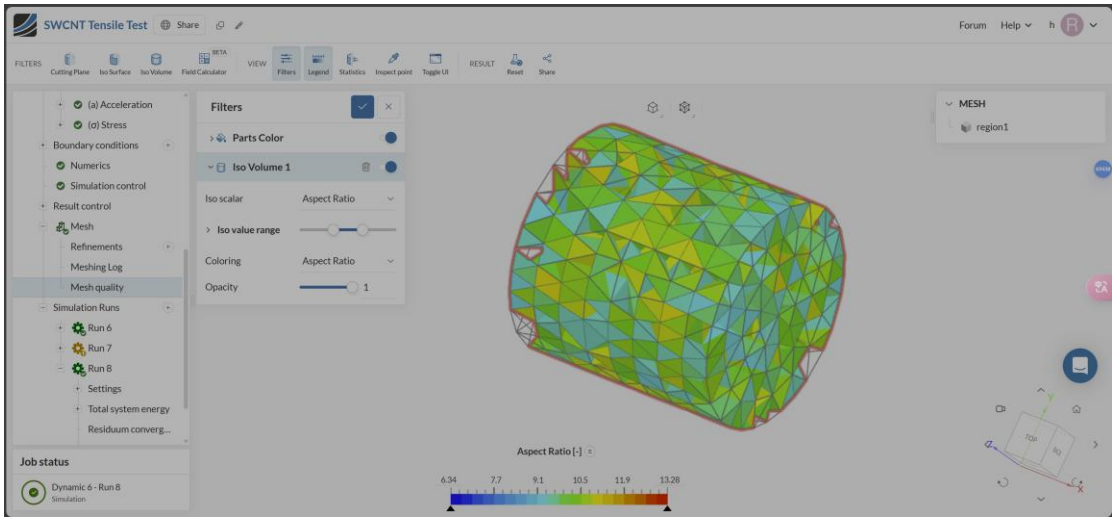
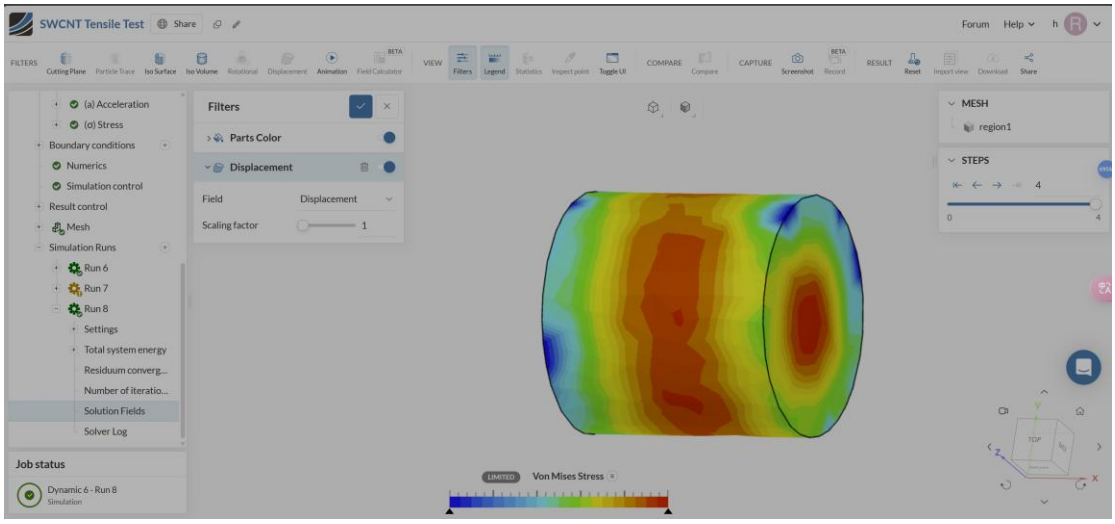
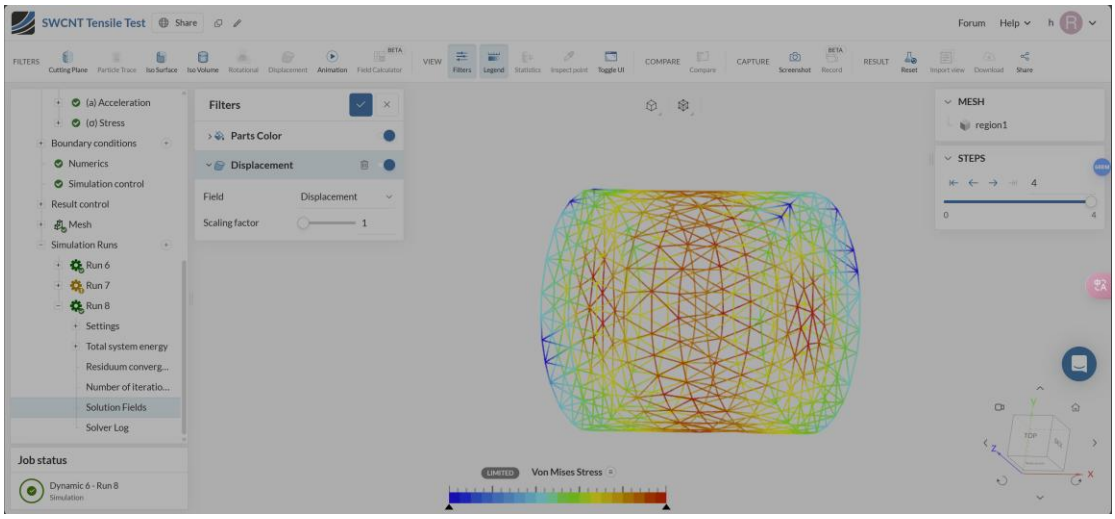


Mesh quality(Above)





Solution fields(Above)

Grid logs

****

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****

Model import took 380.359379ms.

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

Absolute small feature tolerance: 0.009950000000000007 m.

Surface meshing took 50.352364ms.

Number of cells after 76.511882ms: 1623

Number of cells after 101.77212ms: 3977

Number of cells after 126.948627ms: 4005

Meshing took 127.243577ms. Starting mesh export.

Mesh quality metrics:

Non Orthogonality

Acceptable range: 0.0 to 88.0

- min: 0.0
- max: 55.3
- average: 25.6
- 99.99-th percentile: 55.3

Edge Ratio

Acceptable range: 0.0 to 100.0

- min: 1.1
- max: 2.6
- average: 1.7
- 99.99-th percentile: 2.6

Volume Ratio

Acceptable range: 0.0 to 100.0

min: 1.0

max: 3.4

average: 1.4

99.99-th percentile: 3.4

Aspect Ratio

Acceptable range: 0.0 to 100.0

min: 6.3

max: 13.3

average: 10.1

99.99-th percentile: 13.3

Tetrahedral Aspect Ratio

Acceptable range: 0.0 to 100.0

min: 6.3

max: 13.3

average: 10.1

99.99-th percentile: 13.3

Skewness

Acceptable range: 0.0 to 100.0

min: 0.1

max: 0.8

average: 0.4

99.99-th percentile: 0.8

Min Edge Length : 0

Mesh export took 777.970928ms.

Solver logs

Field stored DEPL at time 3.932000000000e+00 for the sequence number 3932

Field stored SIEF_ELGA at time 3.932000000000e+00 for the sequence number 3932

Field stored VARI_ELGA at time 3.932000000000e+00 for the sequence number 3932

Field stored COMPORTEMENT at time 3.932000000000e+00 for the sequence number 3932

Field stored VITE at time 3.932000000000e+00 for the sequence number 3932

Field stored ACCE at time 3.932000000000e+00 for the sequence number 3932

Field stored FORC_AMOR at time 3.932000000000e+00 for the sequence number 3932

Field stored FORC_LIAI at time 3.932000000000e+00 for the sequence number 3932

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93200e+00, dernier instant archivé : 3.93200e+00, au numéro d'ordre :

3932

Time of computation: 3.933000000000e+00

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

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

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

| 3.93300E+00 | 0 | 9.94435E-16 | 8.04912E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.5916E-24 | -1.5916E-24 | -1.0060E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.944346247779e-16 with the node and degree of

freedom N461 DX

The residue of the type RESI_GLOB_MAXI is worth 8.049116928532e-16 with the node and degree of

freedom N461 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1944.30 / 1937.84 / 1395.25 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.933000000000e+00 for the sequence number 3933

Field stored SIEF_ELGA at time 3.933000000000e+00 for the sequence number 3933

Field stored VARI_ELGA at time 3.933000000000e+00 for the sequence number 3933

Field stored COMPORTEMENT at time 3.933000000000e+00 for the sequence number 3933

Field stored VITE at time 3.933000000000e+00 for the sequence number 3933

Field stored ACCE at time 3.933000000000e+00 for the sequence number 3933

Field stored FORC_AMOR at time 3.933000000000e+00 for the sequence number 3933

Field stored FORC_LIAI at time 3.933000000000e+00 for the sequence number 3933

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93300e+00, dernier instant archivé : 3.93300e+00, au numéro d'ordre :

3933

Time of computation: 3.934000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.93400E+00 | 0 | 1.02873E-15 | 8.32667E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6160E-24 | -1.6160E-24 | 1.3265E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.028725473908e-15 with the node and degree of

freedom N553 DZ

The residue of the type RESI_GLOB_MAXI is worth 8.326672684689e-16 with the node and degree of

freedom N553 DZ

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1945.18 / 1938.73 / 1396.09 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.934000000000e+00 for the sequence number 3934

Field stored SIEF_ELGA at time 3.934000000000e+00 for the sequence number 3934

Field stored VARI_ELGA at time 3.934000000000e+00 for the sequence number 3934

Field stored COMPORTEMENT at time 3.934000000000e+00 for the sequence number 3934

Field stored VITE at time 3.934000000000e+00 for the sequence number 3934

Field stored ACCE at time 3.934000000000e+00 for the sequence number 3934

Field stored FORC_AMOR at time 3.934000000000e+00 for the sequence number 3934

Field stored FORC_LIAI at time 3.934000000000e+00 for the sequence number 3934

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93400e+00, dernier instant archivé : 3.93400e+00, au numéro d'ordre :

3934

Time of computation: 3.935000000000e+00

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

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

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

| 3.93500E+00 | 0 | 7.54399E-16 | 6.10623E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6051E-24 | -1.6051E-24 | -1.4064E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808660e-16 with the node and degree of

freedom N448 DX

The residue of the type RESI_GLOB_MAXI is worth 6.106226635438e-16 with the node and degree of

freedom N448 DX

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1945.79 / 1939.34 / 1396.68 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.935000000000e+00 for the sequence number 3935

Field stored SIEF_ELGA at time 3.935000000000e+00 for the sequence number 3935

Field stored VARI_ELGA at time 3.935000000000e+00 for the sequence number 3935

Field stored COMPORTEMENT at time 3.935000000000e+00 for the sequence number 3935

Field stored VITE at time 3.935000000000e+00 for the sequence number 3935

Field stored ACCE at time 3.935000000000e+00 for the sequence number 3935

Field stored FORC_AMOR at time 3.935000000000e+00 for the sequence number 3935

Field stored FORC_LIAI at time 3.935000000000e+00 for the sequence number 3935

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93500e+00, dernier instant archivé : 3.93500e+00, au numéro d'ordre :

3935

Time of computation: 3.936000000000e+00

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

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

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

| 3.93600E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6184E-24 | -1.6184E-24 | 1.5709E-44 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N551 DY

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N551 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1946.40 / 1939.94 / 1397.27 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.936000000000e+00 for the sequence number 3936

Field stored SIEF_ELGA at time 3.936000000000e+00 for the sequence number 3936

Field stored VARI_ELGA at time 3.936000000000e+00 for the sequence number 3936

Field stored COMPORTEMENT at time 3.936000000000e+00 for the sequence number 3936

Field stored VITE at time 3.936000000000e+00 for the sequence number 3936

Field stored ACCE at time 3.936000000000e+00 for the sequence number 3936

Field stored FORC_AMOR at time 3.936000000000e+00 for the sequence number 3936

Field stored FORC_LIAI at time 3.936000000000e+00 for the sequence number 3936

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93600e+00, dernier instant archivé : 3.93600e+00, au numéro d'ordre :

3936

Time of computation: 3.937000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.93700E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6025E-24 | -1.6025E-24 | -1.7210E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808660e-16 with the node and degree of

freedom N464 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.106226635438e-16 with the node and degree of

freedom N464 DZ

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1947.00 / 1940.55 / 1397.87 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.937000000000e+00 for the sequence number 3937

Field stored SIEF_ELGA at time 3.937000000000e+00 for the sequence number 3937

Field stored VARI_ELGA at time 3.937000000000e+00 for the sequence number 3937

Field stored COMPORTEMENT at time 3.937000000000e+00 for the sequence number 3937

Field stored VITE at time 3.937000000000e+00 for the sequence number 3937

Field stored ACCE at time 3.937000000000e+00 for the sequence number 3937

Field stored FORC_AMOR at time 3.937000000000e+00 for the sequence number 3937

Field stored FORC_LIAI at time 3.937000000000e+00 for the sequence number 3937

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93700e+00, dernier instant archivé : 3.93700e+00, au numéro d'ordre :

3937

Time of computation: 3.938000000000e+00

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

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

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

| 3.93800E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6008E-24 | -1.6008E-24 | 1.5041E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299962e-16 with the node and degree of

freedom N660 DX

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N660 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1947.61 / 1941.15 / 1398.46 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.938000000000e+00 for the sequence number 3938

