

START

Set kinetic energy $KE = 0$
and nodal velocities $v^t = 0$

Apply loads $P^1, P^2 \dots P^N$

Compute force in elements F

Update residual forces R

Compute nodal velocities v^t

Compute nodal velocities v^t

Update coordinates $x^{t+\Delta t}$

Determine current KE

Previous KE < current

No

Yes

No

Convergence occurred?

Yes

END