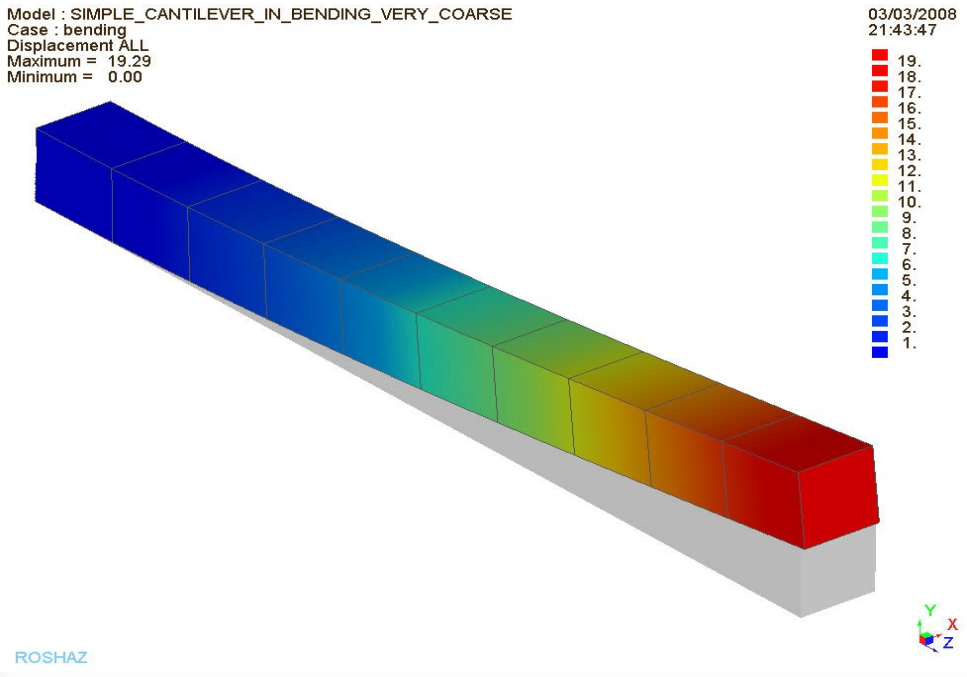
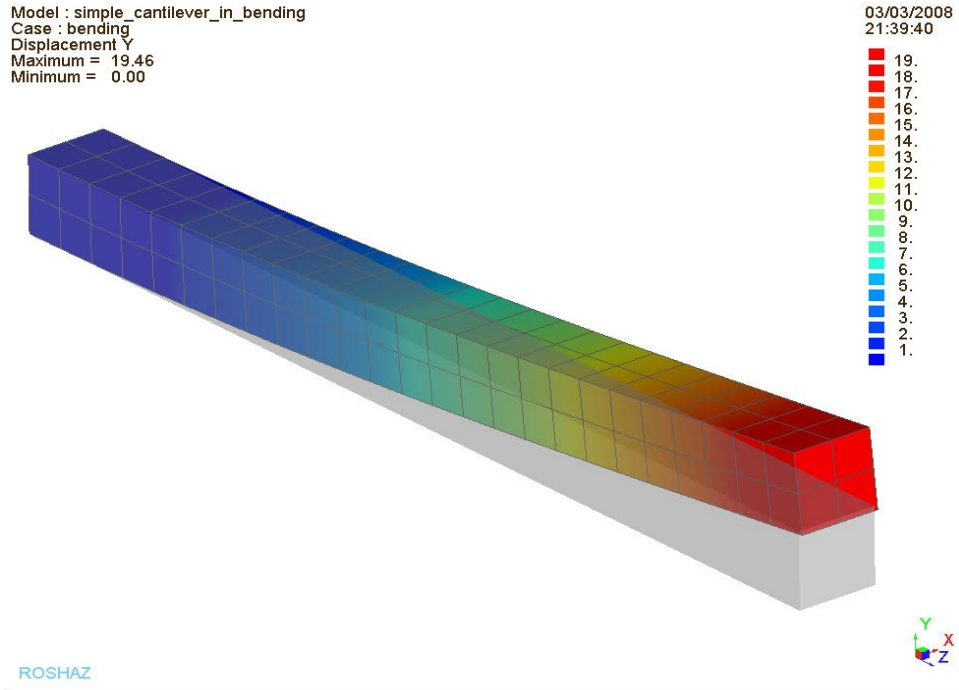
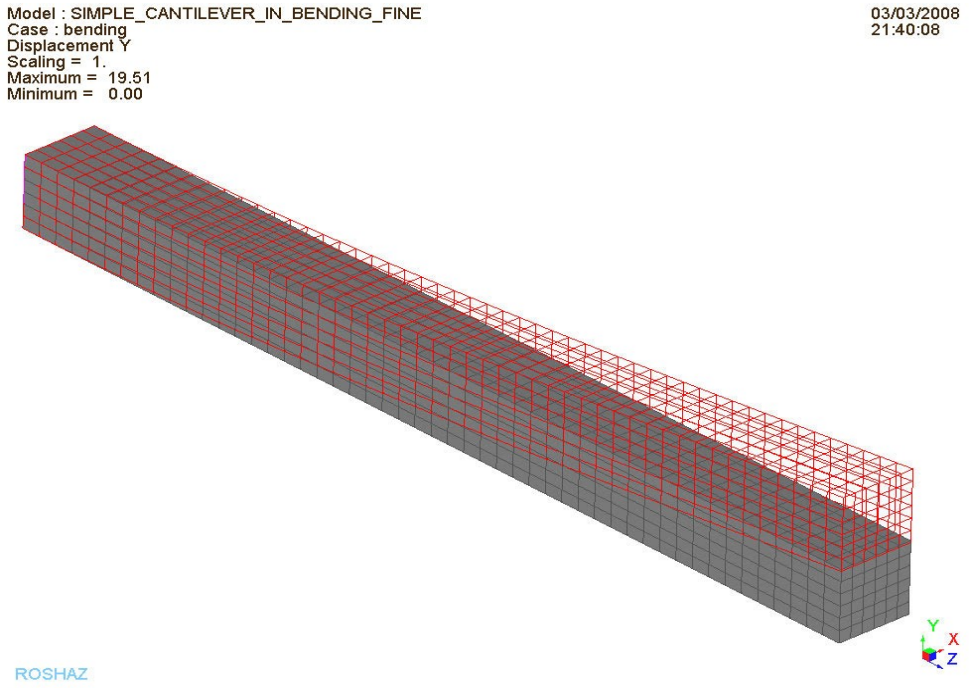
Simple Cantilever in Bending – Modelled using 20 node brick elements solved in Calculix

