

#1297: Radioss – Animation Output Best Practice

Product: Radioss

Product Version: Radioss 12.0 or above

Topic Objective

Animation output best practice with Radioss.

Topic Details

Around 20 to 50 animations are necessary to analyze correctly the model behavior.

- e.g. $T_{\text{freq}} = \text{Final time} / 20$

Recommended requests in the animation files include

#		
/ANIM/DT		
0.000000e+000 5.000000e-003	←	Animation file output frequency, T_{freq}
/ANIM/VECT/VEL	←	Node translational velocity (displacements on by default)
/ANIM/ELEM/ENER	←	Specific energy on elements
/ANIM/ELEM/EPSP	←	Plastic strain on elements
/ANIM/ELEM/HOURG	←	Hourglass energy on elements
/ANIM/ELEM/VONM	←	Von Mises stress on elements
/ANIM/NODA/DMAS	←	Mass added on nodes due to mass scaling
/ANIM/VECT/CONT	←	Contact force (global for all contacts)

Additional outputs can be set to get more information for shell elements.

#		
/ANIM/SHELL/EPSP/UPPER	}	← Plastic strain on the upper and lower fiber
/ANIM/SHELL/EPSP/LOWER		
/ANIM/SHELL/TENS/STRESS/UPPER	}	← Stress tensor on the upper and lower fiber
/ANIM/SHELL/TENS/STRESS/LOWER		

Additional outputs can be set to get more information for solid elements.

#		
/ANIM/BRICK/TENS/STRESS	}	← Average strain and stress tensor on solid elements*
/ANIM/BRICK/TENS/STRAIN		
/ANIM/GPS/TENS	←	Bilinear extrapolated grid point stress data, useful in calculating surface stress in Solid elements