The present GUI (prana\_SPIV.m) is very fast and is more structured:-

1. The gui first takes target properties.(defined in camera\_calibration\_jobfile\_01.m)
2. Please load all (not one) the calibration images for the first and second camera.
3. Select modeltype and do calibration. (Rod’s code camera\_calibration\_new.m)
4. The function selfcalibration\_v1.m does the self calibration, for refinement enter ‘Y’ in command line when prompted.
5. The calibration mapping function is overwritten after self calibration, to discard new calibration just hit fit models once.
6. For self calibration first create a job and then save it and then load it back, multigrid ensemble is preferred for self calibration.
7. Create prana job for 2D processing and then save it and load it back. To enter laser pulse separation please enter appropriate value while creating the prana job in laser pulse sep box in microsec.
8. Select reconstruction type and do reconstruction.
9. The whole job can be saved. Somehow when job is loaded back in the gui the handles are not updated on the figure, although the main gui structure is updated i.e. the variables are same as that of the saved job.
10. The key functions for each process are as follows:-

* Calibration:- camera\_calibration\_new.m
* Self Calibration:- selfcalibration\_v1.m
* Dewarping:- imagedewarp.m
* Reconstruction:- stereoreconstruction.m (which calls soloff\_vec\_reconstruction.m and willert\_vec\_reconstruct\_new.m)