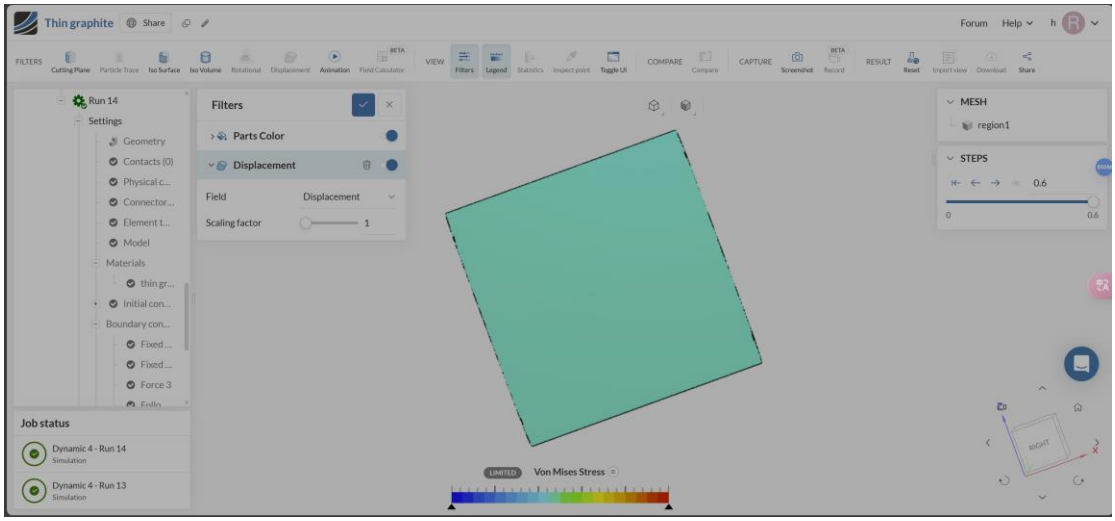
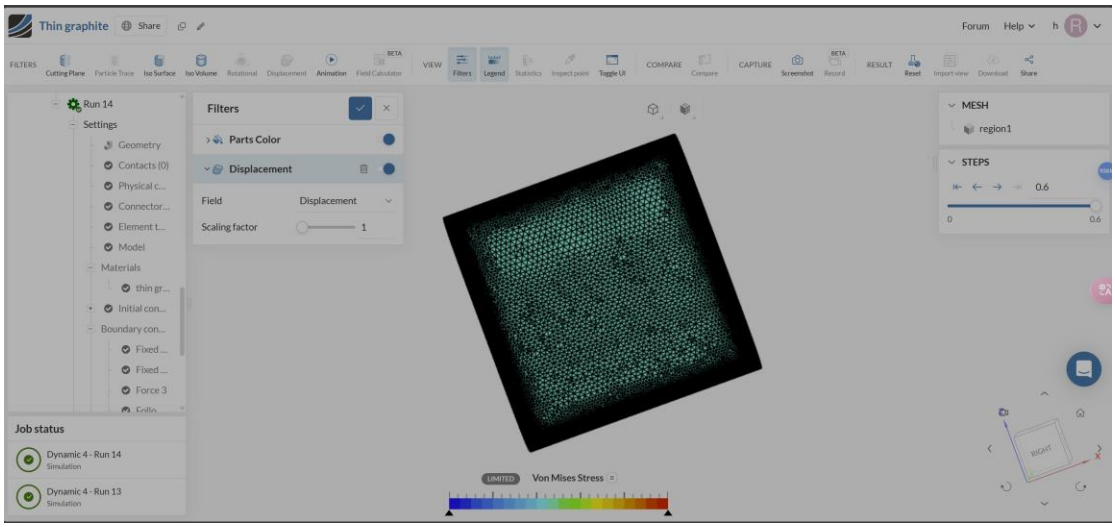
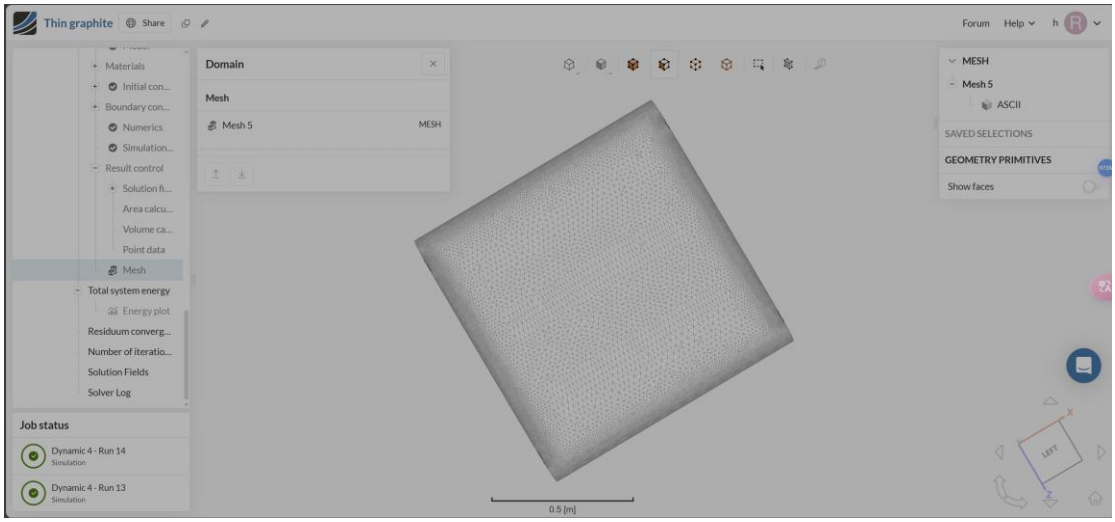




Solution fields(Above)



Mesh quality(Above)

Solver logs

Time of computation: 3.990000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR | |

| 3.99000E-01 | 0 | 9.90474E-18 | 3.04595E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.0432E-38 | -5.7219E-27 | 0.0000E+00 | 5.7219E-27 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.904744123495e-18 with the node and degree of

freedom N81721 DY

The residue of the type RESI_GLOB_MAXI is worth 3.045945146176e-22 with the node and degree of

freedom N81721 DY

Temps CPU consommé dans ce pas de temps : 23.016 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.148 s (3 intégrations)

* Temps total factorisation matrice : 3.148 s (1 factorisations)

* Temps construction second membre : 5.243 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.968 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.379 s

Mémoire (Mo) : 6170.50 / 3936.16 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.990000000000e-01 for the sequence number 133

Field stored SIEF_ELGA at time 3.990000000000e-01 for the sequence number 133

Field stored VARI_ELGA at time 3.990000000000e-01 for the sequence number 133

Field stored COMPORTEMENT at time 3.990000000000e-01 for the sequence number 133

Field stored VITE at time 3.990000000000e-01 for the sequence number 133

Field stored ACCE at time 3.990000000000e-01 for the sequence number 133

Field stored FORC_AMOR at time 3.990000000000e-01 for the sequence number 133

Field stored FORC_LIAI at time 3.990000000000e-01 for the sequence number 133

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth 6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth 3.000000000000e-03.

[66%] Instant calculé : 3.99000e-01, dernier instant archivé : 3.99000e-01, au numéro d'ordre :

135

Time of computation: 4.020000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.02000E-01 | 0 | 9.04438E-18 | 2.78136E-22 | | | | |

| | TANGENTE | | | | | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.4094E-38 | -3.9404E-27 | 0.0000E+00 |

3.9404E-27 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.044380165124e-18 with the node and degree of

freedom N85355 DY

The residue of the type RESI_GLOB_MAXI is worth 2.781362700606e-22 with the node and degree of

freedom N85355 DY

Temps CPU consommé dans ce pas de temps : 22.655 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.117 s (3 intégrations)

* Temps total factorisation matrice : 3.044 s (1 factorisations)

* Temps construction second membre : 5.161 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6170.50 / 3981.59 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.020000000000e-01 for the sequence number 134

Field stored SIEF_ELGA at time 4.020000000000e-01 for the sequence number 134

Field stored VARI_ELGA at time 4.020000000000e-01 for the sequence number 134

Field stored COMPORTEMENT at time 4.020000000000e-01 for the sequence number 134

Field stored VITE at time 4.020000000000e-01 for the sequence number 134

Field stored ACCE at time 4.020000000000e-01 for the sequence number 134

Field stored FORC_AMOR at time 4.020000000000e-01 for the sequence number 134

Field stored FORC_LIAI at time 4.020000000000e-01 for the sequence number 134

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[67%] Instant calculé : 4.02000e-01, dernier instant archivé : 4.02000e-01, au numéro d'ordre :

136

Time of computation: 4.050000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.05000E-01 | 0 | 7.04022E-18 | 2.16504E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -9.7178E-39 | -2.7124E-27 | 0.0000E+00 | 2.7124E-27 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.040220673116e-18 with the node and degree of

freedom N85414 DX

The residue of the type RESI_GLOB_MAXI is worth 2.165035837364e-22 with the node and degree of

freedom N85414 DX

Temps CPU consommé dans ce pas de temps : 22.629 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.081 s (3 intégrations)

* Temps total factorisation matrice : 3.061 s (1 factorisations)

* Temps construction second membre : 5.155 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.287 s

Mémoire (Mo) : 6170.50 / 4027.02 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.050000000000e-01 for the sequence number 135

Field stored SIEF_ELGA at time 4.050000000000e-01 for the sequence number 135

Field stored VARI_ELGA at time 4.050000000000e-01 for the sequence number 135

Field stored COMPORTEMENT at time 4.050000000000e-01 for the sequence number 135

Field stored VITE at time 4.050000000000e-01 for the sequence number 135

Field stored ACCE at time 4.050000000000e-01 for the sequence number 135

Field stored FORC_AMOR at time 4.050000000000e-01 for the sequence number 135

Field stored FORC_LIAI at time 4.050000000000e-01 for the sequence number 135

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[67%] Instant calculé : 4.05000e-01, dernier instant archivé : 4.05000e-01, au numéro d'ordre :

137

Time of computation: 4.080000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.08000E-01 | 0 | 1.01142E-17 | 3.11037E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -6.6975E-39 | -1.8665E-27 | 0.0000E+00 | 1.8665E-27 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.011422881241e-17 with the node and degree of

freedom N85441 DY

The residue of the type RESI_GLOB_MAXI is worth 3.110366686345e-22 with the node and degree of

freedom N85441 DY

Temps CPU consommé dans ce pas de temps : 22.645 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.088 s (3 intégrations)

* Temps total factorisation matrice : 3.044 s (1 factorisations)

* Temps construction second membre : 5.169 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.921 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.294 s

Mémoire (Mo) : 6170.50 / 4072.45 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.080000000000e-01 for the sequence number 136

Field stored SIEF_ELGA at time 4.080000000000e-01 for the sequence number 136

Field stored VARI_ELGA at time 4.080000000000e-01 for the sequence number 136

Field stored COMPORTEMENT at time 4.080000000000e-01 for the sequence number 136

Field stored VITE at time 4.080000000000e-01 for the sequence number 136

Field stored ACCE at time 4.080000000000e-01 for the sequence number 136

Field stored FORC_AMOR at time 4.080000000000e-01 for the sequence number 136

Field stored FORC_LIAI at time 4.080000000000e-01 for the sequence number 136

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[68%] Instant calculé : 4.08000e-01, dernier instant archivé : 4.08000e-01, au numéro

d'ordre :

138

Time of computation: 4.110000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 4.11000E-01 | 0 | 8.92414E-18 | 2.74438E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -4.6140E-39 | -1.2839E-27 | 0.0000E+00 | 1.2839E-27 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.924136303322e-18 with the

node and degree of

freedom N82580 DY

The residue of the type RESI_GLOB_MAXI is worth 2.744384844071e-22 with the node and degree of

freedom N82580 DY

Temps CPU consommé dans ce pas de temps : 22.610 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.097 s (3 intégrations)

* Temps total factorisation matrice : 3.024 s (1 factorisations)

* Temps construction second membre : 5.156 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.918 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.283 s

Mémoire (Mo) : 6170.50 / 4117.88 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.110000000000e-01 for the sequence number 137

Field stored SIEF_ELGA at time 4.110000000000e-01 for the sequence number 137

Field stored VARI_ELGA at time 4.110000000000e-01 for the sequence number 137

Field stored COMPORTEMENT at time 4.110000000000e-01 for the sequence number 137

Field stored VITE at time 4.110000000000e-01 for the sequence number 137

Field stored ACCE at time 4.110000000000e-01 for the sequence number 137

Field stored FORC_AMOR at time 4.110000000000e-01 for the sequence number 137

Field stored FORC_LIAI at time 4.110000000000e-01 for the sequence number 137

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[68%] Instant calculé : 4.11000e-01, dernier instant archivé : 4.11000e-01, au numéro d'ordre :

139

Time of computation: 4.140000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.14000E-01 | 0 | 9.20366E-18 | 2.83034E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.1774E-39 | -8.8279E-28 | 0.0000E+00 | 8.8279E-28 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.203657558993e-18 with the node and degree of

freedom N80206 DX

The residue of the type RESI_GLOB_MAXI is worth 2.830344299595e-22 with the node and degree of

freedom N80206 DX

Temps CPU consommé dans ce pas de temps : 22.622 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.086 s (3 intégrations)

* Temps total factorisation matrice : 3.049 s (1 factorisations)

* Temps construction second membre : 5.150 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.293 s

Mémoire (Mo) : 6170.50 / 4163.31 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.140000000000e-01 for the sequence number 138

Field stored SIEF_ELGA at time 4.140000000000e-01 for the sequence number 138

Field stored VARI_ELGA at time 4.140000000000e-01 for the sequence number 138

Field stored COMPORTEMENT at time 4.140000000000e-01 for the sequence number 138

Field stored VITE at time 4.140000000000e-01 for the sequence number 138

Field stored ACCE at time 4.140000000000e-01 for the sequence number 138

Field stored FORC_AMOR at time 4.140000000000e-01 for the sequence number 138

Field stored FORC_LIAI at time 4.140000000000e-01 for the sequence number 138

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[69%] Instant calculé : 4.14000e-01, dernier instant archivé : 4.14000e-01, au numéro d'ordre :

140

Time of computation: 4.170000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 4.17000E-01 | 0 | 6.99714E-18 | 2.15179E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.1872E-39 | -6.0679E-28 | 0.0000E+00 | 6.0679E-28 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.997140844890e-18 with the node and degree of

freedom N81936 DY

The residue of the type RESI_GLOB_MAXI is worth 2.151787762295e-22 with the node and degree of

freedom N81936 DY

Temps CPU consommé dans ce pas de temps : 22.611 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.058 s (3 intégrations)

* Temps total factorisation matrice : 3.055 s (1 factorisations)

* Temps construction second membre : 5.151 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.918 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.297 s

Mémoire (Mo) : 6170.50 / 4208.74 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.170000000000e-01 for the sequence number 139

Field stored SIEF_ELGA at time 4.170000000000e-01 for the sequence number 139

Field stored VARI_ELGA at time 4.170000000000e-01 for the sequence number 139

Field stored COMPORTEMENT at time 4.170000000000e-01 for the sequence number 139

Field stored VITE at time 4.170000000000e-01 for the sequence number 139

Field stored ACCE at time 4.170000000000e-01 for the sequence number 139

Field stored FORC_AMOR at time 4.170000000000e-01 for the sequence number 139

Field stored FORC_LIAI at time 4.170000000000e-01 for the sequence number 139

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[69%] Instant calculé : 4.17000e-01, dernier instant archivé : 4.17000e-01, au numéro d'ordre :

141

Time of computation: 4.200000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.20000E-01 | 0 | 7.22401E-18 | 2.22156E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.5050E-39 | -4.1695E-28 | 0.0000E+00 | 4.1695E-28 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.224012236739e-18 with the node and degree of

freedom N84697 DY

The residue of the type RESI_GLOB_MAXI is worth 2.221556128464e-22 with the node and degree of

freedom N84697 DY

Temps CPU consommé dans ce pas de temps : 22.595 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.075 s (3 intégrations)

* Temps total factorisation matrice : 3.034 s (1 factorisations)

* Temps construction second membre : 5.156 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.284 s

Mémoire (Mo) : 6170.50 / 4254.17 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.200000000000e-01 for the sequence number 140

Field stored SIEF_ELGA at time 4.200000000000e-01 for the sequence number 140

Field stored VARI_ELGA at time 4.200000000000e-01 for the sequence number 140

Field stored COMPORTEMENT at time 4.200000000000e-01 for the sequence number 140

Field stored VITE at time 4.200000000000e-01 for the sequence number 140

Field stored ACCE at time 4.200000000000e-01 for the sequence number 140

Field stored FORC_AMOR at time 4.200000000000e-01 for the sequence number 140

Field stored FORC_LIAI at time 4.200000000000e-01 for the sequence number 140

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[70%] Instant calculé : 4.20000e-01, dernier instant archivé : 4.20000e-01, au numéro

d'ordre :

142

Time of computation: 4.230000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 4.23000E-01 | 0 | 7.53701E-18 | 2.31781E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.0352E-39 | -2.8640E-28 | 0.0000E+00 | 2.8640E-28 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.537014020291e-18 with the

node and degree of

freedom N84668 DY

The residue of the type RESI_GLOB_MAXI is worth 2.317811645160e-22 with the node and degree of

freedom N84668 DY

Temps CPU consommé dans ce pas de temps : 22.582 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.046 s (3 intégrations)

* Temps total factorisation matrice : 3.020 s (1 factorisations)

* Temps construction second membre : 5.159 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.927 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.300 s

Mémoire (Mo) : 6170.50 / 4299.60 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.230000000000e-01 for the sequence number 141

Field stored SIEF_ELGA at time 4.230000000000e-01 for the sequence number 141

Field stored VARI_ELGA at time 4.230000000000e-01 for the sequence number 141

Field stored COMPORTEMENT at time 4.230000000000e-01 for the sequence number 141

Field stored VITE at time 4.230000000000e-01 for the sequence number 141

Field stored ACCE at time 4.230000000000e-01 for the sequence number 141

Field stored FORC_AMOR at time 4.230000000000e-01 for the sequence number 141

Field stored FORC_LIAI at time 4.230000000000e-01 for the sequence number 141

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[70%] Instant calculé : 4.23000e-01, dernier instant archivé : 4.23000e-01, au numéro d'ordre :

143

Time of computation: 4.260000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.26000E-01 | 0 | 1.17498E-17 | 3.61334E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -7.1183E-40 | -1.9666E-28 | 0.0000E+00 | 1.9666E-28 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.174980018303e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.613343907708e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 22.581 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.054 s (3 intégrations)

* Temps total factorisation matrice : 3.022 s (1 factorisations)