Field stored SIEF_ELGA at time 3.938000000000e+00 for the sequence number 3938

Field stored VARI_ELGA at time 3.938000000000e+00 for the sequence number 3938

Field stored COMPORTEMENT at time 3.938000000000e+00 for the sequence number 3938

Field stored VITE at time 3.938000000000e+00 for the sequence number 3938

Field stored ACCE at time 3.938000000000e+00 for the sequence number 3938

Field stored FORC_AMOR at time 3.938000000000e+00 for the sequence number 3938

Field stored FORC_LIAI at time 3.938000000000e+00 for the sequence number 3938

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93800e+00, dernier instant archivé : 3.93800e+00, au numéro d'ordre :

3938

Time of computation: 3.939000000000e+00

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

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

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

| 3.93900E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6163E-24 | -1.6163E-24 | -1.1178E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N402 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N402 DZ

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1948.21 / 1941.76 / 1399.06 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.939000000000e+00 for the sequence number 3939

Field stored SIEF_ELGA at time 3.939000000000e+00 for the sequence number 3939

Field stored VARI_ELGA at time 3.939000000000e+00 for the sequence number 3939

Field stored COMPORTEMENT at time 3.939000000000e+00 for the sequence number 3939

Field stored VITE at time 3.939000000000e+00 for the sequence number 3939

Field stored ACCE at time 3.939000000000e+00 for the sequence number 3939

Field stored FORC_AMOR at time 3.939000000000e+00 for the sequence number 3939

Field stored FORC_LIAI at time 3.939000000000e+00 for the sequence number 3939

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.93900e+00, dernier instant archivé : 3.93900e+00, au numéro d'ordre :

3939

Time of computation: 3.940000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.94000E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.5996E-24 | -1.5996E-24 | 7.1193E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N581 DX

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N581 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1948.82 / 1942.36 / 1399.65 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.940000000000e+00 for the sequence number 3940

Field stored SIEF_ELGA at time 3.940000000000e+00 for the sequence number 3940

Field stored VARI_ELGA at time 3.940000000000e+00 for the sequence number 3940

Field stored COMPORTEMENT at time 3.940000000000e+00 for the sequence number 3940

Field stored VITE at time 3.940000000000e+00 for the sequence number 3940

Field stored ACCE at time 3.940000000000e+00 for the sequence number 3940

Field stored FORC_AMOR at time 3.940000000000e+00 for the sequence number 3940

Field stored FORC_LIAI at time 3.940000000000e+00 for the sequence number 3940

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94000e+00, dernier instant archivé : 3.94000e+00, au numéro d'ordre :

3940

Time of computation: 3.941000000000e+00

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

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

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

| 3.94100E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6032E-24 | -1.6032E-24 | -4.9422E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N530 DY

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N530 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1949.42 / 1942.96 / 1400.25 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.941000000000e+00 for the sequence number 3941

Field stored SIEF_ELGA at time 3.941000000000e+00 for the sequence number 3941

Field stored VARI_ELGA at time 3.941000000000e+00 for the sequence number 3941

Field stored COMPORTEMENT at time 3.941000000000e+00 for the sequence number 3941

Field stored VITE at time 3.941000000000e+00 for the sequence number 3941

Field stored ACCE at time 3.941000000000e+00 for the sequence number 3941

Field stored FORC_AMOR at time 3.941000000000e+00 for the sequence number 3941

Field stored FORC_LIAI at time 3.941000000000e+00 for the sequence number 3941

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94100e+00, dernier instant archivé : 3.94100e+00, au numéro d'ordre :

3941

Time of computation: 3.942000000000e+00

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

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

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

| 3.94200E+00 | 0 | 9.25853E-16 | 7.49401E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6149E-24 | -1.6149E-24 | 5.5945E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.258529265173e-16 with the node and degree of

freedom N596 DZ

The residue of the type RESI_GLOB_MAXI is worth 7.494005416220e-16 with the node and degree of

freedom N596 DZ

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1950.02 / 1943.57 / 1400.84 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.942000000000e+00 for the sequence number 3942

Field stored SIEF_ELGA at time 3.942000000000e+00 for the sequence number 3942

Field stored VARI_ELGA at time 3.942000000000e+00 for the sequence number 3942

Field stored COMPORTEMENT at time 3.942000000000e+00 for the sequence number 3942

Field stored VITE at time 3.942000000000e+00 for the sequence number 3942

Field stored ACCE at time 3.942000000000e+00 for the sequence number 3942

Field stored FORC_AMOR at time 3.942000000000e+00 for the sequence number 3942

Field stored FORC_LIAI at time 3.942000000000e+00 for the sequence number 3942

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94200e+00, dernier instant archivé : 3.94200e+00, au numéro d'ordre :

3942

Time of computation: 3.943000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.94300E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.5967E-24 | -1.5967E-24 | -7.8681E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N527 DY

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N527 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1950.63 / 1944.18 / 1401.44 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.943000000000e+00 for the sequence number 3943

Field stored SIEF_ELGA at time 3.943000000000e+00 for the sequence number 3943

Field stored VARI_ELGA at time 3.943000000000e+00 for the sequence number 3943

Field stored COMPORTEMENT at time 3.943000000000e+00 for the sequence number 3943

Field stored VITE at time 3.943000000000e+00 for the sequence number 3943

Field stored ACCE at time 3.943000000000e+00 for the sequence number 3943

Field stored FORC_AMOR at time 3.943000000000e+00 for the sequence number 3943

Field stored FORC_LIAI at time 3.943000000000e+00 for the sequence number 3943

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94300e+00, dernier instant archivé : 3.94300e+00, au numéro d'ordre :

3943

Time of computation: 3.944000000000e+00

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

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

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

| 3.94400E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6194E-24 | -1.6194E-24 | 9.6929E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773871e-16 with the node and degree of

freedom N396 DX

The residue of the type RESI_GLOB_MAXI is worth 7.216449660064e-16 with the node and degree of

freedom N396 DX

Temps CPU consommé dans ce pas de temps : 0.164 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.094 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1951.23 / 1944.78 / 1402.03 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.944000000000e+00 for the sequence number 3944

Field stored SIEF_ELGA at time 3.944000000000e+00 for the sequence number 3944

Field stored VARI_ELGA at time 3.944000000000e+00 for the sequence number 3944

Field stored COMPORTEMENT at time 3.944000000000e+00 for the sequence number 3944

Field stored VITE at time 3.944000000000e+00 for the sequence number 3944

Field stored ACCE at time 3.944000000000e+00 for the sequence number 3944

Field stored FORC_AMOR at time 3.944000000000e+00 for the sequence number 3944

Field stored FORC_LIAI at time 3.944000000000e+00 for the sequence number 3944

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94400e+00, dernier instant archivé : 3.94400e+00, au numéro d'ordre :

3944

Time of computation: 3.945000000000e+00

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

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

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

| 3.94500E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6040E-24 | -1.6040E-24 | -1.0973E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N581 DX

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N581 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1951.84 / 1945.38 / 1402.62 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.945000000000e+00 for the sequence number 3945

Field stored SIEF_ELGA at time 3.945000000000e+00 for the sequence number 3945

Field stored VARI_ELGA at time 3.945000000000e+00 for the sequence number 3945

Field stored COMPORTEMENT at time 3.945000000000e+00 for the sequence number 3945

Field stored VITE at time 3.945000000000e+00 for the sequence number 3945

Field stored ACCE at time 3.945000000000e+00 for the sequence number 3945

Field stored FORC_AMOR at time 3.945000000000e+00 for the sequence number 3945

Field stored FORC_LIAI at time 3.945000000000e+00 for the sequence number 3945

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94500e+00, dernier instant archivé : 3.94500e+00, au numéro d'ordre :

3945

Time of computation: 3.946000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.94600E+00 | 0 | 9.25853E-16 | 7.49401E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6068E-24 | -1.6068E-24 | 1.1119E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.258529265173e-16 with the node and degree of

freedom N438 DY

The residue of the type RESI_GLOB_MAXI is worth 7.494005416220e-16 with the node and degree of

freedom N438 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1952.44 / 1945.99 / 1403.22 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.946000000000e+00 for the sequence number 3946

Field stored SIEF_ELGA at time 3.946000000000e+00 for the sequence number 3946

Field stored VARI_ELGA at time 3.946000000000e+00 for the sequence number 3946

Field stored COMPORTEMENT at time 3.946000000000e+00 for the sequence number 3946

Field stored VITE at time 3.946000000000e+00 for the sequence number 3946

Field stored ACCE at time 3.946000000000e+00 for the sequence number 3946

Field stored FORC_AMOR at time 3.946000000000e+00 for the sequence number 3946

Field stored FORC_LIAI at time 3.946000000000e+00 for the sequence number 3946

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94600e+00, dernier instant archivé : 3.94600e+00, au numéro d'ordre :

3946

Time of computation: 3.947000000000e+00

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

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

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

| 3.94700E+00 | 0 | 1.13160E-15 | 9.15934E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6045E-24 | -1.6045E-24 | -1.0950E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.131598021299e-15 with the node and degree of

freedom N401 DX

The residue of the type RESI_GLOB_MAXI is worth 9.159339953158e-16 with the node and degree of

freedom N401 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1953.05 / 1946.59 / 1403.81 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.947000000000e+00 for the sequence number 3947

Field stored SIEF_ELGA at time 3.947000000000e+00 for the sequence number 3947

Field stored VARI_ELGA at time 3.947000000000e+00 for the sequence number 3947

Field stored COMPORTEMENT at time 3.947000000000e+00 for the sequence number 3947

Field stored VITE at time 3.947000000000e+00 for the sequence number 3947

Field stored ACCE at time 3.947000000000e+00 for the sequence number 3947

Field stored FORC_AMOR at time 3.947000000000e+00 for the sequence number 3947

Field stored FORC_LIAI at time 3.947000000000e+00 for the sequence number 3947

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94700e+00, dernier instant archivé : 3.94700e+00, au numéro d'ordre :

3947

Time of computation: 3.948000000000e+00

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

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

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

| 3.94800E+00 | 0 | 9.60144E-16 | 7.77156E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6158E-24 | -1.6158E-24 | 1.2197E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756476e-16 with the node and degree of

freedom N471 DY

The residue of the type RESI_GLOB_MAXI is worth 7.771561172376e-16 with the node and degree of

freedom N471 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1953.65 / 1947.20 / 1404.41 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.948000000000e+00 for the sequence number 3948

Field stored SIEF_ELGA at time 3.948000000000e+00 for the sequence number 3948

Field stored VARI_ELGA at time 3.948000000000e+00 for the sequence number 3948

Field stored COMPORTEMENT at time 3.948000000000e+00 for the sequence number 3948

Field stored VITE at time 3.948000000000e+00 for the sequence number 3948

Field stored ACCE at time 3.948000000000e+00 for the sequence number 3948

Field stored FORC_AMOR at time 3.948000000000e+00 for the sequence number 3948

Field stored FORC_LIAI at time 3.948000000000e+00 for the sequence number 3948

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94800e+00, dernier instant archivé : 3.94800e+00, au numéro d'ordre :

3948

Time of computation: 3.949000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.94900E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6014E-24 | -1.6014E-24 | -1.3990E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773871e-16 with the node and degree of

freedom N440 DX

The residue of the type RESI_GLOB_MAXI is worth 7.216449660064e-16 with the node and degree of

freedom N440 DX

Temps CPU consommé dans ce pas de temps : 0.168 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.098 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1954.25 / 1947.80 / 1405.00 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.949000000000e+00 for the sequence number 3949

Field stored SIEF_ELGA at time 3.949000000000e+00 for the sequence number 3949

Field stored VARI_ELGA at time 3.949000000000e+00 for the sequence number 3949

Field stored COMPORTEMENT at time 3.949000000000e+00 for the sequence number 3949

Field stored VITE at time 3.949000000000e+00 for the sequence number 3949

Field stored ACCE at time 3.949000000000e+00 for the sequence number 3949

Field stored FORC_AMOR at time 3.949000000000e+00 for the sequence number 3949

Field stored FORC_LIAI at time 3.949000000000e+00 for the sequence number 3949

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.94900e+00, dernier instant archivé : 3.94900e+00, au numéro d'ordre :

3949

Time of computation: 3.950000000000e+00

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

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

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

| 3.95000E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6143E-24 | -1.6143E-24 | 1.6044E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N440 DY

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N440 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1954.86 / 1948.41 / 1405.60 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.950000000000e+00 for the sequence number 3950

Field stored SIEF_ELGA at time 3.950000000000e+00 for the sequence number 3950

Field stored VARI_ELGA at time 3.950000000000e+00 for the sequence number 3950

Field stored COMPORTEMENT at time 3.950000000000e+00 for the sequence number 3950

Field stored VITE at time 3.950000000000e+00 for the sequence number 3950

Field stored ACCE at time 3.950000000000e+00 for the sequence number 3950

Field stored FORC_AMOR at time 3.950000000000e+00 for the sequence number 3950

Field stored FORC_LIAI at time 3.950000000000e+00 for the sequence number 3950

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95000e+00, dernier instant archivé : 3.95000e+00, au numéro d'ordre :

