hip x= |-s (c sin(theta)-0.5*asis_distance) | |hip y= |(-xdis-rmarker) cos(beta)+ c cos(theta) sin(beta) | |hip z= |(-xdis-rmarker) sin(beta)- c cos(theta) cos(beta) | |where: | | |c= |0.115*leglength - 0.0153 (in meters) | |theta= |28.4*pi/180.0 | |beta= |18.0*pi/180.0 | |asis_distance= |asis to asis distance, measured during clinical exam | |xdis= |anterior/posterior component of the asis/hip center distance in the sagittal plane of the pelvis and measured during the clinical exam| |if xdis not measured:| | |xdis= |0.1288*leglength - 0.04856 | |rmarker= |marker radius (in meters) | |s= |+1 for the right side and -1 for the left side | \\ these equations are adapted from the article: **davis rb, ounpuu s, tyburski d, gage jr.** (1991) "a gait analysis data collection and reduction technique." human movement science, 10: 575-587.\\ ===== modifying asis distance ===== the default asis distance is the computed distance between the asis markers. the value computed can be found in the subject metrics tab\\ metricsdlg.jpg\\ select the asis_distance item and modify the item:\\ asis_distance_default.png\\ a measured value or an expression can be used to replace the automatic calculation\\ asis_distance_custom.png\\

}}}}}}