* Temps construction second membre : 5.168 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.291 s

Mémoire (Mo) : 6170.50 / 4345.03 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.260000000000e-01 for the sequence number 142

Field stored SIEF_ELGA at time 4.260000000000e-01 for the sequence number 142

Field stored VARI_ELGA at time 4.260000000000e-01 for the sequence number 142

Field stored COMPORTEMENT at time 4.260000000000e-01 for the sequence number 142

Field stored VITE at time 4.260000000000e-01 for the sequence number 142

Field stored ACCE at time 4.260000000000e-01 for the sequence number 142

Field stored FORC_AMOR at time 4.260000000000e-01 for the sequence number 142

Field stored FORC_LIAI at time 4.260000000000e-01 for the sequence number 142

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[71%] Instant calculé : 4.26000e-01, dernier instant archivé : 4.26000e-01, au numéro d'ordre :

144

Time of computation: 4.290000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.29000E-01 | 0 | 1.11605E-17 | 3.43213E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -4.8928E-40 | -1.3500E-28 | 0.0000E+00 | 1.3500E-28 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.116052157918e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.432126676776e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 22.636 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.095 s (3 intégrations)

* Temps total factorisation matrice : 3.052 s (1 factorisations)

* Temps construction second membre : 5.151 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.294 s

Mémoire (Mo) : 6170.50 / 4390.46 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.290000000000e-01 for the sequence number 143

Field stored SIEF_ELGA at time 4.290000000000e-01 for the sequence number 143

Field stored VARI_ELGA at time 4.290000000000e-01 for the sequence number 143

Field stored COMPORTEMENT at time 4.290000000000e-01 for the sequence number 143

Field stored VITE at time 4.290000000000e-01 for the sequence number 143

Field stored ACCE at time 4.290000000000e-01 for the sequence number 143

Field stored FORC_AMOR at time 4.290000000000e-01 for the sequence number 143

Field stored FORC_LIAI at time 4.290000000000e-01 for the sequence number 143

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[71%] Instant calculé : 4.29000e-01, dernier instant archivé : 4.29000e-01, au numéro d'ordre :

145

Time of computation: 4.320000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.32000E-01 | 0 | 1.01388E-17 | 3.11793E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.3619E-40 | -9.2642E-29 | 0.0000E+00 | 9.2642E-29 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.013882203399e-17 with the node and degree of

freedom N77361 DY

The residue of the type RESI_GLOB_MAXI is worth 3.117929688775e-22 with the node and degree of

freedom N77361 DY

Temps CPU consommé dans ce pas de temps : 22.635 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.099 s (3 intégrations)

* Temps total factorisation matrice : 3.051 s (1 factorisations)

* Temps construction second membre : 5.151 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.918 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.285 s

Mémoire (Mo) : 6170.50 / 4435.89 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.320000000000e-01 for the sequence number 144

Field stored SIEF_ELGA at time 4.320000000000e-01 for the sequence number 144

Field stored VARI_ELGA at time 4.320000000000e-01 for the sequence number 144

Field stored COMPORTEMENT at time 4.320000000000e-01 for the sequence number 144

Field stored VITE at time 4.320000000000e-01 for the sequence number 144

Field stored ACCE at time 4.320000000000e-01 for the sequence number 144

Field stored FORC_AMOR at time 4.320000000000e-01 for the sequence number 144

Field stored FORC_LIAI at time 4.320000000000e-01 for the sequence number 144

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[72%] Instant calculé : 4.32000e-01, dernier instant archivé : 4.32000e-01, au numéro

d'ordre :

146

Time of computation: 4.350000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 4.35000E-01 | 0 | 8.17726E-18 | 2.51470E-22 | | | | |

| | |TANGENTE | | | | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.3093E-40 | -6.3556E-29 | 0.0000E+00 | 6.3556E-29 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.177257831652e-18 with the

node and degree of

freedom N81853 DY

The residue of the type RESI_GLOB_MAXI is worth 2.514701893436e-22 with the node and degree of

freedom N81853 DY

Temps CPU consommé dans ce pas de temps : 22.597 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.033 s (3 intégrations)

* Temps total factorisation matrice : 3.054 s (1 factorisations)

* Temps construction second membre : 5.172 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.919 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.288 s

Mémoire (Mo) : 6170.50 / 4481.32 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.350000000000e-01 for the sequence number 145

Field stored SIEF_ELGA at time 4.350000000000e-01 for the sequence number 145

Field stored VARI_ELGA at time 4.350000000000e-01 for the sequence number 145

Field stored COMPORTEMENT at time 4.350000000000e-01 for the sequence number 145

Field stored VITE at time 4.350000000000e-01 for the sequence number 145

Field stored ACCE at time 4.350000000000e-01 for the sequence number 145

Field stored FORC_AMOR at time 4.350000000000e-01 for the sequence number 145

Field stored FORC_LIAI at time 4.350000000000e-01 for the sequence number 145

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[72%] Instant calculé : 4.35000e-01, dernier instant archivé : 4.35000e-01, au numéro d'ordre :

147

Time of computation: 4.380000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.38000E-01 | 0 | 1.02684E-17 | 3.15776E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.5857E-40 | -4.3589E-29 | 0.0000E+00 | 4.3589E-29 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.026835513081e-17 with the node and degree of

freedom N82047 DY

The residue of the type RESI_GLOB_MAXI is worth 3.157764206723e-22 with the node and degree of

freedom N82047 DY

Temps CPU consommé dans ce pas de temps : 22.592 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.037 s (3 intégrations)

* Temps total factorisation matrice : 3.064 s (1 factorisations)

* Temps construction second membre : 5.151 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.921 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.288 s

Mémoire (Mo) : 6170.50 / 4526.75 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.380000000000e-01 for the sequence number 146

Field stored SIEF_ELGA at time 4.380000000000e-01 for the sequence number 146

Field stored VARI_ELGA at time 4.380000000000e-01 for the sequence number 146

Field stored COMPORTEMENT at time 4.380000000000e-01 for the sequence number 146

Field stored VITE at time 4.380000000000e-01 for the sequence number 146

Field stored ACCE at time 4.380000000000e-01 for the sequence number 146

Field stored FORC_AMOR at time 4.380000000000e-01 for the sequence number 146

Field stored FORC_LIAI at time 4.380000000000e-01 for the sequence number 146

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[73%] Instant calculé : 4.38000e-01, dernier instant archivé : 4.38000e-01, au numéro d'ordre :

148

Time of computation: 4.410000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.41000E-01 | 0 | 8.09519E-18 | 2.48946E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.0885E-40 | -2.9886E-29 | 0.0000E+00 | 2.9886E-29 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.095191980106e-18 with the node and degree of

freedom N82101 DY

The residue of the type RESI_GLOB_MAXI is worth 2.489464685986e-22 with the node and degree of

freedom N82101 DY

Temps CPU consommé dans ce pas de temps : 22.588 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.064 s (3 intégrations)

* Temps total factorisation matrice : 3.034 s (1 factorisations)

* Temps construction second membre : 5.160 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.286 s

Mémoire (Mo) : 6170.50 / 4572.18 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.410000000000e-01 for the sequence number 147

Field stored SIEF_ELGA at time 4.410000000000e-01 for the sequence number 147

Field stored VARI_ELGA at time 4.410000000000e-01 for the sequence number 147

Field stored COMPORTEMENT at time 4.410000000000e-01 for the sequence number 147

Field stored VITE at time 4.410000000000e-01 for the sequence number 147

Field stored ACCE at time 4.410000000000e-01 for the sequence number 147

Field stored FORC_AMOR at time 4.410000000000e-01 for the sequence number 147

Field stored FORC_LIAI at time 4.410000000000e-01 for the sequence number 147

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[73%] Instant calculé : 4.41000e-01, dernier instant archivé : 4.41000e-01, au numéro d'ordre :

149

Time of computation: 4.440000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.44000E-01 | 0 | 8.85993E-18 | 2.72464E-22 | | TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -7.4697E-41 | -2.0485E-29 | 0.0000E+00 | 2.0485E-29 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.859930366388e-18 with the node and degree of

freedom N78257 DY

The residue of the type RESI_GLOB_MAXI is worth 2.724639986503e-22 with the node and degree of

freedom N78257 DY

Temps CPU consommé dans ce pas de temps : 22.607 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.076 s (3 intégrations)

* Temps total factorisation matrice : 3.028 s (1 factorisations)

* Temps construction second membre : 5.169 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6170.50 / 4617.64 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.440000000000e-01 for the sequence number 148

Field stored SIEF_ELGA at time 4.440000000000e-01 for the sequence number 148

Field stored VARI_ELGA at time 4.440000000000e-01 for the sequence number 148

Field stored COMPORTEMENT at time 4.440000000000e-01 for the sequence number 148

Field stored VITE at time 4.440000000000e-01 for the sequence number 148

Field stored ACCE at time 4.440000000000e-01 for the sequence number 148

Field stored FORC_AMOR at time 4.440000000000e-01 for the sequence number 148

Field stored FORC_LIAI at time 4.440000000000e-01 for the sequence number 148

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[74%] Instant calculé : 4.44000e-01, dernier instant archivé : 4.44000e-01, au numéro

d'ordre :

150

Time of computation: 4.470000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.47000E-01 | 0 | 8.75470E-18 | 2.69228E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.1244E-41 | -1.4037E-29 | 0.0000E+00 | 1.4037E-29 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.754700529786e-18 with the

node and degree of

freedom N81898 DY

The residue of the type RESI_GLOB_MAXI is worth 2.692279300954e-22 with the node and degree of

freedom N81898 DY

Temps CPU consommé dans ce pas de temps : 22.557 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.058 s (3 intégrations)

* Temps total factorisation matrice : 3.014 s (1 factorisations)

* Temps construction second membre : 5.159 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.282 s

Mémoire (Mo) : 6170.50 / 4663.17 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.470000000000e-01 for the sequence number 149

Field stored SIEF_ELGA at time 4.470000000000e-01 for the sequence number 149

Field stored VARI_ELGA at time 4.470000000000e-01 for the sequence number 149

Field stored COMPORTEMENT at time 4.470000000000e-01 for the sequence number 149

Field stored VITE at time 4.470000000000e-01 for the sequence number 149

Field stored ACCE at time 4.470000000000e-01 for the sequence number 149

Field stored FORC_AMOR at time 4.470000000000e-01 for the sequence number 149

Field stored FORC_LIAI at time 4.470000000000e-01 for the sequence number 149

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[74%] Instant calculé : 4.47000e-01, dernier instant archivé : 4.47000e-01, au numéro d'ordre :

151

Time of computation: 4.500000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.50000E-01 | 0 | 9.43772E-18 | 2.90232E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.5144E-41 | -9.6165E-30 | 0.0000E+00 | 9.6165E-30 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.437719755266e-18 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 2.902324009697e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 22.584 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.078 s (3 intégrations)

* Temps total factorisation matrice : 3.006 s (1 factorisations)

* Temps construction second membre : 5.169 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.286 s

Mémoire (Mo) : 6170.50 / 4708.63 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.500000000000e-01 for the sequence number 150

Field stored SIEF_ELGA at time 4.500000000000e-01 for the sequence number 150

Field stored VARI_ELGA at time 4.500000000000e-01 for the sequence number 150

Field stored COMPORTEMENT at time 4.500000000000e-01 for the sequence number 150

Field stored VITE at time 4.500000000000e-01 for the sequence number 150

Field stored ACCE at time 4.500000000000e-01 for the sequence number 150

Field stored FORC_AMOR at time 4.500000000000e-01 for the sequence number 150

Field stored FORC_LIAI at time 4.500000000000e-01 for the sequence number 150

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[75%] Instant calculé : 4.50000e-01, dernier instant archivé : 4.50000e-01, au numéro d'ordre :

152

Time of computation: 4.530000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.53000E-01 | 0 | 8.38604E-18 | 2.57891E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.4096E-41 | -6.5862E-30 | 0.0000E+00 | 6.5862E-30 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.386039309573e-18 with the node and degree of

freedom N80671 DY

The residue of the type RESI_GLOB_MAXI is worth 2.578907179444e-22 with the node and degree of

freedom N80671 DY

Temps CPU consommé dans ce pas de temps : 22.569 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.089 s (3 intégrations)

* Temps total factorisation matrice : 3.009 s (1 factorisations)

* Temps construction second membre : 5.146 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 6170.50 / 4754.16 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.530000000000e-01 for the sequence number 151

Field stored SIEF_ELGA at time 4.530000000000e-01 for the sequence number 151

Field stored VARI_ELGA at time 4.530000000000e-01 for the sequence number 151

Field stored COMPORTEMENT at time 4.530000000000e-01 for the sequence number 151

Field stored VITE at time 4.530000000000e-01 for the sequence number 151

Field stored ACCE at time 4.530000000000e-01 for the sequence number 151

Field stored FORC_AMOR at time 4.530000000000e-01 for the sequence number 151

Field stored FORC_LIAI at time 4.530000000000e-01 for the sequence number 151

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[75%] Instant calculé : 4.53000e-01, dernier instant archivé : 4.53000e-01, au numéro d'ordre :

153

Time of computation: 4.560000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.56000E-01 | 0 | 8.48606E-18 | 2.60967E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.6516E-41 | -4.5097E-30 | 0.0000E+00 | 4.5097E-30 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.486063926551e-18 with the node and degree of

freedom N77464 DX

The residue of the type RESI_GLOB_MAXI is worth 2.609667135762e-22 with the node and degree of

freedom N77464 DX

Temps CPU consommé dans ce pas de temps : 22.529 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.023 s (3 intégrations)

* Temps total factorisation matrice : 3.013 s (1 factorisations)

* Temps construction second membre : 5.167 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 6170.50 / 4799.59 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.560000000000e-01 for the sequence number 152

Field stored SIEF_ELGA at time 4.560000000000e-01 for the sequence number 152

Field stored VARI_ELGA at time 4.560000000000e-01 for the sequence number 152

Field stored COMPORTEMENT at time 4.560000000000e-01 for the sequence number 152

Field stored VITE at time 4.560000000000e-01 for the sequence number 152

Field stored ACCE at time 4.560000000000e-01 for the sequence number 152

Field stored FORC_AMOR at time 4.560000000000e-01 for the sequence number 152

Field stored FORC_LIAI at time 4.560000000000e-01 for the sequence number 152

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[76%] Instant calculé : 4.56000e-01, dernier instant archivé : 4.56000e-01, au numéro

d'ordre :

154

Time of computation: 4.590000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.59000E-01 | 0 | 9.06029E-18 | 2.78626E-22 | | | | |

| | |TANGENTE | | | | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.1318E-41 | -3.0871E-30 | 0.0000E+00 | 3.0871E-30 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.060289034957e-18 with the

node and degree of

freedom N82885 DY

The residue of the type RESI_GLOB_MAXI is worth 2.786255057667e-22 with the node and degree of

freedom N82885 DY

Temps CPU consommé dans ce pas de temps : 22.459 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.974 s (3 intégrations)

* Temps total factorisation matrice : 3.008 s (1 factorisations)

* Temps construction second membre : 5.136 s

* Temps total résolution K.U=F : 0.136 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.290 s

Mémoire (Mo) : 6170.50 / 4845.02 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.590000000000e-01 for the sequence number 153

Field stored SIEF_ELGA at time 4.590000000000e-01 for the sequence number 153

Field stored VARI_ELGA at time 4.590000000000e-01 for the sequence number 153

Field stored COMPORTEMENT at time 4.590000000000e-01 for the sequence number 153

Field stored VITE at time 4.590000000000e-01 for the sequence number 153

Field stored ACCE at time 4.590000000000e-01 for the sequence number 153

Field stored FORC_AMOR at time 4.590000000000e-01 for the sequence number 153

Field stored FORC_LIAI at time 4.590000000000e-01 for the sequence number 153

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[76%] Instant calculé : 4.59000e-01, dernier instant archivé : 4.59000e-01, au numéro d'ordre :

155

Time of computation: 4.620000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.62000E-01 | 0 | 9.01829E-18 | 2.77334E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -7.7532E-42 | -2.1127E-30 | 0.0000E+00 | 2.1127E-30 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.018294680152e-18 with the node and degree of

freedom N81979 DY

The residue of the type RESI_GLOB_MAXI is worth 2.773340791575e-22 with the node and degree of

freedom N81979 DY

Temps CPU consommé dans ce pas de temps : 22.596 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.086 s (3 intégrations)

* Temps total factorisation matrice : 3.035 s (1 factorisations)

* Temps construction second membre : 5.146 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.284 s

Mémoire (Mo) : 6170.50 / 4890.45 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.620000000000e-01 for the sequence number 154

Field stored SIEF_ELGA at time 4.620000000000e-01 for the sequence number 154

Field stored VARI_ELGA at time 4.620000000000e-01 for the sequence number 154

Field stored COMPORTEMENT at time 4.620000000000e-01 for the sequence number 154

Field stored VITE at time 4.620000000000e-01 for the sequence number 154

Field stored ACCE at time 4.620000000000e-01 for the sequence number 154

Field stored FORC_AMOR at time 4.620000000000e-01 for the sequence number 154

Field stored FORC_LIAI at time 4.620000000000e-01 for the sequence number 154

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[77%] Instant calculé : 4.62000e-01, dernier instant archivé : 4.62000e-01, au numéro d'ordre :

156

Time of computation: 4.650000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.65000E-01 | 0 | 1.15702E-17 | 3.55810E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.3100E-42 | -1.4455E-30 | 0.0000E+00 | 1.4455E-30 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.157016435922e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.558101605757e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 22.574 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.045 s (3 intégrations)

* Temps total factorisation matrice : 3.044 s (1 factorisations)

* Temps construction second membre : 5.150 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6170.50 / 4935.88 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.650000000000e-01 for the sequence number 155

Field stored SIEF_ELGA at time 4.650000000000e-01 for the sequence number 155

Field stored VARI_ELGA at time 4.650000000000e-01 for the sequence number 155

Field stored COMPORTEMENT at time 4.650000000000e-01 for the sequence number 155

Field stored VITE at time 4.650000000000e-01 for the sequence number 155

Field stored ACCE at time 4.650000000000e-01 for the sequence number 155

Field stored FORC_AMOR at time 4.650000000000e-01 for the sequence number 155

Field stored FORC_LIAI at time 4.650000000000e-01 for the sequence number 155

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[77%] Instant calculé : 4.65000e-01, dernier instant archivé : 4.65000e-01, au numéro d'ordre :