3950

Time of computation: 3.951000000000e+00

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

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

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

| 3.95100E+00 | 0 | 9.60144E-16 | 7.77156E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6010E-24 | -1.6010E-24 | -1.8274E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756476e-16 with the node and degree of

freedom N553 DX

The residue of the type RESI_GLOB_MAXI is worth 7.771561172376e-16 with the node and degree of

freedom N553 DX

Temps CPU consommé dans ce pas de temps : 0.168 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.098 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1955.46 / 1949.01 / 1406.19 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.951000000000e+00 for the sequence number 3951

Field stored SIEF_ELGA at time 3.951000000000e+00 for the sequence number 3951

Field stored VARI_ELGA at time 3.951000000000e+00 for the sequence number 3951

Field stored COMPORTEMENT at time 3.951000000000e+00 for the sequence number 3951

Field stored VITE at time 3.951000000000e+00 for the sequence number 3951

Field stored ACCE at time 3.951000000000e+00 for the sequence number 3951

Field stored FORC_AMOR at time 3.951000000000e+00 for the sequence number 3951

Field stored FORC_LIAI at time 3.951000000000e+00 for the sequence number 3951

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95100e+00, dernier instant archivé : 3.95100e+00, au numéro d'ordre :

3951

Time of computation: 3.952000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.95200E+00 | 0 | 7.20108E-16 | 5.82867E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6148E-24 | -1.6148E-24 | 2.0624E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317357e-16 with the node and degree of

freedom N401 DZ

The residue of the type RESI_GLOB_MAXI is worth 5.828670879282e-16 with the node and degree of

freedom N401 DZ

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1956.07 / 1949.61 / 1406.79 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.952000000000e+00 for the sequence number 3952

Field stored SIEF_ELGA at time 3.952000000000e+00 for the sequence number 3952

Field stored VARI_ELGA at time 3.952000000000e+00 for the sequence number 3952

Field stored COMPORTEMENT at time 3.952000000000e+00 for the sequence number 3952

Field stored VITE at time 3.952000000000e+00 for the sequence number 3952

Field stored ACCE at time 3.952000000000e+00 for the sequence number 3952

Field stored FORC_AMOR at time 3.952000000000e+00 for the sequence number 3952

Field stored FORC_LIAI at time 3.952000000000e+00 for the sequence number 3952

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95200e+00, dernier instant archivé : 3.95200e+00, au numéro d'ordre :

3952

Time of computation: 3.953000000000e+00

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

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

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

| 3.95300E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6041E-24 | -1.6041E-24 | -2.0908E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N404 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N404 DZ

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.098 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1956.67 / 1950.22 / 1407.38 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.953000000000e+00 for the sequence number 3953

Field stored SIEF_ELGA at time 3.953000000000e+00 for the sequence number 3953

Field stored VARI_ELGA at time 3.953000000000e+00 for the sequence number 3953

Field stored COMPORTEMENT at time 3.953000000000e+00 for the sequence number 3953

Field stored VITE at time 3.953000000000e+00 for the sequence number 3953

Field stored ACCE at time 3.953000000000e+00 for the sequence number 3953

Field stored FORC_AMOR at time 3.953000000000e+00 for the sequence number 3953

Field stored FORC_LIAI at time 3.953000000000e+00 for the sequence number 3953

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95300e+00, dernier instant archivé : 3.95300e+00, au numéro d'ordre :

3953

Time of computation: 3.954000000000e+00

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

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

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

| 3.95400E+00 | 0 | 1.02873E-15 | 8.32667E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6028E-24 | -1.6028E-24 | 1.9370E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.028725473908e-15 with the node and degree of

freedom N528 DY

The residue of the type RESI_GLOB_MAXI is worth 8.326672684689e-16 with the node and degree of

freedom N528 DY

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.024 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1957.28 / 1950.82 / 1407.97 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.954000000000e+00 for the sequence number 3954

Field stored SIEF_ELGA at time 3.954000000000e+00 for the sequence number 3954

Field stored VARI_ELGA at time 3.954000000000e+00 for the sequence number 3954

Field stored COMPORTEMENT at time 3.954000000000e+00 for the sequence number 3954

Field stored VITE at time 3.954000000000e+00 for the sequence number 3954

Field stored ACCE at time 3.954000000000e+00 for the sequence number 3954

Field stored FORC_AMOR at time 3.954000000000e+00 for the sequence number 3954

Field stored FORC_LIAI at time 3.954000000000e+00 for the sequence number 3954

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95400e+00, dernier instant archivé : 3.95400e+00, au numéro d'ordre :

3954

Time of computation: 3.955000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.95500E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6090E-24 | -1.6090E-24 | -1.7374E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N530 DX

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N530 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1957.88 / 1951.43 / 1408.57 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.955000000000e+00 for the sequence number 3955

Field stored SIEF_ELGA at time 3.955000000000e+00 for the sequence number 3955

Field stored VARI_ELGA at time 3.955000000000e+00 for the sequence number 3955

Field stored COMPORTEMENT at time 3.955000000000e+00 for the sequence number 3955

Field stored VITE at time 3.955000000000e+00 for the sequence number 3955

Field stored ACCE at time 3.955000000000e+00 for the sequence number 3955

Field stored FORC_AMOR at time 3.955000000000e+00 for the sequence number 3955

Field stored FORC_LIAI at time 3.955000000000e+00 for the sequence number 3955

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95500e+00, dernier instant archivé : 3.95500e+00, au numéro d'ordre :

3955

Time of computation: 3.956000000000e+00

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

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

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

| 3.95600E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5981E-24 | -1.5981E-24 | 1.3852E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N581 DY

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N581 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.092 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1958.49 / 1952.03 / 1409.16 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.956000000000e+00 for the sequence number 3956

Field stored SIEF_ELGA at time 3.956000000000e+00 for the sequence number 3956

Field stored VARI_ELGA at time 3.956000000000e+00 for the sequence number 3956

Field stored COMPORTEMENT at time 3.956000000000e+00 for the sequence number 3956

Field stored VITE at time 3.956000000000e+00 for the sequence number 3956

Field stored ACCE at time 3.956000000000e+00 for the sequence number 3956

Field stored FORC_AMOR at time 3.956000000000e+00 for the sequence number 3956

Field stored FORC_LIAI at time 3.956000000000e+00 for the sequence number 3956

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95600e+00, dernier instant archivé : 3.95600e+00, au numéro d'ordre :

3956

Time of computation: 3.957000000000e+00

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

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

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

| 3.95700E+00 | 0 | 9.60144E-16 | 7.77156E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6197E-24 | -1.6197E-24 | -8.9315E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756476e-16 with the node and degree of

freedom N434 DY

The residue of the type RESI_GLOB_MAXI is worth 7.771561172376e-16 with the node and degree of

freedom N434 DY

Temps CPU consommé dans ce pas de temps : 0.162 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.092 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1959.09 / 1952.64 / 1409.76 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.957000000000e+00 for the sequence number 3957

Field stored SIEF_ELGA at time 3.957000000000e+00 for the sequence number 3957

Field stored VARI_ELGA at time 3.957000000000e+00 for the sequence number 3957

Field stored COMPORTEMENT at time 3.957000000000e+00 for the sequence number 3957

Field stored VITE at time 3.957000000000e+00 for the sequence number 3957

Field stored ACCE at time 3.957000000000e+00 for the sequence number 3957

Field stored FORC_AMOR at time 3.957000000000e+00 for the sequence number 3957

Field stored FORC_LIAI at time 3.957000000000e+00 for the sequence number 3957

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95700e+00, dernier instant archivé : 3.95700e+00, au numéro d'ordre :

3957

Time of computation: 3.958000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.95800E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.5977E-24 | -1.5977E-24 | 4.2566E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299963e-16 with the node and degree of

freedom N488 DY

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N488 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1959.70 / 1953.24 / 1410.35 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.958000000000e+00 for the sequence number 3958

Field stored SIEF_ELGA at time 3.958000000000e+00 for the sequence number 3958

Field stored VARI_ELGA at time 3.958000000000e+00 for the sequence number 3958

Field stored COMPORTEMENT at time 3.958000000000e+00 for the sequence number 3958

Field stored VITE at time 3.958000000000e+00 for the sequence number 3958

Field stored ACCE at time 3.958000000000e+00 for the sequence number 3958

Field stored FORC_AMOR at time 3.958000000000e+00 for the sequence number 3958

Field stored FORC_LIAI at time 3.958000000000e+00 for the sequence number 3958

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95800e+00, dernier instant archivé : 3.95800e+00, au numéro d'ordre :

3958

Time of computation: 3.959000000000e+00

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

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

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

| 3.95900E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6232E-24 | -1.6232E-24 | 1.8551E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773871e-16 with the node and degree of

freedom N470 DY

The residue of the type RESI_GLOB_MAXI is worth 7.216449660064e-16 with the node and degree of

freedom N470 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.092 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1960.30 / 1953.84 / 1410.95 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.959000000000e+00 for the sequence number 3959

Field stored SIEF_ELGA at time 3.959000000000e+00 for the sequence number 3959

Field stored VARI_ELGA at time 3.959000000000e+00 for the sequence number 3959

Field stored COMPORTEMENT at time 3.959000000000e+00 for the sequence number 3959

Field stored VITE at time 3.959000000000e+00 for the sequence number 3959

Field stored ACCE at time 3.959000000000e+00 for the sequence number 3959

Field stored FORC_AMOR at time 3.959000000000e+00 for the sequence number 3959

Field stored FORC_LIAI at time 3.959000000000e+00 for the sequence number 3959

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.95900e+00, dernier instant archivé : 3.95900e+00, au numéro d'ordre :

3959

Time of computation: 3.960000000000e+00

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

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

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

| 3.96000E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.5898E-24 | -1.5898E-24 | -8.7812E-45 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808660e-16 with the node and degree of

freedom N437 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.106226635438e-16 with the node and degree of

freedom N437 DZ

Temps CPU consommé dans ce pas de temps : 0.162 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.092 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.024 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1960.90 / 1954.45 / 1411.54 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.960000000000e+00 for the sequence number 3960

Field stored SIEF_ELGA at time 3.960000000000e+00 for the sequence number 3960

Field stored VARI_ELGA at time 3.960000000000e+00 for the sequence number 3960

Field stored COMPORTEMENT at time 3.960000000000e+00 for the sequence number 3960

Field stored VITE at time 3.960000000000e+00 for the sequence number 3960

Field stored ACCE at time 3.960000000000e+00 for the sequence number 3960

Field stored FORC_AMOR at time 3.960000000000e+00 for the sequence number 3960

Field stored FORC_LIAI at time 3.960000000000e+00 for the sequence number 3960

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[98%] Instant calculé : 3.96000e+00, dernier instant archivé : 3.96000e+00, au numéro d'ordre :

3960

Time of computation: 3.961000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.96100E+00 | 0 | 9.25853E-16 | 7.49401E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6228E-24 | -1.6228E-24 | 1.6307E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.258529265174e-16 with the node and degree of

freedom N553 DY

The residue of the type RESI_GLOB_MAXI is worth 7.494005416220e-16 with the node and degree of

freedom N553 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1961.51 / 1955.05 / 1412.14 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.961000000000e+00 for the sequence number 3961

Field stored SIEF_ELGA at time 3.961000000000e+00 for the sequence number 3961

Field stored VARI_ELGA at time 3.961000000000e+00 for the sequence number 3961

Field stored COMPORTEMENT at time 3.961000000000e+00 for the sequence number 3961

Field stored VITE at time 3.961000000000e+00 for the sequence number 3961

Field stored ACCE at time 3.961000000000e+00 for the sequence number 3961

Field stored FORC_AMOR at time 3.961000000000e+00 for the sequence number 3961

Field stored FORC_LIAI at time 3.961000000000e+00 for the sequence number 3961

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96100e+00, dernier instant archivé : 3.96100e+00, au numéro d'ordre :

3961

Time of computation: 3.962000000000e+00

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

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

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

| 3.96200E+00 | 0 | 9.60144E-16 | 7.77156E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5999E-24 | -1.5999E-24 | -2.0528E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756476e-16 with the node and degree of

freedom N403 DX

The residue of the type RESI_GLOB_MAXI is worth 7.771561172376e-16 with the node and degree of

freedom N403 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.092 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1962.11 / 1955.66 / 1412.73 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.962000000000e+00 for the sequence number 3962

Field stored SIEF_ELGA at time 3.962000000000e+00 for the sequence number 3962

Field stored VARI_ELGA at time 3.962000000000e+00 for the sequence number 3962

Field stored COMPORTEMENT at time 3.962000000000e+00 for the sequence number 3962

Field stored VITE at time 3.962000000000e+00 for the sequence number 3962

Field stored ACCE at time 3.962000000000e+00 for the sequence number 3962

Field stored FORC_AMOR at time 3.962000000000e+00 for the sequence number 3962

Field stored FORC_LIAI at time 3.962000000000e+00 for the sequence number 3962

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96200e+00, dernier instant archivé : 3.96200e+00, au numéro d'ordre :

3962

Time of computation: 3.963000000000e+00

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

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

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

| 3.96300E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6138E-24 | -1.6138E-24 | 2.2908E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N494 DX

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N494 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1962.72 / 1956.26 / 1413.32 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.963000000000e+00 for the sequence number 3963

Field stored SIEF_ELGA at time 3.963000000000e+00 for the sequence number 3963

Field stored VARI_ELGA at time 3.963000000000e+00 for the sequence number 3963

Field stored COMPORTEMENT at time 3.963000000000e+00 for the sequence number 3963

