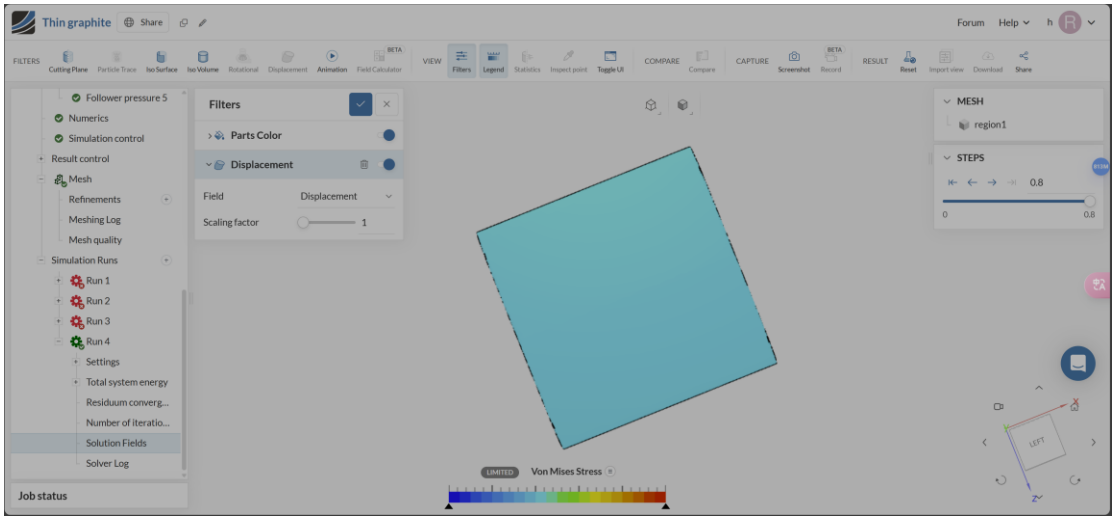
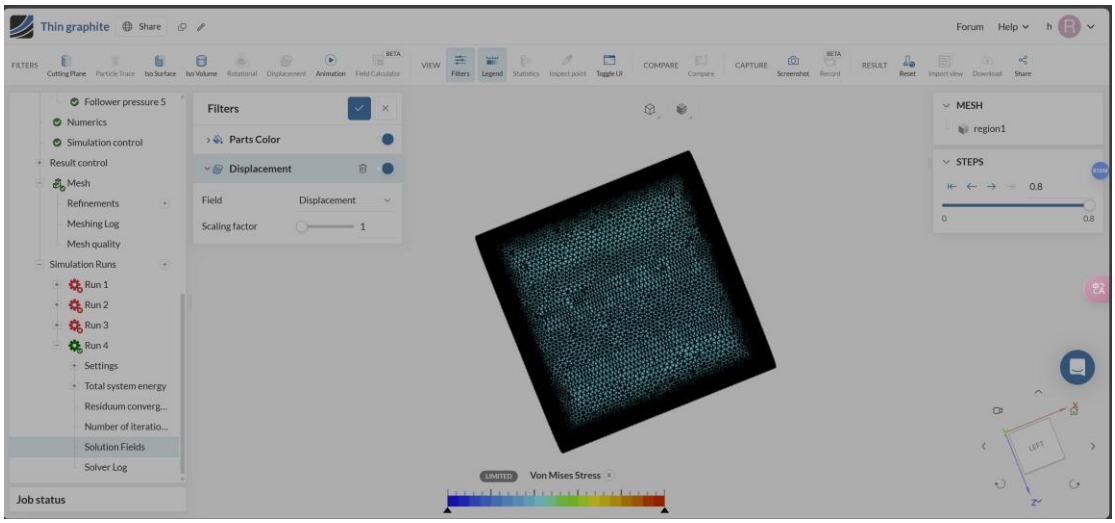
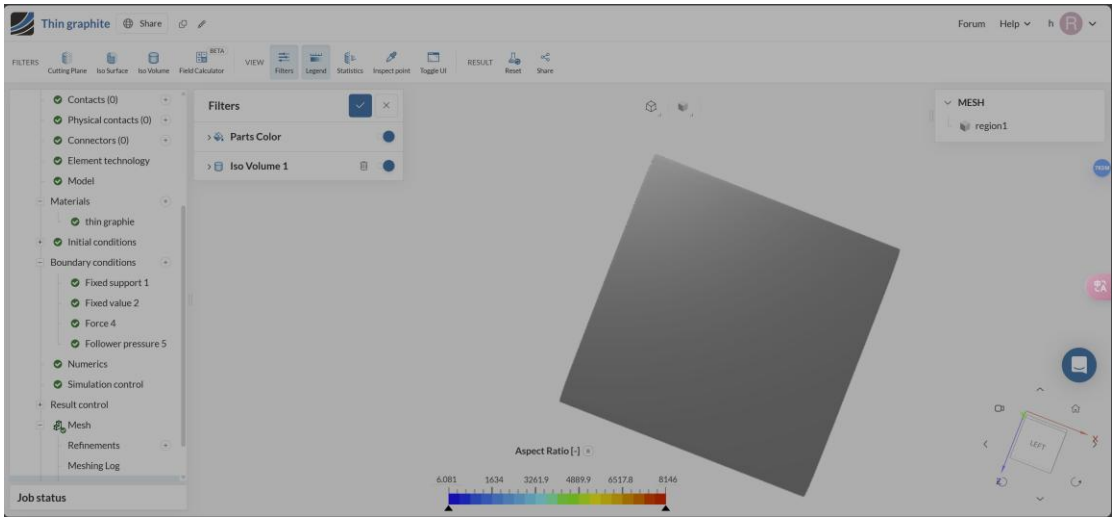




Solution fields (Above)



Mesh quality (Above)

Meshing log

****

SimScale incorporates Simulation Modeling Suite(TM) software by Simmetrix Inc. © 1997-2025. All Rights Reserved.

****

Model import took 2.076490712s.

Maximum precision of model and its entities: 1e-08 m.

Absolute small feature tolerance: 0.00149617612322395 m.

Surface meshing took 18.481184808s.

Number of cells after 27.730117601s: 387302

Number of cells after 36.970127881s: 289086

Number of cells after 46.208290136s: 288826

Number of cells after 55.452703633s: 288856

Meshing took 57.906637173s. Starting mesh export.

Mesh quality metrics:

Non Orthogonality

Acceptable range: 0.0 to 88.0

- min: 4.8
- max: 90.0
- average: 33.0
- 99.99-th percentile: 90.0

Edge Ratio

Acceptable range: 0.0 to 100.0

- min: 1.0
- max: 86.9
- average: 1.8

99.99-th percentile: 86.9

Volume Ratio

Acceptable range: 0.0 to 100.0

min: 1.0

max: 3036.0

average: 2.1

99.99-th percentile: 3036.0

Aspect Ratio

Acceptable range: 0.0 to 100.0

min: 6.1

max: 8145.7

average: 11.2

99.99-th percentile: 8145.7

Tetrahedral Aspect Ratio

Acceptable range: 0.0 to 100.0

min: 6.1

max: 8145.7

average: 11.2

99.99-th percentile: 8145.7

Skewness

Acceptable range: 0.0 to 100.0

min: 0.0

max: 27.6

average: 0.3

99.99-th percentile: 27.6

Min Edge Length : 0

Mesh export took 13.514870991s.

Solver logs

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.843585891494e-18 with the node and degree of

freedom N78043 DY

The residue of the type RESI_GLOB_MAXI is worth 2.719614757710e-22 with the node and degree of

freedom N78043 DY

Temps CPU consommé dans ce pas de temps : 17.620 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.607 s (3 intégrations)

* Temps total factorisation matrice : 3.265 s (1 factorisations)

* Temps construction second membre : 3.742 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.591 s

* Temps autres opérations : 2.319 s

Mémoire (Mo) : 5834.62 / 4931.59 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.550000000000e-01 for the sequence number 91

Field stored SIEF_ELGA at time 4.550000000000e-01 for the sequence number 91

Field stored VARI_ELGA at time 4.550000000000e-01 for the sequence number 91

Field stored COMPORTEMENT at time 4.550000000000e-01 for the sequence number 91

Field stored VITE at time 4.550000000000e-01 for the sequence number 91

Field stored ACCE at time 4.550000000000e-01 for the sequence number 91

Field stored FORC_AMOR at time 4.550000000000e-01 for the sequence number 91

Field stored FORC_LIAI at time 4.550000000000e-01 for the sequence number 91

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[56%] Instant calculé : 4.55000e-01, dernier instant archivé : 4.55000e-01, au numéro d'ordre :

95

Time of computation: 4.600000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 4.60000E-01 | 0 | 7.43816E-18 | 2.28741E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.0432E-28 | -5.7987E-16 | 0.0000E+00 | 5.7987E-16 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.438160968903e-18 with the node and degree of

freedom N82097 DY

The residue of the type RESI_GLOB_MAXI is worth 2.287412887651e-22 with the node and degree of

freedom N82097 DY

Temps CPU consommé dans ce pas de temps : 17.668 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.640 s (3 intégrations)

* Temps total factorisation matrice : 3.283 s (1 factorisations)

* Temps construction second membre : 3.733 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.590 s

* Temps autres opérations : 2.328 s

Mémoire (Mo) : 5834.62 / 4977.02 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.600000000000e-01 for the sequence number 92

Field stored SIEF_ELGA at time 4.600000000000e-01 for the sequence number 92

Field stored VARI_ELGA at time 4.600000000000e-01 for the sequence number 92

Field stored COMPORTEMENT at time 4.600000000000e-01 for the sequence number 92

Field stored VITE at time 4.600000000000e-01 for the sequence number 92

Field stored ACCE at time 4.600000000000e-01 for the sequence number 92

Field stored FORC_AMOR at time 4.600000000000e-01 for the sequence number 92

Field stored FORC_LIAI at time 4.600000000000e-01 for the sequence number 92

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[57%] Instant calculé : 4.60000e-01, dernier instant archivé : 4.60000e-01, au numéro d'ordre :

96

Time of computation: 4.650000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 4.65000E-01 | 0 | 9.18002E-18 | 2.82308E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -4.8315E-28 | -3.9721E-16 | 0.0000E+00 |
3.9721E-16 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.180022090816e-18 with the node and degree of

freedom N80419 DX

The residue of the type RESI_GLOB_MAXI is worth 2.823076957764e-22 with the node and degree of

freedom N80419 DX

Temps CPU consommé dans ce pas de temps : 17.677 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.611 s (3 intégrations)

* Temps total factorisation matrice : 3.293 s (1 factorisations)

* Temps construction second membre : 3.736 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.598 s

* Temps autres opérations : 2.345 s

Mémoire (Mo) : 5834.62 / 5022.45 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.650000000000e-01 for the sequence number 93

Field stored SIEF_ELGA at time 4.650000000000e-01 for the sequence number 93

Field stored VARI_ELGA at time 4.650000000000e-01 for the sequence number 93

Field stored COMPORTEMENT at time 4.650000000000e-01 for the sequence number 93

Field stored VITE at time 4.650000000000e-01 for the sequence number 93

Field stored ACCE at time 4.650000000000e-01 for the sequence number 93

Field stored FORC_AMOR at time 4.650000000000e-01 for the sequence number 93

Field stored FORC_LIAI at time 4.650000000000e-01 for the sequence number 93

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[58%] Instant calculé : 4.65000e-01, dernier instant archivé : 4.65000e-01, au numéro d'ordre :

97

Time of computation: 4.700000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 4.70000E-01 | 0 | 8.26622E-18 | 2.54206E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -3.3133E-28 | -2.7201E-16 | 0.0000E+00 | 2.7201E-16 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.266222707460e-18 with the node and degree of

freedom N77875 DY

The residue of the type RESI_GLOB_MAXI is worth 2.542061731695e-22 with the

node and degree of

freedom N77875 DY

Temps CPU consommé dans ce pas de temps : 17.673 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.642 s (3 intégrations)

* Temps total factorisation matrice : 3.278 s (1 factorisations)

* Temps construction second membre : 3.738 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.594 s

* Temps autres opérations : 2.325 s

Mémoire (Mo) : 5834.62 / 5067.88 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.700000000000e-01 for the sequence number 94

Field stored SIEF_ELGA at time 4.700000000000e-01 for the sequence number 94

Field stored VARI_ELGA at time 4.700000000000e-01 for the sequence number 94

Field stored COMPORTEMENT at time 4.700000000000e-01 for the sequence number 94

Field stored VITE at time 4.700000000000e-01 for the sequence number 94

Field stored ACCE at time 4.700000000000e-01 for the sequence number 94

Field stored FORC_AMOR at time 4.700000000000e-01 for the sequence number 94

Field stored FORC_LIAI at time 4.700000000000e-01 for the sequence number 94

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[58%] Instant calculé : 4.70000e-01, dernier instant archivé : 4.70000e-01, au numéro d'ordre :

98

Time of computation: 4.750000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 4.75000E-01 | 0 | 7.27257E-18 | 2.23649E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.2716E-28 | -1.8623E-16 | 0.0000E+00 | 1.8623E-16 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.272569635320e-18 with the node and degree of

freedom N81861 DY

The residue of the type RESI_GLOB_MAXI is worth 2.236489581190e-22 with the node and degree of

freedom N81861 DY

Temps CPU consommé dans ce pas de temps : 17.685 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.647 s (3 intégrations)

* Temps total factorisation matrice : 3.273 s (1 factorisations)

* Temps construction second membre : 3.742 s

* Temps total résolution K.U=F : 0.094 s (1 résolutions)

* Temps assemblage matrice : 0.600 s

* Temps autres opérations : 2.329 s

Mémoire (Mo) : 5834.62 / 5113.31 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.750000000000e-01 for the sequence number 95

Field stored SIEF_ELGA at time 4.750000000000e-01 for the sequence number 95

Field stored VARI_ELGA at time 4.750000000000e-01 for the sequence number 95

Field stored COMPORTEMENT at time 4.750000000000e-01 for the sequence number 95

Field stored VITE at time 4.750000000000e-01 for the sequence number 95

Field stored ACCE at time 4.750000000000e-01 for the sequence number 95

Field stored FORC_AMOR at time 4.750000000000e-01 for the sequence number 95

Field stored FORC_LIAI at time 4.750000000000e-01 for the sequence number 95

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[59%] Instant calculé : 4.75000e-01, dernier instant archivé : 4.75000e-01, au numéro d'ordre :

99

Time of computation: 4.800000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 4.80000E-01 | 0 | 1.02057E-17 | 3.13850E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.5569E-28 | -1.2747E-16 | 0.0000E+00 | 1.2747E-16 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.020572170911e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.138504189785e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.685 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.621 s (3 intégrations)

* Temps total factorisation matrice : 3.282 s (1 factorisations)

* Temps construction second membre : 3.751 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.598 s

* Temps autres opérations : 2.336 s

Mémoire (Mo) : 5834.62 / 5158.74 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.800000000000e-01 for the sequence number 96

Field stored SIEF_ELGA at time 4.800000000000e-01 for the sequence number 96

Field stored VARI_ELGA at time 4.800000000000e-01 for the sequence number 96

Field stored COMPORTEMENT at time 4.800000000000e-01 for the sequence number 96

Field stored VITE at time 4.800000000000e-01 for the sequence number 96

Field stored ACCE at time 4.800000000000e-01 for the sequence number 96

Field stored FORC_AMOR at time 4.800000000000e-01 for the sequence number 96

Field stored FORC_LIAI at time 4.800000000000e-01 for the sequence number 96

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[60%] Instant calculé : 4.80000e-01, dernier instant archivé : 4.80000e-01, au numéro d'ordre :

100

Time of computation: 4.850000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 4.85000E-01 | 0 | 8.58879E-18 | 2.64126E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.0668E-28 | -8.7228E-17 | 0.0000E+00 | 8.7228E-17 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.588789581888e-18 with the node and degree of

freedom N82040 DY

The residue of the type RESI_GLOB_MAXI is worth 2.641258781716e-22 with the node and degree of

freedom N82040 DY

Temps CPU consommé dans ce pas de temps : 17.621 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.598 s (3 intégrations)

* Temps total factorisation matrice : 3.266 s (1 factorisations)

* Temps construction second membre : 3.739 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.595 s

* Temps autres opérations : 2.328 s

Mémoire (Mo) : 5834.62 / 5204.17 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.850000000000e-01 for the sequence number 97