157

Time of computation: 4.680000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.68000E-01 | 0 | 8.66664E-18 | 2.66520E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.6358E-42 | -9.8880E-31 | 0.0000E+00 | 9.8880E-31 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.666644596965e-18 with the node and degree of

freedom N81717 DY

The residue of the type RESI_GLOB_MAXI is worth 2.665200000588e-22 with the node and degree of

freedom N81717 DY

Temps CPU consommé dans ce pas de temps : 22.653 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.121 s (3 intégrations)

* Temps total factorisation matrice : 3.044 s (1 factorisations)

* Temps construction second membre : 5.159 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.286 s

Mémoire (Mo) : 6170.50 / 4981.30 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.680000000000e-01 for the sequence number 156

Field stored SIEF_ELGA at time 4.680000000000e-01 for the sequence number 156

Field stored VARI_ELGA at time 4.680000000000e-01 for the sequence number 156

Field stored COMPORTEMENT at time 4.680000000000e-01 for the sequence number 156

Field stored VITE at time 4.680000000000e-01 for the sequence number 156

Field stored ACCE at time 4.680000000000e-01 for the sequence number 156

Field stored FORC_AMOR at time 4.680000000000e-01 for the sequence number 156

Field stored FORC_LIAI at time 4.680000000000e-01 for the sequence number 156

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[78%] Instant calculé : 4.68000e-01, dernier instant archivé : 4.68000e-01, au numéro

d'ordre :

158

Time of computation: 4.710000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 4.71000E-01 | 0 | 7.77872E-18 | 2.39214E-22 | | | | |

| | |TANGENTE | | | | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.4888E-42 | -6.7623E-31 | 0.0000E+00 | 6.7623E-31 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.778723642743e-18 with the

node and degree of

freedom N78337 DX

The residue of the type RESI_GLOB_MAXI is worth 2.392143121280e-22 with the node and degree of

freedom N78337 DX

Temps CPU consommé dans ce pas de temps : 22.631 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.125 s (3 intégrations)

* Temps total factorisation matrice : 3.024 s (1 factorisations)

* Temps construction second membre : 5.153 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.284 s

Mémoire (Mo) : 6170.50 / 5026.73 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.710000000000e-01 for the sequence number 157

Field stored SIEF_ELGA at time 4.710000000000e-01 for the sequence number 157

Field stored VARI_ELGA at time 4.710000000000e-01 for the sequence number 157

Field stored COMPORTEMENT at time 4.710000000000e-01 for the sequence number 157

Field stored VITE at time 4.710000000000e-01 for the sequence number 157

Field stored ACCE at time 4.710000000000e-01 for the sequence number 157

Field stored FORC_AMOR at time 4.710000000000e-01 for the sequence number 157

Field stored FORC_LIAI at time 4.710000000000e-01 for the sequence number 157

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[78%] Instant calculé : 4.71000e-01, dernier instant archivé : 4.71000e-01, au numéro d'ordre :

159

Time of computation: 4.740000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.74000E-01 | 0 | 7.41246E-18 | 2.27951E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7033E-42 | -4.6236E-31 | 0.0000E+00 | 4.6236E-31 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.412456493941e-18 with the node and degree of

freedom N84612 DY

The residue of the type RESI_GLOB_MAXI is worth 2.279507233853e-22 with the node and degree of

freedom N84612 DY

Temps CPU consommé dans ce pas de temps : 22.484 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.003 s (3 intégrations)

* Temps total factorisation matrice : 3.006 s (1 factorisations)

* Temps construction second membre : 5.146 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.286 s

Mémoire (Mo) : 6170.50 / 5072.16 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.740000000000e-01 for the sequence number 158

Field stored SIEF_ELGA at time 4.740000000000e-01 for the sequence number 158

Field stored VARI_ELGA at time 4.740000000000e-01 for the sequence number 158

Field stored COMPORTEMENT at time 4.740000000000e-01 for the sequence number 158

Field stored VITE at time 4.740000000000e-01 for the sequence number 158

Field stored ACCE at time 4.740000000000e-01 for the sequence number 158

Field stored FORC_AMOR at time 4.740000000000e-01 for the sequence number 158

Field stored FORC_LIAI at time 4.740000000000e-01 for the sequence number 158

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[79%] Instant calculé : 4.74000e-01, dernier instant archivé : 4.74000e-01, au numéro d'ordre :

160

Time of computation: 4.770000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 4.77000E-01 | 0 | 8.07313E-18 | 2.48268E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.1654E-42 | -3.1606E-31 | 0.0000E+00 | 3.1606E-31 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.073127621899e-18 with the node and degree of

freedom N80462 DX

The residue of the type RESI_GLOB_MAXI is worth 2.482679369380e-22 with the node and degree of

freedom N80462 DX

Temps CPU consommé dans ce pas de temps : 22.535 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.046 s (3 intégrations)

* Temps total factorisation matrice : 3.011 s (1 factorisations)

* Temps construction second membre : 5.151 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 6170.50 / 5117.59 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.770000000000e-01 for the sequence number 159

Field stored SIEF_ELGA at time 4.770000000000e-01 for the sequence number 159

Field stored VARI_ELGA at time 4.770000000000e-01 for the sequence number 159

Field stored COMPORTEMENT at time 4.770000000000e-01 for the sequence number 159

Field stored VITE at time 4.770000000000e-01 for the sequence number 159

Field stored ACCE at time 4.770000000000e-01 for the sequence number 159

Field stored FORC_AMOR at time 4.770000000000e-01 for the sequence number 159

Field stored FORC_LIAI at time 4.770000000000e-01 for the sequence number 159

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[79%] Instant calculé : 4.77000e-01, dernier instant archivé : 4.77000e-01, au numéro d'ordre :

161

Time of computation: 4.800000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.80000E-01 | 0 | 7.63134E-18 | 2.34682E-22 | | TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -7.9716E-43 | -2.1601E-31 | 0.0000E+00 | 2.1601E-31 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.631344849864e-18 with the node and degree of

freedom N78176 DY

The residue of the type RESI_GLOB_MAXI is worth 2.346820625997e-22 with the node and degree of

freedom N78176 DY

Temps CPU consommé dans ce pas de temps : 22.526 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.014 s (3 intégrations)

* Temps total factorisation matrice : 3.041 s (1 factorisations)

* Temps construction second membre : 5.131 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.917 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.293 s

Mémoire (Mo) : 6170.50 / 5163.06 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.800000000000e-01 for the sequence number 160

Field stored SIEF_ELGA at time 4.800000000000e-01 for the sequence number 160

Field stored VARI_ELGA at time 4.800000000000e-01 for the sequence number 160

Field stored COMPORTEMENT at time 4.800000000000e-01 for the sequence number 160

Field stored VITE at time 4.800000000000e-01 for the sequence number 160

Field stored ACCE at time 4.800000000000e-01 for the sequence number 160

Field stored FORC_AMOR at time 4.800000000000e-01 for the sequence number 160

Field stored FORC_LIAI at time 4.800000000000e-01 for the sequence number 160

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[80%] Instant calculé : 4.80000e-01, dernier instant archivé : 4.80000e-01, au numéro

d'ordre :

162

Time of computation: 4.830000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.83000E-01 | 0 | 7.42184E-18 | 2.28239E-22 | | | | |

| | TANGENTE | | | | | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.4516E-43 | -1.4760E-31 | 0.0000E+00 | 1.4760E-31 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.421835548424e-18 with the

node and degree of

freedom N85230 DZ

The residue of the type RESI_GLOB_MAXI is worth 2.282391516891e-22 with the node and degree of

freedom N85230 DZ

Temps CPU consommé dans ce pas de temps : 22.523 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.015 s (3 intégrations)

* Temps total factorisation matrice : 3.021 s (1 factorisations)

* Temps construction second membre : 5.153 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.292 s

Mémoire (Mo) : 6170.50 / 5208.62 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.830000000000e-01 for the sequence number 161

Field stored SIEF_ELGA at time 4.830000000000e-01 for the sequence number 161

Field stored VARI_ELGA at time 4.830000000000e-01 for the sequence number 161

Field stored COMPORTEMENT at time 4.830000000000e-01 for the sequence number 161

Field stored VITE at time 4.830000000000e-01 for the sequence number 161

Field stored ACCE at time 4.830000000000e-01 for the sequence number 161

Field stored FORC_AMOR at time 4.830000000000e-01 for the sequence number 161

Field stored FORC_LIAI at time 4.830000000000e-01 for the sequence number 161

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[80%] Instant calculé : 4.83000e-01, dernier instant archivé : 4.83000e-01, au numéro d'ordre :

163

Time of computation: 4.860000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.86000E-01 | 0 | 9.32523E-18 | 2.86773E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.7274E-43 | -1.0083E-31 | 0.0000E+00 | 1.0083E-31 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.325228708916e-18 with the node and degree of

freedom N83232 DY

The residue of the type RESI_GLOB_MAXI is worth 2.867730328897e-22 with the node and degree of

freedom N83232 DY

Temps CPU consommé dans ce pas de temps : 22.574 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.060 s (3 intégrations)

* Temps total factorisation matrice : 3.047 s (1 factorisations)

* Temps construction second membre : 5.139 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 6170.50 / 5254.43 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.860000000000e-01 for the sequence number 162

Field stored SIEF_ELGA at time 4.860000000000e-01 for the sequence number 162

Field stored VARI_ELGA at time 4.860000000000e-01 for the sequence number 162

Field stored COMPORTEMENT at time 4.860000000000e-01 for the sequence number 162

Field stored VITE at time 4.860000000000e-01 for the sequence number 162

Field stored ACCE at time 4.860000000000e-01 for the sequence number 162

Field stored FORC_AMOR at time 4.860000000000e-01 for the sequence number 162

Field stored FORC_LIAI at time 4.860000000000e-01 for the sequence number 162

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[81%] Instant calculé : 4.86000e-01, dernier instant archivé : 4.86000e-01, au numéro d'ordre :

164

Time of computation: 4.890000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 4.89000E-01 | 0 | 9.18287E-18 | 2.82395E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.5480E-43 | -6.8868E-32 | 0.0000E+00 | 6.8868E-32 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.182867207092e-18 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 2.823950770326e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 22.644 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.096 s (3 intégrations)

* Temps total factorisation matrice : 3.053 s (1 factorisations)

* Temps construction second membre : 5.160 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.921 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.283 s

Mémoire (Mo) : 6170.50 / 5299.28 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.890000000000e-01 for the sequence number 163

Field stored SIEF_ELGA at time 4.890000000000e-01 for the sequence number 163

Field stored VARI_ELGA at time 4.890000000000e-01 for the sequence number 163

Field stored COMPORTEMENT at time 4.890000000000e-01 for the sequence number 163

Field stored VITE at time 4.890000000000e-01 for the sequence number 163

Field stored ACCE at time 4.890000000000e-01 for the sequence number 163

Field stored FORC_AMOR at time 4.890000000000e-01 for the sequence number 163

Field stored FORC_LIAI at time 4.890000000000e-01 for the sequence number 163

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[81%] Instant calculé : 4.89000e-01, dernier instant archivé : 4.89000e-01, au numéro d'ordre :

165

Time of computation: 4.920000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 4.92000E-01 | 0 | 6.96247E-18 | 2.14113E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7414E-43 | -4.7028E-32 | 0.0000E+00 | 4.7028E-32 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.962474203164e-18 with the node and degree of

freedom N80641 DX

The residue of the type RESI_GLOB_MAXI is worth 2.141126942815e-22 with the node and degree of

freedom N80641 DX

Temps CPU consommé dans ce pas de temps : 22.544 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.037 s (3 intégrations)

* Temps total factorisation matrice : 3.049 s (1 factorisations)

* Temps construction second membre : 5.137 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.279 s

Mémoire (Mo) : 6170.50 / 5344.97 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.920000000000e-01 for the sequence number 164

Field stored SIEF_ELGA at time 4.920000000000e-01 for the sequence number 164

Field stored VARI_ELGA at time 4.920000000000e-01 for the sequence number 164

Field stored COMPORTEMENT at time 4.920000000000e-01 for the sequence number 164

Field stored VITE at time 4.920000000000e-01 for the sequence number 164

Field stored ACCE at time 4.920000000000e-01 for the sequence number 164

Field stored FORC_AMOR at time 4.920000000000e-01 for the sequence number 164

Field stored FORC_LIAI at time 4.920000000000e-01 for the sequence number 164

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[82%] Instant calculé : 4.92000e-01, dernier instant archivé : 4.92000e-01, au numéro

d'ordre :

166

Time of computation: 4.950000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 4.95000E-01 | 0 | 6.81237E-18 | 2.09497E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.1898E-43 | -3.2108E-32 | 0.0000E+00 | 3.2108E-32 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.812366286842e-18 with the

node and degree of

freedom N85199 DY

The residue of the type RESI_GLOB_MAXI is worth 2.094965176956e-22 with the node and degree of

freedom N85199 DY

Temps CPU consommé dans ce pas de temps : 22.604 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.065 s (3 intégrations)

* Temps total factorisation matrice : 3.058 s (1 factorisations)

* Temps construction second membre : 5.142 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.918 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6170.50 / 5390.79 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.950000000000e-01 for the sequence number 165

Field stored SIEF_ELGA at time 4.950000000000e-01 for the sequence number 165

Field stored VARI_ELGA at time 4.950000000000e-01 for the sequence number 165

Field stored COMPORTEMENT at time 4.950000000000e-01 for the sequence number 165

Field stored VITE at time 4.950000000000e-01 for the sequence number 165

Field stored ACCE at time 4.950000000000e-01 for the sequence number 165

Field stored FORC_AMOR at time 4.950000000000e-01 for the sequence number 165

Field stored FORC_LIAI at time 4.950000000000e-01 for the sequence number 165

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[82%] Instant calculé : 4.95000e-01, dernier instant archivé : 4.95000e-01, au numéro d'ordre :

167

Time of computation: 4.980000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 4.98000E-01 | 0 | 8.60194E-18 | 2.64530E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -8.1283E-44 | -2.1917E-32 | 0.0000E+00 | 2.1917E-32 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.601942805106e-18 with the node and degree of

freedom N79744 DY

The residue of the type RESI_GLOB_MAXI is worth 2.645302655800e-22 with the node and degree of

freedom N79744 DY

Temps CPU consommé dans ce pas de temps : 22.629 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.084 s (3 intégrations)

* Temps total factorisation matrice : 3.038 s (1 factorisations)

* Temps construction second membre : 5.154 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.924 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.300 s

Mémoire (Mo) : 6170.50 / 5435.50 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.980000000000e-01 for the sequence number 166

Field stored SIEF_ELGA at time 4.980000000000e-01 for the sequence number 166

Field stored VARI_ELGA at time 4.980000000000e-01 for the sequence number 166

Field stored COMPORTEMENT at time 4.980000000000e-01 for the sequence number 166

Field stored VITE at time 4.980000000000e-01 for the sequence number 166

Field stored ACCE at time 4.980000000000e-01 for the sequence number 166

Field stored FORC_AMOR at time 4.980000000000e-01 for the sequence number 166

Field stored FORC_LIAI at time 4.980000000000e-01 for the sequence number 166

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[83%] Instant calculé : 4.98000e-01, dernier instant archivé : 4.98000e-01, au numéro d'ordre :

168

Time of computation: 5.010000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 5.01000E-01 | 0 | 1.00541E-17 | 3.09187E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.5517E-44 | -1.4958E-32 | 0.0000E+00 | 1.4958E-32 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.005408885791e-17 with the node and degree of

freedom N85441 DY

The residue of the type RESI_GLOB_MAXI is worth 3.091872215389e-22 with the node and degree of

freedom N85441 DY

Temps CPU consommé dans ce pas de temps : 22.667 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.128 s (3 intégrations)

* Temps total factorisation matrice : 3.050 s (1 factorisations)

* Temps construction second membre : 5.156 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6170.50 / 5481.06 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.010000000000e-01 for the sequence number 167

Field stored SIEF_ELGA at time 5.010000000000e-01 for the sequence number 167

Field stored VARI_ELGA at time 5.010000000000e-01 for the sequence number 167

Field stored COMPORTEMENT at time 5.010000000000e-01 for the sequence number 167

Field stored VITE at time 5.010000000000e-01 for the sequence number 167

Field stored ACCE at time 5.010000000000e-01 for the sequence number 167

Field stored FORC_AMOR at time 5.010000000000e-01 for the sequence number 167

Field stored FORC_LIAI at time 5.010000000000e-01 for the sequence number 167

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[83%] Instant calculé : 5.01000e-01, dernier instant archivé : 5.01000e-01, au numéro d'ordre :

169

Time of computation: 5.040000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.04000E-01 | 0 | 9.55548E-18 | 2.93854E-22 | | TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.7910E-44 | -1.0207E-32 | 0.0000E+00 | 1.0207E-32 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.555480149426e-18 with the node and degree of

freedom N81747 DY

The residue of the type RESI_GLOB_MAXI is worth 2.938538140676e-22 with the node and degree of

freedom N81747 DY

Temps CPU consommé dans ce pas de temps : 22.518 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.001 s (3 intégrations)

* Temps total factorisation matrice : 3.026 s (1 factorisations)

* Temps construction second membre : 5.153 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.920 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6170.50 / 5526.84 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.040000000000e-01 for the sequence number 168

Field stored SIEF_ELGA at time 5.040000000000e-01 for the sequence number 168

Field stored VARI_ELGA at time 5.040000000000e-01 for the sequence number 168

Field stored COMPORTEMENT at time 5.040000000000e-01 for the sequence number 168

Field stored VITE at time 5.040000000000e-01 for the sequence number 168

Field stored ACCE at time 5.040000000000e-01 for the sequence number 168

Field stored FORC_AMOR at time 5.040000000000e-01 for the sequence number 168

Field stored FORC_LIAI at time 5.040000000000e-01 for the sequence number 168

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[84%] Instant calculé : 5.04000e-01, dernier instant archivé : 5.04000e-01, au numéro

d'ordre :

170

Time of computation: 5.070000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 5.07000E-01 | 0 | 8.71744E-18 | 2.68082E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.5883E-44 | -6.9634E-33 | 0.0000E+00 | 6.9634E-33 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.717435476717e-18 with the

node and degree of

freedom N77361 DY

The residue of the type RESI_GLOB_MAXI is worth 2.680819407987e-22 with the node and degree of

freedom N77361 DY

Temps CPU consommé dans ce pas de temps : 22.567 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.076 s (3 intégrations)

* Temps total factorisation matrice : 3.007 s (1 factorisations)

* Temps construction second membre : 5.153 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.285 s

Mémoire (Mo) : 6170.50 / 5572.57 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.070000000000e-01 for the sequence number 169