Field stored VITE at time 3.963000000000e+00 for the sequence number 3963

Field stored ACCE at time 3.963000000000e+00 for the sequence number 3963

Field stored FORC_AMOR at time 3.963000000000e+00 for the sequence number 3963

Field stored FORC_LIAI at time 3.963000000000e+00 for the sequence number 3963

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96300e+00, dernier instant archivé : 3.96300e+00, au numéro d'ordre :

3963

Time of computation: 3.964000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.96400E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6070E-24 | -1.6070E-24 | -2.3963E-44 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299963e-16 with the node and degree of

freedom N520 DY

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N520 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1963.32 / 1956.87 / 1413.92 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.964000000000e+00 for the sequence number 3964

Field stored SIEF_ELGA at time 3.964000000000e+00 for the sequence number 3964

Field stored VARI_ELGA at time 3.964000000000e+00 for the sequence number 3964

Field stored COMPORTEMENT at time 3.964000000000e+00 for the sequence number 3964

Field stored VITE at time 3.964000000000e+00 for the sequence number 3964

Field stored ACCE at time 3.964000000000e+00 for the sequence number 3964

Field stored FORC_AMOR at time 3.964000000000e+00 for the sequence number 3964

Field stored FORC_LIAI at time 3.964000000000e+00 for the sequence number 3964

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96400e+00, dernier instant archivé : 3.96400e+00, au numéro d'ordre :

3964

Time of computation: 3.965000000000e+00

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

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

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

| 3.96500E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6027E-24 | -1.6027E-24 | 2.1282E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808660e-16 with the node and degree of

freedom N534 DX

The residue of the type RESI_GLOB_MAXI is worth 6.106226635438e-16 with the node and degree of

freedom N534 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1963.93 / 1957.47 / 1414.51 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.965000000000e+00 for the sequence number 3965

Field stored SIEF_ELGA at time 3.965000000000e+00 for the sequence number 3965

Field stored VARI_ELGA at time 3.965000000000e+00 for the sequence number 3965

Field stored COMPORTEMENT at time 3.965000000000e+00 for the sequence number 3965

Field stored VITE at time 3.965000000000e+00 for the sequence number 3965

Field stored ACCE at time 3.965000000000e+00 for the sequence number 3965

Field stored FORC_AMOR at time 3.965000000000e+00 for the sequence number 3965

Field stored FORC_LIAI at time 3.965000000000e+00 for the sequence number 3965

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96500e+00, dernier instant archivé : 3.96500e+00, au numéro d'ordre :

3965

Time of computation: 3.966000000000e+00

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

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

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

| 3.96600E+00 | 0 | 7.20108E-16 | 5.82867E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6095E-24 | -1.6095E-24 | -1.7805E-44 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317357e-16 with the node and degree of

freedom N467 DX

The residue of the type RESI_GLOB_MAXI is worth 5.828670879282e-16 with the node and degree of

freedom N467 DX

Temps CPU consommé dans ce pas de temps : 0.162 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.092 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1964.53 / 1958.08 / 1415.11 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.966000000000e+00 for the sequence number 3966

Field stored SIEF_ELGA at time 3.966000000000e+00 for the sequence number 3966

Field stored VARI_ELGA at time 3.966000000000e+00 for the sequence number 3966

Field stored COMPORTEMENT at time 3.966000000000e+00 for the sequence number 3966

Field stored VITE at time 3.966000000000e+00 for the sequence number 3966

Field stored ACCE at time 3.966000000000e+00 for the sequence number 3966

Field stored FORC_AMOR at time 3.966000000000e+00 for the sequence number 3966

Field stored FORC_LIAI at time 3.966000000000e+00 for the sequence number 3966

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96600e+00, dernier instant archivé : 3.96600e+00, au numéro d'ordre :

3966

Time of computation: 3.967000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR | |

| 3.96700E+00 | 0 | 9.94435E-16 | 8.04912E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6038E-24 | -1.6038E-24 | 1.3589E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.944346247779e-16 with the node and degree of

freedom N402 DY

The residue of the type RESI_GLOB_MAXI is worth 8.049116928532e-16 with the node and degree of

freedom N402 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1965.14 / 1958.68 / 1415.70 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.967000000000e+00 for the sequence number 3967

Field stored SIEF_ELGA at time 3.967000000000e+00 for the sequence number 3967

Field stored VARI_ELGA at time 3.967000000000e+00 for the sequence number 3967

Field stored COMPORTEMENT at time 3.967000000000e+00 for the sequence number 3967

Field stored VITE at time 3.967000000000e+00 for the sequence number 3967

Field stored ACCE at time 3.967000000000e+00 for the sequence number 3967

Field stored FORC_AMOR at time 3.967000000000e+00 for the sequence number 3967

Field stored FORC_LIAI at time 3.967000000000e+00 for the sequence number 3967

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96700e+00, dernier instant archivé : 3.96700e+00, au numéro d'ordre :

3967

Time of computation: 3.968000000000e+00

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

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

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

| 3.96800E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5928E-24 | -1.5928E-24 | -1.3010E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299963e-16 with the node and degree of

freedom N553 DX

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N553 DX

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1965.74 / 1959.29 / 1416.30 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.968000000000e+00 for the sequence number 3968

Field stored SIEF_ELGA at time 3.968000000000e+00 for the sequence number 3968

Field stored VARI_ELGA at time 3.968000000000e+00 for the sequence number 3968

Field stored COMPORTEMENT at time 3.968000000000e+00 for the sequence number 3968

Field stored VITE at time 3.968000000000e+00 for the sequence number 3968

Field stored ACCE at time 3.968000000000e+00 for the sequence number 3968

Field stored FORC_AMOR at time 3.968000000000e+00 for the sequence number 3968

Field stored FORC_LIAI at time 3.968000000000e+00 for the sequence number 3968

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96800e+00, dernier instant archivé : 3.96800e+00, au numéro d'ordre :

3968

Time of computation: 3.969000000000e+00

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

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

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

| 3.96900E+00 | 0 | 7.20108E-16 | 5.82867E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6189E-24 | -1.6189E-24 | 1.6781E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317357e-16 with the node and degree of

freedom N530 DX

The residue of the type RESI_GLOB_MAXI is worth 5.828670879282e-16 with the node and degree of

freedom N530 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.092 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1966.34 / 1959.89 / 1416.89 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.969000000000e+00 for the sequence number 3969

Field stored SIEF_ELGA at time 3.969000000000e+00 for the sequence number 3969

Field stored VARI_ELGA at time 3.969000000000e+00 for the sequence number 3969

Field stored COMPORTEMENT at time 3.969000000000e+00 for the sequence number 3969

Field stored VITE at time 3.969000000000e+00 for the sequence number 3969

Field stored ACCE at time 3.969000000000e+00 for the sequence number 3969

Field stored FORC_AMOR at time 3.969000000000e+00 for the sequence number 3969

Field stored FORC_LIAI at time 3.969000000000e+00 for the sequence number 3969

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.96900e+00, dernier instant archivé : 3.96900e+00, au numéro d'ordre :

3969

Time of computation: 3.970000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.97000E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6186E-24 | -1.6186E-24 | -1.5124E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N465 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N465 DZ

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1966.95 / 1960.50 / 1417.49 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.970000000000e+00 for the sequence number 3970

Field stored SIEF_ELGA at time 3.970000000000e+00 for the sequence number 3970

Field stored VARI_ELGA at time 3.970000000000e+00 for the sequence number 3970

Field stored COMPORTEMENT at time 3.970000000000e+00 for the sequence number 3970

Field stored VITE at time 3.970000000000e+00 for the sequence number 3970

Field stored ACCE at time 3.970000000000e+00 for the sequence number 3970

Field stored FORC_AMOR at time 3.970000000000e+00 for the sequence number 3970

Field stored FORC_LIAI at time 3.970000000000e+00 for the sequence number 3970

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97000e+00, dernier instant archivé : 3.97000e+00, au numéro d'ordre :

3970

Time of computation: 3.971000000000e+00

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

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

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

| 3.97100E+00 | 0 | 8.22980E-16 | 6.66134E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6066E-24 | -1.6066E-24 | 1.1395E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N386 DX

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N386 DX

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1967.55 / 1961.10 / 1418.08 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.971000000000e+00 for the sequence number 3971

Field stored SIEF_ELGA at time 3.971000000000e+00 for the sequence number 3971

Field stored VARI_ELGA at time 3.971000000000e+00 for the sequence number 3971

Field stored COMPORTEMENT at time 3.971000000000e+00 for the sequence number 3971

Field stored VITE at time 3.971000000000e+00 for the sequence number 3971

Field stored ACCE at time 3.971000000000e+00 for the sequence number 3971

Field stored FORC_AMOR at time 3.971000000000e+00 for the sequence number 3971

Field stored FORC_LIAI at time 3.971000000000e+00 for the sequence number 3971

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97100e+00, dernier instant archivé : 3.97100e+00, au numéro d'ordre :

3971

Time of computation: 3.972000000000e+00

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

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

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

| 3.97200E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6038E-24 | -1.6038E-24 | -1.0788E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299963e-16 with the node and degree of

freedom N439 DX

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N439 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1968.16 / 1961.70 / 1418.67 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.972000000000e+00 for the sequence number 3972

Field stored SIEF_ELGA at time 3.972000000000e+00 for the sequence number 3972

Field stored VARI_ELGA at time 3.972000000000e+00 for the sequence number 3972

Field stored COMPORTEMENT at time 3.972000000000e+00 for the sequence number 3972

Field stored VITE at time 3.972000000000e+00 for the sequence number 3972

Field stored ACCE at time 3.972000000000e+00 for the sequence number 3972

Field stored FORC_AMOR at time 3.972000000000e+00 for the sequence number 3972

Field stored FORC_LIAI at time 3.972000000000e+00 for the sequence number 3972

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97200e+00, dernier instant archivé : 3.97200e+00, au numéro d'ordre :

3972

Time of computation: 3.973000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.97300E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6145E-24 | -1.6145E-24 | 1.0820E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N553 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N553 DZ

Temps CPU consommé dans ce pas de temps : 0.172 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1968.76 / 1962.31 / 1419.27 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.973000000000e+00 for the sequence number 3973

Field stored SIEF_ELGA at time 3.973000000000e+00 for the sequence number 3973

Field stored VARI_ELGA at time 3.973000000000e+00 for the sequence number 3973

Field stored COMPORTEMENT at time 3.973000000000e+00 for the sequence number 3973

Field stored VITE at time 3.973000000000e+00 for the sequence number 3973

Field stored ACCE at time 3.973000000000e+00 for the sequence number 3973

Field stored FORC_AMOR at time 3.973000000000e+00 for the sequence number 3973

Field stored FORC_LIAI at time 3.973000000000e+00 for the sequence number 3973

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97300e+00, dernier instant archivé : 3.97300e+00, au numéro d'ordre :

3973

Time of computation: 3.974000000000e+00

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

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

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

| 3.97400E+00 | 0 | 7.20108E-16 | 5.82867E-16 | |TANGENTE | |

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

| PAS COURANT | -1.5977E-24 | -1.5977E-24 | -1.2819E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317357e-16 with the node and degree of

freedom N551 DY

The residue of the type RESI_GLOB_MAXI is worth 5.828670879282e-16 with the node and degree of

freedom N551 DY

Temps CPU consommé dans ce pas de temps : 0.173 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1969.37 / 1962.91 / 1419.86 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.974000000000e+00 for the sequence number 3974

Field stored SIEF_ELGA at time 3.974000000000e+00 for the sequence number 3974

Field stored VARI_ELGA at time 3.974000000000e+00 for the sequence number 3974

Field stored COMPORTEMENT at time 3.974000000000e+00 for the sequence number 3974

Field stored VITE at time 3.974000000000e+00 for the sequence number 3974

Field stored ACCE at time 3.974000000000e+00 for the sequence number 3974

Field stored FORC_AMOR at time 3.974000000000e+00 for the sequence number 3974

Field stored FORC_LIAI at time 3.974000000000e+00 for the sequence number 3974

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97400e+00, dernier instant archivé : 3.97400e+00, au numéro d'ordre :

3974

Time of computation: 3.975000000000e+00

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

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

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

| 3.97500E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6073E-24 | -1.6073E-24 | 1.1999E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791265e-16 with the node and degree of

freedom N529 DX

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N529 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1969.97 / 1963.52 / 1420.46 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.975000000000e+00 for the sequence number 3975

Field stored SIEF_ELGA at time 3.975000000000e+00 for the sequence number 3975

Field stored VARI_ELGA at time 3.975000000000e+00 for the sequence number 3975

Field stored COMPORTEMENT at time 3.975000000000e+00 for the sequence number 3975

Field stored VITE at time 3.975000000000e+00 for the sequence number 3975

Field stored ACCE at time 3.975000000000e+00 for the sequence number 3975

Field stored FORC_AMOR at time 3.975000000000e+00 for the sequence number 3975

Field stored FORC_LIAI at time 3.975000000000e+00 for the sequence number 3975

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97500e+00, dernier instant archivé : 3.97500e+00, au numéro d'ordre :

3975

Time of computation: 3.976000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.97600E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6208E-24 | -1.6208E-24 | -7.0449E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808660e-16 with the node and degree of

freedom N529 DX

The residue of the type RESI_GLOB_MAXI is worth 6.106226635438e-16 with the node and degree of

freedom N529 DX

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1970.57 / 1964.12 / 1421.05 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.976000000000e+00 for the sequence number 3976