Field stored SIEF_ELGA at time 4.850000000000e-01 for the sequence number 97

Field stored VARI_ELGA at time 4.850000000000e-01 for the sequence number 97

Field stored COMPORTEMENT at time 4.850000000000e-01 for the sequence number 97

Field stored VITE at time 4.850000000000e-01 for the sequence number 97

Field stored ACCE at time 4.850000000000e-01 for the sequence number 97

Field stored FORC_AMOR at time 4.850000000000e-01 for the sequence number 97

Field stored FORC_LIAI at time 4.850000000000e-01 for the sequence number 97

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[60%] Instant calculé : 4.85000e-01, dernier instant archivé : 4.85000e-01, au numéro d'ordre :

101

Time of computation: 4.900000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU |

OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 4.90000E-01 | 0 | 7.75195E-18 | 2.38391E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.3076E-29 | -5.9676E-17 | 0.0000E+00 | 5.9676E-17 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.751954444629e-18 with the node and degree of

freedom N80462 DY

The residue of the type RESI_GLOB_MAXI is worth 2.383911907158e-22 with the node and degree of

freedom N80462 DY

Temps CPU consommé dans ce pas de temps : 17.649 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.604 s (3 intégrations)

* Temps total factorisation matrice : 3.264 s (1 factorisations)

* Temps construction second membre : 3.744 s

* Temps total résolution K.U=F : 0.098 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.338 s

Mémoire (Mo) : 5834.62 / 5249.60 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.900000000000e-01 for the sequence number 98

Field stored SIEF_ELGA at time 4.900000000000e-01 for the sequence number 98

Field stored VARI_ELGA at time 4.900000000000e-01 for the sequence number 98

Field stored COMPORTEMENT at time 4.900000000000e-01 for the sequence number 98

Field stored VITE at time 4.900000000000e-01 for the sequence number 98

Field stored ACCE at time 4.900000000000e-01 for the sequence number 98

Field stored FORC_AMOR at time 4.900000000000e-01 for the sequence number 98

Field stored FORC_LIAI at time 4.900000000000e-01 for the sequence number 98

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[61%] Instant calculé : 4.90000e-01, dernier instant archivé : 4.90000e-01, au numéro d'ordre :

Time of computation: 4.950000000000e-01

INCREMENT	NEWTON	RESIDU	RESIDU	OPTION	NEWTON
INSTANT	ITERATION	RELATIF	ABSOLU	ASSEMBLAGE	TEMPS CALCUL
		RESI_GLOB_RELA	RESI_GLOB_MAXI		VALEUR

| 4.95000E-01 | 0 | 8.22630E-18 | 2.52978E-22 |TANGENTE | |

BILAN D'ENERGIE	TRAV_EXT	ENER_TOT	ENER_CIN	TRAV_AMOR	DISS_SCH
PAS COURANT	0.0000E+00	-5.0045E-29	-4.0817E-17	0.0000E+00	4.0817E-17
TOTAL	7.5705E-05	4.8239E-21	-7.0336E-07	0.0000E+00	7.6409E-05

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.226295863068e-18 with the node and degree of

freedom N85462 DY

The residue of the type RESI_GLOB_MAXI is worth 2.529783269477e-22 with the node and degree of

freedom N85462 DY

Temps CPU consommé dans ce pas de temps : 17.717 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.652 s (3 intégrations)

* Temps total factorisation matrice : 3.296 s (1 factorisations)

* Temps construction second membre : 3.743 s

* Temps total résolution K.U=F : 0.098 s (1 résolutions)

* Temps assemblage matrice : 0.600 s

* Temps autres opérations : 2.329 s

Mémoire (Mo) : 5834.62 / 5295.03 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.950000000000e-01 for the sequence number 99

Field stored SIEF_ELGA at time 4.950000000000e-01 for the sequence number 99

Field stored VARI_ELGA at time 4.950000000000e-01 for the sequence number 99

Field stored COMPORTEMENT at time 4.950000000000e-01 for the sequence number 99

Field stored VITE at time 4.950000000000e-01 for the sequence number 99

Field stored ACCE at time 4.950000000000e-01 for the sequence number 99

Field stored FORC_AMOR at time 4.950000000000e-01 for the sequence number 99

Field stored FORC_LIAI at time 4.950000000000e-01 for the sequence number 99

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[61%] Instant calculé : 4.95000e-01, dernier instant archivé : 4.95000e-01, au numéro d'ordre :

103

Time of computation: 5.000000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.00000E-01 | 0 | 8.51251E-18 | 2.61780E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -3.4264E-29 | -2.7912E-17 | 0.0000E+00 | 2.7912E-17 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.512508294971e-18 with the node and degree of

freedom N80977 DY

The residue of the type RESI_GLOB_MAXI is worth 2.617800456532e-22 with the node and degree of

freedom N80977 DY

Temps CPU consommé dans ce pas de temps : 17.534 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.504 s (3 intégrations)

* Temps total factorisation matrice : 3.268 s (1 factorisations)

* Temps construction second membre : 3.742 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.596 s

* Temps autres opérations : 2.327 s

Mémoire (Mo) : 5834.62 / 5340.46 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.000000000000e-01 for the sequence number 100

Field stored SIEF_ELGA at time 5.000000000000e-01 for the sequence number 100

Field stored VARI_ELGA at time 5.000000000000e-01 for the sequence number 100

Field stored COMPORTEMENT at time 5.000000000000e-01 for the sequence number 100

Field stored VITE at time 5.000000000000e-01 for the sequence number 100

Field stored ACCE at time 5.000000000000e-01 for the sequence number 100

Field stored FORC_AMOR at time 5.000000000000e-01 for the sequence number 100

Field stored FORC_LIAI at time 5.000000000000e-01 for the sequence number 100

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[62%] Instant calculé : 5.00000e-01, dernier instant archivé : 5.00000e-01, au numéro d'ordre :

104

Time of computation: 5.050000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.05000E-01 | 0 | 7.33091E-18 | 2.25443E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.3453E-29 | -1.9082E-17 | 0.0000E+00 | 1.9082E-17 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.330910109921e-18 with the node and degree of

freedom N84589 DX

The residue of the type RESI_GLOB_MAXI is worth 2.254430676312e-22 with the node and degree of

freedom N84589 DX

Temps CPU consommé dans ce pas de temps : 17.624 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.590 s (3 intégrations)

* Temps total factorisation matrice : 3.268 s (1 factorisations)

* Temps construction second membre : 3.737 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.599 s

* Temps autres opérations : 2.335 s

Mémoire (Mo) : 5834.62 / 5386.56 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.050000000000e-01 for the sequence number 101

Field stored SIEF_ELGA at time 5.050000000000e-01 for the sequence number 101

Field stored VARI_ELGA at time 5.050000000000e-01 for the sequence number 101

Field stored COMPORTEMENT at time 5.050000000000e-01 for the sequence number 101

Field stored VITE at time 5.050000000000e-01 for the sequence number 101

Field stored ACCE at time 5.050000000000e-01 for the sequence number 101

Field stored FORC_AMOR at time 5.050000000000e-01 for the sequence number 101

Field stored FORC_LIAI at time 5.050000000000e-01 for the sequence number 101

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[63%] Instant calculé : 5.05000e-01, dernier instant archivé : 5.05000e-01, au numéro d'ordre :

105

Time of computation: 5.100000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 5.10000E-01 | 0 | 9.46371E-18 | 2.91032E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -1.6050E-29 | -1.3043E-17 | 0.0000E+00 |
1.3043E-17 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.463712827283e-18 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 2.910318662994e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.533 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.524 s (3 intégrations)

* Temps total factorisation matrice : 3.258 s (1 factorisations)

* Temps construction second membre : 3.729 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.593 s

* Temps autres opérations : 2.334 s

Mémoire (Mo) : 5834.62 / 5431.99 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.100000000000e-01 for the sequence number 102

Field stored SIEF_ELGA at time 5.100000000000e-01 for the sequence number 102

Field stored VARI_ELGA at time 5.100000000000e-01 for the sequence number 102

Field stored COMPORTEMENT at time 5.100000000000e-01 for the sequence number 102

Field stored VITE at time 5.100000000000e-01 for the sequence number 102

Field stored ACCE at time 5.100000000000e-01 for the sequence number 102

Field stored FORC_AMOR at time 5.100000000000e-01 for the sequence number 102

Field stored FORC_LIAI at time 5.100000000000e-01 for the sequence number 102

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[63%] Instant calculé : 5.10000e-01, dernier instant archivé : 5.10000e-01, au numéro d'ordre :

106

Time of computation: 5.150000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.15000E-01 | 0 | 1.15930E-17 | 3.56512E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.0980E-29 | -8.9133E-18 | 0.0000E+00 | 8.9133E-18 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.159296941044e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.565116128361e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.609 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.564 s (3 intégrations)

* Temps total factorisation matrice : 3.256 s (1 factorisations)

* Temps construction second membre : 3.741 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.618 s

* Temps autres opérations : 2.333 s

Mémoire (Mo) : 5834.62 / 5477.46 / 5305.99 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.150000000000e-01 for the sequence number 103

Field stored SIEF_ELGA at time 5.150000000000e-01 for the sequence number 103

Field stored VARI_ELGA at time 5.150000000000e-01 for the sequence number 103

Field stored COMPORTEMENT at time 5.150000000000e-01 for the sequence number 103

Field stored VITE at time 5.150000000000e-01 for the sequence number 103

Field stored ACCE at time 5.150000000000e-01 for the sequence number 103

Field stored FORC_AMOR at time 5.150000000000e-01 for the sequence number 103

Field stored FORC_LIAI at time 5.150000000000e-01 for the sequence number 103

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[64%] Instant calculé : 5.15000e-01, dernier instant archivé : 5.15000e-01, au numéro d'ordre :

107

Time of computation: 5.200000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.20000E-01 | 0 | 7.14268E-18 | 2.19654E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.5105E-30 | -6.0898E-18 | 0.0000E+00 | 6.0898E-18 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.142676052742e-18 with the node and degree of

freedom N87259 DY

The residue of the type RESI_GLOB_MAXI is worth 2.196544189305e-22 with the node and degree of

freedom N87259 DY

Temps CPU consommé dans ce pas de temps : 17.571 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.510 s (3 intégrations)

* Temps total factorisation matrice : 3.270 s (1 factorisations)

* Temps construction second membre : 3.734 s

* Temps total résolution K.U=F : 0.099 s (1 résolutions)

* Temps assemblage matrice : 0.617 s

* Temps autres opérations : 2.341 s

Mémoire (Mo) : 5857.30 / 5523.02 / 5328.68 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.200000000000e-01 for the sequence number 104

Field stored SIEF_ELGA at time 5.200000000000e-01 for the sequence number 104

Field stored VARI_ELGA at time 5.200000000000e-01 for the sequence number 104

Field stored COMPORTEMENT at time 5.200000000000e-01 for the sequence number 104

Field stored VITE at time 5.200000000000e-01 for the sequence number 104

Field stored ACCE at time 5.200000000000e-01 for the sequence number 104

Field stored FORC_AMOR at time 5.200000000000e-01 for the sequence number 104

Field stored FORC_LIAI at time 5.200000000000e-01 for the sequence number 104

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[65%] Instant calculé : 5.20000e-01, dernier instant archivé : 5.20000e-01, au numéro d'ordre :

108

Time of computation: 5.250000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.25000E-01 | 0 | 8.72480E-18 | 2.68309E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.1360E-30 | -4.1599E-18 | 0.0000E+00 | 4.1599E-18 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.724803529428e-18 with the node and degree of

freedom N85183 DY

The residue of the type RESI_GLOB_MAXI is worth 2.683086332612e-22 with the node and degree of

freedom N85183 DY

Temps CPU consommé dans ce pas de temps : 17.629 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.578 s (3 intégrations)

* Temps total factorisation matrice : 3.274 s (1 factorisations)

* Temps construction second membre : 3.733 s

* Temps total résolution K.U=F : 0.101 s (1 résolutions)

* Temps assemblage matrice : 0.603 s

* Temps autres opérations : 2.340 s

Mémoire (Mo) : 5902.73 / 5568.35 / 5374.08 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.250000000000e-01 for the sequence number 105

Field stored SIEF_ELGA at time 5.250000000000e-01 for the sequence number 105

Field stored VARI_ELGA at time 5.250000000000e-01 for the sequence number 105

Field stored COMPORTEMENT at time 5.250000000000e-01 for the sequence number 105

Field stored VITE at time 5.250000000000e-01 for the sequence number 105

Field stored ACCE at time 5.250000000000e-01 for the sequence number 105

Field stored FORC_AMOR at time 5.250000000000e-01 for the sequence number 105

Field stored FORC_LIAI at time 5.250000000000e-01 for the sequence number 105

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[65%] Instant calculé : 5.25000e-01, dernier instant archivé : 5.25000e-01, au numéro d'ordre :

109

Time of computation: 5.300000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 5.30000E-01 | 0 | 1.00492E-17 | 3.09037E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -3.5114E-30 | -2.8410E-18 | 0.0000E+00 |
2.8410E-18 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.004920585233e-17 with the node and degree of

freedom N84668 DY

The residue of the type RESI_GLOB_MAXI is worth 3.090371810099e-22 with the node and degree of

freedom N84668 DY

Temps CPU consommé dans ce pas de temps : 17.707 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.635 s (3 intégrations)

* Temps total factorisation matrice : 3.275 s (1 factorisations)

* Temps construction second membre : 3.750 s

* Temps total résolution K.U=F : 0.098 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.348 s

Mémoire (Mo) : 5948.16 / 5613.78 / 5419.48 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.300000000000e-01 for the sequence number 106

Field stored SIEF_ELGA at time 5.300000000000e-01 for the sequence number 106

Field stored VARI_ELGA at time 5.300000000000e-01 for the sequence number 106

Field stored COMPORTEMENT at time 5.300000000000e-01 for the sequence number 106

Field stored VITE at time 5.300000000000e-01 for the sequence number 106

Field stored ACCE at time 5.300000000000e-01 for the sequence number 106

Field stored FORC_AMOR at time 5.300000000000e-01 for the sequence number 106

Field stored FORC_LIAI at time 5.300000000000e-01 for the sequence number 106

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[66%] Instant calculé : 5.30000e-01, dernier instant archivé : 5.30000e-01, au numéro d'ordre :

110

Time of computation: 5.350000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.35000E-01 | 0 | 8.56494E-18 | 2.63392E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.4002E-30 | -1.9399E-18 | 0.0000E+00 | 1.9399E-18 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.564938545896e-18 with the node and degree of

freedom N80139 DX

The residue of the type RESI_GLOB_MAXI is worth 2.633924016128e-22 with the node and degree of

freedom N80139 DX

Temps CPU consommé dans ce pas de temps : 17.605 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.564 s (3 intégrations)

* Temps total factorisation matrice : 3.270 s (1 factorisations)

* Temps construction second membre : 3.733 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.601 s

* Temps autres opérations : 2.342 s

Mémoire (Mo) : 5993.59 / 5659.21 / 5464.89 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.350000000000e-01 for the sequence number 107

Field stored SIEF_ELGA at time 5.350000000000e-01 for the sequence number 107

Field stored VARI_ELGA at time 5.350000000000e-01 for the sequence number 107

Field stored COMPORTEMENT at time 5.350000000000e-01 for the sequence number 107

Field stored VITE at time 5.350000000000e-01 for the sequence number 107

Field stored ACCE at time 5.350000000000e-01 for the sequence number 107

Field stored FORC_AMOR at time 5.350000000000e-01 for the sequence number 107

Field stored FORC_LIAI at time 5.350000000000e-01 for the sequence number 107

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[66%] Instant calculé : 5.35000e-01, dernier instant archivé : 5.35000e-01, au numéro d'ordre :

111

Time of computation: 5.400000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.40000E-01 | 0 | 7.97132E-18 | 2.45137E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.6402E-30 | -1.3243E-18 | 0.0000E+00 | 1.3243E-18 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.971315679837e-18 with the node and degree of

freedom N85196 DY

The residue of the type RESI_GLOB_MAXI is worth 2.451370747934e-22 with the node and degree of

freedom N85196 DY

Temps CPU consommé dans ce pas de temps : 17.727 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.640 s (3 intégrations)

* Temps total factorisation matrice : 3.277 s (1 factorisations)

* Temps construction second membre : 3.727 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.630 s

* Temps autres opérations : 2.357 s

Mémoire (Mo) : 6039.02 / 5704.64 / 5510.29 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.400000000000e-01 for the sequence number 108