Field stored SIEF_ELGA at time 5.070000000000e-01 for the sequence number 169

Field stored VARI_ELGA at time 5.070000000000e-01 for the sequence number 169

Field stored COMPORTEMENT at time 5.070000000000e-01 for the sequence number 169

Field stored VITE at time 5.070000000000e-01 for the sequence number 169

Field stored ACCE at time 5.070000000000e-01 for the sequence number 169

Field stored FORC_AMOR at time 5.070000000000e-01 for the sequence number 169

Field stored FORC_LIAI at time 5.070000000000e-01 for the sequence number 169

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[84%] Instant calculé : 5.07000e-01, dernier instant archivé : 5.07000e-01, au numéro d'ordre :

171

Time of computation: 5.100000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.10000E-01 | 0 | 7.37176E-18 | 2.26699E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7668E-44 | -4.7498E-33 | 0.0000E+00 | 4.7498E-33 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.371756644446e-18 with the node and degree of

freedom N79616 DY

The residue of the type RESI_GLOB_MAXI is worth 2.266991059030e-22 with the node and degree of

freedom N79616 DY

Temps CPU consommé dans ce pas de temps : 22.486 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.993 s (3 intégrations)

* Temps total factorisation matrice : 3.016 s (1 factorisations)

* Temps construction second membre : 5.145 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.917 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.287 s

Mémoire (Mo) : 6170.50 / 5618.38 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.100000000000e-01 for the sequence number 170

Field stored SIEF_ELGA at time 5.100000000000e-01 for the sequence number 170

Field stored VARI_ELGA at time 5.100000000000e-01 for the sequence number 170

Field stored COMPORTEMENT at time 5.100000000000e-01 for the sequence number 170

Field stored VITE at time 5.100000000000e-01 for the sequence number 170

Field stored ACCE at time 5.100000000000e-01 for the sequence number 170

Field stored FORC_AMOR at time 5.100000000000e-01 for the sequence number 170

Field stored FORC_LIAI at time 5.100000000000e-01 for the sequence number 170

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[85%] Instant calculé : 5.10000e-01, dernier instant archivé : 5.10000e-01, au numéro d'ordre :

172

Time of computation: 5.130000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 5.13000E-01 | 0 | 7.06017E-18 | 2.17117E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.2058E-44 | -3.2393E-33 | 0.0000E+00 | 3.2393E-33 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.060168067503e-18 with the node and degree of

freedom N79806 DY

The residue of the type RESI_GLOB_MAXI is worth 2.171170137085e-22 with the node and degree of

freedom N79806 DY

Temps CPU consommé dans ce pas de temps : 22.573 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.029 s (3 intégrations)

* Temps total factorisation matrice : 3.069 s (1 factorisations)

* Temps construction second membre : 5.142 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.290 s

Mémoire (Mo) : 6170.50 / 5662.95 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.130000000000e-01 for the sequence number 171

Field stored SIEF_ELGA at time 5.130000000000e-01 for the sequence number 171

Field stored VARI_ELGA at time 5.130000000000e-01 for the sequence number 171

Field stored COMPORTEMENT at time 5.130000000000e-01 for the sequence number 171

Field stored VITE at time 5.130000000000e-01 for the sequence number 171

Field stored ACCE at time 5.130000000000e-01 for the sequence number 171

Field stored FORC_AMOR at time 5.130000000000e-01 for the sequence number 171

Field stored FORC_LIAI at time 5.130000000000e-01 for the sequence number 171

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[85%] Instant calculé : 5.13000e-01, dernier instant archivé : 5.13000e-01, au numéro d'ordre :

173

Time of computation: 5.160000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.16000E-01 | 0 | 7.63263E-18 | 2.34722E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -8.2272E-45 | -2.2088E-33 | 0.0000E+00 | 2.2088E-33 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.632629450445e-18 with the node and degree of

freedom N77546 DY

The residue of the type RESI_GLOB_MAXI is worth 2.347215671327e-22 with the node and degree of

freedom N77546 DY

Temps CPU consommé dans ce pas de temps : 22.622 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.089 s (3 intégrations)

* Temps total factorisation matrice : 3.045 s (1 factorisations)

* Temps construction second membre : 5.154 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6170.50 / 5708.64 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.160000000000e-01 for the sequence number 172

Field stored SIEF_ELGA at time 5.160000000000e-01 for the sequence number 172

Field stored VARI_ELGA at time 5.160000000000e-01 for the sequence number 172

Field stored COMPORTEMENT at time 5.160000000000e-01 for the sequence number 172

Field stored VITE at time 5.160000000000e-01 for the sequence number 172

Field stored ACCE at time 5.160000000000e-01 for the sequence number 172

Field stored FORC_AMOR at time 5.160000000000e-01 for the sequence number 172

Field stored FORC_LIAI at time 5.160000000000e-01 for the sequence number 172

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[86%] Instant calculé : 5.16000e-01, dernier instant archivé : 5.16000e-01, au numéro

d'ordre :

174

Time of computation: 5.190000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 5.19000E-01 | 0 | 8.87080E-18 | 2.72798E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.6132E-45 | -1.5059E-33 | 0.0000E+00 | 1.5059E-33 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.870802703693e-18 with the

node and degree of

freedom N85196 DY

The residue of the type RESI_GLOB_MAXI is worth 2.727983489640e-22 with the node and degree of

freedom N85196 DY

Temps CPU consommé dans ce pas de temps : 22.528 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.981 s (3 intégrations)

* Temps total factorisation matrice : 3.053 s (1 factorisations)

* Temps construction second membre : 5.147 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.917 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.299 s

Mémoire (Mo) : 6170.50 / 5754.20 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.190000000000e-01 for the sequence number 173

Field stored SIEF_ELGA at time 5.190000000000e-01 for the sequence number 173

Field stored VARI_ELGA at time 5.190000000000e-01 for the sequence number 173

Field stored COMPORTEMENT at time 5.190000000000e-01 for the sequence number 173

Field stored VITE at time 5.190000000000e-01 for the sequence number 173

Field stored ACCE at time 5.190000000000e-01 for the sequence number 173

Field stored FORC_AMOR at time 5.190000000000e-01 for the sequence number 173

Field stored FORC_LIAI at time 5.190000000000e-01 for the sequence number 173

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[86%] Instant calculé : 5.19000e-01, dernier instant archivé : 5.19000e-01, au numéro d'ordre :

175

Time of computation: 5.220000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.22000E-01 | 0 | 1.03784E-17 | 3.19160E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.8287E-45 | -1.0265E-33 | 0.0000E+00 | 1.0265E-33 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.037838994880e-17 with the node and degree of

freedom N81861 DY

The residue of the type RESI_GLOB_MAXI is worth 3.191602538696e-22 with the node and degree of

freedom N81861 DY

Temps CPU consommé dans ce pas de temps : 22.541 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.998 s (3 intégrations)

* Temps total factorisation matrice : 3.024 s (1 factorisations)

* Temps construction second membre : 5.167 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.307 s

Mémoire (Mo) : 6170.50 / 5798.82 / 5641.70 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.220000000000e-01 for the sequence number 174

Field stored SIEF_ELGA at time 5.220000000000e-01 for the sequence number 174

Field stored VARI_ELGA at time 5.220000000000e-01 for the sequence number 174

Field stored COMPORTEMENT at time 5.220000000000e-01 for the sequence number 174

Field stored VITE at time 5.220000000000e-01 for the sequence number 174

Field stored ACCE at time 5.220000000000e-01 for the sequence number 174

Field stored FORC_AMOR at time 5.220000000000e-01 for the sequence number 174

Field stored FORC_LIAI at time 5.220000000000e-01 for the sequence number 174

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[87%] Instant calculé : 5.22000e-01, dernier instant archivé : 5.22000e-01, au numéro d'ordre :

176

Time of computation: 5.250000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.25000E-01 | 0 | 8.30243E-18 | 2.55319E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.6112E-45 | -6.9959E-34 | 0.0000E+00 | 6.9959E-34 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.302427076137e-18 with the node and degree of

freedom N80419 DX

The residue of the type RESI_GLOB_MAXI is worth 2.553194422666e-22 with the node and degree of

freedom N80419 DX

Temps CPU consommé dans ce pas de temps : 22.535 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.005 s (3 intégrations)

* Temps total factorisation matrice : 3.035 s (1 factorisations)

* Temps construction second membre : 5.148 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.300 s

Mémoire (Mo) : 6179.38 / 5844.54 / 5650.57 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.250000000000e-01 for the sequence number 175

Field stored SIEF_ELGA at time 5.250000000000e-01 for the sequence number 175

Field stored VARI_ELGA at time 5.250000000000e-01 for the sequence number 175

Field stored COMPORTEMENT at time 5.250000000000e-01 for the sequence number 175

Field stored VITE at time 5.250000000000e-01 for the sequence number 175

Field stored ACCE at time 5.250000000000e-01 for the sequence number 175

Field stored FORC_AMOR at time 5.250000000000e-01 for the sequence number 175

Field stored FORC_LIAI at time 5.250000000000e-01 for the sequence number 175

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[87%] Instant calculé : 5.25000e-01, dernier instant archivé : 5.25000e-01, au numéro d'ordre :

177

Time of computation: 5.280000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.28000E-01 | 0 | 7.09912E-18 | 2.18315E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7804E-45 | -4.7672E-34 | 0.0000E+00 | 4.7672E-34 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.099122305840e-18 with the node and degree of

freedom N84647 DY

The residue of the type RESI_GLOB_MAXI is worth 2.183149494826e-22 with the node and degree of

freedom N84647 DY

Temps CPU consommé dans ce pas de temps : 22.580 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.050 s (3 intégrations)

* Temps total factorisation matrice : 3.031 s (1 factorisations)

* Temps construction second membre : 5.144 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.309 s

Mémoire (Mo) : 6224.82 / 5889.88 / 5695.97 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.280000000000e-01 for the sequence number 176

Field stored SIEF_ELGA at time 5.280000000000e-01 for the sequence number 176

Field stored VARI_ELGA at time 5.280000000000e-01 for the sequence number 176

Field stored COMPORTEMENT at time 5.280000000000e-01 for the sequence number 176

Field stored VITE at time 5.280000000000e-01 for the sequence number 176

Field stored ACCE at time 5.280000000000e-01 for the sequence number 176

Field stored FORC_AMOR at time 5.280000000000e-01 for the sequence number 176

Field stored FORC_LIAI at time 5.280000000000e-01 for the sequence number 176

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[88%] Instant calculé : 5.28000e-01, dernier instant archivé : 5.28000e-01, au numéro

d'ordre :

178

Time of computation: 5.310000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | VALEUR | | RHO | | | |

| 5.31000E-01 | 0 | 8.15237E-18 | 2.50705E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.2137E-45 | -3.2480E-34 | 0.0000E+00 | 3.2480E-34 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.152370492759e-18 with the

node and degree of

freedom N81898 DY

The residue of the type RESI_GLOB_MAXI is worth 2.507048442912e-22 with the node and degree of

freedom N81898 DY

Temps CPU consommé dans ce pas de temps : 22.561 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.010 s (3 intégrations)

* Temps total factorisation matrice : 3.052 s (1 factorisations)

* Temps construction second membre : 5.166 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.291 s

Mémoire (Mo) : 6270.23 / 5935.57 / 5741.37 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.310000000000e-01 for the sequence number 177

Field stored SIEF_ELGA at time 5.310000000000e-01 for the sequence number 177

Field stored VARI_ELGA at time 5.310000000000e-01 for the sequence number 177

Field stored COMPORTEMENT at time 5.310000000000e-01 for the sequence number 177

Field stored VITE at time 5.310000000000e-01 for the sequence number 177

Field stored ACCE at time 5.310000000000e-01 for the sequence number 177

Field stored FORC_AMOR at time 5.310000000000e-01 for the sequence number 177

Field stored FORC_LIAI at time 5.310000000000e-01 for the sequence number 177

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[88%] Instant calculé : 5.31000e-01, dernier instant archivé : 5.31000e-01, au numéro d'ordre :

179

Time of computation: 5.340000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.34000E-01 | 0 | 7.84961E-18 | 2.41394E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -8.2746E-46 | -2.2126E-34 | 0.0000E+00 | 2.2126E-34 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.849614336511e-18 with the node and degree of

freedom N78213 DX

The residue of the type RESI_GLOB_MAXI is worth 2.413943701073e-22 with the node and degree of

freedom N78213 DX

Temps CPU consommé dans ce pas de temps : 22.515 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.009 s (3 intégrations)

* Temps total factorisation matrice : 3.040 s (1 factorisations)

* Temps construction second membre : 5.132 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6315.67 / 5981.26 / 5786.77 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.340000000000e-01 for the sequence number 178

Field stored SIEF_ELGA at time 5.340000000000e-01 for the sequence number 178

Field stored VARI_ELGA at time 5.340000000000e-01 for the sequence number 178

Field stored COMPORTEMENT at time 5.340000000000e-01 for the sequence number 178

Field stored VITE at time 5.340000000000e-01 for the sequence number 178

Field stored ACCE at time 5.340000000000e-01 for the sequence number 178

Field stored FORC_AMOR at time 5.340000000000e-01 for the sequence number 178

Field stored FORC_LIAI at time 5.340000000000e-01 for the sequence number 178

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[89%] Instant calculé : 5.34000e-01, dernier instant archivé : 5.34000e-01, au numéro d'ordre :

180

Time of computation: 5.370000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 5.37000E-01 | 0 | 6.61474E-18 | 2.03419E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.6384E-46 | -1.5071E-34 | 0.0000E+00 | 1.5071E-34 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.614741284848e-18 with the node and degree of

freedom N85216 DY

The residue of the type RESI_GLOB_MAXI is worth 2.034190773490e-22 with the node and degree of

freedom N85216 DY

Temps CPU consommé dans ce pas de temps : 22.635 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.099 s (3 intégrations)

* Temps total factorisation matrice : 3.053 s (1 factorisations)

* Temps construction second membre : 5.151 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.286 s

Mémoire (Mo) : 6361.07 / 6026.91 / 5832.18 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.370000000000e-01 for the sequence number 179

Field stored SIEF_ELGA at time 5.370000000000e-01 for the sequence number 179

Field stored VARI_ELGA at time 5.370000000000e-01 for the sequence number 179

Field stored COMPORTEMENT at time 5.370000000000e-01 for the sequence number 179

Field stored VITE at time 5.370000000000e-01 for the sequence number 179

Field stored ACCE at time 5.370000000000e-01 for the sequence number 179

Field stored FORC_AMOR at time 5.370000000000e-01 for the sequence number 179

Field stored FORC_LIAI at time 5.370000000000e-01 for the sequence number 179

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[89%] Instant calculé : 5.37000e-01, dernier instant archivé : 5.37000e-01, au numéro d'ordre :

181

Time of computation: 5.400000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.40000E-01 | 0 | 8.31370E-18 | 2.55666E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.8425E-46 | -1.0263E-34 | 0.0000E+00 | 1.0263E-34 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.313695827725e-18 with the node and degree of

freedom N82101 DY

The residue of the type RESI_GLOB_MAXI is worth 2.556659832653e-22 with the node and degree of

freedom N82101 DY

Temps CPU consommé dans ce pas de temps : 22.487 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.995 s (3 intégrations)

* Temps total factorisation matrice : 3.007 s (1 factorisations)

* Temps construction second membre : 5.161 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 6406.54 / 6072.63 / 5877.58 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.400000000000e-01 for the sequence number 180

Field stored SIEF_ELGA at time 5.400000000000e-01 for the sequence number 180

Field stored VARI_ELGA at time 5.400000000000e-01 for the sequence number 180

Field stored COMPORTEMENT at time 5.400000000000e-01 for the sequence number 180

Field stored VITE at time 5.400000000000e-01 for the sequence number 180

Field stored ACCE at time 5.400000000000e-01 for the sequence number 180

Field stored FORC_AMOR at time 5.400000000000e-01 for the sequence number 180

Field stored FORC_LIAI at time 5.400000000000e-01 for the sequence number 180

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[90%] Instant calculé : 5.40000e-01, dernier instant archivé : 5.40000e-01, au numéro

d'ordre :

182

Time of computation: 5.430000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 5.43000E-01 | 0 | 7.30704E-18 | 2.24709E-22 | | | | |

| | |TANGENTE | | | | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.6184E-46 | -6.9884E-35 | 0.0000E+00 | 6.9884E-35 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.307043632974e-18 with the

node and degree of

freedom N85197 DY

The residue of the type RESI_GLOB_MAXI is worth 2.247090263944e-22 with the node and degree of

freedom N85197 DY

Temps CPU consommé dans ce pas de temps : 22.550 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.028 s (3 intégrations)

* Temps total factorisation matrice : 3.026 s (1 factorisations)

* Temps construction second membre : 5.157 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.917 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 6451.95 / 6117.30 / 5922.98 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.430000000000e-01 for the sequence number 181

Field stored SIEF_ELGA at time 5.430000000000e-01 for the sequence number 181

Field stored VARI_ELGA at time 5.430000000000e-01 for the sequence number 181

Field stored COMPORTEMENT at time 5.430000000000e-01 for the sequence number 181

Field stored VITE at time 5.430000000000e-01 for the sequence number 181

Field stored ACCE at time 5.430000000000e-01 for the sequence number 181

Field stored FORC_AMOR at time 5.430000000000e-01 for the sequence number 181

Field stored FORC_LIAI at time 5.430000000000e-01 for the sequence number 181

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[90%] Instant calculé : 5.43000e-01, dernier instant archivé : 5.43000e-01, au numéro d'ordre :

183

Time of computation: 5.460000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.46000E-01 | 0 | 7.10676E-18 | 2.18550E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7831E-46 | -4.7578E-35 | 0.0000E+00 | 4.7578E-35 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.106764962058e-18 with the node and degree of

freedom N78216 DX

The residue of the type RESI_GLOB_MAXI is worth 2.185499793967e-22 with the node and degree of

freedom N78216 DX

Temps CPU consommé dans ce pas de temps : 22.518 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.004 s (3 intégrations)

* Temps total factorisation matrice : 3.026 s (1 factorisations)

* Temps construction second membre : 5.161 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.284 s

Mémoire (Mo) : 6497.41 / 6163.02 / 5968.38 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.460000000000e-01 for the sequence number 182

Field stored SIEF_ELGA at time 5.460000000000e-01 for the sequence number 182

Field stored VARI_ELGA at time 5.460000000000e-01 for the sequence number 182

Field stored COMPORTEMENT at time 5.460000000000e-01 for the sequence number 182

Field stored VITE at time 5.460000000000e-01 for the sequence number 182

Field stored ACCE at time 5.460000000000e-01 for the sequence number 182

Field stored FORC_AMOR at time 5.460000000000e-01 for the sequence number 182

Field stored FORC_LIAI at time 5.460000000000e-01 for the sequence number 182

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[91%] Instant calculé : 5.46000e-01, dernier instant archivé : 5.46000e-01, au numéro d'ordre :