Field stored SIEF_ELGA at time 3.976000000000e+00 for the sequence number 3976

Field stored VARI_ELGA at time 3.976000000000e+00 for the sequence number 3976

Field stored COMPORTEMENT at time 3.976000000000e+00 for the sequence number 3976

Field stored VITE at time 3.976000000000e+00 for the sequence number 3976

Field stored ACCE at time 3.976000000000e+00 for the sequence number 3976

Field stored FORC_AMOR at time 3.976000000000e+00 for the sequence number 3976

Field stored FORC_LIAI at time 3.976000000000e+00 for the sequence number 3976

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97600e+00, dernier instant archivé : 3.97600e+00, au numéro d'ordre :

3976

Time of computation: 3.977000000000e+00

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

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

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

| 3.97700E+00 | 0 | 7.20108E-16 | 5.82867E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5993E-24 | -1.5993E-24 | 2.1828E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317357e-16 with the node and degree of

freedom N403 DX

The residue of the type RESI_GLOB_MAXI is worth 5.828670879282e-16 with the node and degree of

freedom N403 DX

Temps CPU consommé dans ce pas de temps : 0.166 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.016 s

Mémoire (Mo) : 1971.18 / 1964.73 / 1421.65 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.977000000000e+00 for the sequence number 3977

Field stored SIEF_ELGA at time 3.977000000000e+00 for the sequence number 3977

Field stored VARI_ELGA at time 3.977000000000e+00 for the sequence number 3977

Field stored COMPORTEMENT at time 3.977000000000e+00 for the sequence number 3977

Field stored VITE at time 3.977000000000e+00 for the sequence number 3977

Field stored ACCE at time 3.977000000000e+00 for the sequence number 3977

Field stored FORC_AMOR at time 3.977000000000e+00 for the sequence number 3977

Field stored FORC_LIAI at time 3.977000000000e+00 for the sequence number 3977

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97700e+00, dernier instant archivé : 3.97700e+00, au numéro d'ordre :

3977

Time of computation: 3.978000000000e+00

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

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

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

| 3.97800E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.5972E-24 | -1.5972E-24 | -2.1738E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773871e-16 with the node and degree of

freedom N402 DY

The residue of the type RESI_GLOB_MAXI is worth 7.216449660064e-16 with the node and degree of

freedom N402 DY

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1971.79 / 1965.33 / 1422.24 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.978000000000e+00 for the sequence number 3978

Field stored SIEF_ELGA at time 3.978000000000e+00 for the sequence number 3978

Field stored VARI_ELGA at time 3.978000000000e+00 for the sequence number 3978

Field stored COMPORTEMENT at time 3.978000000000e+00 for the sequence number 3978

Field stored VITE at time 3.978000000000e+00 for the sequence number 3978

Field stored ACCE at time 3.978000000000e+00 for the sequence number 3978

Field stored FORC_AMOR at time 3.978000000000e+00 for the sequence number 3978

Field stored FORC_LIAI at time 3.978000000000e+00 for the sequence number 3978

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97800e+00, dernier instant archivé : 3.97800e+00, au numéro d'ordre :

3978

Time of computation: 3.979000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.97900E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6112E-24 | -1.6112E-24 | 4.7542E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773871e-16 with the node and degree of

freedom N461 DX

The residue of the type RESI_GLOB_MAXI is worth 7.216449660064e-16 with the node and degree of

freedom N461 DX

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1972.39 / 1965.93 / 1422.84 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.979000000000e+00 for the sequence number 3979

Field stored SIEF_ELGA at time 3.979000000000e+00 for the sequence number 3979

Field stored VARI_ELGA at time 3.979000000000e+00 for the sequence number 3979

Field stored COMPORTEMENT at time 3.979000000000e+00 for the sequence number 3979

Field stored VITE at time 3.979000000000e+00 for the sequence number 3979

Field stored ACCE at time 3.979000000000e+00 for the sequence number 3979

Field stored FORC_AMOR at time 3.979000000000e+00 for the sequence number 3979

Field stored FORC_LIAI at time 3.979000000000e+00 for the sequence number 3979

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.97900e+00, dernier instant archivé : 3.97900e+00, au numéro d'ordre :

3979

Time of computation: 3.980000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 3.98000E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6048E-24 | -1.6048E-24 | -3.9275E-45 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N439 DY

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N439 DY

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1972.99 / 1966.54 / 1423.43 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.980000000000e+00 for the sequence number 3980

Field stored SIEF_ELGA at time 3.980000000000e+00 for the sequence number 3980

Field stored VARI_ELGA at time 3.980000000000e+00 for the sequence number 3980

Field stored COMPORTEMENT at time 3.980000000000e+00 for the sequence number 3980

Field stored VITE at time 3.980000000000e+00 for the sequence number 3980

Field stored ACCE at time 3.980000000000e+00 for the sequence number 3980

Field stored FORC_AMOR at time 3.980000000000e+00 for the sequence number 3980

Field stored FORC_LIAI at time 3.980000000000e+00 for the sequence number 3980

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98000e+00, dernier instant archivé : 3.98000e+00, au numéro d'ordre :

3980

Time of computation: 3.981000000000e+00

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

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

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

| 3.98100E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6233E-24 | -1.6233E-24 | 6.1929E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299963e-16 with the node and degree of

freedom N402 DY

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N402 DY

Temps CPU consommé dans ce pas de temps : 0.172 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1973.60 / 1967.14 / 1424.02 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.981000000000e+00 for the sequence number 3981

Field stored SIEF_ELGA at time 3.981000000000e+00 for the sequence number 3981

Field stored VARI_ELGA at time 3.981000000000e+00 for the sequence number 3981

Field stored COMPORTEMENT at time 3.981000000000e+00 for the sequence number 3981

Field stored VITE at time 3.981000000000e+00 for the sequence number 3981

Field stored ACCE at time 3.981000000000e+00 for the sequence number 3981

Field stored FORC_AMOR at time 3.981000000000e+00 for the sequence number 3981

Field stored FORC_LIAI at time 3.981000000000e+00 for the sequence number 3981

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98100e+00, dernier instant archivé : 3.98100e+00, au numéro d'ordre :

3981

Time of computation: 3.982000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 3.98200E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.5848E-24 | -1.5848E-24 | -1.4111E-44 | 0.0000E+00 | 5.5101E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299963e-16 with the node and degree of

freedom N432 DY

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N432 DY

Temps CPU consommé dans ce pas de temps : 0.166 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1974.20 / 1967.75 / 1424.62 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.982000000000e+00 for the sequence number 3982

Field stored SIEF_ELGA at time 3.982000000000e+00 for the sequence number 3982

Field stored VARI_ELGA at time 3.982000000000e+00 for the sequence number 3982

Field stored COMPORTEMENT at time 3.982000000000e+00 for the sequence number 3982

Field stored VITE at time 3.982000000000e+00 for the sequence number 3982

Field stored ACCE at time 3.982000000000e+00 for the sequence number 3982

Field stored FORC_AMOR at time 3.982000000000e+00 for the sequence number 3982

Field stored FORC_LIAI at time 3.982000000000e+00 for the sequence number 3982

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98200e+00, dernier instant archivé : 3.98200e+00, au numéro d'ordre :

3982

Time of computation: 3.983000000000e+00

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

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

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

| 3.98300E+00 | 0 | 7.54399E-16 | 6.10623E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6119E-24 | -1.6119E-24 | 1.8683E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808660e-16 with the node and degree of

freedom N470 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.106226635438e-16 with the node and degree of

freedom N470 DZ

Temps CPU consommé dans ce pas de temps : 0.166 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1974.81 / 1968.35 / 1425.21 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.983000000000e+00 for the sequence number 3983

Field stored SIEF_ELGA at time 3.983000000000e+00 for the sequence number 3983

Field stored VARI_ELGA at time 3.983000000000e+00 for the sequence number 3983

Field stored COMPORTEMENT at time 3.983000000000e+00 for the sequence number 3983

Field stored VITE at time 3.983000000000e+00 for the sequence number 3983

Field stored ACCE at time 3.983000000000e+00 for the sequence number 3983

Field stored FORC_AMOR at time 3.983000000000e+00 for the sequence number 3983

Field stored FORC_LIAI at time 3.983000000000e+00 for the sequence number 3983

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98300e+00, dernier instant archivé : 3.98300e+00, au numéro d'ordre :

3983

Time of computation: 3.984000000000e+00

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

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

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

| 3.98400E+00 | 0 | 1.02873E-15 | 8.32667E-16 | | TANGENTE | | |

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

| PAS COURANT | -1.6287E-24 | -1.6287E-24 | -1.4396E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.028725473908e-15 with the node and degree of

freedom N530 DZ

The residue of the type RESI_GLOB_MAXI is worth 8.326672684689e-16 with the node and degree of

freedom N530 DZ

Temps CPU consommé dans ce pas de temps : 0.166 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1975.41 / 1968.96 / 1425.81 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.984000000000e+00 for the sequence number 3984

Field stored SIEF_ELGA at time 3.984000000000e+00 for the sequence number 3984

Field stored VARI_ELGA at time 3.984000000000e+00 for the sequence number 3984

Field stored COMPORTEMENT at time 3.984000000000e+00 for the sequence number 3984

Field stored VITE at time 3.984000000000e+00 for the sequence number 3984

Field stored ACCE at time 3.984000000000e+00 for the sequence number 3984

Field stored FORC_AMOR at time 3.984000000000e+00 for the sequence number 3984

Field stored FORC_LIAI at time 3.984000000000e+00 for the sequence number 3984

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98400e+00, dernier instant archivé : 3.98400e+00, au numéro d'ordre :

3984

Time of computation: 3.985000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.98500E+00 | 0 | 9.25853E-16 | 7.49401E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.5852E-24 | -1.5852E-24 | 5.3469E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.258529265174e-16 with the node and degree of

freedom N471 DY

The residue of the type RESI_GLOB_MAXI is worth 7.494005416220e-16 with the node and degree of

freedom N471 DY

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1976.02 / 1969.56 / 1426.40 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.985000000000e+00 for the sequence number 3985

Field stored SIEF_ELGA at time 3.985000000000e+00 for the sequence number 3985

Field stored VARI_ELGA at time 3.985000000000e+00 for the sequence number 3985

Field stored COMPORTEMENT at time 3.985000000000e+00 for the sequence number 3985

Field stored VITE at time 3.985000000000e+00 for the sequence number 3985

Field stored ACCE at time 3.985000000000e+00 for the sequence number 3985

Field stored FORC_AMOR at time 3.985000000000e+00 for the sequence number 3985

Field stored FORC_LIAI at time 3.985000000000e+00 for the sequence number 3985

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98500e+00, dernier instant archivé : 3.98500e+00, au numéro d'ordre :

3985

Time of computation: 3.986000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 3.98600E+00 | 0 | 6.51526E-16 | 5.27356E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6189E-24 | -1.6189E-24 | 1.6299E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.515261334752e-16 with the node and degree of

freedom N467 DX

The residue of the type RESI_GLOB_MAXI is worth 5.273559366969e-16 with the node and degree of

freedom N467 DX

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1976.62 / 1970.17 / 1427.00 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.986000000000e+00 for the sequence number 3986

Field stored SIEF_ELGA at time 3.986000000000e+00 for the sequence number 3986

Field stored VARI_ELGA at time 3.986000000000e+00 for the sequence number 3986

Field stored COMPORTEMENT at time 3.986000000000e+00 for the sequence number 3986

Field stored VITE at time 3.986000000000e+00 for the sequence number 3986

Field stored ACCE at time 3.986000000000e+00 for the sequence number 3986

Field stored FORC_AMOR at time 3.986000000000e+00 for the sequence number 3986

Field stored FORC_LIAI at time 3.986000000000e+00 for the sequence number 3986

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98600e+00, dernier instant archivé : 3.98600e+00, au numéro d'ordre :

3986

Time of computation: 3.987000000000e+00

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

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

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

| 3.98700E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6019E-24 | -1.6019E-24 | -5.3925E-45 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282568e-16 with the node and degree of

freedom N405 DX

The residue of the type RESI_GLOB_MAXI is worth 6.938893903907e-16 with the node and degree of

freedom N405 DX

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1977.23 / 1970.77 / 1427.59 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.987000000000e+00 for the sequence number 3987

Field stored SIEF_ELGA at time 3.987000000000e+00 for the sequence number 3987

Field stored VARI_ELGA at time 3.987000000000e+00 for the sequence number 3987

Field stored COMPORTEMENT at time 3.987000000000e+00 for the sequence number 3987

Field stored VITE at time 3.987000000000e+00 for the sequence number 3987

Field stored ACCE at time 3.987000000000e+00 for the sequence number 3987

Field stored FORC_AMOR at time 3.987000000000e+00 for the sequence number 3987

Field stored FORC_LIAI at time 3.987000000000e+00 for the sequence number 3987

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98700e+00, dernier instant archivé : 3.98700e+00, au numéro d'ordre :

3987

Time of computation: 3.988000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.98800E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6095E-24 | -1.6095E-24 | 6.6579E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808660e-16 with the node and degree of

freedom N551 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.106226635438e-16 with the node and degree of

freedom N551 DZ

Temps CPU consommé dans ce pas de temps : 0.172 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1977.83 / 1971.38 / 1428.19 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.988000000000e+00 for the sequence number 3988