Field stored SIEF_ELGA at time 5.400000000000e-01 for the sequence number 108

Field stored VARI_ELGA at time 5.400000000000e-01 for the sequence number 108

Field stored COMPORTEMENT at time 5.400000000000e-01 for the sequence number 108

Field stored VITE at time 5.400000000000e-01 for the sequence number 108

Field stored ACCE at time 5.400000000000e-01 for the sequence number 108

Field stored FORC_AMOR at time 5.400000000000e-01 for the sequence number 108

Field stored FORC_LIAI at time 5.400000000000e-01 for the sequence number 108

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[67%] Instant calculé : 5.40000e-01, dernier instant archivé : 5.40000e-01, au numéro d'ordre :

112

Time of computation: 5.450000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.45000E-01 | 0 | 8.18881E-18 | 2.51826E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.1207E-30 | -9.0391E-19 | 0.0000E+00 | 9.0391E-19 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.188811911129e-18 with the node and degree of

freedom N85441 DY

The residue of the type RESI_GLOB_MAXI is worth 2.518256055277e-22 with the node and degree of

freedom N85441 DY

Temps CPU consommé dans ce pas de temps : 17.681 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.620 s (3 intégrations)

* Temps total factorisation matrice : 3.270 s (1 factorisations)

* Temps construction second membre : 3.740 s

* Temps total résolution K.U=F : 0.101 s (1 résolutions)

* Temps assemblage matrice : 0.606 s

* Temps autres opérations : 2.343 s

Mémoire (Mo) : 6084.46 / 5750.07 / 5555.69 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.450000000000e-01 for the sequence number 109

Field stored SIEF_ELGA at time 5.450000000000e-01 for the sequence number 109

Field stored VARI_ELGA at time 5.450000000000e-01 for the sequence number 109

Field stored COMPORTEMENT at time 5.450000000000e-01 for the sequence number 109

Field stored VITE at time 5.450000000000e-01 for the sequence number 109

Field stored ACCE at time 5.450000000000e-01 for the sequence number 109

Field stored FORC_AMOR at time 5.450000000000e-01 for the sequence number 109

Field stored FORC_LIAI at time 5.450000000000e-01 for the sequence number 109

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[68%] Instant calculé : 5.45000e-01, dernier instant archivé : 5.45000e-01, au numéro d'ordre :

113

Time of computation: 5.500000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 5.50000E-01 | 0 | 7.29442E-18 | 2.24321E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -7.6554E-31 | -6.1685E-19 | 0.0000E+00 |
6.1685E-19 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.294424329092e-18 with the node and degree of

freedom N85462 DY

The residue of the type RESI_GLOB_MAXI is worth 2.243210423667e-22 with the node and degree of

freedom N85462 DY

Temps CPU consommé dans ce pas de temps : 17.583 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.525 s (3 intégrations)

* Temps total factorisation matrice : 3.261 s (1 factorisations)

* Temps construction second membre : 3.744 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.627 s

* Temps autres opérations : 2.331 s

Mémoire (Mo) : 6129.89 / 5795.50 / 5601.09 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.500000000000e-01 for the sequence number 110

Field stored SIEF_ELGA at time 5.500000000000e-01 for the sequence number 110

Field stored VARI_ELGA at time 5.500000000000e-01 for the sequence number 110

Field stored COMPORTEMENT at time 5.500000000000e-01 for the sequence number 110

Field stored VITE at time 5.500000000000e-01 for the sequence number 110

Field stored ACCE at time 5.500000000000e-01 for the sequence number 110

Field stored FORC_AMOR at time 5.500000000000e-01 for the sequence number 110

Field stored FORC_LIAI at time 5.500000000000e-01 for the sequence number 110

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[68%] Instant calculé : 5.50000e-01, dernier instant archivé : 5.50000e-01, au numéro d'ordre :

114

Time of computation: 5.550000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.55000E-01 | 0 | 8.62713E-18 | 2.65305E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.2284E-31 | -4.2087E-19 | 0.0000E+00 | 4.2087E-19 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.627127232802e-18 with the node and degree of

freedom N85195 DY

The residue of the type RESI_GLOB_MAXI is worth 2.653048528825e-22 with the node and degree of

freedom N85195 DY

Temps CPU consommé dans ce pas de temps : 17.540 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.499 s (3 intégrations)

* Temps total factorisation matrice : 3.264 s (1 factorisations)

* Temps construction second membre : 3.737 s

* Temps total résolution K.U=F : 0.101 s (1 résolutions)

* Temps assemblage matrice : 0.599 s

* Temps autres opérations : 2.341 s

Mémoire (Mo) : 6175.32 / 5840.93 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.550000000000e-01 for the sequence number 111

Field stored SIEF_ELGA at time 5.550000000000e-01 for the sequence number 111

Field stored VARI_ELGA at time 5.550000000000e-01 for the sequence number 111

Field stored COMPORTEMENT at time 5.550000000000e-01 for the sequence number 111

Field stored VITE at time 5.550000000000e-01 for the sequence number 111

Field stored ACCE at time 5.550000000000e-01 for the sequence number 111

Field stored FORC_AMOR at time 5.550000000000e-01 for the sequence number 111

Field stored FORC_LIAI at time 5.550000000000e-01 for the sequence number 111

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[69%] Instant calculé : 5.55000e-01, dernier instant archivé : 5.55000e-01, au numéro d'ordre :

115

Time of computation: 5.600000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.60000E-01 | 0 | 8.76656E-18 | 2.69593E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -3.5701E-31 | -2.8711E-19 | 0.0000E+00 | 2.8711E-19 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.766562543159e-18 with the node and degree of

freedom N83232 DY

The residue of the type RESI_GLOB_MAXI is worth 2.695928230843e-22 with the node and degree of

freedom N83232 DY

Temps CPU consommé dans ce pas de temps : 17.925 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.632 s (3 intégrations)

* Temps total factorisation matrice : 3.286 s (1 factorisations)

* Temps construction second membre : 3.835 s

* Temps total résolution K.U=F : 0.104 s (1 résolutions)

* Temps assemblage matrice : 0.734 s

* Temps autres opérations : 2.335 s

Mémoire (Mo) : 6175.32 / 2939.84 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.600000000000e-01 for the sequence number 112

Field stored SIEF_ELGA at time 5.600000000000e-01 for the sequence number 112

Field stored VARI_ELGA at time 5.600000000000e-01 for the sequence number 112

Field stored COMPORTEMENT at time 5.600000000000e-01 for the sequence number 112

Field stored VITE at time 5.600000000000e-01 for the sequence number 112

Field stored ACCE at time 5.600000000000e-01 for the sequence number 112

Field stored FORC_AMOR at time 5.600000000000e-01 for the sequence number 112

Field stored FORC_LIAI at time 5.600000000000e-01 for the sequence number 112

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[70%] Instant calculé : 5.60000e-01, dernier instant archivé : 5.60000e-01, au numéro d'ordre :

116

Time of computation: 5.650000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.65000E-01 | 0 | 7.43315E-18 | 2.28587E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.4373E-31 | -1.9582E-19 | 0.0000E+00 | 1.9582E-19 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.433147129150e-18 with the node and degree of

freedom N82580 DY

The residue of the type RESI_GLOB_MAXI is worth 2.285871011680e-22 with the node and degree of

freedom N82580 DY

Temps CPU consommé dans ce pas de temps : 17.690 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.585 s (3 intégrations)

* Temps total factorisation matrice : 3.265 s (1 factorisations)

* Temps construction second membre : 3.782 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.609 s

* Temps autres opérations : 2.352 s

Mémoire (Mo) : 6175.32 / 2985.27 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.650000000000e-01 for the sequence number 113

Field stored SIEF_ELGA at time 5.650000000000e-01 for the sequence number 113

Field stored VARI_ELGA at time 5.650000000000e-01 for the sequence number 113

Field stored COMPORTEMENT at time 5.650000000000e-01 for the sequence number 113

Field stored VITE at time 5.650000000000e-01 for the sequence number 113

Field stored ACCE at time 5.650000000000e-01 for the sequence number 113

Field stored FORC_AMOR at time 5.650000000000e-01 for the sequence number 113

Field stored FORC_LIAI at time 5.650000000000e-01 for the sequence number 113

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[70%] Instant calculé : 5.65000e-01, dernier instant archivé : 5.65000e-01, au numéro d'ordre :

117

Time of computation: 5.700000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 5.70000E-01 | 0 | 9.24262E-18 | 2.84233E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -1.6636E-31 | -1.3354E-19 | 0.0000E+00 |
1.3354E-19 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.242624493379e-18 with the node and degree of

freedom N85441 DY

The residue of the type RESI_GLOB_MAXI is worth 2.842328697948e-22 with the node and degree of

freedom N85441 DY

Temps CPU consommé dans ce pas de temps : 17.629 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.512 s (3 intégrations)

* Temps total factorisation matrice : 3.258 s (1 factorisations)

* Temps construction second membre : 3.788 s

* Temps total résolution K.U=F : 0.098 s (1 résolutions)

* Temps assemblage matrice : 0.604 s

* Temps autres opérations : 2.368 s

Mémoire (Mo) : 6175.32 / 3030.70 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.700000000000e-01 for the sequence number 114

Field stored SIEF_ELGA at time 5.700000000000e-01 for the sequence number 114

Field stored VARI_ELGA at time 5.700000000000e-01 for the sequence number 114

Field stored COMPORTEMENT at time 5.700000000000e-01 for the sequence number 114

Field stored VITE at time 5.700000000000e-01 for the sequence number 114

Field stored ACCE at time 5.700000000000e-01 for the sequence number 114

Field stored FORC_AMOR at time 5.700000000000e-01 for the sequence number 114

Field stored FORC_LIAI at time 5.700000000000e-01 for the sequence number 114

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[71%] Instant calculé : 5.70000e-01, dernier instant archivé : 5.70000e-01, au numéro d'ordre :

118

Time of computation: 5.750000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.75000E-01 | 0 | 1.08267E-17 | 3.32946E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.1353E-31 | -9.1050E-20 | 0.0000E+00 | 9.1050E-20 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.082666294239e-17 with the node and degree of

freedom N82043 DY

The residue of the type RESI_GLOB_MAXI is worth 3.329458511076e-22 with the node and degree of

freedom N82043 DY

Temps CPU consommé dans ce pas de temps : 17.627 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.513 s (3 intégrations)

* Temps total factorisation matrice : 3.263 s (1 factorisations)

* Temps construction second membre : 3.787 s

* Temps total résolution K.U=F : 0.094 s (1 résolutions)

* Temps assemblage matrice : 0.605 s

* Temps autres opérations : 2.365 s

Mémoire (Mo) : 6175.32 / 3076.13 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.750000000000e-01 for the sequence number 115

Field stored SIEF_ELGA at time 5.750000000000e-01 for the sequence number 115

Field stored VARI_ELGA at time 5.750000000000e-01 for the sequence number 115

Field stored COMPORTEMENT at time 5.750000000000e-01 for the sequence number 115

Field stored VITE at time 5.750000000000e-01 for the sequence number 115

Field stored ACCE at time 5.750000000000e-01 for the sequence number 115

Field stored FORC_AMOR at time 5.750000000000e-01 for the sequence number 115

Field stored FORC_LIAI at time 5.750000000000e-01 for the sequence number 115

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[71%] Instant calculé : 5.75000e-01, dernier instant archivé : 5.75000e-01, au numéro d'ordre :

119

Time of computation: 5.800000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.80000E-01 | 0 | 8.47798E-18 | 2.60718E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.7463E-32 | -6.2069E-20 | 0.0000E+00 | 6.2069E-20 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.477982738327e-18 with the node and degree of

freedom N82051 DY

The residue of the type RESI_GLOB_MAXI is worth 2.607183019836e-22 with the node and degree of

freedom N82051 DY

Temps CPU consommé dans ce pas de temps : 17.671 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.540 s (3 intégrations)

* Temps total factorisation matrice : 3.269 s (1 factorisations)

* Temps construction second membre : 3.787 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.605 s

* Temps autres opérations : 2.375 s

Mémoire (Mo) : 6175.32 / 3121.56 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.800000000000e-01 for the sequence number 116

Field stored SIEF_ELGA at time 5.800000000000e-01 for the sequence number 116

Field stored VARI_ELGA at time 5.800000000000e-01 for the sequence number 116

Field stored COMPORTEMENT at time 5.800000000000e-01 for the sequence number 116

Field stored VITE at time 5.800000000000e-01 for the sequence number 116

Field stored ACCE at time 5.800000000000e-01 for the sequence number 116

Field stored FORC_AMOR at time 5.800000000000e-01 for the sequence number 116

Field stored FORC_LIAI at time 5.800000000000e-01 for the sequence number 116

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[72%] Instant calculé : 5.80000e-01, dernier instant archivé : 5.80000e-01, au numéro d'ordre :

120

Time of computation: 5.850000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.85000E-01 | 0 | 8.24100E-18 | 2.53431E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.2844E-32 | -4.2306E-20 | 0.0000E+00 | 4.2306E-20 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.241000827920e-18 with the node and degree of

freedom N78097 DY

The residue of the type RESI_GLOB_MAXI is worth 2.534305398839e-22 with the node and degree of

freedom N78097 DY

Temps CPU consommé dans ce pas de temps : 17.682 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.537 s (3 intégrations)

* Temps total factorisation matrice : 3.265 s (1 factorisations)

* Temps construction second membre : 3.791 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.613 s

* Temps autres opérations : 2.379 s

Mémoire (Mo) : 6175.32 / 3166.99 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.850000000000e-01 for the sequence number 117

Field stored SIEF_ELGA at time 5.850000000000e-01 for the sequence number 117

Field stored VARI_ELGA at time 5.850000000000e-01 for the sequence number 117

Field stored COMPORTEMENT at time 5.850000000000e-01 for the sequence number 117

Field stored VITE at time 5.850000000000e-01 for the sequence number 117

Field stored ACCE at time 5.850000000000e-01 for the sequence number 117

Field stored FORC_AMOR at time 5.850000000000e-01 for the sequence number 117

Field stored FORC_LIAI at time 5.850000000000e-01 for the sequence number 117

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[73%] Instant calculé : 5.85000e-01, dernier instant archivé : 5.85000e-01, au numéro d'ordre :

121

Time of computation: 5.900000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 5.90000E-01 | 0 | 1.03915E-17 | 3.19563E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -3.6043E-32 | -2.8831E-20 | 0.0000E+00 |
2.8831E-20 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.039149317309e-17 with the node and degree of

freedom N79262 DX

The residue of the type RESI_GLOB_MAXI is worth 3.195633370324e-22 with the node and degree of

freedom N79262 DX

Temps CPU consommé dans ce pas de temps : 17.700 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.567 s (3 intégrations)

* Temps total factorisation matrice : 3.272 s (1 factorisations)

* Temps construction second membre : 3.789 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.607 s

* Temps autres opérations : 2.369 s

Mémoire (Mo) : 6175.32 / 3212.42 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.900000000000e-01 for the sequence number 118

Field stored SIEF_ELGA at time 5.900000000000e-01 for the sequence number 118

Field stored VARI_ELGA at time 5.900000000000e-01 for the sequence number 118

Field stored COMPORTEMENT at time 5.900000000000e-01 for the sequence number 118

Field stored VITE at time 5.900000000000e-01 for the sequence number 118

Field stored ACCE at time 5.900000000000e-01 for the sequence number 118

Field stored FORC_AMOR at time 5.900000000000e-01 for the sequence number 118

Field stored FORC_LIAI at time 5.900000000000e-01 for the sequence number 118

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[73%] Instant calculé : 5.90000e-01, dernier instant archivé : 5.90000e-01, au numéro d'ordre :

122

Time of computation: 5.950000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 5.95000E-01 | 0 | 8.39826E-18 | 2.58267E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.4580E-32 | -1.9645E-20 | 0.0000E+00 | 1.9645E-20 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.398256283526e-18 with the node and degree of

freedom N82567 DY

The residue of the type RESI_GLOB_MAXI is worth 2.582665222902e-22 with the node and degree of

freedom N82567 DY

Temps CPU consommé dans ce pas de temps : 17.705 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.543 s (3 intégrations)

* Temps total factorisation matrice : 3.265 s (1 factorisations)

* Temps construction second membre : 3.783 s

* Temps total résolution K.U=F : 0.094 s (1 résolutions)

* Temps assemblage matrice : 0.659 s

* Temps autres opérations : 2.361 s

Mémoire (Mo) : 6175.32 / 3257.85 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.950000000000e-01 for the sequence number 119

Field stored SIEF_ELGA at time 5.950000000000e-01 for the sequence number 119

Field stored VARI_ELGA at time 5.950000000000e-01 for the sequence number 119

Field stored COMPORTEMENT at time 5.950000000000e-01 for the sequence number 119

Field stored VITE at time 5.950000000000e-01 for the sequence number 119

Field stored ACCE at time 5.950000000000e-01 for the sequence number 119

Field stored FORC_AMOR at time 5.950000000000e-01 for the sequence number 119

Field stored FORC_LIAI at time 5.950000000000e-01 for the sequence number 119

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[74%] Instant calculé : 5.95000e-01, dernier instant archivé : 5.95000e-01, au numéro d'ordre :