184

Time of computation: 5.490000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 5.49000E-01 | 0 | 7.51345E-18 | 2.31056E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.2148E-46 | -3.2388E-35 | 0.0000E+00 | 3.2388E-35 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.513449027534e-18 with the node and degree of

freedom N85194 DY

The residue of the type RESI_GLOB_MAXI is worth 2.310564847624e-22 with the node and degree of

freedom N85194 DY

Temps CPU consommé dans ce pas de temps : 22.541 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.998 s (3 intégrations)

* Temps total factorisation matrice : 3.053 s (1 factorisations)

* Temps construction second membre : 5.162 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.282 s

Mémoire (Mo) : 6542.85 / 6207.93 / 6013.78 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.490000000000e-01 for the sequence number 183

Field stored SIEF_ELGA at time 5.490000000000e-01 for the sequence number 183

Field stored VARI_ELGA at time 5.490000000000e-01 for the sequence number 183

Field stored COMPORTEMENT at time 5.490000000000e-01 for the sequence number 183

Field stored VITE at time 5.490000000000e-01 for the sequence number 183

Field stored ACCE at time 5.490000000000e-01 for the sequence number 183

Field stored FORC_AMOR at time 5.490000000000e-01 for the sequence number 183

Field stored FORC_LIAI at time 5.490000000000e-01 for the sequence number 183

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[91%] Instant calculé : 5.49000e-01, dernier instant archivé : 5.49000e-01, au numéro d'ordre :

185

Time of computation: 5.520000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.52000E-01 | 0 | 8.60418E-18 | 2.64599E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -8.2718E-47 | -2.2044E-35 | 0.0000E+00 | 2.2044E-35 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.604177687722e-18 with the node and degree of

freedom N81717 DY

The residue of the type RESI_GLOB_MAXI is worth 2.645989935529e-22 with the node and degree of

freedom N81717 DY

Temps CPU consommé dans ce pas de temps : 22.510 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.005 s (3 intégrations)

* Temps total factorisation matrice : 3.025 s (1 factorisations)

* Temps construction second membre : 5.152 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 6588.29 / 6253.75 / 6059.19 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.520000000000e-01 for the sequence number 184

Field stored SIEF_ELGA at time 5.520000000000e-01 for the sequence number 184

Field stored VARI_ELGA at time 5.520000000000e-01 for the sequence number 184

Field stored COMPORTEMENT at time 5.520000000000e-01 for the sequence number 184

Field stored VITE at time 5.520000000000e-01 for the sequence number 184

Field stored ACCE at time 5.520000000000e-01 for the sequence number 184

Field stored FORC_AMOR at time 5.520000000000e-01 for the sequence number 184

Field stored FORC_LIAI at time 5.520000000000e-01 for the sequence number 184

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[92%] Instant calculé : 5.52000e-01, dernier instant archivé : 5.52000e-01, au numéro

d'ordre :

186

Time of computation: 5.550000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 5.55000E-01 | 0 | 8.76576E-18 | 2.69568E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.6313E-47 | -1.5002E-35 | 0.0000E+00 | 1.5002E-35 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.765756991480e-18 with the

node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 2.695679426733e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 22.560 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.047 s (3 intégrations)

* Temps total factorisation matrice : 3.028 s (1 factorisations)

* Temps construction second membre : 5.151 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.917 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.286 s

Mémoire (Mo) : 6633.68 / 6299.40 / 6104.59 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.550000000000e-01 for the sequence number 185

Field stored SIEF_ELGA at time 5.550000000000e-01 for the sequence number 185

Field stored VARI_ELGA at time 5.550000000000e-01 for the sequence number 185

Field stored COMPORTEMENT at time 5.550000000000e-01 for the sequence number 185

Field stored VITE at time 5.550000000000e-01 for the sequence number 185

Field stored ACCE at time 5.550000000000e-01 for the sequence number 185

Field stored FORC_AMOR at time 5.550000000000e-01 for the sequence number 185

Field stored FORC_LIAI at time 5.550000000000e-01 for the sequence number 185

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[92%] Instant calculé : 5.55000e-01, dernier instant archivé : 5.55000e-01, au numéro d'ordre :

187

Time of computation: 5.580000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.58000E-01 | 0 | 8.63887E-18 | 2.65666E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.8355E-47 | -1.0208E-35 | 0.0000E+00 | 1.0208E-35 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.638868844285e-18 with the node and degree of

freedom N87688 DY

The residue of the type RESI_GLOB_MAXI is worth 2.656658293907e-22 with the node and degree of

freedom N87688 DY

Temps CPU consommé dans ce pas de temps : 22.508 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.010 s (3 intégrations)

* Temps total factorisation matrice : 3.011 s (1 factorisations)

* Temps construction second membre : 5.138 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.921 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.297 s

Mémoire (Mo) : 6679.15 / 6344.18 / 6149.99 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.580000000000e-01 for the sequence number 186

Field stored SIEF_ELGA at time 5.580000000000e-01 for the sequence number 186

Field stored VARI_ELGA at time 5.580000000000e-01 for the sequence number 186

Field stored COMPORTEMENT at time 5.580000000000e-01 for the sequence number 186

Field stored VITE at time 5.580000000000e-01 for the sequence number 186

Field stored ACCE at time 5.580000000000e-01 for the sequence number 186

Field stored FORC_AMOR at time 5.580000000000e-01 for the sequence number 186

Field stored FORC_LIAI at time 5.580000000000e-01 for the sequence number 186

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[93%] Instant calculé : 5.58000e-01, dernier instant archivé : 5.58000e-01, au numéro d'ordre :

188

Time of computation: 5.610000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 5.61000E-01 | 0 | 8.70924E-18 | 2.67830E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.6113E-47 | -6.9449E-36 | 0.0000E+00 | 6.9449E-36 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.709235990934e-18 with the node and degree of

freedom N81861 DY

The residue of the type RESI_GLOB_MAXI is worth 2.678297870469e-22 with the node and degree of

freedom N81861 DY

Temps CPU consommé dans ce pas de temps : 22.441 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.959 s (3 intégrations)

* Temps total factorisation matrice : 3.025 s (1 factorisations)

* Temps construction second membre : 5.136 s

* Temps total résolution K.U=F : 0.129 s (1 résolutions)

* Temps assemblage matrice : 0.912 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 6724.58 / 6389.87 / 6195.39 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.610000000000e-01 for the sequence number 187

Field stored SIEF_ELGA at time 5.610000000000e-01 for the sequence number 187

Field stored VARI_ELGA at time 5.610000000000e-01 for the sequence number 187

Field stored COMPORTEMENT at time 5.610000000000e-01 for the sequence number 187

Field stored VITE at time 5.610000000000e-01 for the sequence number 187

Field stored ACCE at time 5.610000000000e-01 for the sequence number 187

Field stored FORC_AMOR at time 5.610000000000e-01 for the sequence number 187

Field stored FORC_LIAI at time 5.610000000000e-01 for the sequence number 187

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[93%] Instant calculé : 5.61000e-01, dernier instant archivé : 5.61000e-01, au numéro d'ordre :

189

Time of computation: 5.640000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.64000E-01 | 0 | 7.65193E-18 | 2.35315E-22 | | TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7761E-47 | -4.7244E-36 | 0.0000E+00 | 4.7244E-36 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.651930333048e-18 with the node and degree of

freedom N85195 DY

The residue of the type RESI_GLOB_MAXI is worth 2.353151153248e-22 with the node and degree of

freedom N85195 DY

Temps CPU consommé dans ce pas de temps : 22.618 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.108 s (3 intégrations)

* Temps total factorisation matrice : 3.001 s (1 factorisations)

* Temps construction second membre : 5.184 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.280 s

Mémoire (Mo) : 6770.02 / 6435.68 / 6240.80 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.640000000000e-01 for the sequence number 188

Field stored SIEF_ELGA at time 5.640000000000e-01 for the sequence number 188

Field stored VARI_ELGA at time 5.640000000000e-01 for the sequence number 188

Field stored COMPORTEMENT at time 5.640000000000e-01 for the sequence number 188

Field stored VITE at time 5.640000000000e-01 for the sequence number 188

Field stored ACCE at time 5.640000000000e-01 for the sequence number 188

Field stored FORC_AMOR at time 5.640000000000e-01 for the sequence number 188

Field stored FORC_LIAI at time 5.640000000000e-01 for the sequence number 188

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[94%] Instant calculé : 5.64000e-01, dernier instant archivé : 5.64000e-01, au numéro

d'ordre :

190

Time of computation: 5.670000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 5.67000E-01 | 0 | 6.66747E-18 | 2.05041E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.2089E-47 | -3.2134E-36 | 0.0000E+00 | 3.2134E-36 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.667467742596e-18 with the

node and degree of

freedom N81897 DY

The residue of the type RESI_GLOB_MAXI is worth 2.050405417307e-22 with the node and degree of

freedom N81897 DY

Temps CPU consommé dans ce pas de temps : 22.598 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.069 s (3 intégrations)

* Temps total factorisation matrice : 3.043 s (1 factorisations)

* Temps construction second membre : 5.149 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.290 s

Mémoire (Mo) : 6815.45 / 6481.50 / 6286.20 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.670000000000e-01 for the sequence number 189

Field stored SIEF_ELGA at time 5.670000000000e-01 for the sequence number 189

Field stored VARI_ELGA at time 5.670000000000e-01 for the sequence number 189

Field stored COMPORTEMENT at time 5.670000000000e-01 for the sequence number 189

Field stored VITE at time 5.670000000000e-01 for the sequence number 189

Field stored ACCE at time 5.670000000000e-01 for the sequence number 189

Field stored FORC_AMOR at time 5.670000000000e-01 for the sequence number 189

Field stored FORC_LIAI at time 5.670000000000e-01 for the sequence number 189

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[94%] Instant calculé : 5.67000e-01, dernier instant archivé : 5.67000e-01, au numéro d'ordre :

191

Time of computation: 5.700000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.70000E-01 | 0 | 8.77245E-18 | 2.69774E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -8.2274E-48 | -2.1854E-36 | 0.0000E+00 | 2.1854E-36 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.772454147605e-18 with the node and degree of

freedom N79502 DY

The residue of the type RESI_GLOB_MAXI is worth 2.697738962037e-22 with the node and degree of

freedom N79502 DY

Temps CPU consommé dans ce pas de temps : 22.543 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.985 s (3 intégrations)

* Temps total factorisation matrice : 3.055 s (1 factorisations)

* Temps construction second membre : 5.160 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.298 s

Mémoire (Mo) : 6860.89 / 6526.20 / 6331.60 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.700000000000e-01 for the sequence number 190

Field stored SIEF_ELGA at time 5.700000000000e-01 for the sequence number 190

Field stored VARI_ELGA at time 5.700000000000e-01 for the sequence number 190

Field stored COMPORTEMENT at time 5.700000000000e-01 for the sequence number 190

Field stored VITE at time 5.700000000000e-01 for the sequence number 190

Field stored ACCE at time 5.700000000000e-01 for the sequence number 190

Field stored FORC_AMOR at time 5.700000000000e-01 for the sequence number 190

Field stored FORC_LIAI at time 5.700000000000e-01 for the sequence number 190

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[95%] Instant calculé : 5.70000e-01, dernier instant archivé : 5.70000e-01, au numéro d'ordre :

192

Time of computation: 5.730000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 5.73000E-01 | 0 | 7.38654E-18 | 2.27154E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.5975E-48 | -1.4861E-36 | 0.0000E+00 | 1.4861E-36 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.386536417559e-18 with the node and degree of

freedom N83217 DY

The residue of the type RESI_GLOB_MAXI is worth 2.271536191909e-22 with the node and degree of

freedom N83217 DY

Temps CPU consommé dans ce pas de temps : 22.520 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.983 s (3 intégrations)

* Temps total factorisation matrice : 3.032 s (1 factorisations)

* Temps construction second membre : 5.158 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.301 s

Mémoire (Mo) : 6906.31 / 6572.02 / 6377.00 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.730000000000e-01 for the sequence number 191

Field stored SIEF_ELGA at time 5.730000000000e-01 for the sequence number 191

Field stored VARI_ELGA at time 5.730000000000e-01 for the sequence number 191

Field stored COMPORTEMENT at time 5.730000000000e-01 for the sequence number 191

Field stored VITE at time 5.730000000000e-01 for the sequence number 191

Field stored ACCE at time 5.730000000000e-01 for the sequence number 191

Field stored FORC_AMOR at time 5.730000000000e-01 for the sequence number 191

Field stored FORC_LIAI at time 5.730000000000e-01 for the sequence number 191

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[95%] Instant calculé : 5.73000e-01, dernier instant archivé : 5.73000e-01, au numéro d'ordre :

193

Time of computation: 5.760000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.76000E-01 | 0 | 8.80173E-18 | 2.70674E-22 | | TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.8122E-48 | -1.0104E-36 | 0.0000E+00 | 1.0104E-36 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.801725017840e-18 with the node and degree of

freedom N88016 DY

The residue of the type RESI_GLOB_MAXI is worth 2.706740453040e-22 with the node and degree of

freedom N88016 DY

Temps CPU consommé dans ce pas de temps : 22.517 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.013 s (3 intégrations)

* Temps total factorisation matrice : 3.034 s (1 factorisations)

* Temps construction second membre : 5.141 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.285 s

Mémoire (Mo) : 6951.76 / 6617.71 / 6422.40 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.760000000000e-01 for the sequence number 192

Field stored SIEF_ELGA at time 5.760000000000e-01 for the sequence number 192

Field stored VARI_ELGA at time 5.760000000000e-01 for the sequence number 192

Field stored COMPORTEMENT at time 5.760000000000e-01 for the sequence number 192

Field stored VITE at time 5.760000000000e-01 for the sequence number 192

Field stored ACCE at time 5.760000000000e-01 for the sequence number 192

Field stored FORC_AMOR at time 5.760000000000e-01 for the sequence number 192

Field stored FORC_LIAI at time 5.760000000000e-01 for the sequence number 192

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[96%] Instant calculé : 5.76000e-01, dernier instant archivé : 5.76000e-01, au numéro

d'ordre :

194

Time of computation: 5.790000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 5.79000E-01 | 0 | 8.47797E-18 | 2.60718E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.5890E-48 | -6.8695E-37 | 0.0000E+00 | 6.8695E-37 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.477974660192e-18 with the

node and degree of

freedom N79916 DY

The residue of the type RESI_GLOB_MAXI is worth 2.607179493347e-22 with the node and degree of

freedom N79916 DY

Temps CPU consommé dans ce pas de temps : 22.554 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.057 s (3 intégrations)

* Temps total factorisation matrice : 3.027 s (1 factorisations)

* Temps construction second membre : 5.142 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.282 s

Mémoire (Mo) : 6997.19 / 6662.41 / 6467.81 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.790000000000e-01 for the sequence number 193

Field stored SIEF_ELGA at time 5.790000000000e-01 for the sequence number 193

Field stored VARI_ELGA at time 5.790000000000e-01 for the sequence number 193

Field stored COMPORTEMENT at time 5.790000000000e-01 for the sequence number 193

Field stored VITE at time 5.790000000000e-01 for the sequence number 193

Field stored ACCE at time 5.790000000000e-01 for the sequence number 193

Field stored FORC_AMOR at time 5.790000000000e-01 for the sequence number 193

Field stored FORC_LIAI at time 5.790000000000e-01 for the sequence number 193

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[96%] Instant calculé : 5.79000e-01, dernier instant archivé : 5.79000e-01, au numéro d'ordre :

195

Time of computation: 5.820000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.82000E-01 | 0 | 8.01217E-18 | 2.46393E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7588E-48 | -4.6696E-37 | 0.0000E+00 | 4.6696E-37 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.012167399047e-18 with the node and degree of

freedom N79910 DY

The residue of the type RESI_GLOB_MAXI is worth 2.463932646336e-22 with the node and degree of

freedom N79910 DY

Temps CPU consommé dans ce pas de temps : 22.574 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.043 s (3 intégrations)

* Temps total factorisation matrice : 3.024 s (1 factorisations)

* Temps construction second membre : 5.164 s

* Temps total résolution K.U=F : 0.133 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.293 s

Mémoire (Mo) : 7042.62 / 6708.23 / 6513.21 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.820000000000e-01 for the sequence number 194

Field stored SIEF_ELGA at time 5.820000000000e-01 for the sequence number 194

Field stored VARI_ELGA at time 5.820000000000e-01 for the sequence number 194

Field stored COMPORTEMENT at time 5.820000000000e-01 for the sequence number 194

Field stored VITE at time 5.820000000000e-01 for the sequence number 194

Field stored ACCE at time 5.820000000000e-01 for the sequence number 194

Field stored FORC_AMOR at time 5.820000000000e-01 for the sequence number 194

Field stored FORC_LIAI at time 5.820000000000e-01 for the sequence number 194

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[97%] Instant calculé : 5.82000e-01, dernier instant archivé : 5.82000e-01, au numéro d'ordre :

196

Time of computation: 5.850000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 5.85000E-01 | 0 | 8.47878E-18 | 2.60743E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.2017E-48 | -3.1739E-37 | 0.0000E+00 | 3.1739E-37 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.478777747632e-18 with the node and degree of

freedom N84746 DY

The residue of the type RESI_GLOB_MAXI is worth 2.607426461896e-22 with the node and degree of

freedom N84746 DY

Temps CPU consommé dans ce pas de temps : 22.579 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.034 s (3 intégrations)

* Temps total factorisation matrice : 3.057 s (1 factorisations)

* Temps construction second membre : 5.154 s

* Temps total résolution K.U=F : 0.131 s (1 résolutions)

* Temps assemblage matrice : 0.919 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.284 s

Mémoire (Mo) : 7088.11 / 6754.01 / 6558.63 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.850000000000e-01 for the sequence number 195

Field stored SIEF_ELGA at time 5.850000000000e-01 for the sequence number 195

Field stored VARI_ELGA at time 5.850000000000e-01 for the sequence number 195

Field stored COMPORTEMENT at time 5.850000000000e-01 for the sequence number 195

Field stored VITE at time 5.850000000000e-01 for the sequence number 195

Field stored ACCE at time 5.850000000000e-01 for the sequence number 195

Field stored FORC_AMOR at time 5.850000000000e-01 for the sequence number 195

Field stored FORC_LIAI at time 5.850000000000e-01 for the sequence number 195

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[97%] Instant calculé : 5.85000e-01, dernier instant archivé : 5.85000e-01, au numéro d'ordre :

