



Hands-On Data Analysis



- Data from safety training
 - 9 subjects
 - Finger-tapping task (12s tapping, 12s rest)
 - 188 scans acquired over 6:16 (TR = 2)
 - Hi-res structural image
- Group analysis in FSL



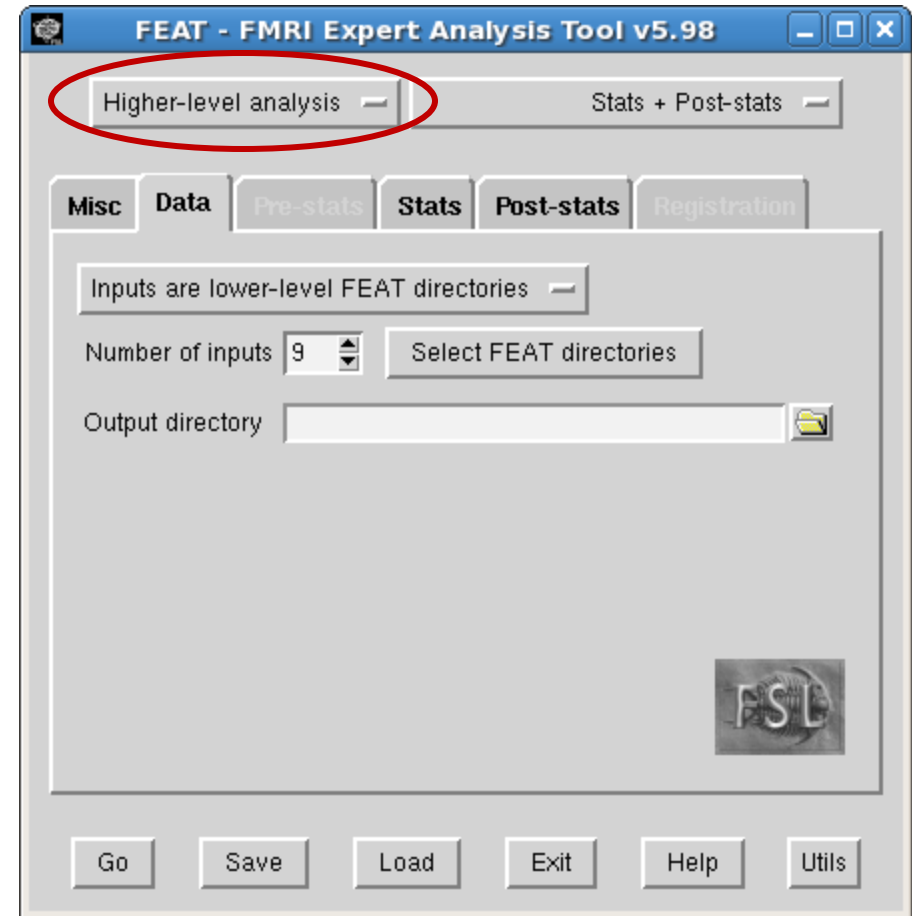
FSL: Group Analysis

- Open terminal window and navigate to `/home/public/coursedemo/fsl/group`
(type `cd /home/public/coursedemo/fsl/group`)
- Create your own folder for group analysis
(to make a folder “kategroup”, type `mkdir kategroup`)
- Enter this folder and launch FSL
(type `fsl &`)