123

Time of computation: 6.000000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.00000E-01 | 0 | 8.39905E-18 | 2.58291E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.6759E-32 | -1.3383E-20 | 0.0000E+00 | 1.3383E-20 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.399054984586e-18 with the node and degree of

freedom N79708 DX

The residue of the type RESI_GLOB_MAXI is worth 2.582910842633e-22 with the node and degree of

freedom N79708 DX

Temps CPU consommé dans ce pas de temps : 17.784 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.589 s (3 intégrations)

* Temps total factorisation matrice : 3.289 s (1 factorisations)

* Temps construction second membre : 3.793 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.612 s

* Temps autres opérations : 2.404 s

Mémoire (Mo) : 6175.32 / 3303.28 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.000000000000e-01 for the sequence number 120

Field stored SIEF_ELGA at time 6.000000000000e-01 for the sequence number 120

Field stored VARI_ELGA at time 6.000000000000e-01 for the sequence number 120

Field stored COMPORTEMENT at time 6.000000000000e-01 for the sequence number 120

Field stored VITE at time 6.000000000000e-01 for the sequence number 120

Field stored ACCE at time 6.000000000000e-01 for the sequence number 120

Field stored FORC_AMOR at time 6.000000000000e-01 for the sequence number 120

Field stored FORC_LIAI at time 6.000000000000e-01 for the sequence number 120

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[75%] Instant calculé : 6.00000e-01, dernier instant archivé : 6.00000e-01, au numéro d'ordre :

124

Time of computation: 6.050000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.05000E-01 | 0 | 6.89650E-18 | 2.12084E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.1425E-32 | -9.1164E-21 | 0.0000E+00 | 9.1164E-21 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.896496356738e-18 with the node and degree of

freedom N79615 DY

The residue of the type RESI_GLOB_MAXI is worth 2.120838028646e-22 with the node and degree of

freedom N79615 DY

Temps CPU consommé dans ce pas de temps : 17.738 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.587 s (3 intégrations)

* Temps total factorisation matrice : 3.267 s (1 factorisations)

* Temps construction second membre : 3.777 s

* Temps total résolution K.U=F : 0.099 s (1 résolutions)

* Temps assemblage matrice : 0.648 s

* Temps autres opérations : 2.361 s

Mémoire (Mo) : 6175.32 / 3348.71 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.050000000000e-01 for the sequence number 121

Field stored SIEF_ELGA at time 6.050000000000e-01 for the sequence number 121

Field stored VARI_ELGA at time 6.050000000000e-01 for the sequence number 121

Field stored COMPORTEMENT at time 6.050000000000e-01 for the sequence number 121

Field stored VITE at time 6.050000000000e-01 for the sequence number 121

Field stored ACCE at time 6.050000000000e-01 for the sequence number 121

Field stored FORC_AMOR at time 6.050000000000e-01 for the sequence number 121

Field stored FORC_LIAI at time 6.050000000000e-01 for the sequence number 121

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[75%] Instant calculé : 6.05000e-01, dernier instant archivé : 6.05000e-01, au numéro d'ordre :

125

Time of computation: 6.100000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.10000E-01 | 0 | 7.67437E-18 | 2.36005E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.7874E-33 | -6.2089E-21 | 0.0000E+00 | 6.2089E-21 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.674371266774e-18 with the node and degree of

freedom N80429 DY

The residue of the type RESI_GLOB_MAXI is worth 2.360053219287e-22 with the node and degree of

freedom N80429 DY

Temps CPU consommé dans ce pas de temps : 17.743 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.599 s (3 intégrations)

* Temps total factorisation matrice : 3.272 s (1 factorisations)

* Temps construction second membre : 3.782 s

* Temps total résolution K.U=F : 0.094 s (1 résolutions)

* Temps assemblage matrice : 0.609 s

* Temps autres opérations : 2.388 s

Mémoire (Mo) : 6175.32 / 3394.14 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.100000000000e-01 for the sequence number 122

Field stored SIEF_ELGA at time 6.100000000000e-01 for the sequence number 122

Field stored VARI_ELGA at time 6.100000000000e-01 for the sequence number 122

Field stored COMPORTEMENT at time 6.100000000000e-01 for the sequence number 122

Field stored VITE at time 6.100000000000e-01 for the sequence number 122

Field stored ACCE at time 6.100000000000e-01 for the sequence number 122

Field stored FORC_AMOR at time 6.100000000000e-01 for the sequence number 122

Field stored FORC_LIAI at time 6.100000000000e-01 for the sequence number 122

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[76%] Instant calculé : 6.10000e-01, dernier instant archivé : 6.10000e-01, au numéro d'ordre :

126

Time of computation: 6.150000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.15000E-01 | 0 | 9.24814E-18 | 2.84402E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.3071E-33 | -4.2280E-21 | 0.0000E+00 | 4.2280E-21 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.248136597821e-18 with the node and degree of

freedom N81861 DY

The residue of the type RESI_GLOB_MAXI is worth 2.844023802261e-22 with the node and degree of

freedom N81861 DY

Temps CPU consommé dans ce pas de temps : 17.759 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.610 s (3 intégrations)

* Temps total factorisation matrice : 3.263 s (1 factorisations)

* Temps construction second membre : 3.799 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.606 s

* Temps autres opérations : 2.384 s

Mémoire (Mo) : 6175.32 / 3439.57 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.150000000000e-01 for the sequence number 123

Field stored SIEF_ELGA at time 6.150000000000e-01 for the sequence number 123

Field stored VARI_ELGA at time 6.150000000000e-01 for the sequence number 123

Field stored COMPORTEMENT at time 6.150000000000e-01 for the sequence number 123

Field stored VITE at time 6.150000000000e-01 for the sequence number 123

Field stored ACCE at time 6.150000000000e-01 for the sequence number 123

Field stored FORC_AMOR at time 6.150000000000e-01 for the sequence number 123

Field stored FORC_LIAI at time 6.150000000000e-01 for the sequence number 123

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[76%] Instant calculé : 6.15000e-01, dernier instant archivé : 6.15000e-01, au numéro d'ordre :

127

Time of computation: 6.200000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.20000E-01 | 0 | 7.98468E-18 | 2.45548E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -3.6162E-33 | -2.8787E-21 | 0.0000E+00 | 2.8787E-21 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.984680583557e-18 with the node and degree of

freedom N84848 DY

The residue of the type RESI_GLOB_MAXI is worth 2.455480776359e-22 with the node and degree of

freedom N84848 DY

Temps CPU consommé dans ce pas de temps : 17.690 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.563 s (3 intégrations)

* Temps total factorisation matrice : 3.256 s (1 factorisations)

* Temps construction second membre : 3.789 s

* Temps total résolution K.U=F : 0.100 s (1 résolutions)

* Temps assemblage matrice : 0.611 s

* Temps autres opérations : 2.372 s

Mémoire (Mo) : 6175.32 / 3485.00 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.200000000000e-01 for the sequence number 124

Field stored SIEF_ELGA at time 6.200000000000e-01 for the sequence number 124

Field stored VARI_ELGA at time 6.200000000000e-01 for the sequence number 124

Field stored COMPORTEMENT at time 6.200000000000e-01 for the sequence number 124

Field stored VITE at time 6.200000000000e-01 for the sequence number 124

Field stored ACCE at time 6.200000000000e-01 for the sequence number 124

Field stored FORC_AMOR at time 6.200000000000e-01 for the sequence number 124

Field stored FORC_LIAI at time 6.200000000000e-01 for the sequence number 124

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[77%] Instant calculé : 6.20000e-01, dernier instant archivé : 6.20000e-01, au numéro d'ordre :

128

Time of computation: 6.250000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.25000E-01 | 0 | 1.09545E-17 | 3.36877E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.4637E-33 | -1.9597E-21 | 0.0000E+00 | 1.9597E-21 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.095448137976e-17 with the node and degree of

freedom N87688 DY

The residue of the type RESI_GLOB_MAXI is worth 3.368765746043e-22 with the node and degree of

freedom N87688 DY

Temps CPU consommé dans ce pas de temps : 17.644 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.535 s (3 intégrations)

* Temps total factorisation matrice : 3.256 s (1 factorisations)

* Temps construction second membre : 3.789 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.601 s

* Temps autres opérations : 2.367 s

Mémoire (Mo) : 6175.32 / 3530.43 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.250000000000e-01 for the sequence number 125

Field stored SIEF_ELGA at time 6.250000000000e-01 for the sequence number 125

Field stored VARI_ELGA at time 6.250000000000e-01 for the sequence number 125

Field stored COMPORTEMENT at time 6.250000000000e-01 for the sequence number 125

Field stored VITE at time 6.250000000000e-01 for the sequence number 125

Field stored ACCE at time 6.250000000000e-01 for the sequence number 125

Field stored FORC_AMOR at time 6.250000000000e-01 for the sequence number 125

Field stored FORC_LIAI at time 6.250000000000e-01 for the sequence number 125

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[78%] Instant calculé : 6.25000e-01, dernier instant archivé : 6.25000e-01, au numéro d'ordre :

129

Time of computation: 6.300000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 6.30000E-01 | 0 | 9.42880E-18 | 2.89958E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -1.6782E-33 | -1.3339E-21 | 0.0000E+00 |
1.3339E-21 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.428800438291e-18 with the node and degree of

freedom N85168 DX

The residue of the type RESI_GLOB_MAXI is worth 2.899582266074e-22 with the node and degree of

freedom N85168 DX

Temps CPU consommé dans ce pas de temps : 17.744 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.610 s (3 intégrations)

* Temps total factorisation matrice : 3.278 s (1 factorisations)

* Temps construction second membre : 3.787 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.610 s

* Temps autres opérations : 2.363 s

Mémoire (Mo) : 6175.32 / 3575.86 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.300000000000e-01 for the sequence number 126

Field stored SIEF_ELGA at time 6.300000000000e-01 for the sequence number 126

Field stored VARI_ELGA at time 6.300000000000e-01 for the sequence number 126

Field stored COMPORTEMENT at time 6.300000000000e-01 for the sequence number 126

Field stored VITE at time 6.300000000000e-01 for the sequence number 126

Field stored ACCE at time 6.300000000000e-01 for the sequence number 126

Field stored FORC_AMOR at time 6.300000000000e-01 for the sequence number 126

Field stored FORC_LIAI at time 6.300000000000e-01 for the sequence number 126

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[78%] Instant calculé : 6.30000e-01, dernier instant archivé : 6.30000e-01, au numéro d'ordre :

130

Time of computation: 6.350000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.35000E-01 | 0 | 8.17455E-18 | 2.51387E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.1430E-33 | -9.0786E-22 | 0.0000E+00 | 9.0786E-22 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.174546519161e-18 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 2.513869105120e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.773 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.640 s (3 intégrations)

* Temps total factorisation matrice : 3.276 s (1 factorisations)

* Temps construction second membre : 3.793 s

* Temps total résolution K.U=F : 0.099 s (1 résolutions)

* Temps assemblage matrice : 0.603 s

* Temps autres opérations : 2.362 s

Mémoire (Mo) : 6175.32 / 3621.29 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.350000000000e-01 for the sequence number 127

Field stored SIEF_ELGA at time 6.350000000000e-01 for the sequence number 127

Field stored VARI_ELGA at time 6.350000000000e-01 for the sequence number 127

Field stored COMPORTEMENT at time 6.350000000000e-01 for the sequence number 127

Field stored VITE at time 6.350000000000e-01 for the sequence number 127

Field stored ACCE at time 6.350000000000e-01 for the sequence number 127

Field stored FORC_AMOR at time 6.350000000000e-01 for the sequence number 127

Field stored FORC_LIAI at time 6.350000000000e-01 for the sequence number 127

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[79%] Instant calculé : 6.35000e-01, dernier instant archivé : 6.35000e-01, au numéro d'ordre :

131

Time of computation: 6.400000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.40000E-01 | 0 | 8.96112E-18 | 2.75576E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.7834E-34 | -6.1778E-22 | 0.0000E+00 | 6.1778E-22 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.961117256213e-18 with the node and degree of

freedom N85441 DY

The residue of the type RESI_GLOB_MAXI is worth 2.755758471121e-22 with the node and degree of

freedom N85441 DY

Temps CPU consommé dans ce pas de temps : 17.717 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.561 s (3 intégrations)

* Temps total factorisation matrice : 3.282 s (1 factorisations)

* Temps construction second membre : 3.788 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.608 s

* Temps autres opérations : 2.382 s

Mémoire (Mo) : 6175.32 / 3666.72 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.400000000000e-01 for the sequence number 128

Field stored SIEF_ELGA at time 6.400000000000e-01 for the sequence number 128

Field stored VARI_ELGA at time 6.400000000000e-01 for the sequence number 128

Field stored COMPORTEMENT at time 6.400000000000e-01 for the sequence number 128

Field stored VITE at time 6.400000000000e-01 for the sequence number 128

Field stored ACCE at time 6.400000000000e-01 for the sequence number 128

Field stored FORC_AMOR at time 6.400000000000e-01 for the sequence number 128

Field stored FORC_LIAI at time 6.400000000000e-01 for the sequence number 128

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[80%] Instant calculé : 6.40000e-01, dernier instant archivé : 6.40000e-01, au numéro d'ordre :

132

Time of computation: 6.450000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.45000E-01 | 0 | 8.53083E-18 | 2.62343E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.2995E-34 | -4.2034E-22 | 0.0000E+00 | 4.2034E-22 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.530826499693e-18 with the node and degree of

freedom N81941 DY

The residue of the type RESI_GLOB_MAXI is worth 2.623433743810e-22 with the node and degree of

freedom N81941 DY

Temps CPU consommé dans ce pas de temps : 17.684 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.542 s (3 intégrations)

* Temps total factorisation matrice : 3.277 s (1 factorisations)

* Temps construction second membre : 3.792 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.604 s

* Temps autres opérations : 2.373 s

Mémoire (Mo) : 6175.32 / 3712.15 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.450000000000e-01 for the sequence number 129

Field stored SIEF_ELGA at time 6.450000000000e-01 for the sequence number 129

Field stored VARI_ELGA at time 6.450000000000e-01 for the sequence number 129

Field stored COMPORTEMENT at time 6.450000000000e-01 for the sequence number 129

Field stored VITE at time 6.450000000000e-01 for the sequence number 129

Field stored ACCE at time 6.450000000000e-01 for the sequence number 129

Field stored FORC_AMOR at time 6.450000000000e-01 for the sequence number 129

Field stored FORC_LIAI at time 6.450000000000e-01 for the sequence number 129

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[80%] Instant calculé : 6.45000e-01, dernier instant archivé : 6.45000e-01, au numéro d'ordre :

133

Time of computation: 6.500000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 6.50000E-01 | 0 | 8.94188E-18 | 2.74984E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -3.6078E-34 | -2.8596E-22 | 0.0000E+00 |
2.8596E-22 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.941880093795e-18 with the node and degree of

freedom N85471 DY

The residue of the type RESI_GLOB_MAXI is worth 2.749842582311e-22 with the node and degree of

freedom N85471 DY

Temps CPU consommé dans ce pas de temps : 17.792 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.653 s (3 intégrations)

* Temps total factorisation matrice : 3.273 s (1 factorisations)

* Temps construction second membre : 3.785 s

* Temps total résolution K.U=F : 0.098 s (1 résolutions)

* Temps assemblage matrice : 0.604 s

* Temps autres opérations : 2.379 s

Mémoire (Mo) : 6175.32 / 3757.58 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.500000000000e-01 for the sequence number 130

Field stored SIEF_ELGA at time 6.500000000000e-01 for the sequence number 130

Field stored VARI_ELGA at time 6.500000000000e-01 for the sequence number 130

Field stored COMPORTEMENT at time 6.500000000000e-01 for the sequence number 130

Field stored VITE at time 6.500000000000e-01 for the sequence number 130

Field stored ACCE at time 6.500000000000e-01 for the sequence number 130

Field stored FORC_AMOR at time 6.500000000000e-01 for the sequence number 130

Field stored FORC_LIAI at time 6.500000000000e-01 for the sequence number 130

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[81%] Instant calculé : 6.50000e-01, dernier instant archivé : 6.50000e-01, au numéro d'ordre :

