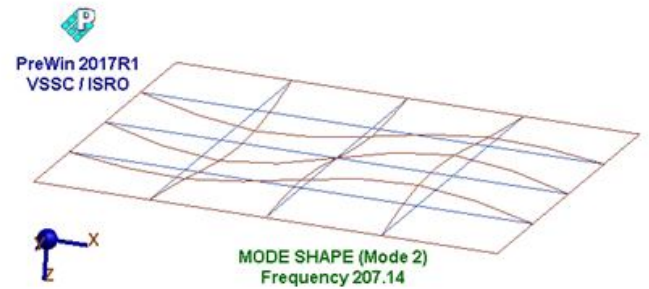
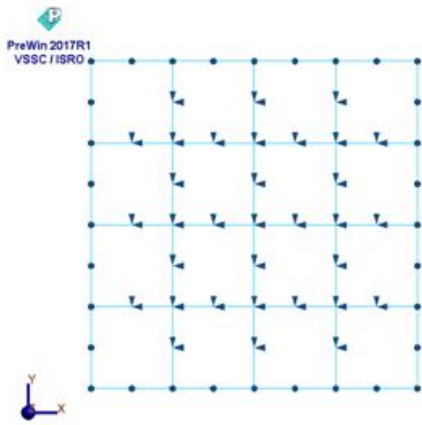
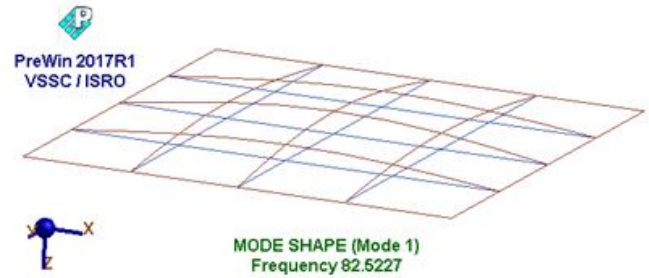
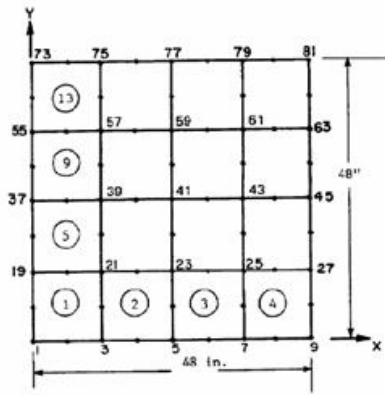


Natural frequencies of a simply supported square plate



Boundary condition : $U_x, U_y = 0$ at all nodes, $U_z = 0$ along the periphery

Material property : $E = 10.5 \times 10^6 \text{ psi}$, $\nu = 0.3333$, $\rho = 2.588 \times 10^{-4} \text{ lb-sec}^2/\text{in}^4$

Geometric property : $t = 1.0 \text{ in.}$

Element type : 3-D general shell element,

Finite element statistics :

Number of elements	Number of nodes	Degrees of freedom
16	65	228

Mode	Theoretical	FEAST ^{SMT}	NISA2 [®]
1	84.09	82.513	83.98
2	210.24	207.12	210.50
3	210.24	207.12	210.50
4	336.38	332.41	358.30
5	420.47	402.43	422.40