197

Time of computation: 5.880000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 5.88000E-01 | 0 | 8.60895E-18 | 2.64746E-22 | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -8.1386E-49 | -2.1570E-37 | 0.0000E+00 | 2.1570E-37 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.608951173528e-18 with the node and degree of

freedom N82097 DY

The residue of the type RESI_GLOB_MAXI is worth 2.647457896310e-22 with the node and degree of

freedom N82097 DY

Temps CPU consommé dans ce pas de temps : 22.587 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.072 s (3 intégrations)

* Temps total factorisation matrice : 3.037 s (1 factorisations)

* Temps construction second membre : 5.141 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.915 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.291 s

Mémoire (Mo) : 7133.50 / 6799.60 / 6604.03 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.880000000000e-01 for the sequence number 196

Field stored SIEF_ELGA at time 5.880000000000e-01 for the sequence number 196

Field stored VARI_ELGA at time 5.880000000000e-01 for the sequence number 196

Field stored COMPORTEMENT at time 5.880000000000e-01 for the sequence number 196

Field stored VITE at time 5.880000000000e-01 for the sequence number 196

Field stored ACCE at time 5.880000000000e-01 for the sequence number 196

Field stored FORC_AMOR at time 5.880000000000e-01 for the sequence number 196

Field stored FORC_LIAI at time 5.880000000000e-01 for the sequence number 196

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[98%] Instant calculé : 5.88000e-01, dernier instant archivé : 5.88000e-01, au numéro

d'ordre :

198

Time of computation: 5.910000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | |

| 5.91000E-01 | 0 | 7.39204E-18 | 2.27323E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -5.5375E-49 | -1.4657E-37 | 0.0000E+00 | 1.4657E-37 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.392044637781e-18 with the

node and degree of

freedom N84680 DY

The residue of the type RESI_GLOB_MAXI is worth 2.273230101055e-22 with the node and degree of

freedom N84680 DY

Temps CPU consommé dans ce pas de temps : 22.497 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.011 s (3 intégrations)

* Temps total factorisation matrice : 3.009 s (1 factorisations)

* Temps construction second membre : 5.149 s

* Temps total résolution K.U=F : 0.130 s (1 résolutions)

* Temps assemblage matrice : 0.914 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.284 s

Mémoire (Mo) : 7178.93 / 6845.10 / 6649.43 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.910000000000e-01 for the sequence number 197

Field stored SIEF_ELGA at time 5.910000000000e-01 for the sequence number 197

Field stored VARI_ELGA at time 5.910000000000e-01 for the sequence number 197

Field stored COMPORTEMENT at time 5.910000000000e-01 for the sequence number 197

Field stored VITE at time 5.910000000000e-01 for the sequence number 197

Field stored ACCE at time 5.910000000000e-01 for the sequence number 197

Field stored FORC_AMOR at time 5.910000000000e-01 for the sequence number 197

Field stored FORC_LIAI at time 5.910000000000e-01 for the sequence number 197

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[98%] Instant calculé : 5.91000e-01, dernier instant archivé : 5.91000e-01, au numéro d'ordre :

199

Time of computation: 5.940000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | RHO | | VALEUR |

| 5.94000E-01 | 0 | 1.07060E-17 | 3.29235E-22 | | |TANGENTE | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -3.7876E-49 | -9.9590E-38 | 0.0000E+00 | 9.9590E-38 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.070601396148e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.292354739737e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 22.495 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 9.995 s (3 intégrations)

* Temps total factorisation matrice : 3.019 s (1 factorisations)

* Temps construction second membre : 5.148 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.913 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.288 s

Mémoire (Mo) : 7224.36 / 6890.47 / 6694.83 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.940000000000e-01 for the sequence number 198

Field stored SIEF_ELGA at time 5.940000000000e-01 for the sequence number 198

Field stored VARI_ELGA at time 5.940000000000e-01 for the sequence number 198

Field stored COMPORTEMENT at time 5.940000000000e-01 for the sequence number 198

Field stored VITE at time 5.940000000000e-01 for the sequence number 198

Field stored ACCE at time 5.940000000000e-01 for the sequence number 198

Field stored FORC_AMOR at time 5.940000000000e-01 for the sequence number 198

Field stored FORC_LIAI at time 5.940000000000e-01 for the sequence number 198

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[99%] Instant calculé : 5.94000e-01, dernier instant archivé : 5.94000e-01, au numéro d'ordre :

200

Time of computation: 5.970000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 5.97000E-01 | 0 | 7.69384E-18 | 2.36604E-22 |
| | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -2.5382E-49 | -6.7659E-38 | 0.0000E+00 | 6.7659E-38 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.693838758005e-18 with the node and degree of

freedom N82204 DY

The residue of the type RESI_GLOB_MAXI is worth 2.366038993862e-22 with the node and degree of

freedom N82204 DY

Temps CPU consommé dans ce pas de temps : 22.669 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.126 s (3 intégrations)

* Temps total factorisation matrice : 3.041 s (1 factorisations)

* Temps construction second membre : 5.161 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.918 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.289 s

Mémoire (Mo) : 7269.82 / 6935.81 / 6740.24 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.970000000000e-01 for the sequence number 199

Field stored SIEF_ELGA at time 5.970000000000e-01 for the sequence number 199

Field stored VARI_ELGA at time 5.970000000000e-01 for the sequence number 199

Field stored COMPORTEMENT at time 5.970000000000e-01 for the sequence number 199

Field stored VITE at time 5.970000000000e-01 for the sequence number 199

Field stored ACCE at time 5.970000000000e-01 for the sequence number 199

Field stored FORC_AMOR at time 5.970000000000e-01 for the sequence number 199

Field stored FORC_LIAI at time 5.970000000000e-01 for the sequence number 199

Adaptation of the time step.

For the method of adaptation of the type FIXE, the computed time step is worth

6.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 6.000000000000e-03.

After best fit on the compulsory points of transition, the smallest time step is worth

3.000000000000e-03.

[99%] Instant calculé : 5.97000e-01, dernier instant archivé : 5.97000e-01, au numéro d'ordre :

201

Time of computation: 6.000000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | RECH. LINE. | RECH. LINE. | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | NB. ITER | COEFFICIENT | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | RHO | | VALEUR |

| 6.00000E-01 | 0 | 9.18995E-18 | 2.82613E-22 | | |TANGENTE | | |

| BILAN D'ENERGIE | TRAV_EXT | ENER_TOT | ENER_CIN | TRAV_AMOR | DISS_SCH |

| PAS COURANT | 0.0000E+00 | -1.7479E-49 | -4.5961E-38 | 0.0000E+00 | 4.5961E-38 |

| TOTAL | 1.3081E-05 | -1.7633E-21 | -7.0336E-07 | 0.0000E+00 | 1.3784E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.189947207678e-18 with the node and degree of

freedom N77464 DX

The residue of the type RESI_GLOB_MAXI is worth 2.826128039436e-22 with the node and degree of

freedom N77464 DX

Temps CPU consommé dans ce pas de temps : 22.549 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 10.067 s (3 intégrations)

* Temps total factorisation matrice : 3.007 s (1 factorisations)

* Temps construction second membre : 5.146 s

* Temps total résolution K.U=F : 0.132 s (1 résolutions)

* Temps assemblage matrice : 0.916 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 3.281 s

Mémoire (Mo) : 7315.23 / 6981.33 / 6785.64 / 1196.69 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.000000000000e-01 for the sequence number 200

Field stored SIEF_ELGA at time 6.000000000000e-01 for the sequence number 200

Field stored VARI_ELGA at time 6.000000000000e-01 for the sequence number 200

Field stored COMPORTEMENT at time 6.000000000000e-01 for the sequence number 200

Field stored VITE at time 6.000000000000e-01 for the sequence number 200

Field stored ACCE at time 6.000000000000e-01 for the sequence number 200

Field stored FORC_AMOR at time 6.000000000000e-01 for the sequence number 200

Field stored FORC_LIAI at time 6.000000000000e-01 for the sequence number 200

[100%] Instant calculé : 6.00000e-01, dernier instant archivé : 6.00000e-01, au numéro d'ordre :

202

Temps CPU consommé dans le calcul : 1 h 37 min 34 s

dont temps CPU "perdu" dans les découpes : 14 min 37 s

* Nombre de pas de temps : 203

* Nombre d'itérations de Newton : 238

* Temps dans l'archivage : 12.898 s

* Temps dans le post-traitement : 4 min 18 s

* Temps total intégration comportement : 43 min 14 s (778 intégrations)

* Temps total factorisation matrice : 13 min 0 s (238 factorisations)

* Temps construction second membre : 18 min 51 s

* Temps total résolution K.U=F : 31.544 s (238 résolutions)

* Temps assemblage matrice : 3 min 44 s

* Nombre d'itérations de recherche linéaire : 102

#1 Resolution des systemes lineaires CPU (USER+SYST/SYST/ELAPS): 812.91 78.71 812.79

#2 Calculs elementaires et assemblages CPU (USER+SYST/SYST/ELAPS): 4698.57 170.15 4699.16

#3 Dechargement de la memoire sur disque CPU (USER+SYST/SYST/ELAPS): 5.45 5.26 5.46

#4 Communications MPI CPU (USER+SYST/SYST/ELAPS): 0.05 0.02 0.04

Résultat commande #0047 (DYNA_NON_LINE): SIM ('<0000002c>') de type <NonLinearResult>

Dépend de :

- TIMELIST ('<0000002a>') de type <ListOfFloats>

- MATS ('<00000004>') de type <MaterialField>

- BC_0 ('<00000026>') de type <MechanicalDirichletBC>

- BC_1 ('<00000027>') de type <MechanicalDirichletBC>

- BC_2 ('<00000028>') de type <MechanicalLoadFunction>

- BC_3 ('<00000029>') de type <MechanicalLoadFunction>

- INSTLIST ('<0000002b>') de type <TimeStepper>

- MODEL ('<00000003>') de type <Model>

Mémoire (Mo) : 8888.97 / 3836.77 / 8354.59 / 1196.69 (VmPeak / VmSize /

Optimum / Minimum)

Fin commande #0047 user+syst: 5529.39s (syst: 359.60s, elaps: 5889.73s)

.. _stg1_txt578

Commande #0048 de fort.1, ligne 578

FIN(INFO_RESU='NON',

PROC0='OUI',

RETASSAGE='NON')

Saving objects...

pi <class 'float'>

e <class 'float'>

tau <class 'float'>

inf <class 'float'>

nan <class 'float'>

MAT_0 <class 'libaster.Material'>

MESH <class 'libaster.Mesh'>

MODEL <class 'libaster.Model'>

MATS <class 'libaster.MaterialField'>

F_4 <class 'libaster.FieldOnNodesReal'>

F_0 <class 'libaster.Formula'>

F_1 <class 'libaster.Formula'>

F_2 <class 'libaster.Formula'>

F_3 <class 'libaster.FieldOnNodesReal'>

INIT_D <class 'libaster.FieldOnNodesReal'>

F_9 <class 'libaster.FieldOnNodesReal'>

F_5 <class 'libaster.Formula'>

F_6 <class 'libaster.Formula'>

F_7 <class 'libaster.Formula'>

F_8 <class 'libaster.FieldOnNodesReal'>

INIT_U <class 'libaster.FieldOnNodesReal'>

F_14 <class 'libaster.FieldOnNodesReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.FieldOnNodesReal'>

INIT_A <class 'libaster.FieldOnNodesReal'>

F_22 <class 'libaster.FieldOnNodesReal'>

F_23 <class 'libaster.FieldOnCellsReal'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.Formula'>

F_17 <class 'libaster.Formula'>

F_18 <class 'libaster.Formula'>

F_19 <class 'libaster.Formula'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.FieldOnCellsReal'>

F_24 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_25 <class 'libaster.Formula'>

F_26 <class 'libaster.Formula'>

F_27 <class 'libaster.Formula'>

F_28 <class 'libaster.Formula'>

```
BC_0                        <class 'libaster.MechanicalDirichletBC'>
BC_1                        <class 'libaster.MechanicalDirichletBC'>
BC_2                        <class 'libaster.MechanicalLoadFunction'>
BC_3                        <class 'libaster.MechanicalLoadFunction'>
TIMELIST                    <class 'libaster.ListOfFloats'>
INSTLIST                    <class 'libaster.TimeStepper'>
SIM                         <class 'libaster.NonLinearResult'>

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  ‖ <I> <CATAMESS_89>
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‖

  ‖ List of warnings emitted during the execution of computation.
‖

  ‖
‖

  ‖    Warnings which you chose to ignore of are preceded by (*).
‖

  ‖    Number of occurrences for each warning:
‖

  ‖                    no warning
‖


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Concepts de la base: G

Nom	Type	Taille (Mo)	Nombre d'objets	Nombre de segments
TOTAL		9729.78	7273	8431
00000001	MATER_SDASTER	0.00	9	9
00000002	MAILLAGE_SDASTER	41.90	38	89
00000003	MODELE_SDASTER	18.78	9	14
00000004	CHAM_MATER	2.20	9	14
00000005	CHAM_NO_SDASTER	2.02	5	5
00000006	FORMULE	0.00	4	4
00000007	FORMULE	0.00	4	4
00000008	FORMULE	0.00	4	4
00000009	CHAM_NO_SDASTER	10.10	10	12
0000000a	CHAM_NO_SDASTER	10.10	10	12
0000000b	CHAM_NO_SDASTER	2.02	5	5
0000000c	FORMULE	0.00	4	4
0000000d	FORMULE	0.00	4	

4

0000000e FORMULE 0.00 4
4

0000000f CHAM_NO_SDASTER 10.10 10
12

00000010 CHAM_NO_SDASTER 10.10 10
12

00000011 CHAM_NO_SDASTER 2.02 5
5

00000012 FORMULE 0.00 4
4

00000013 FORMULE 0.00 4
4

00000014 FORMULE 0.00 4
4

00000015 CHAM_NO_SDASTER 10.10 10
12

00000016 CHAM_NO_SDASTER 10.10 10
12

00000017 CHAM_NO_SDASTER 2.02 5
5

00000018 CHAM_ELEM 30.28 5
5

00000019 FORMULE 0.00 4
4

0000001a FORMULE 0.00 4
4

0000001b FORMULE 0.00 4
4

0000001c FORMULE 0.00 4
4

0000001d	FORMULE	0.00	4	4
0000001e	FORMULE	0.00	4	4
0000001f	CHAM_ELEM	182.26	5	5
00000020	CHAM_ELEM	182.26	5	5
00000021	CHAM_ELEM	22.06	5	5
00000022	FORMULE	0.00	4	4
00000023	FORMULE	0.00	4	4
00000024	FORMULE	0.00	4	4
00000025	FORMULE	0.00	4	4
00000026	CHAR_CINE_MECA	0.03	4	4
00000027	CHAR_CINE_MECA	6.85	4	4
00000028	CHAR_MECA	3.35	32	37
00000029	CHAR_MECA	1.14	32	37
0000002a	LISTR8_SDASTER	0.00	6	6
0000002b	LIST_INST	0.00	9	9
0000002c	EVOL_NOLI	9139.95	6900	7914

&FOZERO	0.00	2	2
&&_NUM_C	0.00	1	1
&CATA.AC	0.00	2	4
&CATA.CL	0.62	1	3
&CATA.GD	0.19	4	11
&CATA.ME	0.22	2	4
&CATA.OP	0.32	4	19
&CATA.PH	0.00	1	1
&CATA.PR	0.00	2	4
&CATA.TE	28.61	17	42
&CATA.TH	0.01	2	4
&CATA.TM	0.01	7	11

Nom de la base : GLOBALE

Nombre d'enregistrements utilisés : 13391

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 8895

Volume des accès en lecture : 6949.22 Mo.

Nombre total d'accès en écriture : 13630

Volume des accès en écriture : 10648.44 Mo.

Nombre d'identificateurs utilisés : 8419

Taille maximum du répertoire : 16000

Pourcentage d'utilisation du répertoire : 52 %

Nom de la base : VOLATILE

Nombre d'enregistrements utilisés : 3185

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 31736

Volume des accès en lecture : 24793.75 Mo.

Nombre total d'accès en écriture : 6817

Volume des accès en écriture : 5325.78 Mo.

Nombre d'identificateurs utilisés : 1358

Taille maximum du répertoire : 2000

Pourcentage d'utilisation du répertoire : 67 %

<I> <FIN> ARRET NORMAL DANS "FIN" PAR APPEL A "JEFINI".

<I> <FIN> MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 1196.69 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 8354.59 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 8888.97 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 8355 Mo.

TAILLE CUMULEE LIBEREE : 102651 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 39898971

NOMBRE TOTAL DE LIBERATIONS : 39898951

APPELS AU MECANISME DE LIBERATION : 3

TAILLE MEMOIRE CUMULEE RECUPEREE : 16858 Mo.

VOLUME DES LECTURES : 3 Mo.

VOLUME DES ECRITURES : 13876 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 1196.69 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 8354.59 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 8888.97 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : DI-19-JANV-2025 11:41:17

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
fc98caf683c044dae779018012f88fb3d2aa771798889bbfb6a0f1df34f2b38a

Signature of info file :
d385a9a9c129be9a50e5ef4a3b59bf4c115982fffe4be2daa132b188e168a54e

Signature of Jeveux database:
c46909a58a83a5741b7f6e204b8903fc63b6fdc0589aaaab4f81510215de74aa

****

* COMMAND : USER : SYSTEM : USER+SYS :

ELAPSED *

```
 ********************************************************************************
 * DEBUT                    :      0.06 :      0.23 :      0.29 :      0.41 *
 * DEFI_MATERIAU            :      0.01 :      0.00 :      0.01 :      0.01 *
 * LIRE_MAILLAGE            :      1.04 :      0.06 :      1.10 :      1.13 *
 * DEFI_GROUP               :      0.63 :      0.00 :      0.63 :      0.63
*
 * MODI_MAILLAGE            :      1.44 :      0.03 :      1.47 :      1.48
*
 * AFFE_MODELE              :      1.13 :      0.04 :      1.17 :      1.20
*
 * AFFE_MATERIAU            :      0.01 :      0.00 :      0.01 :      0.01
*
 * CREA_CHAMP               :      0.01 :      0.00 :      0.01 :      0.01
*
 * FORMULE                  :      0.00 :      0.00 :      0.00 :      0.00
*
 * FORMULE                  :      0.00 :      0.00 :      0.00 :      0.00
*
 * FORMULE                  :      0.00 :      0.00 :      0.00 :      0.00
*
 * CREA_CHAMP               :      0.03 :      0.01 :      0.04 :      0.04
*
 * CREA_CHAMP               :      0.41 :      0.01 :      0.42 :      0.42
*
 * CREA_CHAMP               :      0.00 :      0.00 :      0.00 :      0.00
*
 * FORMULE                  :      0.00 :      0.00 :      0.00 :      0.00
*
 * FORMULE                  :      0.00 :      0.00 :      0.00 :      0.01
*
```

* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* CREA_CHAMP	:	0.03 :	0.01 :	0.04 :	0.03
* CREA_CHAMP	:	0.41 :	0.01 :	0.42 :	0.42
* CREA_CHAMP	:	0.01 :	0.00 :	0.01 :	0.01
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* CREA_CHAMP	:	0.03 :	0.01 :	0.04 :	0.04
* CREA_CHAMP	:	0.42 :	0.00 :	0.42 :	0.43
* CREA_CHAMP	:	0.01 :	0.00 :	0.01 :	0.00
* CREA_CHAMP	:	0.40 :	0.12 :	0.52 :	0.52
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.01 :	0.00 :	0.01 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.01

