**Select Trial**

GUI prompts user to add a trial:

**Upload file:**

*App.addtrialbutton [button]*

*Narco1.txt [file input]*

**When uploading next trial, select trial from dropdown menu first:**

*App.trialdropdown [drop down menu]*

*App.ErrorMessage [error message]*

**Clear Data:**

*App.ClearDataButton [button]*

*ClearDataButtonPushed [callback] [input: app,event]*

**After pressing button:**

*AddTrialButtonPushedFcn [callback] [input: app,event]*

**Or selecting from dropdown menu:**

*DropDownValueChangedFcn [callback] ] [input: app,event]*

**Call analysis functions**

**Analysis of data Plot Data**

**Plot Sleep Score data:**

*App.ax [axes]*

**Display diagnosis after 5 naps are uploaded:**

*App.DiagnosisText [Text area]*

**Read file data and determine if REM sleep occured:**

*REMsleepanalysis.m [function] [input: text file]*

**Print summary of results:**

*App.SummaryStatisticsEditField [field]*

*App.StatSum [text]*

*App.Totaltrials [text]*

*App.TrialList [text]*

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| **Function / Feature** | **Purpose** |
| App.AddTrialButton  [Ansh] | Button used to upload new trial file |
| App.TrialDropDown  [Matthew] | Dropdown menu to select from previously uploaded trials |
| AddTrialButtonPushed  [Matthew] | Callback function for App.addtrial button |
| DropDownValueChangedFcn  [Matthew] | Callback function for App.trial drop down menu |
| REMsleepanalysis.m  [Hope] | Function to read file data and determine if REM sleep occured |
| App.DiagnosisText  [Ansh] | Text area used to print diagnosis after 5 naps are uploaded |
| App.SummaryStatisticsEditField  [Matthew] | Text field for results summary |
| App.ax  [Matthew] | Axes for Score plot |
| App.ClearDataButton  [Matthew] | Button to clear all uploaded data |
| App.ErrorMessage  [Matthew] | Error message displayed when trial is selected that is already being displayed |
| ClearDataButtonPushed  [Matthew] | Callback function to clear data after button is pushed |
| App.StatSumm  [Matthew] | Statistics summary text |
| App.TotalTrials  [Matthew] | Count of total trials added |
| App.TrialList  [Ansh] | List of trials that have been uploaded so far |