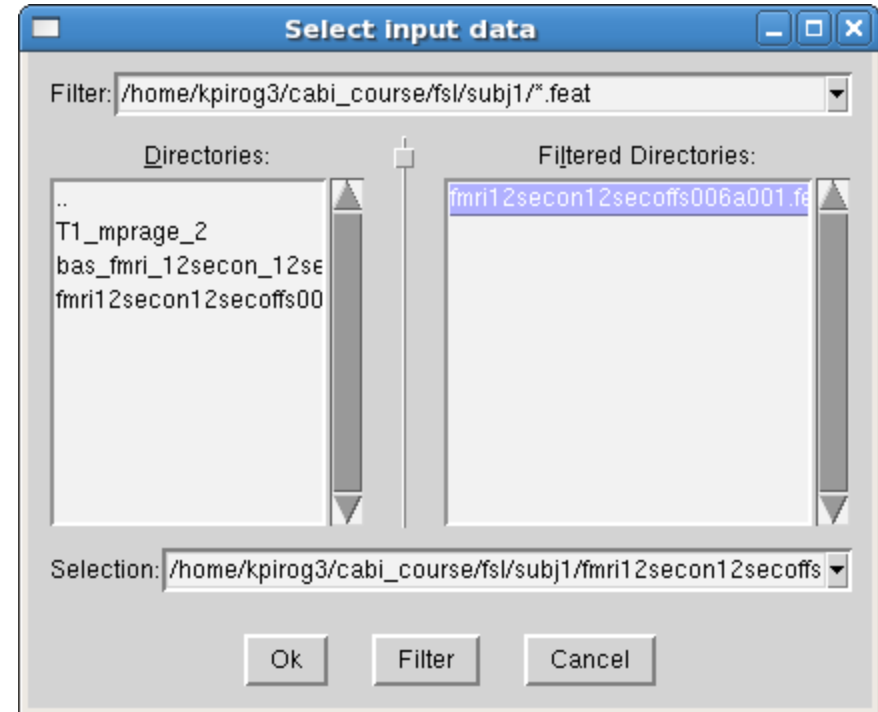
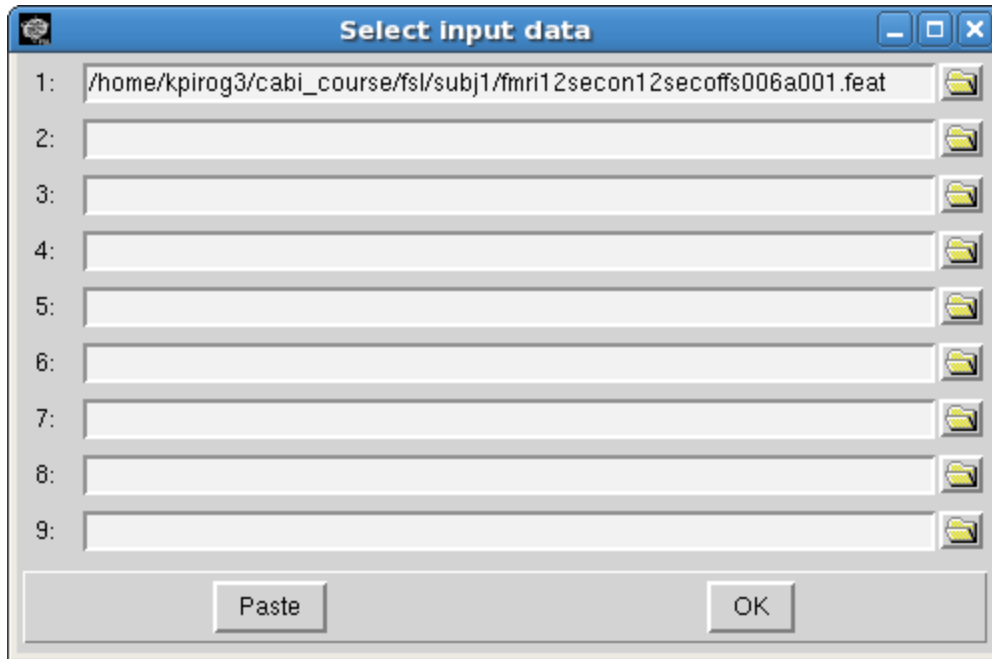
FSL: Group Analysis

- Set tab at top left to Higher-level analysis
- Data Tab:
 - Inputs are FEAT directories
 - 9 inputs
 - Output directory should be ok if you launched FSL from the directory I told you to create for yourself!





FSL: Group Analysis



- Click on folders to get to file selection dialog and select the fmri...feats directory for each participant



