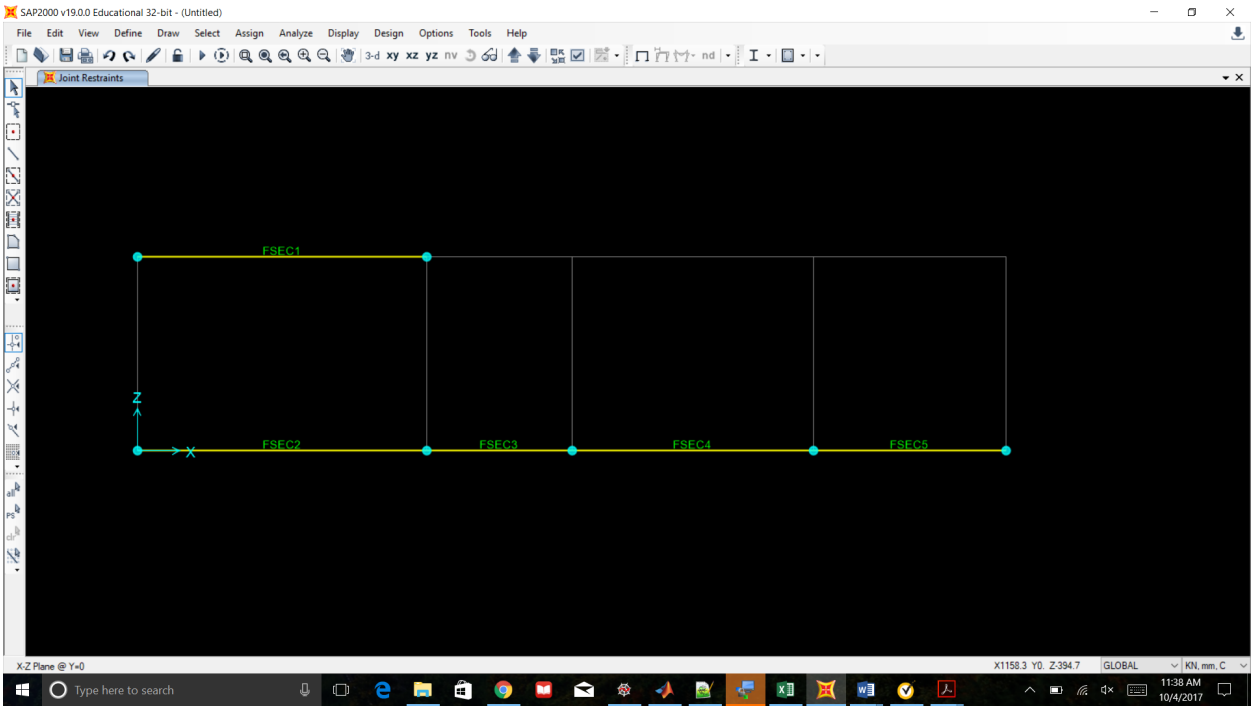
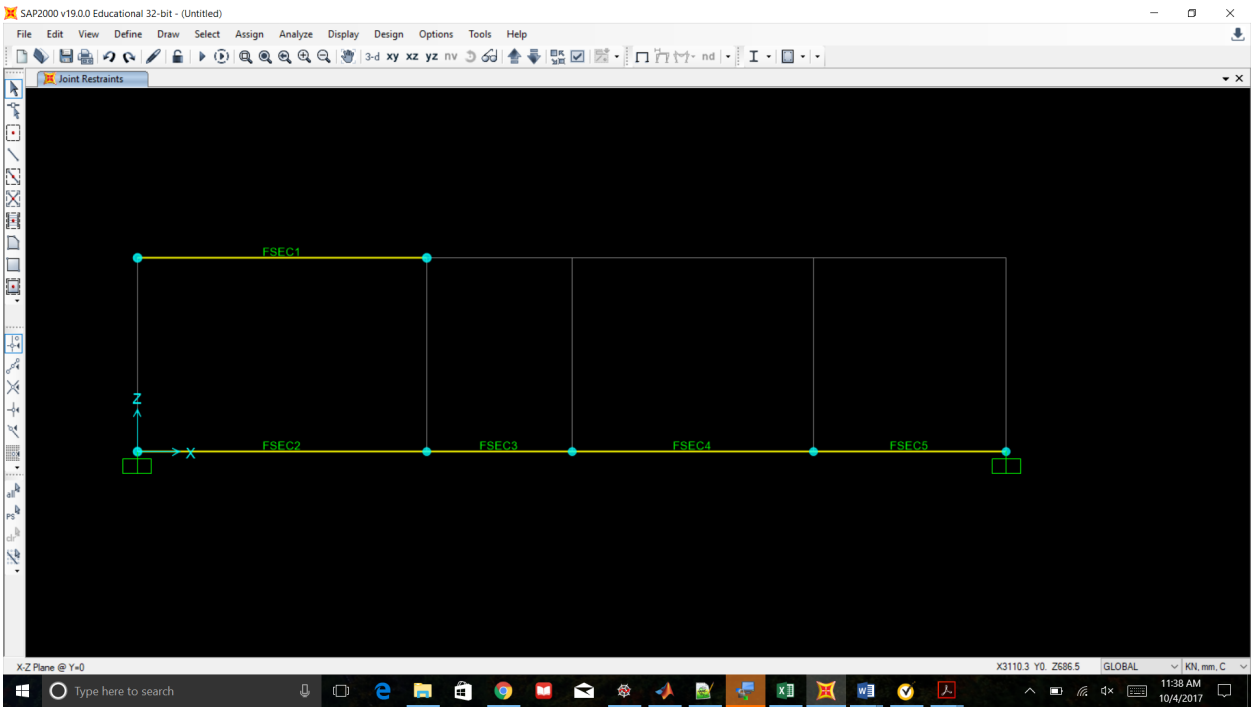
How to Create a Rigid Connection between Uniaxial Elements in SAP2000

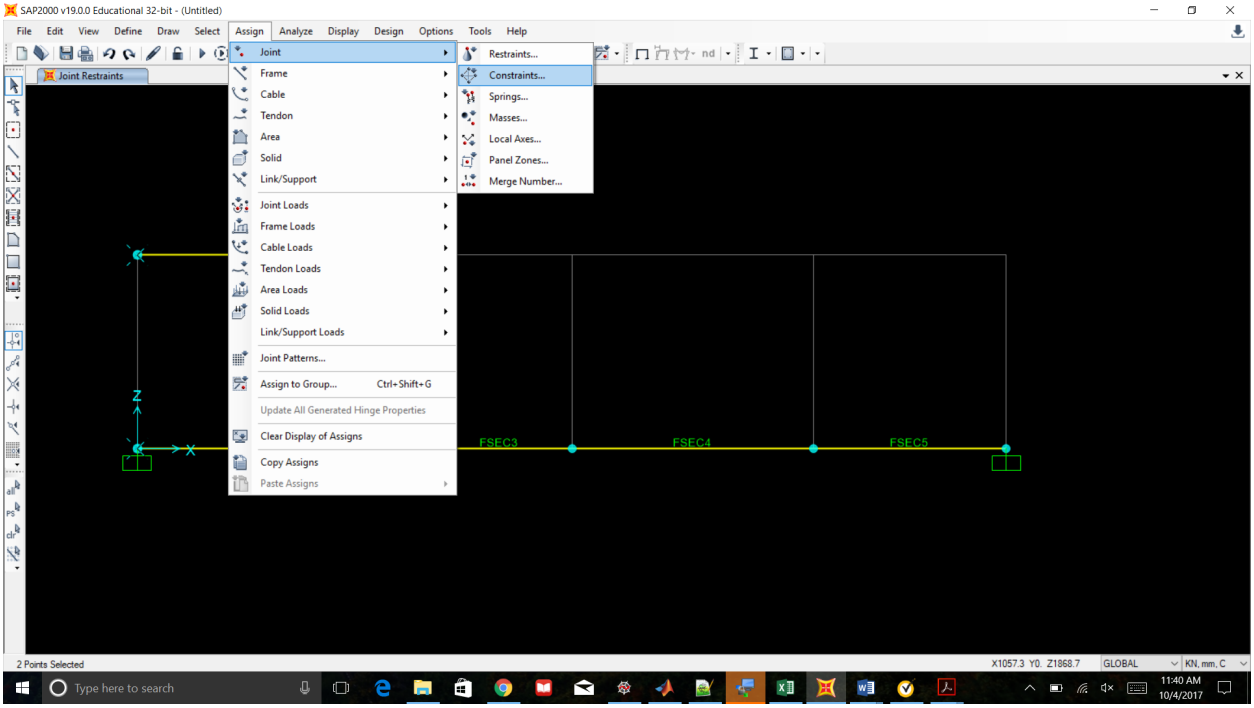