134

Time of computation: 6.550000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.55000E-01 | 0 | 8.02552E-18 | 2.46804E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.4558E-34 | -1.9452E-22 | 0.0000E+00 | 1.9452E-22 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.025515509190e-18 with the node and degree of

freedom N84570 DX

The residue of the type RESI_GLOB_MAXI is worth 2.468038495337e-22 with the node and degree of

freedom N84570 DX

Temps CPU consommé dans ce pas de temps : 17.702 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.599 s (3 intégrations)

* Temps total factorisation matrice : 3.268 s (1 factorisations)

* Temps construction second membre : 3.779 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.601 s

* Temps autres opérations : 2.359 s

Mémoire (Mo) : 6175.32 / 3803.01 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.550000000000e-01 for the sequence number 131

Field stored SIEF_ELGA at time 6.550000000000e-01 for the sequence number 131

Field stored VARI_ELGA at time 6.550000000000e-01 for the sequence number 131

Field stored COMPORTEMENT at time 6.550000000000e-01 for the sequence number 131

Field stored VITE at time 6.550000000000e-01 for the sequence number 131

Field stored ACCE at time 6.550000000000e-01 for the sequence number 131

Field stored FORC_AMOR at time 6.550000000000e-01 for the sequence number 131

Field stored FORC_LIAI at time 6.550000000000e-01 for the sequence number 131

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[81%] Instant calculé : 6.55000e-01, dernier instant archivé : 6.55000e-01, au numéro d'ordre :

135

Time of computation: 6.600000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.60000E-01 | 0 | 7.38127E-18 | 2.26992E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.6714E-34 | -1.3230E-22 | 0.0000E+00 | 1.3230E-22 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.381272398207e-18 with the node and degree of

freedom N84959 DY

The residue of the type RESI_GLOB_MAXI is worth 2.269918287801e-22 with the node and degree of

freedom N84959 DY

Temps CPU consommé dans ce pas de temps : 17.661 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.535 s (3 intégrations)

* Temps total factorisation matrice : 3.270 s (1 factorisations)

* Temps construction second membre : 3.799 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.359 s

Mémoire (Mo) : 6175.32 / 3848.47 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.600000000000e-01 for the sequence number 132

Field stored SIEF_ELGA at time 6.600000000000e-01 for the sequence number 132

Field stored VARI_ELGA at time 6.600000000000e-01 for the sequence number 132

Field stored COMPORTEMENT at time 6.600000000000e-01 for the sequence number 132

Field stored VITE at time 6.600000000000e-01 for the sequence number 132

Field stored ACCE at time 6.600000000000e-01 for the sequence number 132

Field stored FORC_AMOR at time 6.600000000000e-01 for the sequence number 132

Field stored FORC_LIAI at time 6.600000000000e-01 for the sequence number 132

Adaptation of the time step.

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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[82%] Instant calculé : 6.60000e-01, dernier instant archivé : 6.60000e-01, au numéro d'ordre :

136

Time of computation: 6.650000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.65000E-01 | 0 | 7.43368E-18 | 2.28604E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.1374E-34 | -8.9968E-23 | 0.0000E+00 | 8.9968E-23 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.433684384899e-18 with the node and degree of

freedom N84826 DY

The residue of the type RESI_GLOB_MAXI is worth 2.286036230708e-22 with the node and degree of

freedom N84826 DY

Temps CPU consommé dans ce pas de temps : 17.711 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.561 s (3 intégrations)

* Temps total factorisation matrice : 3.291 s (1 factorisations)

* Temps construction second membre : 3.780 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.608 s

* Temps autres opérations : 2.375 s

Mémoire (Mo) : 6175.32 / 3894.31 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.650000000000e-01 for the sequence number 133

Field stored SIEF_ELGA at time 6.650000000000e-01 for the sequence number 133

Field stored VARI_ELGA at time 6.650000000000e-01 for the sequence number 133

Field stored COMPORTEMENT at time 6.650000000000e-01 for the sequence number 133

Field stored VITE at time 6.650000000000e-01 for the sequence number 133

Field stored ACCE at time 6.650000000000e-01 for the sequence number 133

Field stored FORC_AMOR at time 6.650000000000e-01 for the sequence number 133

Field stored FORC_LIAI at time 6.650000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[83%] Instant calculé : 6.65000e-01, dernier instant archivé : 6.65000e-01, au numéro d'ordre :

137

Time of computation: 6.700000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 6.70000E-01 | 0 | 7.20321E-18 | 2.21516E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -7.7387E-35 | -6.1175E-23 | 0.0000E+00 |
6.1175E-23 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.203214596989e-18 with the node and degree of

freedom N84712 DX

The residue of the type RESI_GLOB_MAXI is worth 2.215161243559e-22 with the node and degree of

freedom N84712 DX

Temps CPU consommé dans ce pas de temps : 17.573 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.482 s (3 intégrations)

* Temps total factorisation matrice : 3.260 s (1 factorisations)

* Temps construction second membre : 3.778 s

* Temps total résolution K.U=F : 0.093 s (1 résolutions)

* Temps assemblage matrice : 0.601 s

* Temps autres opérations : 2.359 s

Mémoire (Mo) : 6175.32 / 3939.65 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.700000000000e-01 for the sequence number 134

Field stored SIEF_ELGA at time 6.700000000000e-01 for the sequence number 134

Field stored VARI_ELGA at time 6.700000000000e-01 for the sequence number 134

Field stored COMPORTEMENT at time 6.700000000000e-01 for the sequence number 134

Field stored VITE at time 6.700000000000e-01 for the sequence number 134

Field stored ACCE at time 6.700000000000e-01 for the sequence number 134

Field stored FORC_AMOR at time 6.700000000000e-01 for the sequence number 134

Field stored FORC_LIAI at time 6.700000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[83%] Instant calculé : 6.70000e-01, dernier instant archivé : 6.70000e-01, au numéro d'ordre :

138

Time of computation: 6.750000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.75000E-01 | 0 | 7.86614E-18 | 2.41903E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.2648E-35 | -4.1592E-23 | 0.0000E+00 | 4.1592E-23 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.866135759126e-18 with the node and degree of

freedom N80429 DY

The residue of the type RESI_GLOB_MAXI is worth 2.419025399781e-22 with the node and degree of

freedom N80429 DY

Temps CPU consommé dans ce pas de temps : 17.643 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.516 s (3 intégrations)

* Temps total factorisation matrice : 3.277 s (1 factorisations)

* Temps construction second membre : 3.790 s

* Temps total résolution K.U=F : 0.092 s (1 résolutions)

* Temps assemblage matrice : 0.604 s

* Temps autres opérations : 2.365 s

Mémoire (Mo) : 6175.32 / 3985.08 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.750000000000e-01 for the sequence number 135

Field stored SIEF_ELGA at time 6.750000000000e-01 for the sequence number 135

Field stored VARI_ELGA at time 6.750000000000e-01 for the sequence number 135

Field stored COMPORTEMENT at time 6.750000000000e-01 for the sequence number 135

Field stored VITE at time 6.750000000000e-01 for the sequence number 135

Field stored ACCE at time 6.750000000000e-01 for the sequence number 135

Field stored FORC_AMOR at time 6.750000000000e-01 for the sequence number 135

Field stored FORC_LIAI at time 6.750000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[84%] Instant calculé : 6.75000e-01, dernier instant archivé : 6.75000e-01, au numéro d'ordre :

139

Time of computation: 6.800000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.80000E-01 | 0 | 7.54719E-18 | 2.32094E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -3.5813E-35 | -2.8274E-23 | 0.0000E+00 | 2.8274E-23 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.547191154077e-18 with the node and degree of

freedom N84906 DX

The residue of the type RESI_GLOB_MAXI is worth 2.320942284467e-22 with the node and degree of

freedom N84906 DX

Temps CPU consommé dans ce pas de temps : 17.724 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.556 s (3 intégrations)

* Temps total factorisation matrice : 3.277 s (1 factorisations)

* Temps construction second membre : 3.819 s

* Temps total résolution K.U=F : 0.094 s (1 résolutions)

* Temps assemblage matrice : 0.606 s

* Temps autres opérations : 2.370 s

Mémoire (Mo) : 6175.32 / 4030.51 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.800000000000e-01 for the sequence number 136

Field stored SIEF_ELGA at time 6.800000000000e-01 for the sequence number 136

Field stored VARI_ELGA at time 6.800000000000e-01 for the sequence number 136

Field stored COMPORTEMENT at time 6.800000000000e-01 for the sequence number 136

Field stored VITE at time 6.800000000000e-01 for the sequence number 136

Field stored ACCE at time 6.800000000000e-01 for the sequence number 136

Field stored FORC_AMOR at time 6.800000000000e-01 for the sequence number 136

Field stored FORC_LIAI at time 6.800000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[85%] Instant calculé : 6.80000e-01, dernier instant archivé : 6.80000e-01, au numéro d'ordre :

140

Time of computation: 6.850000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.85000E-01 | 0 | 7.55778E-18 | 2.32420E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.4358E-35 | -1.9219E-23 | 0.0000E+00 | 1.9219E-23 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.557782459599e-18 with the node and degree of

freedom N79951 DY

The residue of the type RESI_GLOB_MAXI is worth 2.324199364927e-22 with the node and degree of

freedom N79951 DY

Temps CPU consommé dans ce pas de temps : 17.711 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.584 s (3 intégrations)

* Temps total factorisation matrice : 3.284 s (1 factorisations)

* Temps construction second membre : 3.787 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.608 s

* Temps autres opérations : 2.352 s

Mémoire (Mo) : 6175.32 / 4075.94 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.850000000000e-01 for the sequence number 137

Field stored SIEF_ELGA at time 6.850000000000e-01 for the sequence number 137

Field stored VARI_ELGA at time 6.850000000000e-01 for the sequence number 137

Field stored COMPORTEMENT at time 6.850000000000e-01 for the sequence number 137

Field stored VITE at time 6.850000000000e-01 for the sequence number 137

Field stored ACCE at time 6.850000000000e-01 for the sequence number 137

Field stored FORC_AMOR at time 6.850000000000e-01 for the sequence number 137

Field stored FORC_LIAI at time 6.850000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[85%] Instant calculé : 6.85000e-01, dernier instant archivé : 6.85000e-01, au numéro d'ordre :

141

Time of computation: 6.900000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.90000E-01 | 0 | 7.40244E-18 | 2.27643E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.6565E-35 | -1.3062E-23 | 0.0000E+00 | 1.3062E-23 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.402437950664e-18 with the node and degree of

freedom N82120 DY

The residue of the type RESI_GLOB_MAXI is worth 2.276427202796e-22 with the node and degree of

freedom N82120 DY

Temps CPU consommé dans ce pas de temps : 17.744 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.595 s (3 intégrations)

* Temps total factorisation matrice : 3.275 s (1 factorisations)

* Temps construction second membre : 3.806 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.371 s

Mémoire (Mo) : 6175.32 / 4121.37 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.900000000000e-01 for the sequence number 138

Field stored SIEF_ELGA at time 6.900000000000e-01 for the sequence number 138

Field stored VARI_ELGA at time 6.900000000000e-01 for the sequence number 138

Field stored COMPORTEMENT at time 6.900000000000e-01 for the sequence number 138

Field stored VITE at time 6.900000000000e-01 for the sequence number 138

Field stored ACCE at time 6.900000000000e-01 for the sequence number 138

Field stored FORC_AMOR at time 6.900000000000e-01 for the sequence number 138

Field stored FORC_LIAI at time 6.900000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[86%] Instant calculé : 6.90000e-01, dernier instant archivé : 6.90000e-01, au numéro d'ordre :

142

Time of computation: 6.950000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 6.95000E-01 | 0 | 7.23266E-18 | 2.22421E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.1263E-35 | -8.8763E-24 | 0.0000E+00 | 8.8763E-24 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.232655309109e-18 with the node and degree of

freedom N81100 DY

The residue of the type RESI_GLOB_MAXI is worth 2.224214968614e-22 with the node and degree of

freedom N81100 DY

Temps CPU consommé dans ce pas de temps : 17.752 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.599 s (3 intégrations)

* Temps total factorisation matrice : 3.282 s (1 factorisations)

* Temps construction second membre : 3.786 s

* Temps total résolution K.U=F : 0.094 s (1 résolutions)

* Temps assemblage matrice : 0.611 s

* Temps autres opérations : 2.381 s

Mémoire (Mo) : 6175.32 / 4166.80 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 6.950000000000e-01 for the sequence number 139

Field stored SIEF_ELGA at time 6.950000000000e-01 for the sequence number 139

Field stored VARI_ELGA at time 6.950000000000e-01 for the sequence number 139

Field stored COMPORTEMENT at time 6.950000000000e-01 for the sequence number 139

Field stored VITE at time 6.950000000000e-01 for the sequence number 139

Field stored ACCE at time 6.950000000000e-01 for the sequence number 139

Field stored FORC_AMOR at time 6.950000000000e-01 for the sequence number 139

Field stored FORC_LIAI at time 6.950000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[86%] Instant calculé : 6.95000e-01, dernier instant archivé : 6.95000e-01, au numéro d'ordre :

143

Time of computation: 7.000000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.00000E-01 | 0 | 8.13300E-18 | 2.50109E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.6579E-36 | -6.0314E-24 | 0.0000E+00 | 6.0314E-24 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.133004598411e-18 with the node and degree of

freedom N78476 DY

The residue of the type RESI_GLOB_MAXI is worth 2.501093968187e-22 with the node and degree of

freedom N78476 DY

Temps CPU consommé dans ce pas de temps : 17.678 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.511 s (3 intégrations)

* Temps total factorisation matrice : 3.305 s (1 factorisations)

* Temps construction second membre : 3.787 s

* Temps total résolution K.U=F : 0.093 s (1 résolutions)

* Temps assemblage matrice : 0.604 s

* Temps autres opérations : 2.377 s

Mémoire (Mo) : 6175.32 / 4212.23 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.000000000000e-01 for the sequence number 140

Field stored SIEF_ELGA at time 7.000000000000e-01 for the sequence number 140

Field stored VARI_ELGA at time 7.000000000000e-01 for the sequence number 140

Field stored COMPORTEMENT at time 7.000000000000e-01 for the sequence number 140

Field stored VITE at time 7.000000000000e-01 for the sequence number 140

Field stored ACCE at time 7.000000000000e-01 for the sequence number 140

Field stored FORC_AMOR at time 7.000000000000e-01 for the sequence number 140

Field stored FORC_LIAI at time 7.000000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[87%] Instant calculé : 7.00000e-01, dernier instant archivé : 7.00000e-01, au numéro d'ordre :

144

Time of computation: 7.050000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.05000E-01 | 0 | 7.41985E-18 | 2.28178E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.2059E-36 | -4.0978E-24 | 0.0000E+00 | 4.0978E-24 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.419851819339e-18 with the node and degree of

freedom N84645 DY

The residue of the type RESI_GLOB_MAXI is worth 2.281782385051e-22 with the node and degree of

freedom N84645 DY

Temps CPU consommé dans ce pas de temps : 17.647 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.561 s (3 intégrations)

* Temps total factorisation matrice : 3.259 s (1 factorisations)

* Temps construction second membre : 3.774 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.356 s

Mémoire (Mo) : 6175.32 / 4257.79 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.050000000000e-01 for the sequence number 141

Field stored SIEF_ELGA at time 7.050000000000e-01 for the sequence number 141

Field stored VARI_ELGA at time 7.050000000000e-01 for the sequence number 141

Field stored COMPORTEMENT at time 7.050000000000e-01 for the sequence number 141

Field stored VITE at time 7.050000000000e-01 for the sequence number 141

Field stored ACCE at time 7.050000000000e-01 for the sequence number 141

Field stored FORC_AMOR at time 7.050000000000e-01 for the sequence number 141

Field stored FORC_LIAI at time 7.050000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[88%] Instant calculé : 7.05000e-01, dernier instant archivé : 7.05000e-01, au numéro d'ordre :

145

Time of computation: 7.100000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 7.10000E-01 | 0 | 7.98092E-18 | 2.45432E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -3.5386E-36 | -2.7838E-24 | 0.0000E+00 |
2.7838E-24 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.980917856583e-18 with the node and degree of

freedom N85224 DY

The residue of the type RESI_GLOB_MAXI is worth 2.454323647573e-22 with the node and degree of

freedom N85224 DY

Temps CPU consommé dans ce pas de temps : 17.709 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.601 s (3 intégrations)

* Temps total factorisation matrice : 3.277 s (1 factorisations)

* Temps construction second membre : 3.781 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.598 s

* Temps autres opérations : 2.355 s

Mémoire (Mo) : 6175.32 / 4303.21 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.100000000000e-01 for the sequence number 142