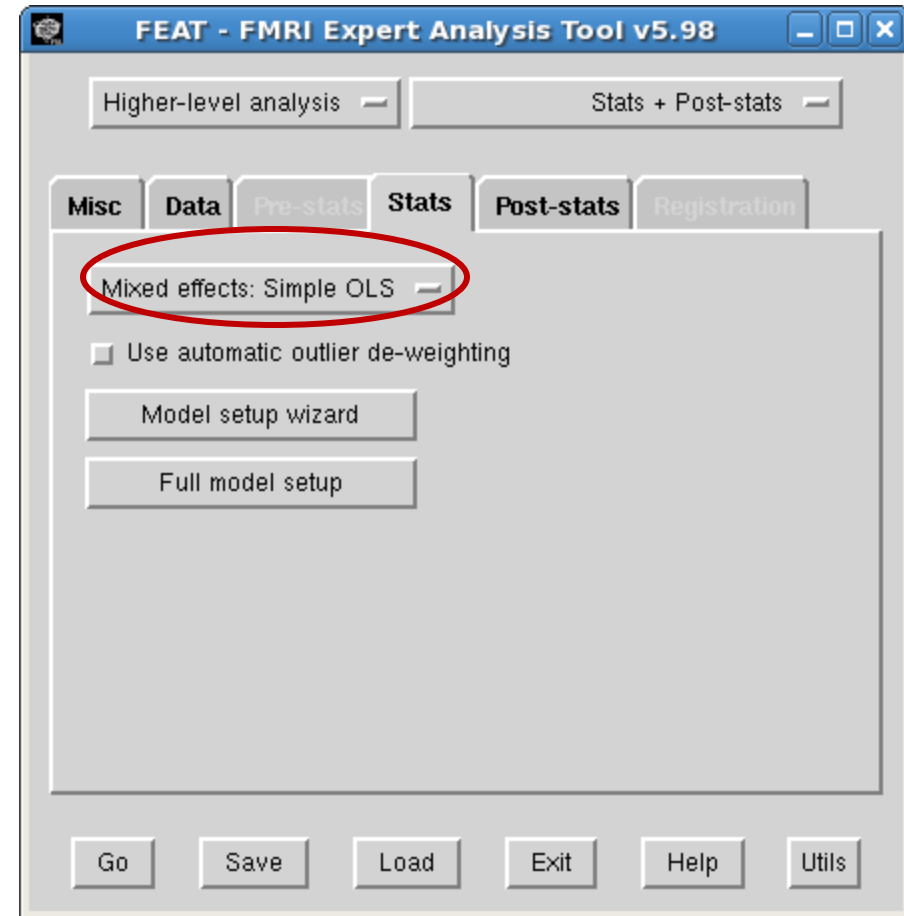
FSL: Group Analysis

● Stats Tab

– Make sure to choose Mixed effects: Simple OLS

● MUCH faster- doesn't take subject variability into account

– Choose Full model setup

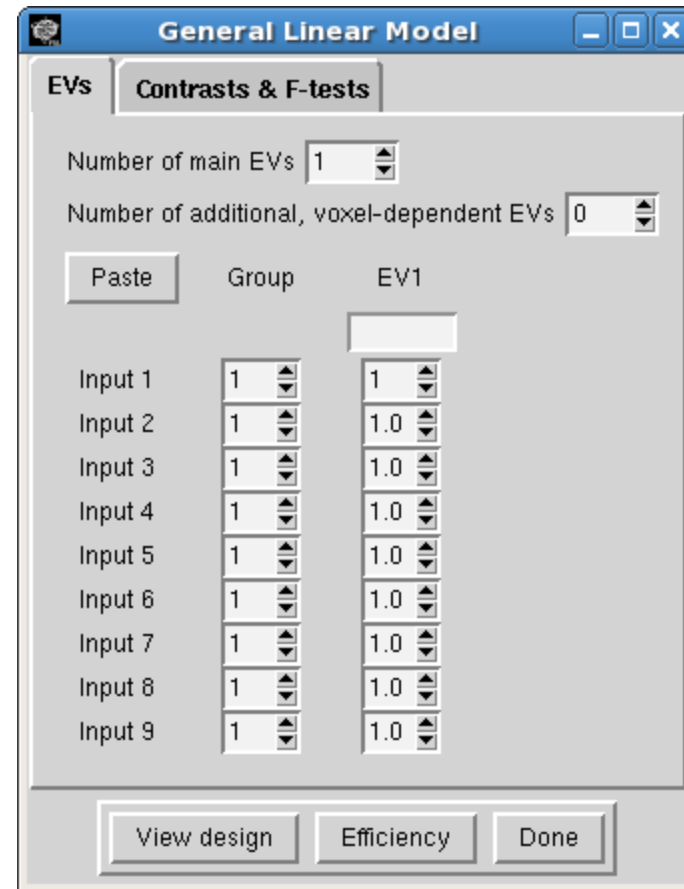




FSL: Group Analysis

● EVs Tab

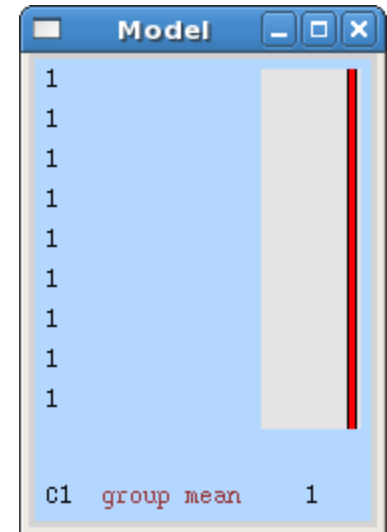