Create a 2D grid (z-spacing not important)



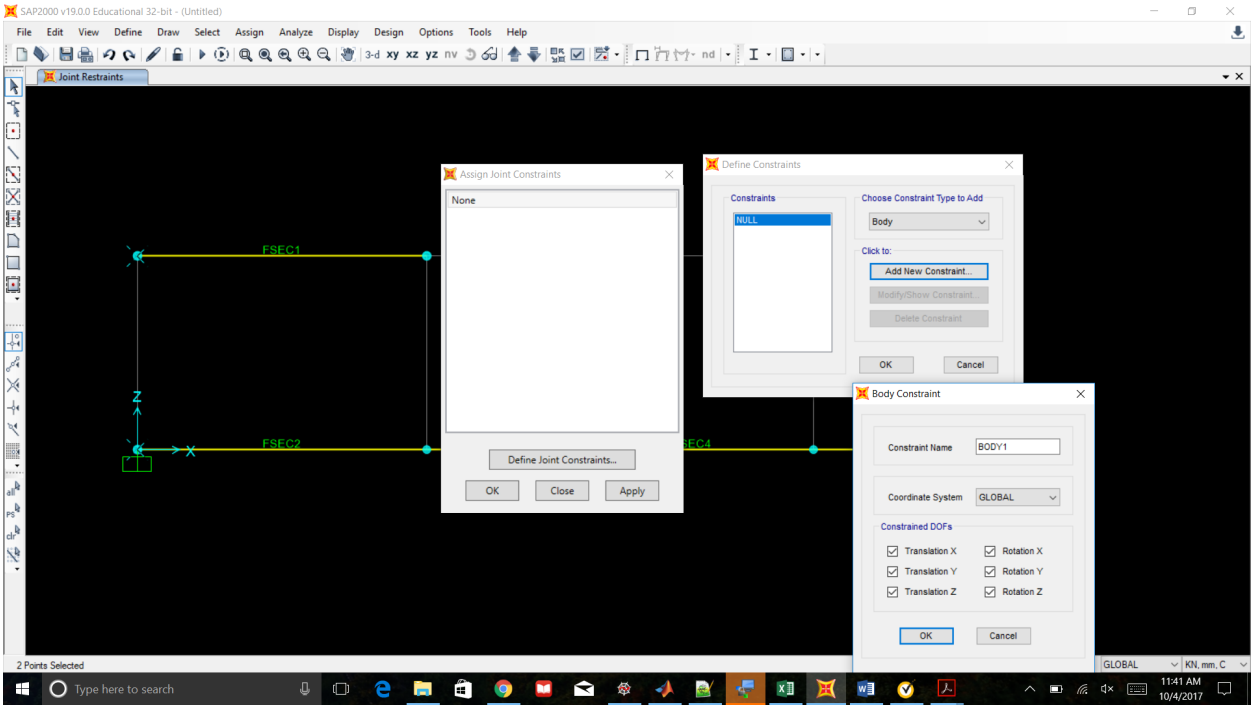
Apply customary joint “restraints” (support conditions) as shown



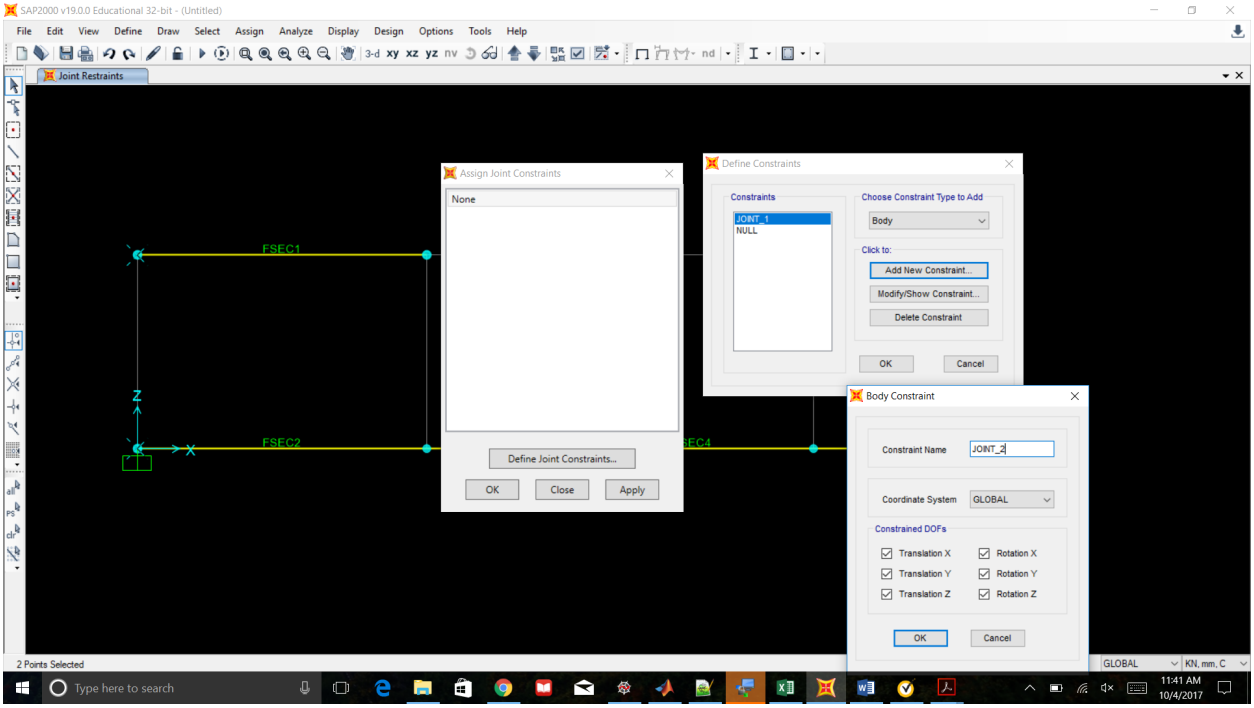
Select both nodes at Joint 1 and