Field stored SIEF_ELGA at time 7.100000000000e-01 for the sequence number 142

Field stored VARI_ELGA at time 7.100000000000e-01 for the sequence number 142

Field stored COMPORTEMENT at time 7.100000000000e-01 for the sequence number 142

Field stored VITE at time 7.100000000000e-01 for the sequence number 142

Field stored ACCE at time 7.100000000000e-01 for the sequence number 142

Field stored FORC_AMOR at time 7.100000000000e-01 for the sequence number 142

Field stored FORC_LIAI at time 7.100000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[88%] Instant calculé : 7.10000e-01, dernier instant archivé : 7.10000e-01, au numéro d'ordre :

146

Time of computation: 7.150000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.15000E-01 | 0 | 7.17995E-18 | 2.20801E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.4050E-36 | -1.8909E-24 | 0.0000E+00 | 1.8909E-24 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.179952864680e-18 with the node and degree of

freedom N80429 DY

The residue of the type RESI_GLOB_MAXI is worth 2.208007702987e-22 with the node and degree of

freedom N80429 DY

Temps CPU consommé dans ce pas de temps : 17.757 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.636 s (3 intégrations)

* Temps total factorisation matrice : 3.258 s (1 factorisations)

* Temps construction second membre : 3.787 s

* Temps total résolution K.U=F : 0.098 s (1 résolutions)

* Temps assemblage matrice : 0.604 s

* Temps autres opérations : 2.376 s

Mémoire (Mo) : 6175.32 / 4348.77 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.150000000000e-01 for the sequence number 143

Field stored SIEF_ELGA at time 7.150000000000e-01 for the sequence number 143

Field stored VARI_ELGA at time 7.150000000000e-01 for the sequence number 143

Field stored COMPORTEMENT at time 7.150000000000e-01 for the sequence number 143

Field stored VITE at time 7.150000000000e-01 for the sequence number 143

Field stored ACCE at time 7.150000000000e-01 for the sequence number 143

Field stored FORC_AMOR at time 7.150000000000e-01 for the sequence number 143

Field stored FORC_LIAI at time 7.150000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[89%] Instant calculé : 7.15000e-01, dernier instant archivé : 7.15000e-01, au numéro d'ordre :

147

Time of computation: 7.200000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.20000E-01 | 0 | 9.02542E-18 | 2.77553E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.6344E-36 | -1.2843E-24 | 0.0000E+00 | 1.2843E-24 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.025418950691e-18 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 2.775532784323e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.728 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.621 s (3 intégrations)

* Temps total factorisation matrice : 3.259 s (1 factorisations)

* Temps construction second membre : 3.781 s

* Temps total résolution K.U=F : 0.092 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.372 s

Mémoire (Mo) : 6175.32 / 4394.11 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.200000000000e-01 for the sequence number 144

Field stored SIEF_ELGA at time 7.200000000000e-01 for the sequence number 144

Field stored VARI_ELGA at time 7.200000000000e-01 for the sequence number 144

Field stored COMPORTEMENT at time 7.200000000000e-01 for the sequence number 144

Field stored VITE at time 7.200000000000e-01 for the sequence number 144

Field stored ACCE at time 7.200000000000e-01 for the sequence number 144

Field stored FORC_AMOR at time 7.200000000000e-01 for the sequence number 144

Field stored FORC_LIAI at time 7.200000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[90%] Instant calculé : 7.20000e-01, dernier instant archivé : 7.20000e-01, au numéro d'ordre :

148

Time of computation: 7.250000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.25000E-01 | 0 | 9.50553E-18 | 2.92318E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.1106E-36 | -8.7221E-25 | 0.0000E+00 | 8.7221E-25 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.505527364794e-18 with the node and degree of

freedom N81717 DY

The residue of the type RESI_GLOB_MAXI is worth 2.923177636119e-22 with the node and degree of

freedom N81717 DY

Temps CPU consommé dans ce pas de temps : 17.738 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.625 s (3 intégrations)

* Temps total factorisation matrice : 3.258 s (1 factorisations)

* Temps construction second membre : 3.794 s

* Temps total résolution K.U=F : 0.097 s (1 résolutions)

* Temps assemblage matrice : 0.599 s

* Temps autres opérations : 2.364 s

Mémoire (Mo) : 6175.32 / 4439.54 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.250000000000e-01 for the sequence number 145

Field stored SIEF_ELGA at time 7.250000000000e-01 for the sequence number 145

Field stored VARI_ELGA at time 7.250000000000e-01 for the sequence number 145

Field stored COMPORTEMENT at time 7.250000000000e-01 for the sequence number 145

Field stored VITE at time 7.250000000000e-01 for the sequence number 145

Field stored ACCE at time 7.250000000000e-01 for the sequence number 145

Field stored FORC_AMOR at time 7.250000000000e-01 for the sequence number 145

Field stored FORC_LIAI at time 7.250000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[90%] Instant calculé : 7.25000e-01, dernier instant archivé : 7.25000e-01, au numéro d'ordre :

149

Time of computation: 7.300000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 7.30000E-01 | 0 | 8.10611E-18 | 2.49282E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -7.5454E-37 | -5.9228E-25 | 0.0000E+00 |
5.9228E-25 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.106106193118e-18 with the node and degree of

freedom N85195 DY

The residue of the type RESI_GLOB_MAXI is worth 2.492822063454e-22 with the node and degree of

freedom N85195 DY

Temps CPU consommé dans ce pas de temps : 17.689 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.585 s (3 intégrations)

* Temps total factorisation matrice : 3.257 s (1 factorisations)

* Temps construction second membre : 3.776 s

* Temps total résolution K.U=F : 0.094 s (1 résolutions)

* Temps assemblage matrice : 0.606 s

* Temps autres opérations : 2.370 s

Mémoire (Mo) : 6175.32 / 4485.06 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.300000000000e-01 for the sequence number 146

Field stored SIEF_ELGA at time 7.300000000000e-01 for the sequence number 146

Field stored VARI_ELGA at time 7.300000000000e-01 for the sequence number 146

Field stored COMPORTEMENT at time 7.300000000000e-01 for the sequence number 146

Field stored VITE at time 7.300000000000e-01 for the sequence number 146

Field stored ACCE at time 7.300000000000e-01 for the sequence number 146

Field stored FORC_AMOR at time 7.300000000000e-01 for the sequence number 146

Field stored FORC_LIAI at time 7.300000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[91%] Instant calculé : 7.30000e-01, dernier instant archivé : 7.30000e-01, au numéro d'ordre :

150

Time of computation: 7.350000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.35000E-01 | 0 | 1.19881E-17 | 3.68663E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.1260E-37 | -4.0215E-25 | 0.0000E+00 | 4.0215E-25 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.198811406248e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.686632585634e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.626 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.517 s (3 intégrations)

* Temps total factorisation matrice : 3.257 s (1 factorisations)

* Temps construction second membre : 3.773 s

* Temps total résolution K.U=F : 0.093 s (1 résolutions)

* Temps assemblage matrice : 0.600 s

* Temps autres opérations : 2.387 s

Mémoire (Mo) : 6175.32 / 4530.49 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.350000000000e-01 for the sequence number 147

Field stored SIEF_ELGA at time 7.350000000000e-01 for the sequence number 147

Field stored VARI_ELGA at time 7.350000000000e-01 for the sequence number 147

Field stored COMPORTEMENT at time 7.350000000000e-01 for the sequence number 147

Field stored VITE at time 7.350000000000e-01 for the sequence number 147

Field stored ACCE at time 7.350000000000e-01 for the sequence number 147

Field stored FORC_AMOR at time 7.350000000000e-01 for the sequence number 147

Field stored FORC_LIAI at time 7.350000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[91%] Instant calculé : 7.35000e-01, dernier instant archivé : 7.35000e-01, au numéro d'ordre :

151

Time of computation: 7.400000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.40000E-01 | 0 | 7.14569E-18 | 2.19747E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -3.4819E-37 | -2.7302E-25 | 0.0000E+00 | 2.7302E-25 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.145687791397e-18 with the node and degree of

freedom N84445 DY

The residue of the type RESI_GLOB_MAXI is worth 2.197470371172e-22 with the node and degree of

freedom N84445 DY

Temps CPU consommé dans ce pas de temps : 17.632 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.564 s (3 intégrations)

* Temps total factorisation matrice : 3.255 s (1 factorisations)

* Temps construction second membre : 3.770 s

* Temps total résolution K.U=F : 0.095 s (1 résolutions)

* Temps assemblage matrice : 0.601 s

* Temps autres opérations : 2.347 s

Mémoire (Mo) : 6175.32 / 4575.92 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.400000000000e-01 for the sequence number 148

Field stored SIEF_ELGA at time 7.400000000000e-01 for the sequence number 148

Field stored VARI_ELGA at time 7.400000000000e-01 for the sequence number 148

Field stored COMPORTEMENT at time 7.400000000000e-01 for the sequence number 148

Field stored VITE at time 7.400000000000e-01 for the sequence number 148

Field stored ACCE at time 7.400000000000e-01 for the sequence number 148

Field stored FORC_AMOR at time 7.400000000000e-01 for the sequence number 148

Field stored FORC_LIAI at time 7.400000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[92%] Instant calculé : 7.40000e-01, dernier instant archivé : 7.40000e-01, au numéro d'ordre :

152

Time of computation: 7.450000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.45000E-01 | 0 | 1.29662E-17 | 3.98742E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.3649E-37 | -1.8534E-25 | 0.0000E+00 | 1.8534E-25 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.296621118991e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.987420910060e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.701 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.577 s (3 intégrations)

* Temps total factorisation matrice : 3.277 s (1 factorisations)

* Temps construction second membre : 3.790 s

* Temps total résolution K.U=F : 0.093 s (1 résolutions)

* Temps assemblage matrice : 0.603 s

* Temps autres opérations : 2.363 s

Mémoire (Mo) : 6175.32 / 4621.35 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.450000000000e-01 for the sequence number 149

Field stored SIEF_ELGA at time 7.450000000000e-01 for the sequence number 149

Field stored VARI_ELGA at time 7.450000000000e-01 for the sequence number 149

Field stored COMPORTEMENT at time 7.450000000000e-01 for the sequence number 149

Field stored VITE at time 7.450000000000e-01 for the sequence number 149

Field stored ACCE at time 7.450000000000e-01 for the sequence number 149

Field stored FORC_AMOR at time 7.450000000000e-01 for the sequence number 149

Field stored FORC_LIAI at time 7.450000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[93%] Instant calculé : 7.45000e-01, dernier instant archivé : 7.45000e-01, au numéro d'ordre :

153

Time of computation: 7.500000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 7.50000E-01 | 0 | 9.60390E-18 | 2.95343E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -1.6061E-37 | -1.2581E-25 | 0.0000E+00 |
1.2581E-25 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.603900294726e-18 with the node and degree of

freedom N78337 DX

The residue of the type RESI_GLOB_MAXI is worth 2.953429671355e-22 with the node and degree of

freedom N78337 DX

Temps CPU consommé dans ce pas de temps : 17.690 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.560 s (3 intégrations)

* Temps total factorisation matrice : 3.292 s (1 factorisations)

* Temps construction second membre : 3.778 s

* Temps total résolution K.U=F : 0.096 s (1 résolutions)

* Temps assemblage matrice : 0.606 s

* Temps autres opérations : 2.358 s

Mémoire (Mo) : 6175.32 / 4666.78 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.500000000000e-01 for the sequence number 150

Field stored SIEF_ELGA at time 7.500000000000e-01 for the sequence number 150

Field stored VARI_ELGA at time 7.500000000000e-01 for the sequence number 150

Field stored COMPORTEMENT at time 7.500000000000e-01 for the sequence number 150

Field stored VITE at time 7.500000000000e-01 for the sequence number 150

Field stored ACCE at time 7.500000000000e-01 for the sequence number 150

Field stored FORC_AMOR at time 7.500000000000e-01 for the sequence number 150

Field stored FORC_LIAI at time 7.500000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[93%] Instant calculé : 7.50000e-01, dernier instant archivé : 7.50000e-01, au numéro d'ordre :

154

Time of computation: 7.550000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.55000E-01 | 0 | 8.08056E-18 | 2.48497E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.0906E-37 | -8.5388E-26 | 0.0000E+00 | 8.5388E-26 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.080564891513e-18 with the node and degree of

freedom N81717 DY

The residue of the type RESI_GLOB_MAXI is worth 2.484967500653e-22 with the node and degree of

freedom N81717 DY

Temps CPU consommé dans ce pas de temps : 17.635 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.490 s (3 intégrations)

* Temps total factorisation matrice : 3.308 s (1 factorisations)

* Temps construction second membre : 3.784 s

* Temps total résolution K.U=F : 0.092 s (1 résolutions)

* Temps assemblage matrice : 0.603 s

* Temps autres opérations : 2.358 s

Mémoire (Mo) : 6175.32 / 4712.21 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.550000000000e-01 for the sequence number 151

Field stored SIEF_ELGA at time 7.550000000000e-01 for the sequence number 151

Field stored VARI_ELGA at time 7.550000000000e-01 for the sequence number 151

Field stored COMPORTEMENT at time 7.550000000000e-01 for the sequence number 151

Field stored VITE at time 7.550000000000e-01 for the sequence number 151

Field stored ACCE at time 7.550000000000e-01 for the sequence number 151

Field stored FORC_AMOR at time 7.550000000000e-01 for the sequence number 151

Field stored FORC_LIAI at time 7.550000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[94%] Instant calculé : 7.55000e-01, dernier instant archivé : 7.55000e-01, au numéro d'ordre :

155

Time of computation: 7.600000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.60000E-01 | 0 | 8.01618E-18 | 2.46517E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -7.4054E-38 | -5.7949E-26 | 0.0000E+00 | 5.7949E-26 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.016179917775e-18 with the node and degree of

freedom N78213 DX

The residue of the type RESI_GLOB_MAXI is worth 2.465167577081e-22 with the node and degree of

freedom N78213 DX

Temps CPU consommé dans ce pas de temps : 17.788 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.648 s (3 intégrations)

* Temps total factorisation matrice : 3.284 s (1 factorisations)

* Temps construction second membre : 3.803 s

* Temps total résolution K.U=F : 0.093 s (1 résolutions)

* Temps assemblage matrice : 0.603 s

* Temps autres opérations : 2.357 s

Mémoire (Mo) : 6175.32 / 4757.64 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.600000000000e-01 for the sequence number 152

Field stored SIEF_ELGA at time 7.600000000000e-01 for the sequence number 152

Field stored VARI_ELGA at time 7.600000000000e-01 for the sequence number 152

Field stored COMPORTEMENT at time 7.600000000000e-01 for the sequence number 152

Field stored VITE at time 7.600000000000e-01 for the sequence number 152

Field stored ACCE at time 7.600000000000e-01 for the sequence number 152

Field stored FORC_AMOR at time 7.600000000000e-01 for the sequence number 152

Field stored FORC_LIAI at time 7.600000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[95%] Instant calculé : 7.60000e-01, dernier instant archivé : 7.60000e-01, au numéro d'ordre :

156

Time of computation: 7.650000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.65000E-01 | 0 | 1.29836E-17 | 3.99277E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -5.0277E-38 | -3.9324E-26 | 0.0000E+00 | 3.9324E-26 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.298359811755e-17 with the node and degree of

freedom N80429 DY

The residue of the type RESI_GLOB_MAXI is worth 3.992767807303e-22 with the node and degree of

freedom N80429 DY

Temps CPU consommé dans ce pas de temps : 17.737 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.621 s (3 intégrations)

* Temps total factorisation matrice : 3.278 s (1 factorisations)

* Temps construction second membre : 3.794 s

* Temps total résolution K.U=F : 0.091 s (1 résolutions)

* Temps assemblage matrice : 0.601 s

* Temps autres opérations : 2.353 s

Mémoire (Mo) : 6175.32 / 4803.20 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.650000000000e-01 for the sequence number 153

Field stored SIEF_ELGA at time 7.650000000000e-01 for the sequence number 153

Field stored VARI_ELGA at time 7.650000000000e-01 for the sequence number 153

Field stored COMPORTEMENT at time 7.650000000000e-01 for the sequence number 153

Field stored VITE at time 7.650000000000e-01 for the sequence number 153

Field stored ACCE at time 7.650000000000e-01 for the sequence number 153

Field stored FORC_AMOR at time 7.650000000000e-01 for the sequence number 153

Field stored FORC_LIAI at time 7.650000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[95%] Instant calculé : 7.65000e-01, dernier instant archivé : 7.65000e-01, au numéro d'ordre :

