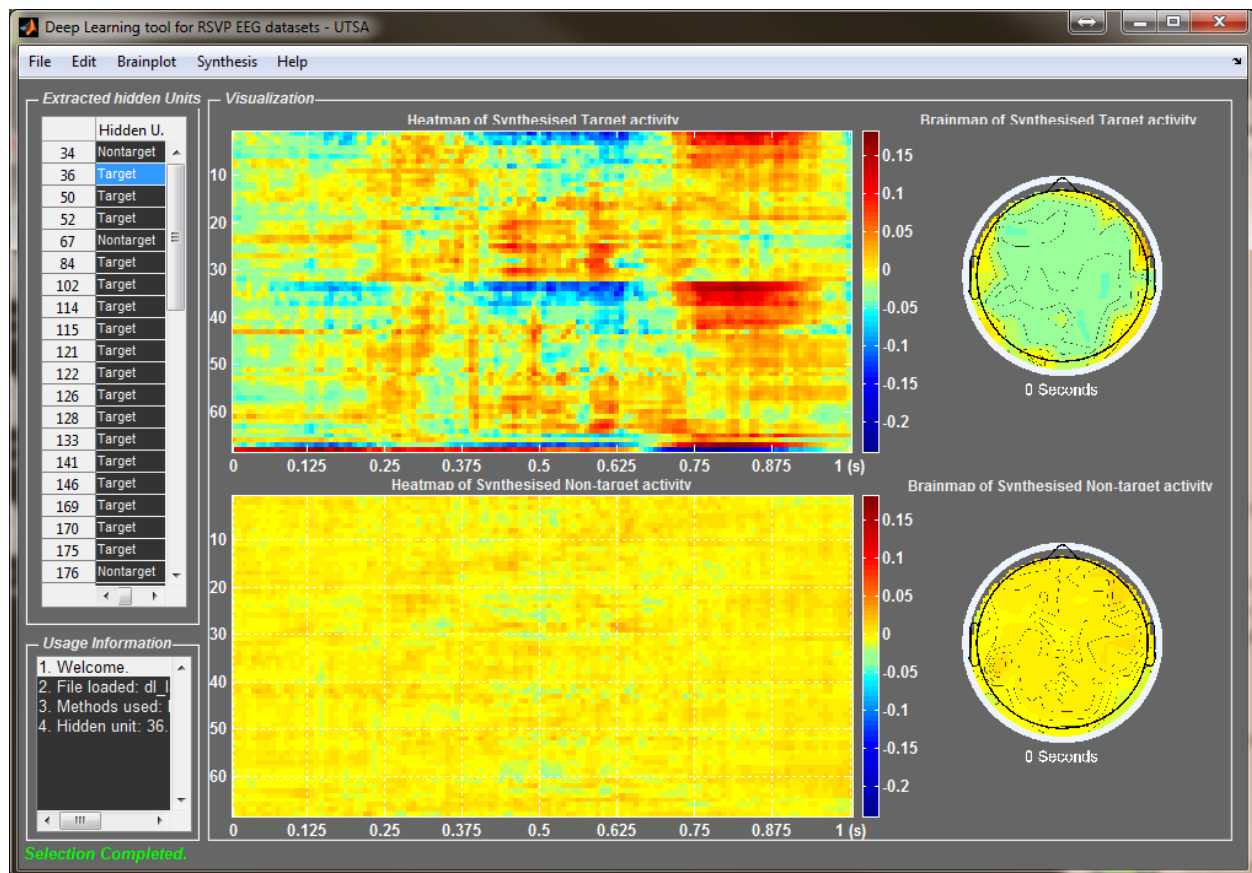
- Step 2: go the **Edit** menu and click **Select hidden units**. From the dialog one of three methods offered for extraction, we suggest leave mean as default, on the list box, leave **Both** as the default option, check lasso to activate Lasso discriminate hidden units, and then click OK.



