

link_model_based]] signals and [[visual3d:tutorials:events:gait_events|gait events]]. ===== load library ===== if not already loaded, use the load library dialog i3dloadlibrary.png to load your cmz workspaces into inspect3d. ===== lgga dialog ===== in the main toolbar, the lgga icon symmetryicon.png will open the dialog for selecting the lgga settings. here we will keep the default original folder selection for the link_model_based data. the left and right events will be used to normalize the library signals into gait cycles with 101 points. the events are populated by inspect3d based on the event names in the underlying c3d files. here we will select the lon and ron as the gait events for normalization. we then choose the signals to build our lgga. here we have selected the three power signals from the left signal list. the matching right signals are auto-selected. compute query after calculation is checked so the results will be loaded into inspect3d after computing. we have checked "use signal magnitude" so that the signal components (x,y, and z) will not have individual gga scores. in this case, the length of the signals will be used so only one gga score will be given to each signal. the total lgga value will be composed of independent gait asymmetry scores from anklepower, kneepower, and hippower. if we left "use signal magnitude" unchecked, the lgga would be composed of independent gait asymmetry scores from anklepowerx, anklepowery, anklepowerz, kneepowerx, kneepowery, kneepowerz, hippowerx, hippowery, and hippowerz. lggadlg.png eventselection.png lggasignalselection.png ===== compute lgga ===== after we are happy with the lgga definition made in the dialog, we can choose to save these settings for future lgga calculations by selecting the save icon on the top right of the lgga dialog. previously defined settings can also be loaded here so users do not have to redefine the lgga for multiple processing sessions. once computed, the lgga1 and lgga1_components will appear in the groups window of inspect3d. ===== view and export results ===== we can view the lgga results by plotting the lgga or lgga_components group, depending on the kinds of comparisons we want to make. here we have selected the lgga1 group and all subgroups. let's say we want to compare the asymmetry values between subjects, which are represented by their independent cmz workspaces. i have selected plot workspace mean and standard deviation for my figure refinement. the lgga scores computed for the c3d files are stored as metrics, and are displayed as bar charts in inspect3d. to export figures, we can right click on the selected plot and hit export graph. to export our metric data results, we can select the export text results icon i3dexportpcareresults.png in the main toolbar. in this dialog we will change the default settings so that we export the workspace mean and standard deviation values of the lgga results to reflect our plotted data. lggaresult.png exportlgga.png ===== references ===== <code>[1] cabral s., resende r.a., clansey a.c., deluzio k.j., selbie, w.s., veloso a.p., "a global gait asymmetry index", journal of applied biomechanics, 2016, 171-177. (https://pubmed.ncbi.nlm.nih.gov/26502455/)</code> } } } } } } } } } } }

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