```
 * FORMULE                :      0.00 :      0.00 :      0.00 :      0.00
*
 * CREA_CHAMP             :      2.37 :      0.44 :      2.81 :      2.81
*
 * CREA_CHAMP             :     16.27 :      0.67 :     16.94 :
16.94 *
 * CREA_CHAMP             :      1.58 :      0.32 :      1.90 :      1.90
*
 * FORMULE                :      0.00 :      0.00 :      0.00 :      0.00
*
 * FORMULE                :      0.00 :      0.00 :      0.00 :      0.00
*
 * FORMULE                :      0.00 :      0.00 :      0.00 :      0.00
*
 * FORMULE                :      0.00 :      0.00 :      0.00 :      0.01
*
 * AFFE_CHAR_CINE         :      0.09 :      0.00 :      0.09 :      0.09
*
 * AFFE_CHAR_CINE         :      0.31 :      0.01 :      0.32 :      0.32
*
 * AFFE_CHAR_MECA_F       :      0.75 :      0.05 :      0.80 :      0.80
*
 * AFFE_CHAR_MECA_F       :     17.37 :      0.19 :     17.56 :     17.58
*
 * DEFI_LIST_REEL         :      0.01 :      0.00 :      0.01 :      0.00 *
 * DEFI_LIST_INST         :      0.01 :      0.00 :      0.01 :      0.01 *
 * DYNA_NON_LINE          :   5529.39 :    359.60 :   5888.99 :
5889.73 *
 * FIN                    :      0.39 :      0.57 :      0.96 :      0.96 *
 *    . check syntax      :      0.06 :      0.00 :      0.06 :      0.05 *
 *    . fortran           :   5574.35 :    356.07 :   5930.42 :   5931.32 *
```

```
 ********************************************************************************
 * TOTAL_JOB                    :       5574.65 :        362.38 :       5937.03 :       5938.02
*
 ********************************************************************************
# Mémoire (Mo) :    8888.97 /     534.59 /    8354.59 /    1196.69 (VmPeak / VmSize / Optimum / Minimum)
# Fin commande #0048      user+syst:              0.39s (syst:              0.57s, elaps:              0.96s)
# ------------------------------------------------------------------------------------------------------
End of the Code_Aster execution
Code_Aster MPI exits normally
Exited
EXECUTION_CODE_ASTER_EXIT_12=0
--------------------------------------------------------------------------------------
# import code_aster
import code_aster
from code_aster.Commands import *
# import math library for functions and formula
from math import *
# import simscale macros and utilities
import simscale_macros
# Input file start
POURSUITE(
    IGNORE_ALARM=("SUPERVIS_1", "ALGORITH11_87"),
    LANG="en",
)
```

```
try:
    # reconstructing model for single-core post-processing
    MODEL = MODI_MODELE(
        DISTRIBUTION=_F(
            METHODE="CENTRALISE",
        ),
        MODELE=MODEL,
        reuse=MODEL,
    )
    TAB_ENER = simscale_macros.GET_ENERGIE(
        NOM_CMP=("TRAV_EXT", "ENER_CIN", "ENER_TOT", "TRAV_AMOR",
"TRAV_LIAI", "DISS_SCH"),
        NOM_TABLE="PARA_CALC",
        RESULTAT=SIM,
    )
    DEFI_FICHIER(
        ACCES="NEW",
        ACTION="ASSOCIER",
        FICHIER="REPE_OUT/energy-plots",
        TYPE="ASCII",
        UNITE=30,
    )
    IMPR_TABLE(
        COMM_PARA="$$",
        FORMAT="TABLEAU",
        FORMAT_R="E12.5",
        NOM_PARA=("INST", "TRAV_EXT", "ENER_CIN", "ENER_TOT", "TRAV_AMOR",
```

```
"TRAV_LIAI", "DISS_SCH"),
            SEPARATEUR=",",
            TABLE=TAB_ENER,
            UNITE=30,
        )
        DEFI_FICHIER(
            ACTION="LIBERER",
            UNITE=30,
        )
        # Derived result calculation on nodes
        SIM = CALC_CHAMP(
            CONTRAINTE=("SIGM_NOEU"),
            CRITERES=("SIEQ_NOEU"),
            DEFORMATION=("EPSG_NOEU"),
            GROUP_MA=(
                "face1",
                "face10",
                "face11",
                "face12",
                "face13",
                "face14",
                "face2",
                "face3",
                "face4",
                "face5",
                "face6",
                "face7",
```

```
            "face8",
            "face9",
            "region1",
        ),
        RESULTAT=SIM,
        reuse=SIM,
)
# Restricted mesh (only volume elements) for global fields printing
MESH_PP = CREA_MAILLAGE(
        MAILLAGE=MESH,
        RESTREINT=_F(
            GROUP_MA=("region1"),
        ),
)
# Restricted model definition for global fields printing
MOD_PP = AFFE_MODELE(
        AFFE=(
            _F(
                MODELISATION="3D",
                PHENOMENE="MECANIQUE",
                TOUT="OUI",
            ),
            _F(
                GROUP_MA=("region1"),
                MODELISATION="3D",
                PHENOMENE="MECANIQUE",
            ),
```

```
        ),
        MAILLAGE=MESH_PP,
    )
    # Restricted result for global fields printing
    SIM_PP = EXTR_RESU(
        ARCHIVAGE=_F(
            NOM_CHAM=("ACCE", "DEPL", "EPSG_NOEU", "SIEQ_NOEU",
"SIGM_NOEU", "VITE"),
            PAS_ARCH=1,
        ),
        RESTREINT=_F(
            MODELE=MOD_PP,
        ),
        RESULTAT=SIM,
    )
    # Destroying intermediate objects for global fields result restriction
    DETRUIRE(
        INFO=1,
        NOM=(MESH, MODEL, SIM),
    )
    # Solution fields in file
    IMPR_RESU(
        FORMAT="MED",
        RESU=(
            _F(
                NOM_CHAM="DEPL",
                NOM_CHAM_MED="displacement",
```

```
        NOM_CMP=("DX", "DY", "DZ"),
        RESULTAT=SIM_PP,
    ),
    _F(
        NOM_CHAM="SIGM_NOEU",
        NOM_CHAM_MED="cauchy stress",
        NOM_CMP=("SIXX", "SIYY", "SIZZ", "SIXY", "SIXZ", "SIYZ"),
        RESULTAT=SIM_PP,
    ),
    _F(
        NOM_CHAM="SIEQ_NOEU",
        NOM_CHAM_MED="von Mises stress",
        NOM_CMP=("VMIS"),
        RESULTAT=SIM_PP,
    ),
    _F(
        NOM_CHAM="EPSG_NOEU",
        NOM_CHAM_MED="total nonlinear strain",
        NOM_CMP=("EPXX", "EPYY", "EPZZ", "EPXY", "EPXZ", "EPYZ"),
        RESULTAT=SIM_PP,
    ),
    _F(
        NOM_CHAM="VITE",
        NOM_CHAM_MED="velocity",
        NOM_CMP=("DX", "DY", "DZ"),
        RESULTAT=SIM_PP,
    ),
```

```
                _F(
                    NOM_CHAM="ACCE",
                    NOM_CHAM_MED="acceleration",
                    NOM_CMP=("DX", "DY", "DZ"),
                    RESULTAT=SIM_PP,
                ),
            ),
            UNITE=80,
        )
finally:
    # Input file end
    FIN(
        INFO_RESU="NON",
        PROC0="OUI",
        RETASSAGE="NON",
    )
--------------------------------------------------------------------------------
MPI_Init...
calling MPI_Init...
Ouverture en écriture du fichier ./vola.1
<INFO> Démarrage de l'exécution.
                -- CODE_ASTER -- VERSION : CORRECTIVE AVANT STABILISATION (stable-updates) --
                                        Version 15.6.10 modifiée le 14/12/2022
                                            révision cf12489e9fcc - branche 'v15'
                                        Copyright EDF R&D 1991 - 2025
```

Exécution du : Sun Jan 19 11:42:13 2025

Type de processeur : x86_64

Langue des messages : en (UTF-8)

Version de Python : 3.8.10

Version de NumPy : 1.17.4

Parallélisme MPI : actif

Rang du processeur courant : 0

Nombre de processeurs utilisés : 1

Parallélisme OpenMP : actif

Nombre de processus utilisés : 1

Version de la librairie HDF5 : 1.10.3

Version de la librairie MED : 4.1.1

Version de la librairie MFront : 3.4.0

Version de la librairie MUMPS : 5.2.1

Version de la librairie PETSc : 3.12.3p0

Version de la librairie SCOTCH : 6.0.4

Mémoire limite pour l'exécution : 120000.00 Mo

consommée par l'initialisation : 484.87 Mo

reste pour l'allocation dynamique : 119515.13 Mo

Taille limite des fichiers d'échange : 2048.00 Go

<frozen importlib._bootstrap>:219: ImportWarning: can't resolve package from __spec__ or __package__, falling back on __name__ and __path__

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_init()

Found the comm-file: post.comm

Original directory for logging was found:

```
.. _stg1_txt125

# ------------------------------------------------------------------------
---------------------

# Commande #0001 de    ligne 125

POURSUITE(CODE='NON',

                DEBUG=_F(JEVEUX='NON',

                         JXVERI='NON',

                         SDVERI='NON',

                         VERI_BASE_NB=125),

                IGNORE_ALARM=('SUPERVIS_1', 'ALGORITH11_87'),

                IMPR_MACRO='NON',

                INFO=1,

                LANG='en',

                MEMOIRE=_F(TAILLE_BLOC=800.0,

                           TAILLE_GROUP_ELEM=1000),

                MESURE_TEMPS=_F(MOYENNE='NON',

                                NIVE_DETAIL=1),

                RESERVE_CPU=_F(BORNE=900))

restarting from a previous execution...

Initial value of maximum time CPU = 35996400 second

  Valeur of the maximum time CPU placed to the orders = 35995500 second

  Réserve CPU envisaged = 900 seconds

Ouverture en lecture du fichier ./glob.1

Ajustement de la taille maximale des bases à 2048.00 Go.

Nom de la base                              :  GLOBALE

        Créée avec la version                   :  15.06.10

        Nombre d'enregistrements utilisés       :  13391
```

```
        Nombre d'enregistrements maximum             :   2684354
        Nombre d'enregistrements par fichier       :   15728
        Longueur d'enregistrement (octets)         :   819200
        Nombre d'identificateurs utilisés          :   8419
        Taille maximum du répertoire               :   16000
        Pourcentage d'utilisation du répertoire :   52 %
Ouverture en lecture du fichier ./glob.1
Ouverture en écriture du fichier ./vola.1
End of reading (lasted 0.000002 S.)
  DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats
    libaster.call_poursuite(syntax)
Restored objects:
pi                              <class 'float'>
e                               <class 'float'>
tau                             <class 'float'>
inf                             <class 'float'>
nan                             <class 'float'>
MAT_0                           <class 'libaster.Material'>
MESH                            <class 'libaster.Mesh'>
MODEL                           <class 'libaster.Model'>
MATS                            <class 'libaster.MaterialField'>
F_4                             <class 'libaster.FieldOnNodesReal'>
F_0                             <class 'libaster.Formula'>
F_1                             <class 'libaster.Formula'>
F_2                             <class 'libaster.Formula'>
F_3                             <class 'libaster.FieldOnNodesReal'>
INIT_D                          <class 'libaster.FieldOnNodesReal'>
```

F_9 <class 'libaster.FieldOnNodesReal'>

F_5 <class 'libaster.Formula'>

F_6 <class 'libaster.Formula'>

F_7 <class 'libaster.Formula'>

F_8 <class 'libaster.FieldOnNodesReal'>

INIT_U <class 'libaster.FieldOnNodesReal'>

F_14 <class 'libaster.FieldOnNodesReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.FieldOnNodesReal'>

INIT_A <class 'libaster.FieldOnNodesReal'>

F_22 <class 'libaster.FieldOnNodesReal'>

F_23 <class 'libaster.FieldOnCellsReal'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.Formula'>

F_17 <class 'libaster.Formula'>

F_18 <class 'libaster.Formula'>

F_19 <class 'libaster.Formula'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.FieldOnCellsReal'>

F_24 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_25 <class 'libaster.Formula'>

F_26 <class 'libaster.Formula'>

F_27 <class 'libaster.Formula'>

F_28 <class 'libaster.Formula'>

BC_0 <class 'libaster.MechanicalDirichletBC'>

BC_1 <class 'libaster.MechanicalDirichletBC'>

BC_2 <class 'libaster.MechanicalLoadFunction'>

BC_3 <class 'libaster.MechanicalLoadFunction'>

TIMELIST <class 'libaster.ListOfFloats'>

INSTLIST <class 'libaster.TimeStepper'>

SIM <class 'libaster.NonLinearResult'>

Mémoire (Mo) : 9799.44 / 9799.44 / 9303.80 / 199.97 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0001 user+syst: 0.19s (syst: 5.30s, elaps: 5.50s)

.. _stg1_txt19

Commande #0002 de fort.1, ligne 19

MODEL = MODI_MODELE(DISTRIBUTION=_F(METHODE='CENTRALISE'),

MODELE=MODEL,

reuse=MODEL)

Résultat commande #0002 (MODI_MODELE): MODEL ('<00000003>') de type <Model>

Dépend de :

- MESH ('<00000002>') de type <Mesh>

Mémoire (Mo) : 9799.44 / 9799.44 / 9303.80 / 199.97 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0002 user+syst: 0.00s (syst: 0.00s, elaps: 0.01s)

```
--------------------

.. _stg1_txt27

# ------------------------------------------------------------------------
--------------------

# Commande #0003 de fort.1, ligne 27

GET_ENERGIE(NOM_CMP=('TRAV_EXT', 'ENER_CIN', 'ENER_TOT', 'TRAV_AMOR',
'TRAV_LIAI', 'DISS_SCH'),

                    NOM_TABLE='PARA_CALC',

                    RESULTAT=SIM)

# Résultat commande #0003 (GET_ENERGIE): '<0000002e>' de type <Table>

# Mémoire (Mo) :    9799.82 /    9799.70 /    9303.88 /     199.97 (VmPeak / VmSize /
Optimum / Minimum)

# Fin commande #0003      user+syst:              0.02s (syst:              0.00s, elaps:
0.02s)

# ------------------------------------------------------------------------
--------------------

.. _stg1_txt33

# ------------------------------------------------------------------------
--------------------

# Commande #0006 de fort.1, ligne 33

DEFI_FICHIER(ACCES='NEW',

                    ACTION='ASSOCIER',

                    FICHIER='REPE_OUT/energy-plots',

                    TYPE='ASCII',

                    UNITE=30)

# Mémoire (Mo) :    9800.08 /    9800.08 /    9303.88 /     199.97 (VmPeak / VmSize /
Optimum / Minimum)

# Fin commande #0006      user+syst:              0.01s (syst:              0.00s, elaps:
0.01s)
```

```
# ------------------------------------------------------------------------
--------------------

.. _stg1_txt41

# ------------------------------------------------------------------------
--------------------

# Commande #0007 de fort.1, ligne 41

IMPR_TABLE(COMMENTAIRE='#',

                COMM_PARA='$$',

                DEBUT_LIGNE='',

                FIN_LIGNE='\n',

                FIN_TABLE='',

                FORMAT='TABLEAU',

                FORMAT_R='E12.5',

                IMPR_FONCTION='NON',

                INFO=1,

                NOM_PARA=('INST', 'TRAV_EXT', 'ENER_CIN', 'ENER_TOT', 'TRAV_AMOR',
'TRAV_LIAI', 'DISS_SCH'),

                SEPARATEUR=',',

                TABLE='<0000002e>',

                UNITE=30)

# Mémoire (Mo) :    9800.33 /    9800.33 /    9303.88 /     199.97 (VmPeak / VmSize /
Optimum / Minimum)

# Fin commande #0007      user+syst:              0.00s (syst:              0.00s, elaps:
0.01s)

# ------------------------------------------------------------------------
--------------------

.. _stg1_txt51

# ------------------------------------------------------------------------
--------------------
```

Commande #0008 de fort.1, ligne 51

DEFI_FICHIER(ACTION='LIBERER',

UNITE=30)

Mémoire (Mo) : 9800.33 / 9800.33 / 9303.88 / 199.97 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0008 user+syst: 0.00s (syst: 0.00s, elaps: 0.00s)

.. _stg1_txt57

Commande #0009 de fort.1, ligne 57

SIM = CALC_CHAMP(CONTRAINTE='SIGM_NOEU',

CRITERE='RELATIF',

CRITERES='SIEQ_NOEU',

DEFORMATION='EPSG_NOEU',

GROUP_MA=('face1', 'face10', 'face11', 'face12', 'face13', 'face14', 'face2', 'face3', 'face4', 'face5', 'face6', 'face7', 'face8', 'face9', 'region1'),

INFO=1,

PARALLELISME_TEMPS='NON',

PRECISION=1e-06,

RESULTAT=SIM,

reuse=SIM)

Ouverture en écriture du fichier ./vola.2

#2 Calculs elementaires et assemblages CPU (USER+SYST/SYST/ELAPS): 640.04 81.31 653.16

#3 Dechargement de la memoire sur disque CPU (USER+SYST/SYST/ELAPS): 14.10 13.50 26.99

Critère de destruction du fichier (1.00 %) associé à la base VOLATILE dépassé 1.04 %

Nombre d'enregistrements utilisés : 27904

Volume disque occupé : 21800 Mo.

Nombre maximum d'enregistrements : 2684354

Ouverture en écriture du fichier ./vola.1

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

return libaster.call_oper(syntax, 0)

Résultat commande #0009 (CALC_CHAMP): SIM ('<0000002c>') de type <NonLinearResult>

Dépend de :

- TIMELIST ('<0000002a>') de type <ListOfFloats>

- MATS ('<00000004>') de type <MaterialField>

- BC_0 ('<00000026>') de type <MechanicalDirichletBC>

- BC_1 ('<00000027>') de type <MechanicalDirichletBC>

- BC_2 ('<00000028>') de type <MechanicalLoadFunction>

- BC_3 ('<00000029>') de type <MechanicalLoadFunction>

- INSTLIST ('<0000002b>') de type <TimeStepper>

- MODEL ('<00000003>') de type <Model>

Mémoire (Mo) : 65501.67 / 8311.50 / 64971.43 / 576.84 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0009 user+syst: 1602.43s (syst: 256.26s, elaps: 1871.73s)

--

.. _stg1_txt83

--

Commande #0010 de fort.1, ligne 83

```
MESH_PP = CREA_MAILLAGE(INFO=1,
                        MAILLAGE=MESH,
                        RESTREINT=_F(GROUP_MA='region1',
                                     TOUT_GROUP_MA='NON',
                                     TOUT_GROUP_NO='NON'))
```

Vérification du maillage.