select: “Assign – Joint – Constraints”



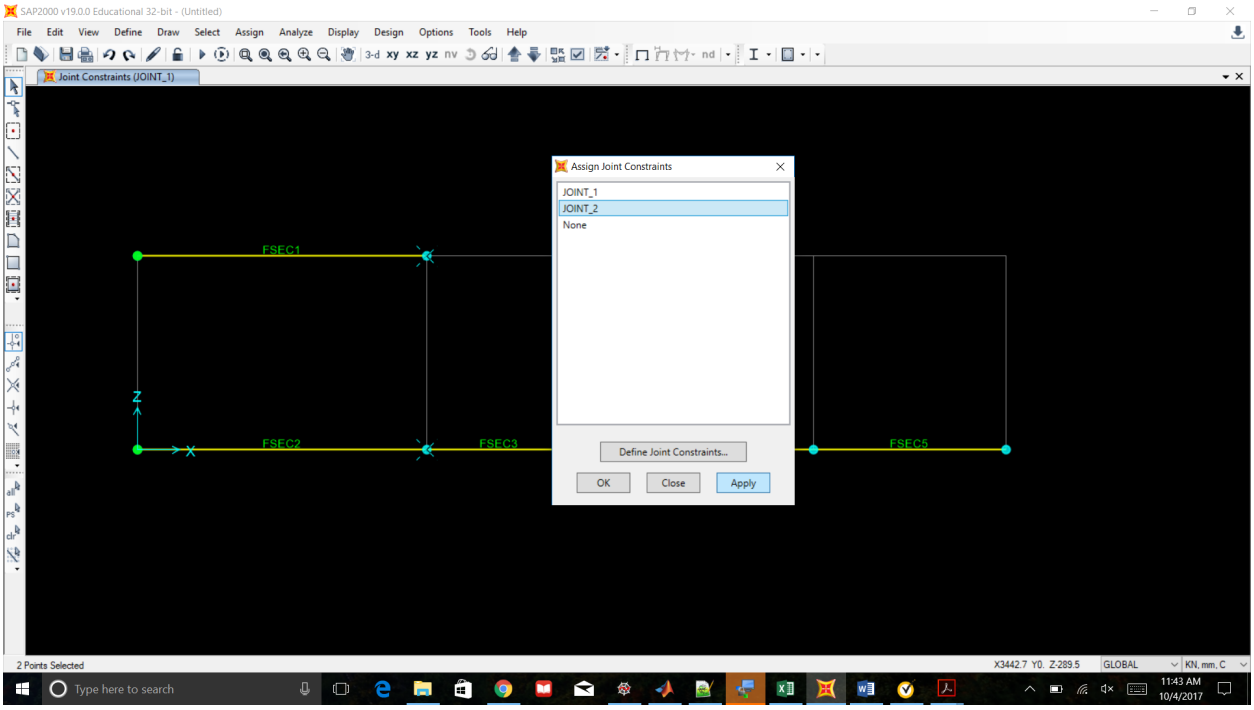
Add new “Body Constraint” and check all DOFs (this makes a rigid connection between members)



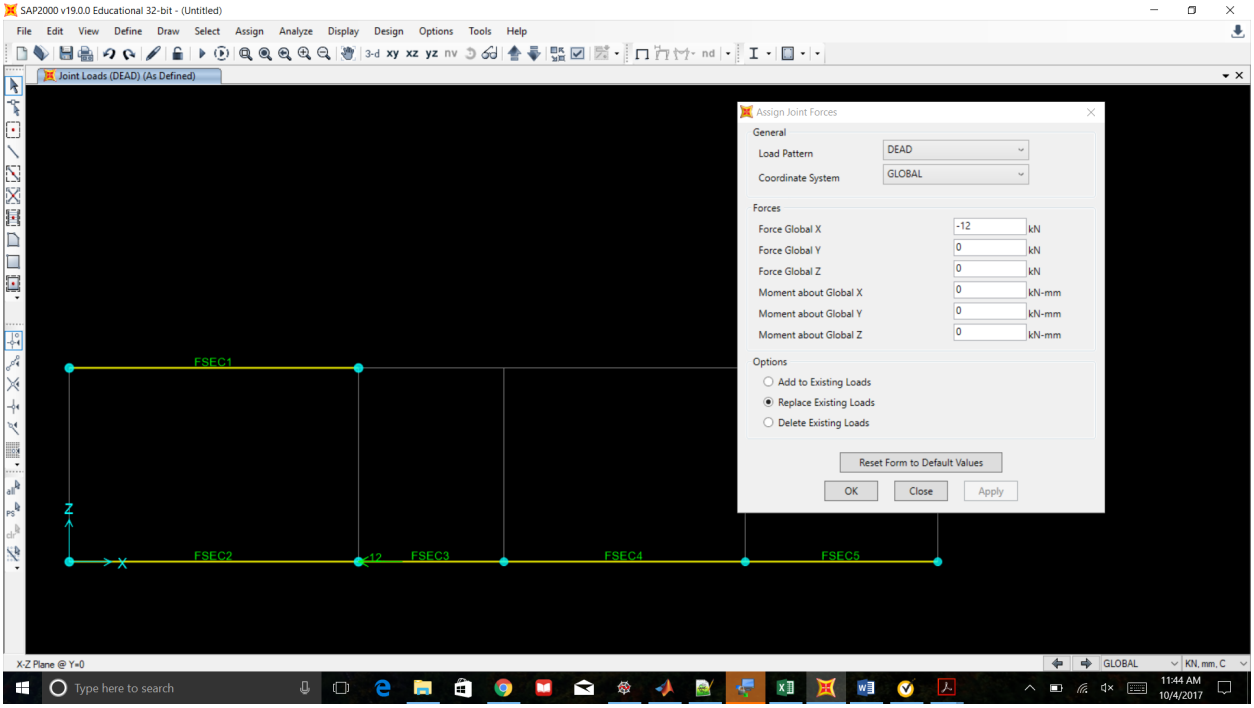
Add another “Body Constraint” for Joint 2 (same DOF constraints)



Apply respective joint constraints to both sets of nodes (color will change each time)



Apply joint loading to one node at Joint 2 (since connection is rigid force will transfer to both members)



*Note: If you have performed the constraint assignment properly, after running the analysis the displacement(s) at each set of nodes should be equivalent.