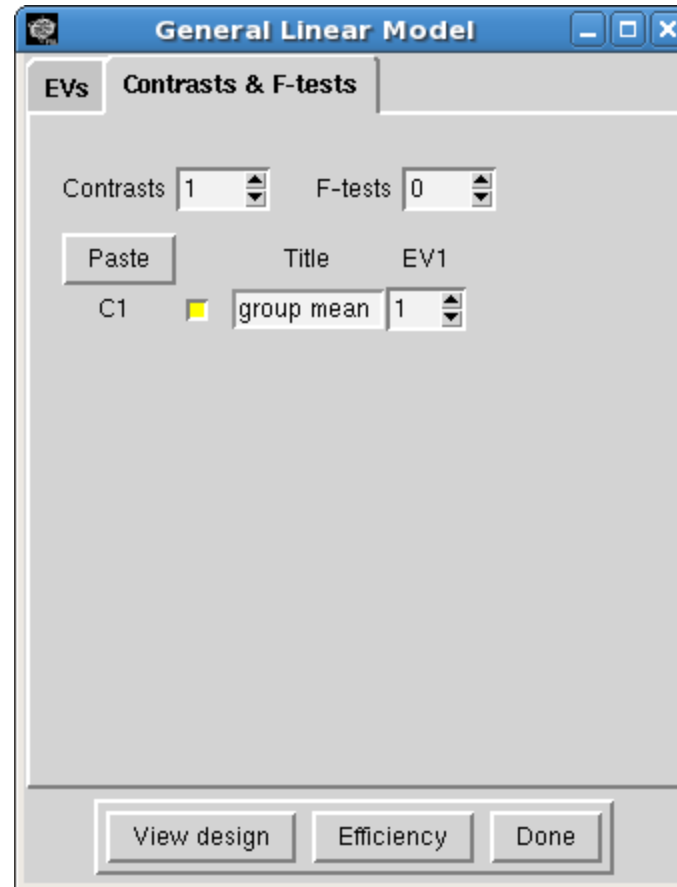
- Only 1 group of subjects
- Want to see motor activity for all subjects, so set EV to 1 for each input





FSL: Group Analysis

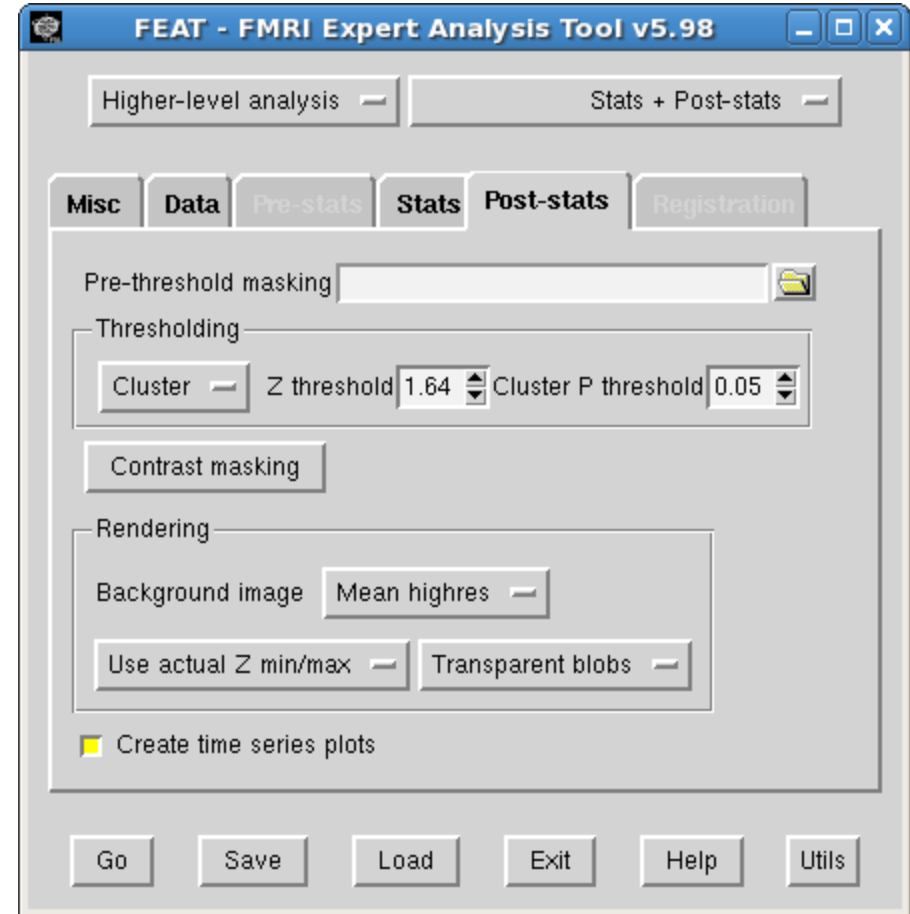
- Contrasts Tab
 - Only one contrast (where all subjects show activity)
- Click Done to view design