Field stored SIEF_ELGA at time 3.988000000000e+00 for the sequence number 3988

Field stored VARI_ELGA at time 3.988000000000e+00 for the sequence number 3988

Field stored COMPORTEMENT at time 3.988000000000e+00 for the sequence number 3988

Field stored VITE at time 3.988000000000e+00 for the sequence number 3988

Field stored ACCE at time 3.988000000000e+00 for the sequence number 3988

Field stored FORC_AMOR at time 3.988000000000e+00 for the sequence number 3988

Field stored FORC_LIAI at time 3.988000000000e+00 for the sequence number 3988

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98800e+00, dernier instant archivé : 3.98800e+00, au numéro d'ordre :

3988

Time of computation: 3.989000000000e+00

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

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

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

| 3.98900E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6202E-24 | -1.6202E-24 | -2.9385E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773871e-16 with the node and degree of

freedom N535 DX

The residue of the type RESI_GLOB_MAXI is worth 7.216449660064e-16 with the node and degree of

freedom N535 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1978.43 / 1971.98 / 1428.78 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.989000000000e+00 for the sequence number 3989

Field stored SIEF_ELGA at time 3.989000000000e+00 for the sequence number 3989

Field stored VARI_ELGA at time 3.989000000000e+00 for the sequence number 3989

Field stored COMPORTEMENT at time 3.989000000000e+00 for the sequence number 3989

Field stored VITE at time 3.989000000000e+00 for the sequence number 3989

Field stored ACCE at time 3.989000000000e+00 for the sequence number 3989

Field stored FORC_AMOR at time 3.989000000000e+00 for the sequence number 3989

Field stored FORC_LIAI at time 3.989000000000e+00 for the sequence number 3989

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.98900e+00, dernier instant archivé : 3.98900e+00, au numéro d'ordre :

3989

Time of computation: 3.990000000000e+00

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

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

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

| 3.99000E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.5852E-24 | -1.5852E-24 | -4.6291E-45 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299963e-16 with the node and degree of

freedom N461 DY

The residue of the type RESI_GLOB_MAXI is worth 6.383782391595e-16 with the node and degree of

freedom N461 DY

Temps CPU consommé dans ce pas de temps : 0.167 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.097 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1979.04 / 1972.59 / 1429.38 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.990000000000e+00 for the sequence number 3990

Field stored SIEF_ELGA at time 3.990000000000e+00 for the sequence number 3990

Field stored VARI_ELGA at time 3.990000000000e+00 for the sequence number 3990

Field stored COMPORTEMENT at time 3.990000000000e+00 for the sequence number 3990

Field stored VITE at time 3.990000000000e+00 for the sequence number 3990

Field stored ACCE at time 3.990000000000e+00 for the sequence number 3990

Field stored FORC_AMOR at time 3.990000000000e+00 for the sequence number 3990

Field stored FORC_LIAI at time 3.990000000000e+00 for the sequence number 3990

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99000e+00, dernier instant archivé : 3.99000e+00, au numéro d'ordre :

3990

Time of computation: 3.991000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | VALEUR | |

| 3.99100E+00 | 0 | 1.02873E-15 | 8.32667E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6099E-24 | -1.6099E-24 | 8.0935E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.028725473908e-15 with the node and degree of

freedom N453 DX

The residue of the type RESI_GLOB_MAXI is worth 8.326672684689e-16 with the node and degree of

freedom N453 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1979.64 / 1973.19 / 1429.97 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.991000000000e+00 for the sequence number 3991

Field stored SIEF_ELGA at time 3.991000000000e+00 for the sequence number 3991

Field stored VARI_ELGA at time 3.991000000000e+00 for the sequence number 3991

Field stored COMPORTEMENT at time 3.991000000000e+00 for the sequence number 3991

Field stored VITE at time 3.991000000000e+00 for the sequence number 3991

Field stored ACCE at time 3.991000000000e+00 for the sequence number 3991

Field stored FORC_AMOR at time 3.991000000000e+00 for the sequence number 3991

Field stored FORC_LIAI at time 3.991000000000e+00 for the sequence number 3991

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99100e+00, dernier instant archivé : 3.99100e+00, au numéro d'ordre :

3991

Time of computation: 3.992000000000e+00

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

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

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

| 3.99200E+00 | 0 | 8.22980E-16 | 6.66134E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6118E-24 | -1.6118E-24 | -7.3561E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791266e-16 with the node and degree of

freedom N404 DY

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N404 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.016 s

Mémoire (Mo) : 1980.25 / 1973.79 / 1430.56 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.992000000000e+00 for the sequence number 3992

Field stored SIEF_ELGA at time 3.992000000000e+00 for the sequence number 3992

Field stored VARI_ELGA at time 3.992000000000e+00 for the sequence number 3992

Field stored COMPORTEMENT at time 3.992000000000e+00 for the sequence number 3992

Field stored VITE at time 3.992000000000e+00 for the sequence number 3992

Field stored ACCE at time 3.992000000000e+00 for the sequence number 3992

Field stored FORC_AMOR at time 3.992000000000e+00 for the sequence number 3992

Field stored FORC_LIAI at time 3.992000000000e+00 for the sequence number 3992

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99200e+00, dernier instant archivé : 3.99200e+00, au numéro d'ordre :

3992

Time of computation: 3.993000000000e+00

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

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

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

| 3.99300E+00 | 0 | 7.20108E-16 | 5.82867E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6026E-24 | -1.6026E-24 | 5.1335E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317357e-16 with the node and degree of

freedom N473 DX

The residue of the type RESI_GLOB_MAXI is worth 5.828670879282e-16 with the node and degree of

freedom N473 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1980.85 / 1974.40 / 1431.16 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.993000000000e+00 for the sequence number 3993

Field stored SIEF_ELGA at time 3.993000000000e+00 for the sequence number 3993

Field stored VARI_ELGA at time 3.993000000000e+00 for the sequence number 3993

Field stored COMPORTEMENT at time 3.993000000000e+00 for the sequence number 3993

Field stored VITE at time 3.993000000000e+00 for the sequence number 3993

Field stored ACCE at time 3.993000000000e+00 for the sequence number 3993

Field stored FORC_AMOR at time 3.993000000000e+00 for the sequence number 3993

Field stored FORC_LIAI at time 3.993000000000e+00 for the sequence number 3993

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99300e+00, dernier instant archivé : 3.99300e+00, au numéro d'ordre :

3993

Time of computation: 3.994000000000e+00

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

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

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

| 3.99400E+00 | 0 | 8.22980E-16 | 6.66134E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6121E-24 | -1.6121E-24 | -3.5603E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791266e-16 with the node and degree of

freedom N494 DZ

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N494 DZ

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1981.46 / 1975.00 / 1431.75 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.994000000000e+00 for the sequence number 3994

Field stored SIEF_ELGA at time 3.994000000000e+00 for the sequence number 3994

Field stored VARI_ELGA at time 3.994000000000e+00 for the sequence number 3994

Field stored COMPORTEMENT at time 3.994000000000e+00 for the sequence number 3994

Field stored VITE at time 3.994000000000e+00 for the sequence number 3994

Field stored ACCE at time 3.994000000000e+00 for the sequence number 3994

Field stored FORC_AMOR at time 3.994000000000e+00 for the sequence number 3994

Field stored FORC_LIAI at time 3.994000000000e+00 for the sequence number 3994

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99400e+00, dernier instant archivé : 3.99400e+00, au numéro d'ordre :

3994

Time of computation: 3.995000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 3.99500E+00 | 0 | 9.60144E-16 | 7.77156E-16 | |TANGENTE | | |

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

| PAS COURANT | -1.6209E-24 | -1.6209E-24 | 5.0546E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756477e-16 with the node and degree of

freedom N434 DY

The residue of the type RESI_GLOB_MAXI is worth 7.771561172376e-16 with the node and degree of

freedom N434 DY

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1982.06 / 1975.61 / 1432.35 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.995000000000e+00 for the sequence number 3995

Field stored SIEF_ELGA at time 3.995000000000e+00 for the sequence number 3995

Field stored VARI_ELGA at time 3.995000000000e+00 for the sequence number 3995

Field stored COMPORTEMENT at time 3.995000000000e+00 for the sequence number 3995

Field stored VITE at time 3.995000000000e+00 for the sequence number 3995

Field stored ACCE at time 3.995000000000e+00 for the sequence number 3995

Field stored FORC_AMOR at time 3.995000000000e+00 for the sequence number 3995

Field stored FORC_LIAI at time 3.995000000000e+00 for the sequence number 3995

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99500e+00, dernier instant archivé : 3.99500e+00, au numéro d'ordre :

3995

Time of computation: 3.996000000000e+00

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

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

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

| 3.99600E+00 | 0 | 9.60144E-16 | 7.77156E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6052E-24 | -1.6052E-24 | -8.1977E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756477e-16 with the node and degree of

freedom N530 DX

The residue of the type RESI_GLOB_MAXI is worth 7.771561172376e-16 with the node and degree of

freedom N530 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1982.66 / 1976.21 / 1432.94 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.996000000000e+00 for the sequence number 3996

Field stored SIEF_ELGA at time 3.996000000000e+00 for the sequence number 3996

Field stored VARI_ELGA at time 3.996000000000e+00 for the sequence number 3996

Field stored COMPORTEMENT at time 3.996000000000e+00 for the sequence number 3996

Field stored VITE at time 3.996000000000e+00 for the sequence number 3996

Field stored ACCE at time 3.996000000000e+00 for the sequence number 3996

Field stored FORC_AMOR at time 3.996000000000e+00 for the sequence number 3996

Field stored FORC_LIAI at time 3.996000000000e+00 for the sequence number 3996

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99600e+00, dernier instant archivé : 3.99600e+00, au numéro d'ordre :

3996

Time of computation: 3.997000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 3.99700E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.5942E-24 | -1.5942E-24 | 8.3536E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773871e-16 with the node and degree of

freedom N405 DZ

The residue of the type RESI_GLOB_MAXI is worth 7.216449660064e-16 with the node and degree of

freedom N405 DZ

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.016 s

Mémoire (Mo) : 1983.27 / 1976.82 / 1433.54 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.997000000000e+00 for the sequence number 3997

Field stored SIEF_ELGA at time 3.997000000000e+00 for the sequence number 3997

Field stored VARI_ELGA at time 3.997000000000e+00 for the sequence number 3997

Field stored COMPORTEMENT at time 3.997000000000e+00 for the sequence number 3997

Field stored VITE at time 3.997000000000e+00 for the sequence number 3997

Field stored ACCE at time 3.997000000000e+00 for the sequence number 3997

Field stored FORC_AMOR at time 3.997000000000e+00 for the sequence number 3997

Field stored FORC_LIAI at time 3.997000000000e+00 for the sequence number 3997

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99700e+00, dernier instant archivé : 3.99700e+00, au numéro d'ordre :

3997

Time of computation: 3.998000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| | | RHO | VALEUR | | | | |

| 3.99800E+00 | 0 | 7.20108E-16 | 5.82867E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6250E-24 | -1.6250E-24 | -1.4307E-45 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317357e-16 with the node and degree of

freedom N439 DZ

The residue of the type RESI_GLOB_MAXI is worth 5.828670879282e-16 with the node and degree of

freedom N439 DZ

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1983.88 / 1977.42 / 1434.13 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.998000000000e+00 for the sequence number 3998

Field stored SIEF_ELGA at time 3.998000000000e+00 for the sequence number 3998

Field stored VARI_ELGA at time 3.998000000000e+00 for the sequence number 3998

Field stored COMPORTEMENT at time 3.998000000000e+00 for the sequence number 3998

Field stored VITE at time 3.998000000000e+00 for the sequence number 3998

Field stored ACCE at time 3.998000000000e+00 for the sequence number 3998

Field stored FORC_AMOR at time 3.998000000000e+00 for the sequence number 3998

Field stored FORC_LIAI at time 3.998000000000e+00 for the sequence number 3998

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

9.999999999999e-04.

[99%] Instant calculé : 3.99800e+00, dernier instant archivé : 3.99800e+00, au numéro d'ordre :

3998

Time of computation: 3.999000000000e+00

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

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

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

| 3.99900E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6004E-24 | -1.6004E-24 | -3.6878E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791266e-16 with the node and degree of

freedom N470 DX

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N470 DX

Temps CPU consommé dans ce pas de temps : 0.161 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1984.48 / 1978.02 / 1434.73 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 3.999000000000e+00 for the sequence number 3999

Field stored SIEF_ELGA at time 3.999000000000e+00 for the sequence number 3999

Field stored VARI_ELGA at time 3.999000000000e+00 for the sequence number 3999

Field stored COMPORTEMENT at time 3.999000000000e+00 for the sequence number 3999

Field stored VITE at time 3.999000000000e+00 for the sequence number 3999

Field stored ACCE at time 3.999000000000e+00 for the sequence number 3999

Field stored FORC_AMOR at time 3.999000000000e+00 for the sequence number 3999

Field stored FORC_LIAI at time 3.999000000000e+00 for the sequence number 3999

Adaptation of the time step.

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

2.000000000000e-03.

On all the criteria of adaptation, the smallest time step is worth 2.000000000000e-03.

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

1.000000000329e-03.

