MBDYN

X.flag

|  |  |  |
| --- | --- | --- |
| 10 – BEM Aerodynamic Forces | 0 = Inactive | 1 = BEM |
| 11 – Arc Length Flag | 0 = Fixed Time Step | 1 = Active |
| 12 – Structural Damp Flag | 0 = include structural damping | 1 = no structural damping |
| 1 – Stops Execution | 0 = Allow | 1 = Stops |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**CONTROL CARDS**

STEP

**\*STEP**, **NAME**=nombre, **TYPE**= STATIC/DYNAMIC, **METHOD**=1(alpha cardona)/2(alpha bruls)/3(newmark TL)/4(newmarkUL), **DAMP**=0.0-1.0

Start time, end time, time step

Blade characteristics

**\*ROTOR**, **NAME**=nombre, **ELSET**=ALL

hubnode, joint el, rotor normal vector (proyected to ground), turbine vertical direction , rotor radius, hub height

Blowing Wind

**\*WIND**, **NAME**=nombre, **FILE**=nombre

wind speed vector, air dens

Body Forces

**\*BFORCE**, **NAME**=gravedad

Load vector

**\*BOUNDARY**, **TYPE**=DISP

Node, start local dof, end local dof, bc value

(Note: only one data line allowed)

Traslational Mass Element

**\*ELEMENT**, **TYPE**=MASSTR

number, node, magnitude

**\*ELEMENT**, **TYPE**=REVJUL

number, node1, node2,node3,axis

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Col 1** | **Col 2** | **Col 3** | **Col 4** | **Col 5** | **col6** | **col7** | **col8** |
| **SCB2UL** | elnumber | section location |  | node 1 | node 2 | node 3 |  | section id |
| **SCB3LL** | elnumber | section location |  | node 1 | node 2 | node 3 | refnode | section id |
| **REVJUL** | elnumber |  |  |  |  |  |  |  |
| **MASSTR** | elnumber | node | magnitude |  |  |  |  |  |

WARNING FLAGS X.wflag

1 – Rotor normal is fixed. aerobem.m

2 – Correct Setcgen.m

3 – Type of sectional stiffness matrix (9x9 or 6x6)