1. Pre-processing and Initial Co-registration (FreeSurfer)
   1. FSSetup
      1. Setup shared folder and startup FreeSurfer
   2. FileNames
      1. Instantiate the names of the subject and image files to be analyzed
   3. preRecon
      1. Process the pre-implant MRI
      2. Co-register the preMRI & postCT
   4. postRecon
      1. Process the post-implant MRI
      2. BB-register the preMRI & postMRI
   5. postARTS
      1. Extract the artifacts from the postMRI
   6. smoothSurf (\*AFTER THE SURFACES ARE FILLED IN MATLAB\*)
      1. First need to “MAKE SMOOTH” in ACOREL (MATLAB)
      2. Smooths the surfaces
2. Localization & Registration Correction (MATLAB)
   1. AUTO-LOCALIZE
      1. Detect electrode centroids from CT artifact point-clouds
      2. Will automatically jump to next step (label-contacts)
      3. Output: postproc.mat
   2. LABEL-CONTACTS
      1. User labels the contacts according to clinical montage
      2. Can save progress and modify later if needed
      3. Output: RAS\_master.txt
   3. AUTO-REG
      1. Correct the initial CT co-registration using the postMRI artifacts
      2. Assumes all contacts have been localized and labeled
      3. Output: POST\_master.txt
   4. TRODE TYPE
      1. Use the drop down select to assign trode types to the electrodes (depth,strip,grid)
   5. PROJECT TO SURFACE
      1. Dilate or constrict the centroids to the nearest surface vertex along the normal of its position on the strip
      2. AUTO-LABEL: Find the anatomical regions next to each final electrode location