157

Time of computation: 7.700000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 7.70000E-01 | 0 | 7.66905E-18 | 2.35842E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -3.4131E-38 | -2.6682E-26 | 0.0000E+00 |
2.6682E-26 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.669048525486e-18 with the node and degree of

freedom N78349 DY

The residue of the type RESI_GLOB_MAXI is worth 2.358416348686e-22 with the node and degree of

freedom N78349 DY

Temps CPU consommé dans ce pas de temps : 17.753 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.602 s (3 intégrations)

* Temps total factorisation matrice : 3.289 s (1 factorisations)

* Temps construction second membre : 3.805 s

* Temps total résolution K.U=F : 0.092 s (1 résolutions)

* Temps assemblage matrice : 0.603 s

* Temps autres opérations : 2.363 s

Mémoire (Mo) : 6175.32 / 4847.98 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.700000000000e-01 for the sequence number 154

Field stored SIEF_ELGA at time 7.700000000000e-01 for the sequence number 154

Field stored VARI_ELGA at time 7.700000000000e-01 for the sequence number 154

Field stored COMPORTEMENT at time 7.700000000000e-01 for the sequence number 154

Field stored VITE at time 7.700000000000e-01 for the sequence number 154

Field stored ACCE at time 7.700000000000e-01 for the sequence number 154

Field stored FORC_AMOR at time 7.700000000000e-01 for the sequence number 154

Field stored FORC_LIAI at time 7.700000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[96%] Instant calculé : 7.70000e-01, dernier instant archivé : 7.70000e-01, au numéro d'ordre :

158

Time of computation: 7.750000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.75000E-01 | 0 | 8.22906E-18 | 2.53063E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -2.3168E-38 | -1.8103E-26 | 0.0000E+00 | 1.8103E-26 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229057590795e-18 with the node and degree of

freedom N85195 DY

The residue of the type RESI_GLOB_MAXI is worth 2.530632566988e-22 with the node and degree of

freedom N85195 DY

Temps CPU consommé dans ce pas de temps : 17.605 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.516 s (3 intégrations)

* Temps total factorisation matrice : 3.280 s (1 factorisations)

* Temps construction second membre : 3.775 s

* Temps total résolution K.U=F : 0.090 s (1 résolutions)

* Temps assemblage matrice : 0.603 s

* Temps autres opérations : 2.341 s

Mémoire (Mo) : 6175.32 / 4893.41 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.750000000000e-01 for the sequence number 155

Field stored SIEF_ELGA at time 7.750000000000e-01 for the sequence number 155

Field stored VARI_ELGA at time 7.750000000000e-01 for the sequence number 155

Field stored COMPORTEMENT at time 7.750000000000e-01 for the sequence number 155

Field stored VITE at time 7.750000000000e-01 for the sequence number 155

Field stored ACCE at time 7.750000000000e-01 for the sequence number 155

Field stored FORC_AMOR at time 7.750000000000e-01 for the sequence number 155

Field stored FORC_LIAI at time 7.750000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[96%] Instant calculé : 7.75000e-01, dernier instant archivé : 7.75000e-01, au numéro d'ordre :

159

Time of computation: 7.800000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.80000E-01 | 0 | 1.09126E-17 | 3.35589E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.5725E-38 | -1.2281E-26 | 0.0000E+00 | 1.2281E-26 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.091259821510e-17 with the node and degree of

freedom N85230 DY

The residue of the type RESI_GLOB_MAXI is worth 3.355885668424e-22 with the node and degree of

freedom N85230 DY

Temps CPU consommé dans ce pas de temps : 17.655 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.530 s (3 intégrations)

* Temps total factorisation matrice : 3.281 s (1 factorisations)

* Temps construction second membre : 3.786 s

* Temps total résolution K.U=F : 0.091 s (1 résolutions)

* Temps assemblage matrice : 0.607 s

* Temps autres opérations : 2.359 s

Mémoire (Mo) : 6175.32 / 4938.84 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.800000000000e-01 for the sequence number 156

Field stored SIEF_ELGA at time 7.800000000000e-01 for the sequence number 156

Field stored VARI_ELGA at time 7.800000000000e-01 for the sequence number 156

Field stored COMPORTEMENT at time 7.800000000000e-01 for the sequence number 156

Field stored VITE at time 7.800000000000e-01 for the sequence number 156

Field stored ACCE at time 7.800000000000e-01 for the sequence number 156

Field stored FORC_AMOR at time 7.800000000000e-01 for the sequence number 156

Field stored FORC_LIAI at time 7.800000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[97%] Instant calculé : 7.80000e-01, dernier instant archivé : 7.80000e-01, au numéro d'ordre :

160

Time of computation: 7.850000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.85000E-01 | 0 | 8.29598E-18 | 2.55121E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -1.0672E-38 | -8.3310E-27 | 0.0000E+00 | 8.3310E-27 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.295977714849e-18 with the node and degree of

freedom N79922 DY

The residue of the type RESI_GLOB_MAXI is worth 2.551212110083e-22 with the node and degree of

freedom N79922 DY

Temps CPU consommé dans ce pas de temps : 17.656 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.539 s (3 intégrations)

* Temps total factorisation matrice : 3.273 s (1 factorisations)

* Temps construction second membre : 3.793 s

* Temps total résolution K.U=F : 0.092 s (1 résolutions)

* Temps assemblage matrice : 0.607 s

* Temps autres opérations : 2.352 s

Mémoire (Mo) : 6175.32 / 4984.27 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.850000000000e-01 for the sequence number 157

Field stored SIEF_ELGA at time 7.850000000000e-01 for the sequence number 157

Field stored VARI_ELGA at time 7.850000000000e-01 for the sequence number 157

Field stored COMPORTEMENT at time 7.850000000000e-01 for the sequence number 157

Field stored VITE at time 7.850000000000e-01 for the sequence number 157

Field stored ACCE at time 7.850000000000e-01 for the sequence number 157

Field stored FORC_AMOR at time 7.850000000000e-01 for the sequence number 157

Field stored FORC_LIAI at time 7.850000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[98%] Instant calculé : 7.85000e-01, dernier instant archivé : 7.85000e-01, au numéro d'ordre :

161

Time of computation: 7.900000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU |

ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI |
| VALEUR |

| 7.90000E-01 | 0 | 8.51214E-18 | 2.61769E-22 |TANGENTE
| |

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

| PAS COURANT | 0.0000E+00 | -7.2418E-39 | -5.6508E-27 | 0.0000E+00 |
5.6508E-27 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |
7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.512138649469e-18 with the node and degree of

freedom N84910 DY

The residue of the type RESI_GLOB_MAXI is worth 2.617686781675e-22 with the node and degree of

freedom N84910 DY

Temps CPU consommé dans ce pas de temps : 17.664 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.566 s (3 intégrations)

* Temps total factorisation matrice : 3.264 s (1 factorisations)

* Temps construction second membre : 3.781 s

* Temps total résolution K.U=F : 0.093 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.358 s

Mémoire (Mo) : 6175.32 / 5029.70 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.900000000000e-01 for the sequence number 158

Field stored SIEF_ELGA at time 7.900000000000e-01 for the sequence number 158

Field stored VARI_ELGA at time 7.900000000000e-01 for the sequence number 158

Field stored COMPORTEMENT at time 7.900000000000e-01 for the sequence number 158

Field stored VITE at time 7.900000000000e-01 for the sequence number 158

Field stored ACCE at time 7.900000000000e-01 for the sequence number 158

Field stored FORC_AMOR at time 7.900000000000e-01 for the sequence number 158

Field stored FORC_LIAI at time 7.900000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

5.000000000000e-03.

[98%] Instant calculé : 7.90000e-01, dernier instant archivé : 7.90000e-01, au numéro d'ordre :

162

Time of computation: 7.950000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 7.95000E-01 | 0 | 1.09304E-17 | 3.36135E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -4.9138E-39 | -3.8326E-27 | 0.0000E+00 | 3.8326E-27 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 | 7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.093038084508e-17 with the node and degree of

freedom N80429 DY

The residue of the type RESI_GLOB_MAXI is worth 3.361354253625e-22 with the node and degree of

freedom N80429 DY

Temps CPU consommé dans ce pas de temps : 17.606 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.508 s (3 intégrations)

* Temps total factorisation matrice : 3.264 s (1 factorisations)

* Temps construction second membre : 3.782 s

* Temps total résolution K.U=F : 0.091 s (1 résolutions)

* Temps assemblage matrice : 0.602 s

* Temps autres opérations : 2.358 s

Mémoire (Mo) : 6175.32 / 5075.16 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 7.950000000000e-01 for the sequence number 159

Field stored SIEF_ELGA at time 7.950000000000e-01 for the sequence number 159

Field stored VARI_ELGA at time 7.950000000000e-01 for the sequence number 159

Field stored COMPORTEMENT at time 7.950000000000e-01 for the sequence number 159

Field stored VITE at time 7.950000000000e-01 for the sequence number 159

Field stored ACCE at time 7.950000000000e-01 for the sequence number 159

Field stored FORC_AMOR at time 7.950000000000e-01 for the sequence number 159

Field stored FORC_LIAI at time 7.950000000000e-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

1.000000000000e-02.

On all the criteria of adaptation, the smallest time step is worth 1.000000000000e-02.

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

4.999999999999e-03.

[99%] Instant calculé : 7.95000e-01, dernier instant archivé : 7.95000e-01, au numéro d'ordre :

163

Time of computation: 8.000000000000e-01

| INCREMENT | NEWTON | RESIDU | RESIDU | OPTION | NEWTON |

| INSTANT | ITERATION | RELATIF | ABSOLU | ASSEMBLAGE | TEMPS CALCUL |

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR |

| 8.00000E-01 | 0 | 8.64643E-18 | 2.65898E-22 |TANGENTE | |

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

| PAS COURANT | 0.0000E+00 | -3.3339E-39 | -2.5991E-27 | 0.0000E+00 | 2.5991E-27 |

| TOTAL | 7.5705E-05 | 4.8239E-21 | -7.0336E-07 | 0.0000E+00 |

7.6409E-05 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.646428982978e-18 with the node and degree of

freedom N83169 DY

The residue of the type RESI_GLOB_MAXI is worth 2.658984279920e-22 with the node and degree of

freedom N83169 DY

Temps CPU consommé dans ce pas de temps : 17.634 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 7.527 s (3 intégrations)

* Temps total factorisation matrice : 3.280 s (1 factorisations)

* Temps construction second membre : 3.777 s

* Temps total résolution K.U=F : 0.089 s (1 résolutions)

* Temps assemblage matrice : 0.604 s

* Temps autres opérations : 2.357 s

Mémoire (Mo) : 6175.32 / 5120.59 / 5646.50 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 8.000000000000e-01 for the sequence number 160

Field stored SIEF_ELGA at time 8.000000000000e-01 for the sequence number 160

Field stored VARI_ELGA at time 8.000000000000e-01 for the sequence number 160

Field stored COMPORTEMENT at time 8.000000000000e-01 for the sequence number 160

Field stored VITE at time 8.000000000000e-01 for the sequence number 160

Field stored ACCE at time 8.000000000000e-01 for the sequence number 160

Field stored FORC_AMOR at time 8.000000000000e-01 for the sequence number 160

Field stored FORC_LIAI at time 8.000000000000e-01 for the sequence number 160

[100%] Instant calculé : 8.00000e-01, dernier instant archivé : 8.00000e-01, au numéro d'ordre :

164

Temps CPU consommé dans le calcul : 1 h 2 min 32 s

dont temps CPU "perdu" dans les découpes : 11 min 47 s

* Nombre de pas de temps : 166

* Nombre d'itérations de Newton : 236

* Temps dans l'archivage : 10.686 s

* Temps dans le post-traitement : 2 min 13 s

* Temps total intégration comportement : 24 min 0 s (567 intégrations)

* Temps total factorisation matrice : 12 min 48 s (235 factorisations)

* Temps construction second membre : 11 min 27 s

* Temps total résolution K.U=F : 21.902 s (235 résolutions)

* Temps assemblage matrice : 2 min 22 s

#1 Resolution des systemes lineaires CPU (USER+SYST/SYST/ELAPS): 791.54 63.73 791.66

#2 Calculs elementaires et assemblages CPU (USER+SYST/SYST/ELAPS): 2745.87 119.27 2746.30

#3 Dechargement de la memoire sur disque CPU (USER+SYST/SYST/ELAPS): 6.33 6.20 6.33

#4 Communications MPI CPU (USER+SYST/SYST/ELAPS): 0.05 0.00 0.03

Résultat commande #0042 (DYNA_NON_LINE): SIM ('<00000027>') de type <NonLinearResult>

Dépend de :

- TIMELIST ('<00000025>') de type <ListOfFloats>

- MATS ('<00000004>') de type <MaterialField>

- BC_0 ('<00000021>') de type <MechanicalDirichletBC>

- BC_1 ('<00000022>') de type <MechanicalDirichletBC>

- BC_2 ('<00000023>') de type <MechanicalLoadFunction>

- BC_3 ('<00000024>') de type <MechanicalLoadFunction>

- INSTLIST ('<00000026>') de type <TimeStepper>

- MODEL ('<00000003>') de type <Model>

Mémoire (Mo) : 8537.82 / 8537.82 / 8008.16 / 1192.65 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0042 user+syst: 3502.60s (syst: 271.07s, elaps: 3774.32s)

--

.. _stg1_txt540

--

Commande #0043 de fort.1, ligne 540

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'>

INIT_D <class 'libaster.FieldOnNodesReal'>

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_U <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_A <class 'libaster.FieldOnNodesReal'>

F_17 <class 'libaster.FieldOnNodesReal'>

F_18 <class 'libaster.FieldOnCellsReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.Formula'>

F_14 <class 'libaster.Formula'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.FieldOnCellsReal'>

F_19 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.Formula'>

F_22 <class 'libaster.Formula'>

F_23 <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'>

╔═══
═══
═══╗

 ‖ <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
‖

╚═══
═══
═══════════════════════════════════════╝

-

Concepts de la base: G

Nom	Type	Taille (Mo)	Nombre d'objets	Nombre de segments
TOTAL		7912.35	5886	6842
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	14.82	10	12
00000006	CHAM_NO_SDASTER	2.02	5	5
00000007	FORMULE	0.00	4	4
00000008	FORMULE	0.00	4	4
00000009	FORMULE	0.00	4	4
0000000a	CHAM_NO_SDASTER	10.10	10	12

0000000b	CHAM_NO_SDASTER	10.10	10	12
0000000c	CHAM_NO_SDASTER	2.02	5	5
0000000d	FORMULE	0.00	4	4
0000000e	FORMULE	0.00	4	4
0000000f	FORMULE	0.00	4	4
00000010	CHAM_NO_SDASTER	10.10	10	12
00000011	CHAM_NO_SDASTER	10.10	10	12
00000012	CHAM_NO_SDASTER	2.02	5	5
00000013	CHAM_ELEM	30.28	5	5
00000014	FORMULE	0.00	4	4
00000015	FORMULE	0.00	4	4
00000016	FORMULE	0.00	4	4
00000017	FORMULE	0.00	4	4
00000018	FORMULE	0.00	4	4
00000019	FORMULE	0.00	4	4
0000001a	CHAM_ELEM	182.26	5	5

0000001b	CHAM_ELEM	182.26	5	5
0000001c	CHAM_ELEM	22.06	5	5
0000001d	FORMULE	0.00	4	4
0000001e	FORMULE	0.00	4	4
0000001f	FORMULE	0.00	4	4
00000020	FORMULE	0.00	4	4
00000021	CHAR_CINE_MECA	6.85	4	4
00000022	CHAR_CINE_MECA	6.85	4	4
00000023	CHAR_MECA	3.35	32	37
00000024	CHAR_MECA	1.14	32	37
00000025	LISTR8_SDASTER	0.00	6	6
00000026	LIST_INST	0.00	9	9
00000027	EVOL_NOLI	7323.12	5540	6354
&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 : 10903

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 7274

Volume des accès en lecture : 5682.81 Mo.

Nombre total d'accès en écriture : 11140

Volume des accès en écriture : 8703.12 Mo.

Nombre d'identificateurs utilisés : 6830

Taille maximum du répertoire : 8000

Pourcentage d'utilisation du répertoire : 85 %

Nom de la base : VOLATILE

Nombre d'enregistrements utilisés : 3087

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 24382

Volume des accès en lecture : 19048.44 Mo.

Nombre total d'accès en écriture : 6734

Volume des accès en écriture : 5260.94 Mo.

Nombre d'identificateurs utilisés : 1335

Taille maximum du répertoire : 2000

Pourcentage d'utilisation du répertoire : 66 %

<I> <FIN> ARRET NORMAL DANS "FIN" PAR APPEL A "JEFINI".