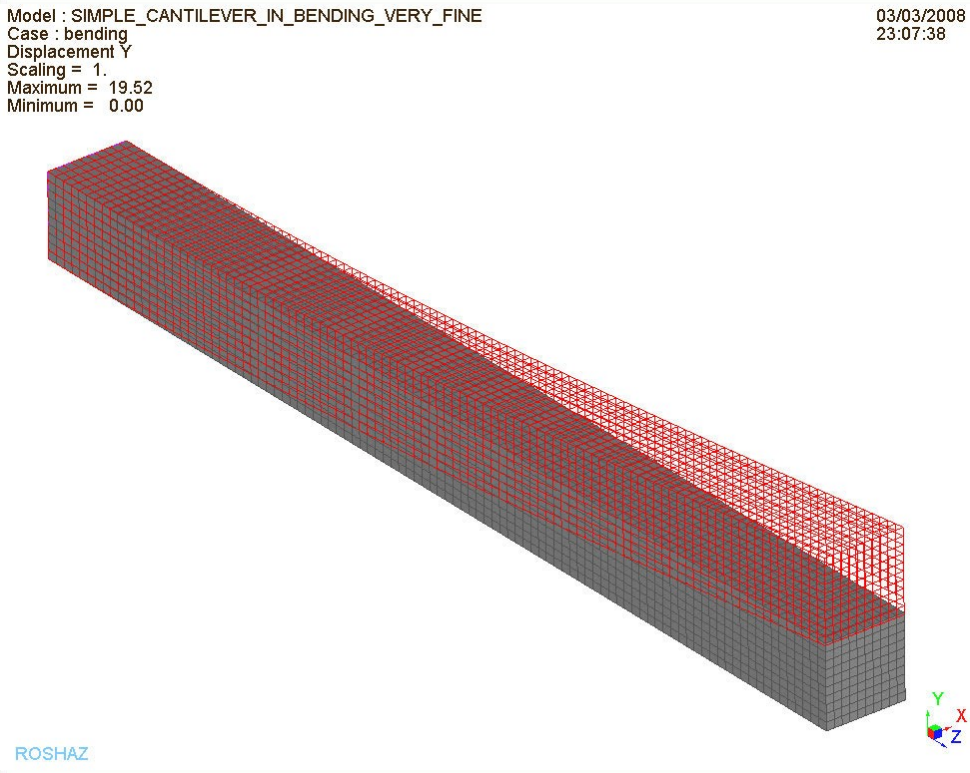
20 by 20 section, therefore I = 13333.33
Length = 250
E = 200000
Load, W = 10000

Ignoring shear deformation effects, end displacement = WL^3/3EI = 19.53









Summary of Results

Number of Elements	End Deflection	% Error
10	19.29	1.22
100	19.46	0.36
1800	19.51	0.10
10000	19.52	0.05