

HEADING BLOCK(1 LINE)

(1)TITLE LINE UP TO 80 CHARACTERS

CONTROLBLOCK (1 LINE) WITH THE FOLLOWING PARAMETERS:

NUMNP NUMEL NUMAT NINCR MXDOFDIM MXNE MXDOFEL NMPR

(1)NUMNP : NUMBER OF NODAL POINTS(I5)
(2)NUMEL : NUMBER OF ELEMENTS(I5)
(3)NUMAT : NUMBER OF MATERIAL PROPERTIES(I5)
(4)NINCR : NUMBER OF LOAD INCREMENTS(I5)
(5)MXDOFDIM: MAXIMUM DEGREE OF FREEDOM DIMENSION(I5)
 MXDOFDIM=2 FOR 2D ELASTICITY
 MXDOFDIM=3 FOR 2D COSSERAT ELASTICITY
(6)MXNE : MAXIMUM NUMBER OF NODES IN ANY ELEMENT(I2)
(7)MXDOFEL : MAXIMUM NUMBER OF DEGREES OF FREEDOM PER ELEMENT(I2)
(8)NMPR : MAXIMUM NUMBER OF MATERIAL PROPERTIES IN THE MODEL(I4)

NODAL INFORMATION BLOCK(NUMNP LINES) WITH THE FOLLOWING PARAMETERS

ID NDOF BC1 BC2....BCNDOF COORD1 COORD2

(1)ID : NODAL ID (I5)
(2)NDOF : NUMBER OF DEGREES OF FREEDOM AT THIS NODE(I5)
(3..NDOF) BC1..BCNDOF : BOUNDARY CONDITION CODE AT EVERY DEGREE OF FREEDOM (NDOF VALUES-I2)
 BCI=0,1,-1
 0 FREE
 1 RESTRAINED
 -1 IMPOSED DIFFERENT FROM ZERO
(NDOF+1)COORD1 : X-COORDINATE (F10.5)
(NDOF+2)COORD2 : Y-COORDINATE (F10.5)

MATERIAL INFORMATION BLOCK(NUMAT LINES) WITH THE FOLLOWING PARAMETERS

ID NUMMATP PROP(1) PROP(2).....PROP(NUMATP)

(1)ID : MATERIAL PROPERTY ID (I5)
(2)NUMATP : NUMBER OF PROPERTIES FOR THIS MATERIAL (I5)
(3)PROP(I) : MATERIAL PROPERTY I(F12.5)

ELEMENTS INFORMATION BLOCK(NUMEL LINES) WITH THE FOLLOWING PARAMETERS

ID EL_TYPE NDOFEL MAT_TYPE NNE NODE1 NODE2.....NODE_NNE

(1)ID : ELEMENT ID (I5)
(2)EL_TYPE : ELEMENT TYPE(I1)
 (1) 8-NODED QUAD. DISPLACEMENT BASED-ELASTIC MATERIAL-PLANE STRAIN
 (2) 9-NODED QUAD. DISPLACEMENT BASED-ELASTIC MATERIAL-PLANE STRAIN (not implemented yet)
 (3) 6-NODED TRIA. DISPLACEMENT BASED-ELASTIC MATERIAL-PLANE STRAIN (not implemented yet)
 (4) 4-NODED QUAD. DISPLACEMENT BASED-ELASTIC MATERIAL-PLANE STRAIN (not implemented yet)
 (5) 3-NODED TRIA. DISPLACEMENT BASED-ELASTIC MATERIAL-PLANE STRAIN (not implemented yet)
(3)NDOFEL : NUMBER OF DEGREES OF FREEDOM FOR THIS ELEMENT(I5)
(4)MAT_TYPE : MATERIAL ID CORRESPONDING TO THIS ELEMENT AS DEFINED IN THE MATERIAL DATA BLOCK(I5)
(5)NNE : NUMBER OF NODES FOR THIS ELEMENT(I5)
(6)NODE(I) : NODAL CONNECTIVITY LIST(I5)-NNE VALUES

EIGENANALYSIS INFORMATION BLOCK(3 LINES) WITH THE FOLLOWING PARAMETERS

KXMIN KYMIN KXMAX KYMAX NKX NKY NCOND_WO NCOND NEVALS

IMNODE1 IMNODE2 IMNODE3....IMNODE_NCOND

IRNODE1 IRNODE2 IRNODE3....IRNODE_NCOND

(1)KXMAX : MINIMUM WAVE NUMBER IN X DIRECTION
(2)KYMAX : MINIMUM WAVE NUMBER IN Y DIRECTION
(3)KXMAX : MAXIMUM WAVE NUMBER IN X DIRECTION
(4)KYMAX : MAXIMUM WAVE NUMBER IN Y DIRECTION
(5)NKX : NUMBER OF VALUES FOR WAVE NUMBER IN X DIRECTION
(6)NKY : NUMBER OF VALUES FOR WAVE NUMBER IN Y DIRECTION
(7)NCOND_WO : NUMBER OF BLOCH CONDITIONS WITHOUT REPEAT INDEXE
(8)NCOND : NUMBER OF BLOCH CONDITIONS
(8)NEVALS : NUMBER OF EIGENVALUES TO EXTRACT
(9)IMNODE_I_a : IMAGE NODE I WITHOUT REPEATED INDEXES
(10)IRNODE_I_b : REFERENCE NODE I, WITHOUT REPEATED INDEXES, FOR EACH IMAGE NODE THERE EXISTS A REFERENCE
NODE
(11)IMNODE_I : IMAGE NODE I
(12)IRNODE_I : REFERENCE NODE I, FOR EACH IMAGE NODE THERE EXISTS A REFERENCE NODE