

In the file "MAIN.F90"

PROGRAM VICAR3D

CALL vega\_FEM\_initiate\_c() !

CALL vega\_interpolateindexratio\_c(markerInterpolateIndex,markerInterpolateRatio) !

CALL time\_step\_viscous()

DO timeStep

CALL move\_boundary()

CALL set\_solve\_ad()

101 CALL set\_boundary()

CALL vega\_interpolateindexratio\_c(markerInterpolateIndex,markerInterpolateRatio)

CALL solve\_ad()

CALL drag\_lift\_membrane()

CALL interpolate\_pressure\_velocity(markerInterpolateIndex,markerInterpolateRatio, &  
markerPressure,markerInterpolateVelocity)

CALL vega\_deformation\_c(markerPressure,markerInterpolateVelocity,bodyMarkerVel)

CALL vega\_markerVel\_convergenceCheck

If converged, CALL vega\_reNewBodyPosition\_c(), and do next time step.

IF Not converged, GOTO 101, iteration until the velocity converges.

END DO timeStep