[99%] Instant calculé : 3.99900e+00, dernier instant archivé : 3.99900e+00, au numéro d'ordre :

3999

Time of computation: 4.000000000000e+00

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

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

| | | RESI_GLOB_RELA | RESI_GLOB_MAXI | | | | |

| RHO | | VALEUR | | | | | |

| 4.00000E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6004E-24 | -1.6004E-24 | 3.4249E-45 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3904E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791266e-16 with the node and degree of

freedom N438 DY

The residue of the type RESI_GLOB_MAXI is worth 6.661338147751e-16 with the node and degree of

freedom N438 DY

Temps CPU consommé dans ce pas de temps : 0.160 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.091 s (3 intégrations)

* Temps total factorisation matrice : 0.023 s (1 factorisations)

* Temps construction second membre : 0.023 s

* Temps total résolution K.U=F : 0.001 s (1 résolutions)

* Temps assemblage matrice : 0.006 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.017 s

Mémoire (Mo) : 1985.08 / 1978.63 / 1435.32 / 224.62 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.000000000000e+00 for the sequence number 4000

Field stored SIEF_ELGA at time 4.000000000000e+00 for the sequence number 4000

Field stored VARI_ELGA at time 4.000000000000e+00 for the sequence number 4000

Field stored COMPORTEMENT at time 4.000000000000e+00 for the sequence number 4000

Field stored VITE at time 4.000000000000e+00 for the sequence number 4000

Field stored ACCE at time 4.000000000000e+00 for the sequence number 4000

Field stored FORC_AMOR at time 4.000000000000e+00 for the sequence number 4000

Field stored FORC_LIAI at time 4.000000000000e+00 for the sequence number 4000

[100%] Instant calculé : 4.00000e+00, dernier instant archivé : 4.00000e+00, au numéro d'ordre :

4000

Temps CPU consommé dans le calcul : 11 min 29 s

dont temps CPU "perdu" dans les découpes : 0.000 s

* Nombre de pas de temps : 4000

* Nombre d'itérations de Newton : 4000

* Temps dans l'archivage : 9.708 s

* Temps dans le post-traitement : 32.261 s

* Temps total intégration comportement : 5 min 58 s (12000 intégrations)

* Temps total factorisation matrice : 1 min 29 s (4000 factorisations)

* Temps construction second membre : 1 min 31 s

* Temps total résolution K.U=F : 2.901 s (4000 résolutions)

* Temps assemblage matrice : 23.156 s

* Nombre d'itérations de recherche linéaire : 0

#1 Resolution des systemes lineaires CPU (USER+SYST/SYST/ELAPS): 91.72 11.28 91.90

#2 Calculs elementaires et assemblages CPU (USER+SYST/SYST/ELAPS): 517.37 33.97 518.09

#3 Dechargement de la memoire sur disque CPU (USER+SYST/SYST/ELAPS): 1.05 0.94 1.03

#4 Communications MPI CPU (USER+SYST/SYST/ELAPS): 0.40 0.08 0.49

Résultat commande #0047 (DYNA_NON_LINE): SIM ('<0000002c>') de type

<NonLinearResult>

Dépend de :

- TIMELIST ('<0000002a>') de type <ListOfFloats>

- MATS ('<00000004>') de type <MaterialField>

- BC_0 ('<00000026>') de type <MechanicalLoadReal>

- BC_1 ('<00000027>') de type <MechanicalLoadFunction>

- BC_2 ('<00000028>') de type <MechanicalDirichletBC>

- BC_3 ('<00000029>') de type <MechanicalLoadFunction>

- INSTLIST ('<0000002b>') de type <TimeStepper>

- MODEL ('<00000003>') de type <Model>

Mémoire (Mo) : 3142.10 / 3142.10 / 2548.44 / 254.36 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0047 user+syst: 624.86s (syst: 68.77s, elaps: 693.78s)

--

.. _stg1_txt507

--

Commande #0048 de fort.1, ligne 507

FIN(INFO_RESU='NON',

    PROC0='OUI',

    RETASSAGE='NON')

Saving objects...

pi <class 'float'>

e <class 'float'>

tau <class 'float'>

inf <class 'float'>

nan <class 'float'>

MAT_0 <class 'libaster.Material'>

MESH <class 'libaster.Mesh'>

MODEL <class 'libaster.Model'>

MATS <class 'libaster.MaterialField'>

F_4 <class 'libaster.FieldOnNodesReal'>

F_0 <class 'libaster.Formula'>

F_1 <class 'libaster.Formula'>

F_2 <class 'libaster.Formula'>

F_3 <class 'libaster.FieldOnNodesReal'>

INIT_D <class 'libaster.FieldOnNodesReal'>

F_9 <class 'libaster.FieldOnNodesReal'>

F_5 <class 'libaster.Formula'>

F_6 <class 'libaster.Formula'>

F_7 <class 'libaster.Formula'>

F_8 <class 'libaster.FieldOnNodesReal'>

INIT_U <class 'libaster.FieldOnNodesReal'>

F_14 <class 'libaster.FieldOnNodesReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.FieldOnNodesReal'>

INIT_A <class 'libaster.FieldOnNodesReal'>

F_22 <class 'libaster.FieldOnNodesReal'>

F_23 <class 'libaster.FieldOnCellsReal'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.Formula'>

F_17 <class 'libaster.Formula'>

F_18 <class 'libaster.Formula'>

F_19 <class 'libaster.Formula'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.FieldOnCellsReal'>

F_24 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_25 <class 'libaster.Formula'>

F_26 <class 'libaster.Formula'>

F_27 <class 'libaster.Formula'>

F_28 <class 'libaster.Formula'>

BC_0 <class 'libaster.MechanicalLoadReal'>

BC_1 <class 'libaster.MechanicalLoadFunction'>

BC_2 <class 'libaster.MechanicalDirichletBC'>

BC_3 <class 'libaster.MechanicalLoadFunction'>

TIMELIST <class 'libaster.ListOfFloats'>

INSTLIST <class 'libaster.TimeStepper'>

SIM <class 'libaster.NonLinearResult'>

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 ‖ <I> <CATAMESS_89>
‖

 ‖
‖

 ‖ List of warnings emitted during the execution of computation.
‖

 ‖
‖

 ‖ Warnings which you chose to ignore of are preceded by (*).
‖

 ‖ Number of occurrences for each warning:
‖

 ‖ no warning
‖

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-

 Concepts de la base: G

Nom	Type	Taille (Mo)	Nombre d'objets	Nombre de segments
TOTAL		2433.06	136501	156642
00000001	MATER_SDASTER	0.00	9	9
00000002	MAILLAGE_SDASTER	0.46	38	67
00000003	MODELE_SDASTER	0.20	9	14
00000004	CHAM_MATER	0.03	9	14
00000005	CHAM_NO_SDASTER	0.02	5	5
00000006	FORMULE	0.00	4	4

00000007	FORMULE	0.00	4	4
00000008	FORMULE	0.00	4	4
00000009	CHAM_NO_SDASTER	0.10	10	12
0000000a	CHAM_NO_SDASTER	0.10	10	12
0000000b	CHAM_NO_SDASTER	0.02	5	5
0000000c	FORMULE	0.00	4	4
0000000d	FORMULE	0.00	4	4
0000000e	FORMULE	0.00	4	4
0000000f	CHAM_NO_SDASTER	0.10	10	12
00000010	CHAM_NO_SDASTER	0.10	10	12
00000011	CHAM_NO_SDASTER	0.02	5	5
00000012	FORMULE	0.00	4	4
00000013	FORMULE	0.00	4	4
00000014	FORMULE	0.00	4	4
00000015	CHAM_NO_SDASTER	0.10	10	12
00000016	CHAM_NO_SDASTER	0.10	10	12

00000017	CHAM_NO_SDASTER	0.02	5	5
00000018	CHAM_ELEM	0.28	5	5
00000019	FORMULE	0.00	4	4
0000001a	FORMULE	0.00	4	4
0000001b	FORMULE	0.00	4	4
0000001c	FORMULE	0.00	4	4
0000001d	FORMULE	0.00	4	4
0000001e	FORMULE	0.00	4	4
0000001f	CHAM_ELEM	1.54	5	5
00000020	CHAM_ELEM	1.54	5	5
00000021	CHAM_ELEM	0.31	5	5
00000022	FORMULE	0.00	4	4
00000023	FORMULE	0.00	4	4
00000024	FORMULE	0.00	4	4
00000025	FORMULE	0.00	4	4
00000026	CHAR_MECA	0.03	32	37

00000027	CHAR_MECA	0.04	32	37
00000028	CHAR_CINE_MECA	0.03	4	4
00000029	CHAR_MECA	0.01	32	37
0000002a	LISTR8_SDASTER	0.03	6	6
0000002b	LIST_INST	0.03	9	9
0000002c	EVOL_NOLI	2397.84	136100	156114
&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       :  3476
        Nombre d'enregistrements maximum        :  2684354
        Nombre d'enregistrements par fichier    :  15728
        Longueur d'enregistrement (octets)      :  819200
        Nombre total d'accès en lecture         :  25120
        Volume des accès en lecture             :       19625.00 Mo.
        Nombre total d'accès en écriture        :  3856
        Volume des accès en écriture            :       3012.50 Mo.
        Nombre d'identificateurs utilisés       :  156652
        Taille maximum du répertoire            :  256000
        Pourcentage d'utilisation du répertoire :  61 %
Nom de la base                          :  VOLATILE
        Nombre d'enregistrements utilisés       :  181
        Nombre d'enregistrements maximum        :  2684354
        Nombre d'enregistrements par fichier    :  15728
        Longueur d'enregistrement (octets)      :  819200
        Nombre total d'accès en lecture         :  92763
        Volume des accès en lecture             :       72471.09 Mo.
        Nombre total d'accès en écriture        :  1333
        Volume des accès en écriture            :       1041.41 Mo.
        Nombre d'identificateurs utilisés       :  1354
```

Taille maximum du répertoire : 2000

Pourcentage d'utilisation du répertoire : 67 %

<I> <FIN> ARRET NORMAL DANS "FIN" PAR APPEL A "JEFINI".

<I> <FIN> MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 254.36 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 2565.12 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 3158.84 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 2565 Mo.

TAILLE CUMULEE LIBEREE : 24338 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 19288425

NOMBRE TOTAL DE LIBERATIONS : 19288405

APPELS AU MECANISME DE LIBERATION : 7

TAILLE MEMOIRE CUMULEE RECUPEREE : 2763 Mo.

VOLUME DES LECTURES : 39 Mo.

VOLUME DES ECRITURES : 2733 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 254.36 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 2565.12 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 3158.84 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : ME-22-JANV-2025 09:17:53

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
0f69dc5b962619df7ca584b37db8c1e3bbd083e1c9e530fd944f5c6dc0b53dc4

Signature of info file :
d385a9a9c129be9a50e5ef4a3b59bf4c115982fffe4be2daa132b188e168a54e

Signature of Jeveux database:
80bec545bc0275a88adf8d5ac6ff55e33198fb701bfe1f6d0fdf0e1fb0f94716

****

* COMMAND : USER : SYSTEM : USER+SYS : ELAPSED *

****

* DEBUT : 0.04 : 0.20 : 0.24 : 0.33 *

* DEFI_MATERIAU : 0.00 : 0.00 : 0.00 : 0.01 *

* LIRE_MAILLAGE : 0.01 : 0.00 : 0.01 : 0.03 *

* DEFI_GROUP : 0.00 : 0.00 : 0.00 : 0.01 *

* MODI_MAILLAGE : 0.01 : 0.00 : 0.01 : 0.02 *

* AFFE_MODELE : 0.01 : 0.00 : 0.01 : 0.03 *

* AFFE_MATERIAU : 0.01 : 0.00 : 0.01 : 0.01 *

* 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 : 0.00 : 0.00 : 0.00 : 0.01
*
* CREA_CHAMP : 0.01 : 0.00 : 0.01 : 0.00
*
* 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 : 0.01 : 0.00 : 0.01 : 0.00
*
* CREA_CHAMP : 0.00 : 0.00 : 0.00 : 0.00
*
* 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 : 0.00 : 0.00 : 0.00 : 0.00
*
* CREA_CHAMP : 0.00 : 0.00 : 0.00 : 0.01
*
* CREA_CHAMP : 0.01 : 0.00 : 0.01 : 0.00
*

* CREA_CHAMP	:	0.00 :	0.01 :	0.01 :	0.01
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* 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 :	0.00 :	0.02 :	0.02
* CREA_CHAMP	:	0.07 :	0.00 :	0.07 :	0.07
* CREA_CHAMP	:	0.00 :	0.01 :	0.01 :	0.01
* FORMULE	:	0.01 :	0.00 :	0.01 :	0.01
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* FORMULE	:	0.00 :	0.00 :	0.00 :	0.00
* AFFE_CHAR_MECA	:	0.00 :	0.00 :	0.00 :	0.01
* AFFE_CHAR_MECA_F	:	0.01 :	0.00 :	0.01 :	0.00