<I> <FIN> MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 1192.65 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 8008.51 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 8538.10 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 8009 Mo.

TAILLE CUMULEE LIBEREE : 91602 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 34468126

NOMBRE TOTAL DE LIBERATIONS : 34468106

APPELS AU MECANISME DE LIBERATION : 2

TAILLE MEMOIRE CUMULEE RECUPEREE : 9108 Mo.

VOLUME DES LECTURES : 2 Mo.

VOLUME DES ECRITURES : 9481 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 1192.65 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 8008.51 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 8538.10 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : LU-20-JANV-2025 16:52:32

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
354226106c471aa37022f5a29aa171b667efa45a2ea1cd9c505b32944b22597e

Signature of info file :
c809c3d53df25e122b53ee913fff6054ccfc11db5cefac45e8a29e10777f9d4c

Signature of Jeveux database:
68199b5d127a9478bb3b6e9142cc23f0473e9ca890ddcbf963b721bf7fb1b8a9

****

* COMMAND : USER : SYSTEM : USER+SYS : ELAPSED *

****

* DEBUT : 0.03 : 0.21 : 0.24 : 0.24 *

* DEFI_MATERIAU : 0.01 : 0.00 : 0.01 : 0.00 *

* LIRE_MAILLAGE : 0.59 : 0.05 : 0.64 : 0.65 *

* DEFI_GROUP	:	0.35 :	0.00 :	0.35 :	0.35 *
* MODI_MAILLAGE	:	1.02 :	0.02 :	1.04 :	1.04 *
* AFFE_MODELE	:	0.70 :	0.03 :	0.73 :	0.73 *
* AFFE_MATERIAU	:	0.01 :	0.00 :	0.01 :	0.01 *
* CREA_CHAMP	:	0.01 :	0.01 :	0.02 :	0.02 *
* 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 :	0.00 *
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00 *
* CREA_CHAMP	:	0.02 :	0.01 :	0.03 :	0.03 *
* CREA_CHAMP	:	0.29 :	0.01 :	0.30 :	0.29 *
* CREA_CHAMP	:	0.00 :	0.00 :	0.00 :	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	:	0.02 :	0.01 :	0.03 :	0.03 *

* CREA_CHAMP : 0.29 : 0.00 : 0.29 : 0.30
*
* CREA_CHAMP : 0.01 : 0.01 : 0.02 : 0.00
*
* CREA_CHAMP : 0.27 : 0.09 : 0.36 : 0.37
*
* 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
*
* FORMULE : 0.00 : 0.00 : 0.00 : 0.00
*
* FORMULE : 0.00 : 0.00 : 0.00 : 0.00
*
* CREA_CHAMP : 1.51 : 0.37 : 1.88 : 1.87
*
* CREA_CHAMP : 9.13 : 0.56 : 9.69 : 9.69
*
* CREA_CHAMP : 0.89 : 0.26 : 1.15 : 1.16
*
* 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 : 0.00
*

```
 * AFFE_CHAR_CINE                :          0.17 :          0.01 :          0.18 :          0.18
*
 * AFFE_CHAR_CINE                :          0.17 :          0.00 :          0.17 :          0.17
*
 * AFFE_CHAR_MECA_F              :          0.48 :          0.04 :          0.52 :          0.53
*
 * AFFE_CHAR_MECA_F              :          8.38 :          0.21 :          8.59 :          8.58
*
 * DEFI_LIST_REEL                :          0.00 :          0.00 :          0.00 :          0.00 *
 * DEFI_LIST_INST                :          0.01 :          0.00 :          0.01 :          0.02 *
 * DYNA_NON_LINE                 :       3502.60 :        271.07 :       3773.67 :
3774.32 *
 * FIN                           :          0.59 :          2.46 :          3.05 :          3.04 *
 *    . check syntax             :          0.05 :          0.00 :          0.05 :          0.04 *
 *    . fortran                  :       3527.42 :        272.65 :       3800.07 :       3800.72 *
 ********************************************************************************
 * TOTAL_JOB                     :       3527.57 :        275.43 :       3803.00 :       3803.64
*
 ********************************************************************************
# Mémoire (Mo) :    8538.10 /     533.59 /    8008.51 /    1192.65 (VmPeak / VmSize /
Optimum / Minimum)
# Fin commande #0043      user+syst:              0.59s (syst:              2.46s, elaps:
3.04s)
# --------------------------------------------------------------------------------
--------------------
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 : Mon Jan 20 16:53:06 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         :   10903
        Nombre d'enregistrements maximum          :   2684354
        Nombre d'enregistrements par fichier      :   15728
        Longueur d'enregistrement (octets)        :   819200
        Nombre d'identificateurs utilisés         :   6830
        Taille maximum du répertoire              :   8000
        Pourcentage d'utilisation du répertoire :   85 %
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'>

INIT_D <class 'libaster.FieldOnNodesReal'>

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_U <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_A <class 'libaster.FieldOnNodesReal'>

F_17 <class 'libaster.FieldOnNodesReal'>

F_18 <class 'libaster.FieldOnCellsReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.Formula'>

F_14 <class 'libaster.Formula'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.FieldOnCellsReal'>

F_19 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.Formula'>

F_22 <class 'libaster.Formula'>

F_23 <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) : 7979.64 / 7979.64 / 7485.74 / 198.00 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0001 user+syst: 0.10s (syst: 4.14s, elaps: 4.29s)

.. _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) : 7979.64 / 7979.64 / 7485.74 / 198.00 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0002 user+syst: 0.00s (syst: 0.00s, elaps: 0.00s)

--

.. _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): '<00000029>' de type <Table>

Mémoire (Mo) : 7979.91 / 7979.91 / 7485.82 / 198.00 (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) :    7979.91 /    7979.91 /    7485.82 /     198.00 (VmPeak / VmSize / Optimum / Minimum)
# Fin commande #0006      user+syst:              0.00s (syst:              0.00s, elaps:              0.00s)
# ------------------------------------------------------------------------------------------
.. _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='<00000029>',
```

UNITE=30)

Mémoire (Mo) : 7980.54 / 7980.29 / 7485.82 / 198.00 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0007 user+syst: 0.00s (syst: 0.00s, elaps: 0.00s)

--

.. _stg1_txt51

--

Commande #0008 de fort.1, ligne 51

DEFI_FICHIER(ACTION='LIBERER',

UNITE=30)

Mémoire (Mo) : 7980.54 / 7980.29 / 7485.82 / 198.00 (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
Ouverture en écriture du fichier ./vola.3
Ouverture en écriture du fichier ./vola.4
Ouverture en écriture du fichier ./vola.5
#2          Calculs elementaires et assemblages                    CPU
(USER+SYST/SYST/ELAPS):      382.82        65.84       415.43
#3          Dechargement de la memoire sur disque                  CPU
(USER+SYST/SYST/ELAPS):      44.99         41.13       129.78
Critère de destruction du fichier (1.00 %) associé à la base VOLATILE dépassé 2.55 %
 Nombre d'enregistrements utilisés : 68413
 Volume disque occupé                  : 53448 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 ('<00000027>') de type
<NonLinearResult>
# Dépend de :
# - TIMELIST ('<00000025>') de type <ListOfFloats>
# - MATS ('<00000004>') de type <MaterialField>
# - BC_0 ('<00000021>') de type <MechanicalDirichletBC>
# - BC_1 ('<00000022>') de type <MechanicalDirichletBC>
# - BC_2 ('<00000023>') de type <MechanicalLoadFunction>
```

- BC_3 ('<00000024>') de type <MechanicalLoadFunction>

- INSTLIST ('<00000026>') de type <TimeStepper>

- MODEL ('<00000003>') de type <Model>

Mémoire (Mo) : 48702.30 / 6763.15 / 48175.30 / 576.79 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0009 user+syst: 786.91s (syst: 229.23s, elaps: 1101.11s)

.. _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 0000002a - IMPRESSIONS NIVEAU    1 ------------
ASTER 15.06.10 CONCEPT 0000002a CALCULE LE 20/01/2025 A 17:11:32 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 ('<0000002a>') de type <Mesh>

Dépend de :

- MESH ('<00000002>') de type <Mesh>

Mémoire (Mo) : 48702.30 / 6810.39 / 48175.30 / 576.79 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0010 user+syst: 0.96s (syst: 0.03s, elaps: 0.99s)

.. _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 0000002a, 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): 0.09 0.01 0.09

Résultat commande #0011 (AFFE_MODELE): MOD_PP ('<0000002b>') de type <Model>

Dépend de :

- MESH_PP ('<0000002a>') de type <Mesh>

Mémoire (Mo) : 48702.30 / 6847.96 / 48175.30 / 576.79 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0011 user+syst: 0.48s (syst: 0.04s, elaps: 0.52s)

.. _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)
```

STRUCTURE DU CONCEPT 0000002c CALCULE POUR 161 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 !

! ... ! ... ! ... ! ... ! ... ! ... ! ... ! ... !

! 160 ! 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 !

! ... ! ... ! ... ! ... ! ... !
... ! ... ! ... ! ... ! ... !

! 160 ! K8 ! K8 ! K8 !
K24 ! R ! I ! R !
K24 ! R !

! ---------- !----------!----------!----------!----------!----------!----------!----------!----------!

Résultat commande #0012 (EXTR_RESU): SIM_PP ('<0000002c>') de type <NonLinearResult>

Dépend de :

- MOD_PP ('<0000002b>') de type <Model>

Mémoire (Mo) : 48702.30 / 12780.84 / 48175.30 / 576.79 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0012 user+syst: 334.97s (syst: 79.62s, elaps: 414.63s)

--

.. _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) : 48702.30 / 12780.84 / 48175.30 / 576.79 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0013 user+syst: 0.03s (syst: 0.00s, elaps:

0.03s)

```
# ------------------------------------------------------------------------
---------------------

.. _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) : 48702.30 / 12783.67 / 48175.30 / 576.79 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0014 user+syst: 11.19s (syst: 6.23s, elaps: 17.45s)

--

.. _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'>

INIT_D                          <class 'libaster.FieldOnNodesReal'>

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_U                          <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_A                          <class 'libaster.FieldOnNodesReal'>
```

F_17 <class 'libaster.FieldOnNodesReal'>

F_18 <class 'libaster.FieldOnCellsReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.Formula'>

F_14 <class 'libaster.Formula'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.FieldOnCellsReal'>

F_19 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.Formula'>

F_22 <class 'libaster.Formula'>

F_23 <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'>

╔═══
═══╗
 ╟ <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
╟
 ╚═══
═══
═══╝

-

 Concepts de la base: G

Nom	Type	Taille (Mo)	Nombre d'objets	Nombre de segments
TOTAL		15747.70	12760	14558
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	14.82	10	12
00000006	CHAM_NO_SDASTER	2.02	5	5
00000007	FORMULE	0.00	4	4
00000008	FORMULE	0.00	4	4
00000009	FORMULE	0.00	4	4
0000000a	CHAM_NO_SDASTER	10.10	10	12
0000000b	CHAM_NO_SDASTER	10.10	10	12
0000000c	CHAM_NO_SDASTER	2.02	5	5
0000000d	FORMULE	0.00	4	4
0000000e	FORMULE	0.00	4	4
0000000f	FORMULE	0.00	4	4
00000010	CHAM_NO_SDASTER	10.10	10	12
00000011	CHAM_NO_SDASTER	10.10	10	12
00000012	CHAM_NO_SDASTER	2.02	5	5

00000013	CHAM_ELEM	30.28	5	5
00000014	FORMULE	0.00	4	4
00000015	FORMULE	0.00	4	4
00000016	FORMULE	0.00	4	4
00000017	FORMULE	0.00	4	4
00000018	FORMULE	0.00	4	4
00000019	FORMULE	0.00	4	4
0000001a	CHAM_ELEM	182.26	5	5
0000001b	CHAM_ELEM	182.26	5	5
0000001c	CHAM_ELEM	22.06	5	5
0000001d	FORMULE	0.00	4	4
0000001e	FORMULE	0.00	4	4
0000001f	FORMULE	0.00	4	4
00000020	FORMULE	0.00	4	4
00000021	CHAR_CINE_MECA	6.85	4	4
00000022	CHAR_CINE_MECA	6.85	4	4

00000023	CHAR_MECA	3.35	32	37
00000024	CHAR_MECA	1.14	32	37
00000025	LISTR8_SDASTER	0.00	6	6
00000026	LIST_INST	0.00	9	9
00000027	EVOL_NOLI	10545.39	7487	8307
00000029	TABLE_SDASTER	0.02	19	19
0000002c	EVOL_NOLI	4566.66	4861	5678
0000002a	MAILLAGE_SDASTER	32.18	38	52
0000002b	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

-

Ouverture en écriture du fichier ./glob.2

Nom de la base : GLOBALE

Nombre d'enregistrements utilisés : 21827

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 19116

Volume des accès en lecture : 14934.38 Mo.

Nombre total d'accès en écriture : 11173

Volume des accès en écriture : 8728.91 Mo.

Nombre d'identificateurs utilisés : 14572

Taille maximum du répertoire : 16000

Pourcentage d'utilisation du répertoire : 91 %

Nom de la base : VOLATILE

Nombre d'enregistrements utilisés : 107

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 46873

Volume des accès en lecture : 36619.53 Mo.

Nombre total d'accès en écriture : 68894

Volume des accès en écriture : 53823.44 Mo.

Nombre d'identificateurs utilisés : 1452

Taille maximum du répertoire : 4000

Pourcentage d'utilisation du répertoire : 36 %

<I> <FIN> ARRET NORMAL DANS "FIN" PAR APPEL A "JEFINI".

<I> <FIN> MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 576.79 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 48175.30 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 48702.30 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 48175 Mo.

TAILLE CUMULEE LIBEREE : 74339 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 19731345

NOMBRE TOTAL DE LIBERATIONS : 19731345

APPELS AU MECANISME DE LIBERATION : 2

TAILLE MEMOIRE CUMULEE RECUPEREE : 80494 Mo.

VOLUME DES LECTURES : 4 Mo.

VOLUME DES ECRITURES : 55520 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 576.79 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 48175.30 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 48702.30 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : LU-20-JANV-2025 17:18:51

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
7dfbf79eb35002a91e8cf6bc7e3ec673eda48176573e8ba4ba04ba91fdb0fe70

Signature of info file :
83618c945cacc95068d37a203663d63a7b78390fe201b591d4ae21a12c32be90

Signature of Jeveux database:
af71253a4d7f02534d9c11e9476f2daf8a334372fb322e6ab1b2fbbccd792c13

****

* COMMAND : USER : SYSTEM : USER+SYS : ELAPSED *

****

* POURSUITE : 0.10 : 4.14 : 4.24 : 4.29 *

* MODI_MODELE : 0.00 : 0.00 : 0.00 : 0.00 *

* GET_ENERGIE : 0.02 : 0.00 : 0.02 : 0.02 *

* DEFI_FICHIER : 0.00 : 0.00 : 0.00 : 0.00 *

* IMPR_TABLE : 0.00 : 0.00 : 0.00 : 0.00 *

* DEFI_FICHIER : 0.00 : 0.00 : 0.00 : 0.00 *

```
 * CALC_CHAMP                :       786.91 :       229.23 :      1016.14 :
1101.11 *
 * CREA_MAILLAGE             :         0.96 :         0.03 :         0.99 :         0.99
*
 * AFFE_MODELE               :         0.48 :         0.04 :         0.52 :         0.52
*
 * EXTR_RESU                 :       334.97 :        79.62 :       414.59 :       414.63
*
 * DETRUIRE                  :         0.03 :         0.00 :         0.03 :         0.03 *
 * IMPR_RESU                 :        11.19 :         6.23 :        17.42 :        17.45
*
 * FIN                       :         0.79 :         4.94 :         5.73 :         5.76 *
 *    . check syntax         :         0.01 :         0.01 :         0.02 :         0.01 *
 *    . fortran              :      1135.34 :       321.66 :      1457.00 :      1542.14 *
 ********************************************************************************
 * TOTAL_JOB                 :      1135.45 :       324.71 :      1460.16 :      1545.36
*
 ********************************************************************************
# Mémoire (Mo) : 48702.30 /     530.12 / 48175.30 /     576.79 (VmPeak / VmSize /
Optimum / Minimum)
# Fin commande #0015      user+syst:              0.79s (syst:              4.94s, elaps:
5.76s)
# ------------------------------------------------------------------------------
----------------------
End of the Code_Aster execution
Code_Aster MPI exits normally
Exited
EXECUTION_CODE_ASTER_EXIT_12=0
```

Follower pressure 1pa Simulation interval 0.8s Maximum time step length 0.005s