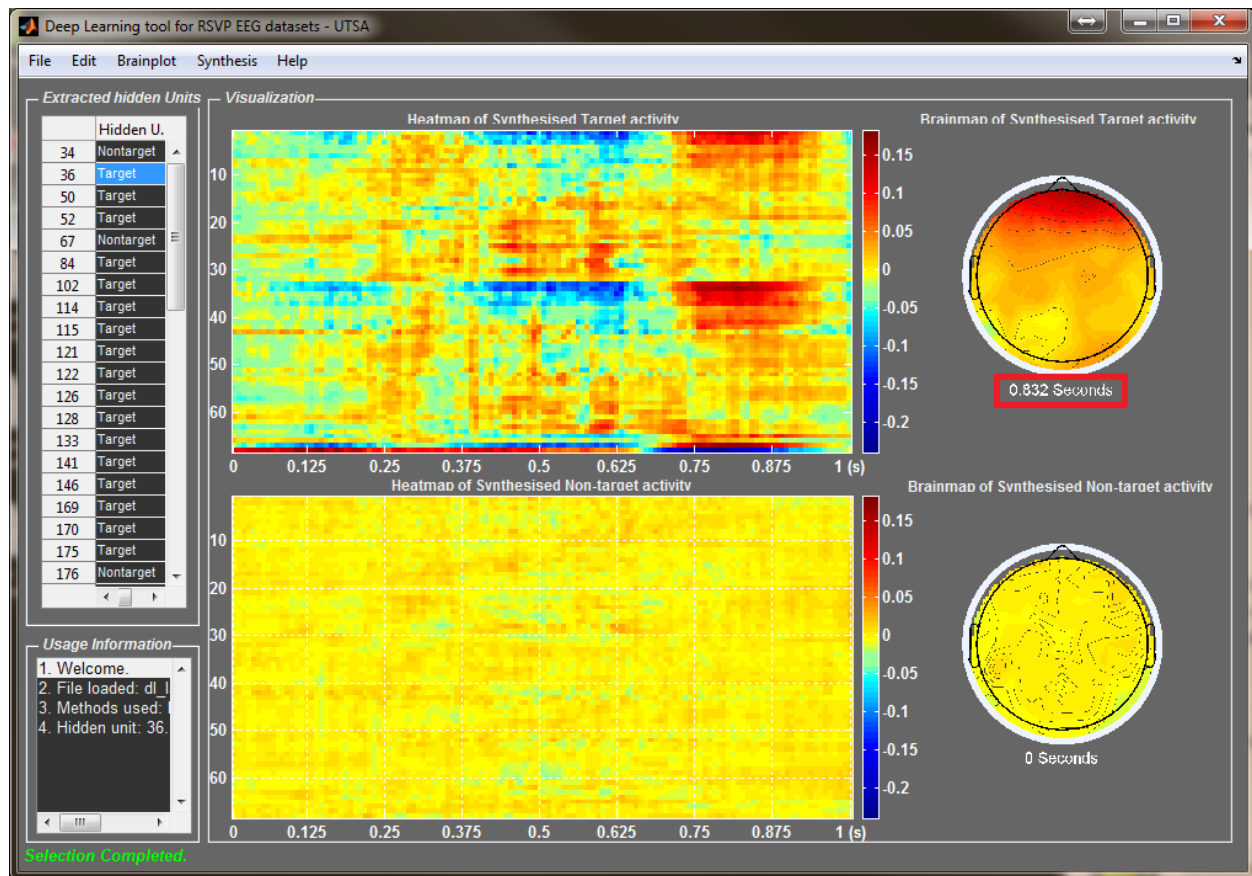
- Step 3: At this point a list of extracted hidden units will appear on the table located at the left corner. Select either **target** or **non-target** will present heatmap and brainmap of either target or non-target EEG features you have selected.



- Step 4: Go to the **Synthesis** menu and then choose generate either target or non-target synthesized data, your selection will update the heatmap and brainmap on the screen with the synthesized feature of target or non-target.



- Step 5: You can click on any region on the heatmap to show the brain activity corresponding to your selected time point, this also works for any selection of target or non-target hidden units from the table.



- Step 6: Go the **Brainplot** menu and then select **generate animation**. This will generate an animation of the neural activity base on the heatmap produced by your most recent selection. You can use the playback buttons to see and navigate through the animation.