FSL: Group Analysis

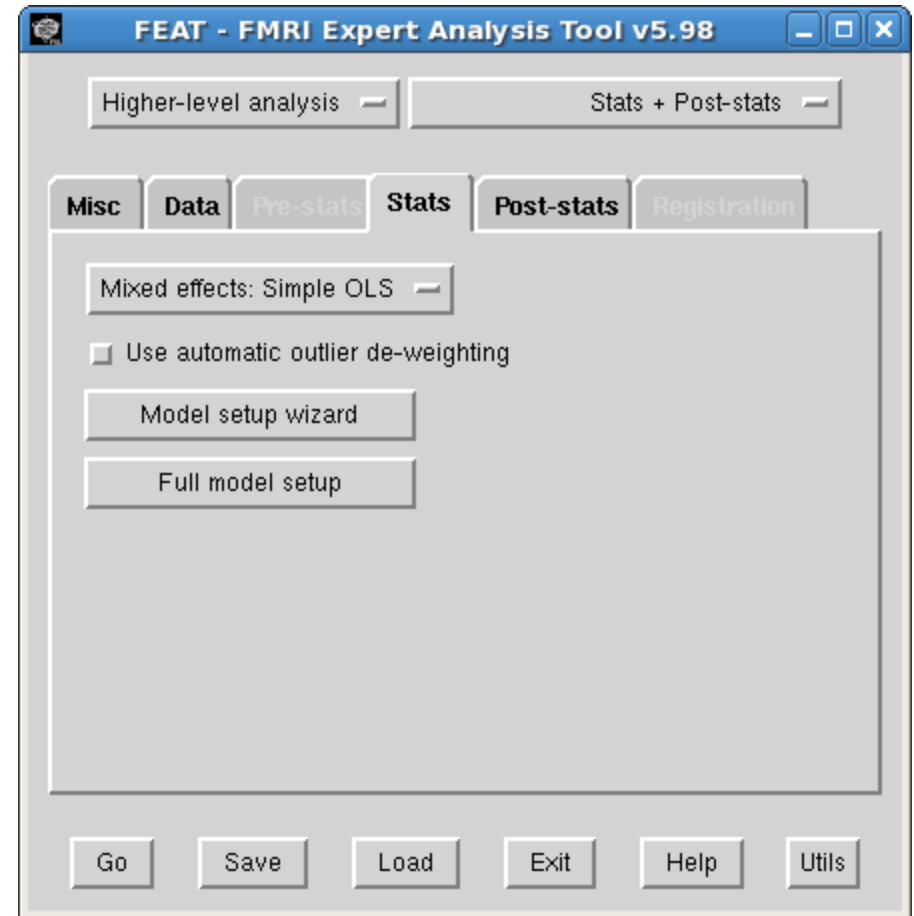
- Post-Stats tab
 - Lower Z threshold to 1.64 (5%)
 - Feel free to repeat analysis later w/ different thresholds..





FSL: Group Analysis

- Save as groupdesign.fsf
- Click GO to start analysis (will launch web browser to monitor progress)
 - Takes about 5 minutes





FSL: Group Analysis Results

