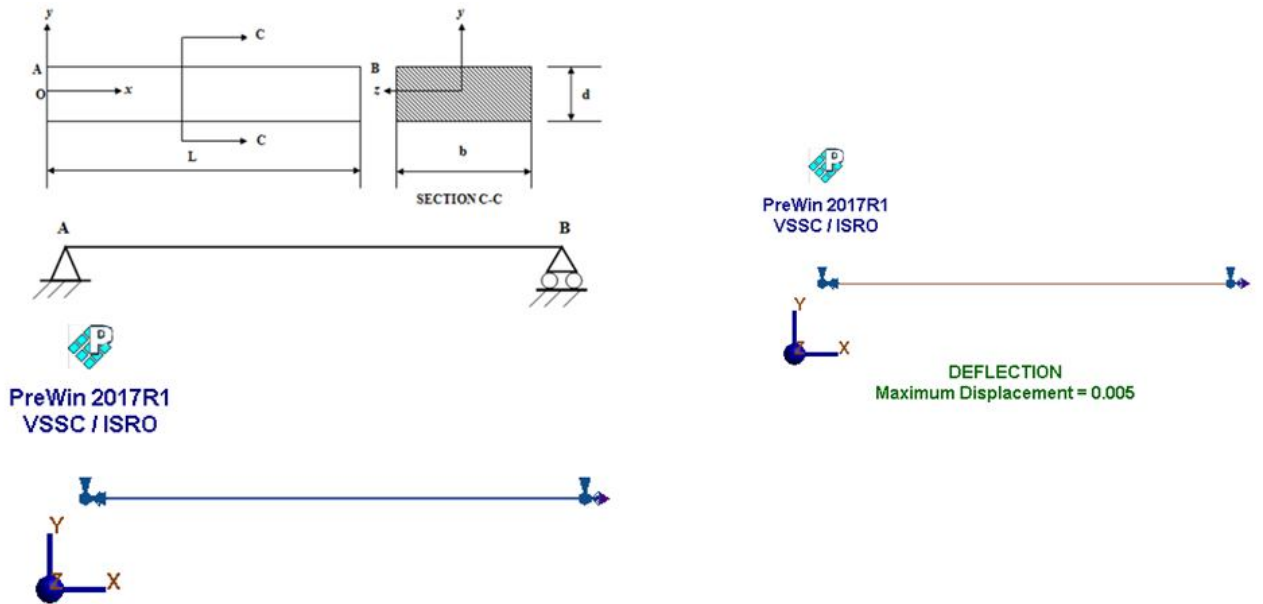


## Static analysis of single bar element



	Case 1	Case 2	Case 3
<b>Loading:</b>	$F_x = 1000N$ at point B	$F_x = 2000N$ at point B	
<b>Boundary condition:</b>	$U_x = U_y = 0$ at point A, $U_y = 0$ at point B	$U_x = U_y = 0$ at point A, $U_y = 0$ at point B	$U_x = 0.005, U_y = 0$ at point A, $U_x = U_y = 0$ at point B
<b>Geometric property :</b>	Area = $100mm^2$ , width = $20mm$ , thickness = $5mm$ , length = $100mm$		
<b>Material property :</b>	$E = 200 GPa$ , $\nu = 0.3$		
<b>Element types :</b>	2D Bar		
<b>Finite element statistics</b>	Number of elements 1	Number of nodes 2	Degrees of freedom 6

	Axial displacement (mm)		Reaction force at point B(N)
	Case 1	Case 2	Case 3
<b>NAFEMS</b>	0.005	0.01	1000
<b>FEAST<sup>SMT</sup></b>	0.005	0.01	1000
<b>NASTRAN<sup>®</sup></b>	0.005	0.01	1000