```
------------ MAILLAGE 0000002f - IMPRESSIONS NIVEAU    1 ------------
ASTER 15.06.10 CONCEPT 0000002f CALCULE LE 19/01/2025 A 12:13:32 DE TYPE
MAILLAGE_SDASTER
NOMBRE DE NOEUDS                          88282
NOMBRE DE MAILLES                        288857
                                TETRA4                  288857
NOMBRE DE GROUPES DE MAILLES              1
                                region1                          288857
-------------------------------------------------------------------------
-----
# Résultat commande #0010 (CREA_MAILLAGE): MESH_PP ('<0000002f>') de type
<Mesh>
# Dépend de :
# - MESH ('<00000002>') de type <Mesh>
# Mémoire (Mo) : 65501.67 /    8349.08 / 64971.43 /     576.84 (VmPeak / VmSize /
Optimum / Minimum)
# Fin commande #0010      user+syst:              1.67s (syst:              0.03s, elaps:
1.70s)
# -------------------------------------------------------------------------
---------------------
```

.. _stg1_txt91

```
# -------------------------------------------------------------------------
```

Commande #0011 de fort.1, ligne 91

MOD_PP = AFFE_MODELE(AFFE=(_F(MODELISATION='3D',

PHENOMENE='MECANIQUE',

TOUT='OUI'),

_F(GROUP_MA='region1',

MODELISATION='3D',

PHENOMENE='MECANIQUE')),

DISTRIBUTION=_F(METHODE='SOUS_DOMAINE',

PARTITIONNEUR='METIS'),

INFO=1,

MAILLAGE=MESH_PP,

VERI_JACOBIEN='OUI',

VERI_NORM_IFS='OUI')

Sur les 288857 mailles du maillage 0000002f, on a demandé l'affectation de 288857, on a pu en

affecter 288857.

Modélisation Formulation Type maille Élément fini Nombre

3D _ TETRA4 MECA_TETRA4 288857

#2 Calculs elementaires et assemblages CPU (USER+SYST/SYST/ELAPS): 0.11 0.00 0.11

Résultat commande #0011 (AFFE_MODELE): MOD_PP ('<00000030>') de type <Model>

Dépend de :

- MESH_PP ('<0000002f>') de type <Mesh>

Mémoire (Mo) : 65501.67 / 8363.70 / 64971.43 / 576.84 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0011 user+syst: 0.75s (syst: 0.02s, elaps:

0.77s)

--

.. _stg1_txt108

--

Commande #0012 de fort.1, ligne 108

SIM_PP = EXTR_RESU(ARCHIVAGE=_F(CRITERE='RELATIF',

NOM_CHAM=('ACCE', 'DEPL', 'EPSG_NOEU', 'SIEQ_NOEU', 'SIGM_NOEU', 'VITE'),

PAS_ARCH=1,

PRECISION=1e-06),

INFO=1,

RESTREINT=_F(MODELE=MOD_PP),

RESULTAT=SIM)

Ouverture en écriture du fichier ./glob.2

STRUCTURE DU CONCEPT 00000031 CALCULE POUR 201 NUMEROS D'ORDRE

LISTE DES NOMS SYMBOLIQUES:

! ---------- !----------!----------!----------!----------!----------!----------!----------!

! NUME_ORDRE ! DEPL ! VITE ! ACCE ! SIGM_NOEU ! SIEQ_NOEU ! EPSG_NOEU ! COMPORTEMENT !

! ---------- !----------!----------!----------!----------!----------!----------!----------!

! 0 ! DEPL_R ! DEPL_R ! DEPL_R ! SIEF_R ! SIEF_R ! EPSI_R ! COMPOR !

! ... ! ... ! ... ! ... ! ... ! ... ! ... !

! 200 ! DEPL_R ! DEPL_R ! DEPL_R ! SIEF_R ! SIEF_R ! EPSI_R ! COMPOR !

! ---------- !----------------!----------------!----------------!----------------!----------------!----------------!

LISTE DES NOMS DE VARIABLES D'ACCES:

INST DE TYPE R

LISTE DES NOMS DE PARAMETRES:

! ---------- !----------------!----------------!----------------!----------------!----------------!----------------!----------------!----------------!

! NUME_ORDRE ! CARAELEM ! CHAMPMAT ! MODELE ! EXCIT ! ETA_PILOTAGE ! ITER_GLOB ! CHAR_MINI ! TRAN_GENE_NOLI ! INST_PREC !

! ---------- !----------------!----------------!----------------!----------------!----------------!----------------!----------------!----------------!

! 0 ! K8 ! K8 ! K8 ! K24 ! R ! I ! R ! K24 ! R !

! ... ! ... ! ... ! ... ! ... ! ... ! ... ! ... ! ... ! ... !

! 200 ! K8 ! K8 ! K8 ! K24 ! R ! I ! R ! K24 ! R !

! ---------- !----------------!----------------!----------------!----------------!----------------!----------------!----------------!----------------!

#3 Dechargement de la memoire sur disque CPU (USER+SYST/SYST/ELAPS): 6.28 6.13 6.29

Résultat commande #0012 (EXTR_RESU): SIM_PP ('<00000031>') de type <NonLinearResult>

Dépend de :

- MOD_PP ('<00000030>') de type <Model>

Mémoire (Mo) : 65501.67 / 6446.65 / 64971.43 / 576.84 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0012 user+syst: 665.83s (syst: 125.01s, elaps: 790.89s)

.. _stg1_txt120

Commande #0013 de fort.1, ligne 120

DETRUIRE(INFO=1,

NOM=(MESH, MODEL, SIM))

Suppression de la référence : 'MESH'

Suppression de la référence : 'MODEL'

Suppression de la référence : 'SIM'

Mémoire (Mo) : 65501.67 / 6446.65 / 64971.43 / 576.84 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0013 user+syst: 0.04s (syst: 0.01s, elaps: 0.05s)

.. _stg1_txt126

Commande #0014 de fort.1, ligne 126

IMPR_RESU(FORMAT='MED',

INFO=1,

RESU=(_F(IMPR_NOM_VARI='OUI',

```
        INFO_MAILLAGE='NON',
        NOM_CHAM='DEPL',
        NOM_CHAM_MED='displacement',
        NOM_CMP=('DX', 'DY', 'DZ'),
        RESULTAT=SIM_PP),
    _F(IMPR_NOM_VARI='OUI',
        INFO_MAILLAGE='NON',
        NOM_CHAM='SIGM_NOEU',
        NOM_CHAM_MED='cauchy stress',
        NOM_CMP=('SIXX', 'SIYY', 'SIZZ', 'SIXY', 'SIXZ', 'SIYZ'),
        RESULTAT=SIM_PP),
    _F(IMPR_NOM_VARI='OUI',
        INFO_MAILLAGE='NON',
        NOM_CHAM='SIEQ_NOEU',
        NOM_CHAM_MED='von Mises stress',
        NOM_CMP='VMIS',
        RESULTAT=SIM_PP),
    _F(IMPR_NOM_VARI='OUI',
        INFO_MAILLAGE='NON',
        NOM_CHAM='EPSG_NOEU',
        NOM_CHAM_MED='total nonlinear strain',
        NOM_CMP=('EPXX', 'EPYY', 'EPZZ', 'EPXY', 'EPXZ', 'EPYZ'),
        RESULTAT=SIM_PP),
    _F(IMPR_NOM_VARI='OUI',
        INFO_MAILLAGE='NON',
        NOM_CHAM='VITE',
        NOM_CHAM_MED='velocity',
```

```
                NOM_CMP=('DX', 'DY', 'DZ'),
                RESULTAT=SIM_PP),
            _F(IMPR_NOM_VARI='OUI',
                INFO_MAILLAGE='NON',
                NOM_CHAM='ACCE',
                NOM_CHAM_MED='acceleration',
                NOM_CMP=('DX', 'DY', 'DZ'),
                RESULTAT=SIM_PP)),
        UNITE=80,
        VERSION_MED='3.3.1')
```

Création du fichier au format MED 3.3.1.

Mémoire (Mo) : 65501.67 / 6526.12 / 64971.43 / 576.84 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0014 user+syst: 21.98s (syst: 7.47s, elaps: 29.47s)

.. _stg1_txt171

Commande #0015 de fort.1, ligne 171

```
FIN(INFO_RESU='NON',
    PROC0='OUI',
    RETASSAGE='NON')
```

Saving objects...

pi <class 'float'>

e <class 'float'>

tau <class 'float'>

inf <class 'float'>

nan <class 'float'>

MAT_0 <class 'libaster.Material'>

MATS <class 'libaster.MaterialField'>

F_4 <class 'libaster.FieldOnNodesReal'>

F_0 <class 'libaster.Formula'>

F_1 <class 'libaster.Formula'>

F_2 <class 'libaster.Formula'>

F_3 <class 'libaster.FieldOnNodesReal'>

INIT_D <class 'libaster.FieldOnNodesReal'>

F_9 <class 'libaster.FieldOnNodesReal'>

F_5 <class 'libaster.Formula'>

F_6 <class 'libaster.Formula'>

F_7 <class 'libaster.Formula'>

F_8 <class 'libaster.FieldOnNodesReal'>

INIT_U <class 'libaster.FieldOnNodesReal'>

F_14 <class 'libaster.FieldOnNodesReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.FieldOnNodesReal'>

INIT_A <class 'libaster.FieldOnNodesReal'>

F_22 <class 'libaster.FieldOnNodesReal'>

F_23 <class 'libaster.FieldOnCellsReal'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.Formula'>

F_17 <class 'libaster.Formula'>

F_18 <class 'libaster.Formula'>

F_19 <class 'libaster.Formula'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.FieldOnCellsReal'>

F_24 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_25 <class 'libaster.Formula'>

F_26 <class 'libaster.Formula'>

F_27 <class 'libaster.Formula'>

F_28 <class 'libaster.Formula'>

BC_0 <class 'libaster.MechanicalDirichletBC'>

BC_1 <class 'libaster.MechanicalDirichletBC'>

BC_2 <class 'libaster.MechanicalLoadFunction'>

BC_3 <class 'libaster.MechanicalLoadFunction'>

TIMELIST <class 'libaster.ListOfFloats'>

INSTLIST <class 'libaster.TimeStepper'>

TAB_ENER <class 'libaster.Table'>

MESH_PP <class 'libaster.Mesh'>

MOD_PP <class 'libaster.Model'>

SIM_PP <class 'libaster.NonLinearResult'>

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 ‖ <I> <CATAMESS_89>
‖

 ‖
‖

╟ List of warnings emitted during the execution of computation.
╟

╟
╟

╟ Warnings which you chose to ignore of are preceded by (*).
╟

╟ Number of occurrences for each warning:
╟

╟ no warning
╟

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-

Concepts de la base: G

Nom	Type	Taille (Mo)	Nombre d'objets	Nombre de segments
TOTAL		19458.59	15827	18027
00000001	MATER_SDASTER	0.00	9	9
00000002	MAILLAGE_SDASTER	41.90	38	89
00000003	MODELE_SDASTER	18.78	9	14
00000004	CHAM_MATER	2.20	9	14
00000005	CHAM_NO_SDASTER	2.02	5	5

00000006	FORMULE	0.00	4	4
00000007	FORMULE	0.00	4	4
00000008	FORMULE	0.00	4	4
00000009	CHAM_NO_SDASTER	10.10	10	12
0000000a	CHAM_NO_SDASTER	10.10	10	12
0000000b	CHAM_NO_SDASTER	2.02	5	5
0000000c	FORMULE	0.00	4	4
0000000d	FORMULE	0.00	4	4
0000000e	FORMULE	0.00	4	4
0000000f	CHAM_NO_SDASTER	10.10	10	12
00000010	CHAM_NO_SDASTER	10.10	10	12
00000011	CHAM_NO_SDASTER	2.02	5	5
00000012	FORMULE	0.00	4	4
00000013	FORMULE	0.00	4	4
00000014	FORMULE	0.00	4	4
00000015	CHAM_NO_SDASTER	10.10	10	12

00000016	CHAM_NO_SDASTER	10.10	10	12
00000017	CHAM_NO_SDASTER	2.02	5	5
00000018	CHAM_ELEM	30.28	5	5
00000019	FORMULE	0.00	4	4
0000001a	FORMULE	0.00	4	4
0000001b	FORMULE	0.00	4	4
0000001c	FORMULE	0.00	4	4
0000001d	FORMULE	0.00	4	4
0000001e	FORMULE	0.00	4	4
0000001f	CHAM_ELEM	182.26	5	5
00000020	CHAM_ELEM	182.26	5	5
00000021	CHAM_ELEM	22.06	5	5
00000022	FORMULE	0.00	4	4
00000023	FORMULE	0.00	4	4
00000024	FORMULE	0.00	4	4
00000025	FORMULE	0.00	4	4

00000026	CHAR_CINE_MECA	0.03	4	4
00000027	CHAR_CINE_MECA	6.85	4	4
00000028	CHAR_MECA	3.35	32	37
00000029	CHAR_MECA	1.14	32	37
0000002a	LISTR8_SDASTER	0.00	6	6
0000002b	LIST_INST	0.00	9	9
0000002c	EVOL_NOLI	13143.54	9327	10347
00000031	EVOL_NOLI	5678.81	6061	7078
0000002e	TABLE_SDASTER	0.02	19	19
0000002f	MAILLAGE_SDASTER	32.18	38	52
00000030	MODELE_SDASTER	14.21	9	14
&FOZERO		0.00	2	2
&&_NUM_C		0.00	1	1
&CATA.AC		0.00	2	4
&CATA.CL		0.62	1	3
&CATA.GD		0.19	4	11

&CATA.ME	0.22	2	4
&CATA.OP	0.32	4	19
&CATA.PH	0.00	1	1
&CATA.PR	0.00	2	4
&CATA.TE	28.61	17	42
&CATA.TH	0.01	2	4
&CATA.TM	0.01	7	11

Nom de la base : GLOBALE

Nombre d'enregistrements utilisés : 26960

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 29343

Volume des accès en lecture : 22924.22 Mo.

Nombre total d'accès en écriture : 13813

Volume des accès en écriture : 10791.41 Mo.

Nombre d'identificateurs utilisés : 18032

Taille maximum du répertoire : 32000

Pourcentage d'utilisation du répertoire : 56 %

Nom de la base : VOLATILE

Nombre d'enregistrements utilisés : 335

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 21891

Volume des accès en lecture : 17102.34 Mo.

Nombre total d'accès en écriture : 28608

Volume des accès en écriture : 22350.00 Mo.

Nombre d'identificateurs utilisés : 1561

Taille maximum du répertoire : 4000

Pourcentage d'utilisation du répertoire : 39 %

<I> <FIN> ARRET NORMAL DANS "FIN" PAR APPEL A "JEFINI".

<I> <FIN> MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 576.84 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 64971.43 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 65501.67 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 64971 Mo.

TAILLE CUMULEE LIBEREE : 89667 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 24187680

NOMBRE TOTAL DE LIBERATIONS : 24187680

APPELS AU MECANISME DE LIBERATION : 2

TAILLE MEMOIRE CUMULEE RECUPEREE : 46233 Mo.

VOLUME DES LECTURES : 3 Mo.

VOLUME DES ECRITURES : 32347 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 576.84 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 64971.43 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 65501.67 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : DI-19-JANV-2025 12:27:14

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
923dbccb3e98ebe955dd4297a24a61c84c92cf9a13ae178e3e8a238bd5cb748a

Signature of info file :
2430df9d0b8b6d14052313012f791712f1f9d6516d988d3e0a59f744e2e260b5

Signature of Jeveux database:
d3a30c0176cee50a428fc3bbe0e362196e23fa4dee4510d5f9a7b9708b09e338

****

* COMMAND : USER : SYSTEM : USER+SYS : ELAPSED *

****

* POURSUITE : 0.19 : 5.30 : 5.49 : 5.50 *

* MODI_MODELE : 0.00 : 0.00 : 0.00 : 0.01 *

* GET_ENERGIE : 0.02 : 0.00 : 0.02 : 0.02 *

* DEFI_FICHIER : 0.01 : 0.00 : 0.01 : 0.01 *

* IMPR_TABLE : 0.00 : 0.00 : 0.00 : 0.01 *

```
 * DEFI_FICHIER                :          0.00 :          0.00 :          0.00 :          0.00 *
 * CALC_CHAMP                  :       1602.43 :        256.26 :       1858.69 :       1871.73 *
 * CREA_MAILLAGE               :          1.67 :          0.03 :          1.70 :          1.70 *
 * AFFE_MODELE                 :          0.75 :          0.02 :          0.77 :          0.77 *
 * EXTR_RESU                   :        665.83 :        125.01 :        790.84 :        790.89 *
 * DETRUIRE                    :          0.04 :          0.01 :          0.05 :          0.05 *
 * IMPR_RESU                   :         21.98 :          7.47 :         29.45 :         29.47 *
 * FIN                         :          0.68 :          0.49 :          1.17 :          1.19 *
 *    . check syntax           :          0.04 :          0.01 :          0.05 :          0.03 *
 *    . fortran                :       2293.36 :        388.98 :       2682.34 :       2695.50 *
 ********************************************************************************
 * TOTAL_JOB                   :       2293.61 :        394.95 :       2688.56 :       2701.72 *
 ********************************************************************************
# Mémoire (Mo) : 65501.67 /     531.35 / 64971.43 /     576.84 (VmPeak / VmSize / Optimum / Minimum)
# Fin commande #0015      user+syst:              0.68s (syst:              0.49s, elaps:              1.19s)
# --------------------------------------------------------------------------------
End of the Code_Aster execution
Code_Aster MPI exits normally
Exited
EXECUTION_CODE_ASTER_EXIT_12=0
```

This time, a few fixed points were randomly removed, and all the mechanics and pressures were still comprehensive