
HyperWorks Tips + Tricks

#1120 - Constrain direction of a Translational DoF

Product: HyperMesh

Product Version: 11.0 and above

Topic Objective:

Constrain direction of X,Y or Z component.

Topic Details

Using SPCs one can constrain both the directions of a translational DoF on a node. This will not help if one direction is set to free and other constraint.

Here is a workaround to constrain one direction and set the other free. For example block a DOF in the 'minus x direction' and the other set free to move.

This can be accomplished using gap elements. Please refer below steps:

1. Create a duplicate node and translate it along negative X direction (any small distance.)
2. Create a gap element such that N1, N2 is directed in negative X direction. (Make sure to place the gap element in separate collector)
3. Create a PGAP property and assign it to the CGAP element.
4. Card edit the PGAP property and enter say $KB = 2E+20$ (basically a high value)

This will restrict the motion of the node (N1) in negative X direction.