```
 * AFFE_CHAR_CINE                :          0.00 :          0.00 :          0.00 :          0.01
*
 * AFFE_CHAR_MECA_F              :          0.01 :          0.00 :          0.01 :          0.00
*
 * DEFI_LIST_REEL                :          0.00 :          0.00 :          0.00 :          0.01 *
 * DEFI_LIST_INST                :          0.01 :          0.00 :          0.01 :          0.01 *
 * DYNA_NON_LINE                 :        624.86 :         68.77 :        693.63 :
693.78 *
 * FIN                           :          0.36 :          0.28 :          0.64 :          0.66 *
 *    . check syntax             :          0.04 :          0.00 :          0.04 :          0.02 *
 *    . fortran                  :        624.44 :         66.02 :        690.46 :        690.83 *
 ********************************************************************************
 * TOTAL_JOB                     :        625.47 :         69.27 :        694.74 :        695.14
*
 ********************************************************************************
# Mémoire (Mo) :    3158.84 /    1594.58 /    2565.12 /     254.36 (VmPeak / VmSize /
Optimum / Minimum)
# Fin commande #0048      user+syst:              0.36s (syst:              0.28s, elaps:
0.66s)
# ------------------------------------------------------------------------------
----------------------
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", "face2", "face3", "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 : Wed Jan 22 09:18:03 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 : 484.92 Mo

reste pour l'allocation dynamique : 119515.08 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     :  3476
       Nombre d'enregistrements maximum      :  2684354
       Nombre d'enregistrements par fichier  :  15728
       Longueur d'enregistrement (octets)    :  819200
       Nombre d'identificateurs utilisés     :  156652
       Taille maximum du répertoire          :  256000
       Pourcentage d'utilisation du répertoire :  61 %
```

Ouverture en lecture du fichier ./glob.1

Ouverture en écriture du fichier ./vola.1

End of reading (lasted 0.000002 S.)

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.call_poursuite(syntax)

Restored objects:

pi	<class 'float'>
e	<class 'float'>
tau	<class 'float'>
inf	<class 'float'>
nan	<class 'float'>
MAT_0	<class 'libaster.Material'>
MESH	<class 'libaster.Mesh'>
MODEL	<class 'libaster.Model'>
MATS	<class 'libaster.MaterialField'>
F_4	<class 'libaster.FieldOnNodesReal'>
F_0	<class 'libaster.Formula'>
F_1	<class 'libaster.Formula'>
F_2	<class 'libaster.Formula'>
F_3	<class 'libaster.FieldOnNodesReal'>
INIT_D	<class 'libaster.FieldOnNodesReal'>
F_9	<class 'libaster.FieldOnNodesReal'>
F_5	<class 'libaster.Formula'>
F_6	<class 'libaster.Formula'>
F_7	<class 'libaster.Formula'>
F_8	<class 'libaster.FieldOnNodesReal'>
INIT_U	<class 'libaster.FieldOnNodesReal'>

F_14 <class 'libaster.FieldOnNodesReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.FieldOnNodesReal'>

INIT_A <class 'libaster.FieldOnNodesReal'>

F_22 <class 'libaster.FieldOnNodesReal'>

F_23 <class 'libaster.FieldOnCellsReal'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.Formula'>

F_17 <class 'libaster.Formula'>

F_18 <class 'libaster.Formula'>

F_19 <class 'libaster.Formula'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.FieldOnCellsReal'>

F_24 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_25 <class 'libaster.Formula'>

F_26 <class 'libaster.Formula'>

F_27 <class 'libaster.Formula'>

F_28 <class 'libaster.Formula'>

BC_0 <class 'libaster.MechanicalLoadReal'>

BC_1 <class 'libaster.MechanicalLoadFunction'>

BC_2 <class 'libaster.MechanicalDirichletBC'>

BC_3 <class 'libaster.MechanicalLoadFunction'>

TIMELIST <class 'libaster.ListOfFloats'>

INSTLIST <class 'libaster.TimeStepper'>

SIM <class 'libaster.NonLinearResult'>

Mémoire (Mo) : 3208.18 / 3206.92 / 2608.00 / 229.91 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0001 user+syst: 0.88s (syst: 2.63s, elaps: 3.51s)

--

.. _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) : 3208.18 / 3206.91 / 2608.00 / 229.91 (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)

Only the first 500 values are checked.

Only the first 500 values are checked.

Only the first 500 values are checked.

Only the first 500 values are checked.

Only the first 500 values are checked.

Only the first 500 values are checked.

Only the first 500 values are checked.

Résultat commande #0003 (GET_ENERGIE): '<0000002e>' de type <Table>

Mémoire (Mo) : 3212.48 / 3210.70 / 2609.96 / 229.91 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0003 user+syst: 0.12s (syst: 0.01s, elaps: 0.14s)

.. _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) : 3212.48 / 3209.95 / 2609.96 / 229.91 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0006 user+syst: 0.01s (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='<0000002e>',

UNITE=30)

Mémoire (Mo) : 3213.30 / 3210.45 / 2609.96 / 229.91 (VmPeak / VmSize /
Optimum / Minimum)

Fin commande #0007 user+syst: 0.02s (syst: 0.00s, elaps:
0.03s)

--

.. _stg1_txt51

```
# ------------------------------------------------------------------------
--------------------

# Commande #0008 de fort.1, ligne 51

DEFI_FICHIER(ACTION='LIBERER',

                    UNITE=30)

# Mémoire (Mo) :    3213.30 /    3210.45 /    2609.96 /     229.91 (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', 'face2', 'face3', 'region1'),

                         INFO=1,

                         PARALLELISME_TEMPS='NON',

                         PRECISION=1e-06,

                         RESULTAT=SIM,

                         reuse=SIM)

#2          Calculs elementaires et assemblages                    CPU
(USER+SYST/SYST/ELAPS):       115.81         23.92       115.40

#3          Dechargement de la memoire sur disque                  CPU
(USER+SYST/SYST/ELAPS):         6.48          5.98         6.48
```

Résultat commande #0009 (CALC_CHAMP): SIM ('<0000002c>') de type <NonLinearResult>

Dépend de :

- TIMELIST ('<0000002a>') de type <ListOfFloats>

- MATS ('<00000004>') de type <MaterialField>

- BC_0 ('<00000026>') de type <MechanicalLoadReal>

- BC_1 ('<00000027>') de type <MechanicalLoadFunction>

- BC_2 ('<00000028>') de type <MechanicalDirichletBC>

- BC_3 ('<00000029>') de type <MechanicalLoadFunction>

- INSTLIST ('<0000002b>') de type <TimeStepper>

- MODEL ('<00000003>') de type <Model>

Mémoire (Mo) : 18739.97 / 2980.23 / 17804.41 / 247.67 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0009 user+syst: 220.01s (syst: 62.58s, elaps: 282.65s)

--

.. _stg1_txt67

--

Commande #0010 de fort.1, ligne 67

```
MESH_PP = CREA_MAILLAGE(INFO=1,
                        MAILLAGE=MESH,
                        RESTREINT=_F(GROUP_MA='region1',
                                     TOUT_GROUP_MA='NON',
                                     TOUT_GROUP_NO='NON'))
```

Vérification du maillage.

---------- MAILLAGE 0000002f - IMPRESSIONS NIVEAU 1 ----------

ASTER 15.06.10 CONCEPT 0000002f CALCULE LE 22/01/2025 A 09:22:49 DE TYPE

MAILLAGE_SDASTER

NOMBRE DE NOEUDS 876

NOMBRE DE MAILLES 4005

TETRA4 4005

NOMBRE DE GROUPES DE MAILLES 1

region1 4005

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

return libaster.call_oper(syntax, 0)

Résultat commande #0010 (CREA_MAILLAGE): MESH_PP ('<0000002f>') de type <Mesh>

Dépend de :

- MESH ('<00000002>') de type <Mesh>

Mémoire (Mo) : 18739.97 / 2980.59 / 17804.41 / 247.67 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0010 user+syst: 0.02s (syst: 0.00s, elaps: 0.02s)

.. _stg1_txt75

Commande #0011 de fort.1, ligne 75

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 4005 mailles du maillage 0000002f, on a demandé l'affectation de 4005, on a pu en affecter

4005.

Modélisation Formulation Type maille Élément fini Nombre

3D _ TETRA4 MECA_TETRA4 4005

#2 Calculs elementaires et assemblages CPU (USER+SYST/SYST/ELAPS): 0.00 0.00 0.00

Résultat commande #0011 (AFFE_MODELE): MOD_PP ('<00000030>') de type <Model>

Dépend de :

- MESH_PP ('<0000002f>') de type <Mesh>

Mémoire (Mo) : 18739.97 / 2980.65 / 17804.41 / 247.67 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0011 user+syst: 0.01s (syst: 0.00s, elaps: 0.01s)

--

.. _stg1_txt92

--

Commande #0012 de fort.1, ligne 92

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 00000031 CALCULE POUR 4001 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 !

! ... ! ... ! ... ! ... ! ... !
... ! ... ! ... !

! 4000 ! 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 !

! ... ! ... ! ... ! ... ! ... ! ... ! ... ! ... ! ... !

! 4000 ! K8 ! K8 ! K8 ! K24 ! R ! I ! R ! K24 ! R !

! ---------- !----------------!----------------!----------------!----------------!----------------!----------------!----------------!----------------!

#3 Dechargement de la memoire sur disque CPU (USER+SYST/SYST/ELAPS): 1.72 1.49 1.77

Résultat commande #0012 (EXTR_RESU): SIM_PP ('<00000031>') de type <NonLinearResult>

Dépend de :

- MOD_PP ('<00000030>') de type <Model>

Mémoire (Mo) : 18739.97 / 2213.60 / 17804.41 / 291.71 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0012 user+syst: 73.16s (syst: 14.39s, elaps: 87.62s)

--

```
.. _stg1_txt104

# ------------------------------------------------------------------------
---------------------

# Commande #0013 de fort.1, ligne 104

DETRUIRE(INFO=1,

                NOM=(MESH, MODEL, SIM))

Suppression de la référence : 'MESH'

Suppression de la référence : 'MODEL'

Suppression de la référence : 'SIM'

# Mémoire (Mo) : 18739.97 /    2213.60 / 17804.41 /     291.71 (VmPeak / VmSize /
Optimum / Minimum)

# Fin commande #0013      user+syst:              0.02s (syst:              0.00s, elaps:
0.03s)

# ------------------------------------------------------------------------
---------------------

.. _stg1_txt110

# ------------------------------------------------------------------------
---------------------

# Commande #0014 de fort.1, ligne 110

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) : 18739.97 / 2265.04 / 17804.41 / 291.71 (VmPeak / VmSize / Optimum / Minimum)

Fin commande #0014 user+syst: 28.84s (syst: 24.32s, elaps: 53.24s)

.. _stg1_txt155

Commande #0015 de fort.1, ligne 155

```
FIN(INFO_RESU='NON',
    PROC0='OUI',
    RETASSAGE='NON')
```

Saving objects...

```
pi                              <class 'float'>
e                               <class 'float'>
tau                             <class 'float'>
inf                             <class 'float'>
nan                             <class 'float'>
MAT_0                           <class 'libaster.Material'>
MATS                            <class 'libaster.MaterialField'>
F_4                             <class 'libaster.FieldOnNodesReal'>
F_0                             <class 'libaster.Formula'>
```

F_1 <class 'libaster.Formula'>

F_2 <class 'libaster.Formula'>

F_3 <class 'libaster.FieldOnNodesReal'>

INIT_D <class 'libaster.FieldOnNodesReal'>

F_9 <class 'libaster.FieldOnNodesReal'>

F_5 <class 'libaster.Formula'>

F_6 <class 'libaster.Formula'>

F_7 <class 'libaster.Formula'>

F_8 <class 'libaster.FieldOnNodesReal'>

INIT_U <class 'libaster.FieldOnNodesReal'>

F_14 <class 'libaster.FieldOnNodesReal'>

F_10 <class 'libaster.Formula'>

F_11 <class 'libaster.Formula'>

F_12 <class 'libaster.Formula'>

F_13 <class 'libaster.FieldOnNodesReal'>

INIT_A <class 'libaster.FieldOnNodesReal'>

F_22 <class 'libaster.FieldOnNodesReal'>

F_23 <class 'libaster.FieldOnCellsReal'>

F_15 <class 'libaster.Formula'>

F_16 <class 'libaster.Formula'>

F_17 <class 'libaster.Formula'>

F_18 <class 'libaster.Formula'>

F_19 <class 'libaster.Formula'>

F_20 <class 'libaster.Formula'>

F_21 <class 'libaster.FieldOnCellsReal'>

F_24 <class 'libaster.FieldOnCellsReal'>

INIT_S <class 'libaster.FieldOnCellsReal'>

F_25 <class 'libaster.Formula'>

F_26 <class 'libaster.Formula'>

F_27 <class 'libaster.Formula'>

F_28 <class 'libaster.Formula'>

BC_0 <class 'libaster.MechanicalLoadReal'>

BC_1 <class 'libaster.MechanicalLoadFunction'>

BC_2 <class 'libaster.MechanicalDirichletBC'>

BC_3 <class 'libaster.MechanicalLoadFunction'>

TIMELIST <class 'libaster.ListOfFloats'>

INSTLIST <class 'libaster.TimeStepper'>

TAB_ENER <class 'libaster.Table'>

MESH_PP <class 'libaster.Mesh'>

MOD_PP <class 'libaster.Model'>

SIM_PP <class 'libaster.NonLinearResult'>

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<I> <CATAMESS_89>

List of warnings emitted during the execution of computation.

Warnings which you chose to ignore of are preceded by (*).

Number of occurrences for each warning:

 ‖

  ‖ no warning
 ‖

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-

 Concepts de la base: G

Nom	Type	Taille (Mo)	Nombre d'objets	Nombre de segments
TOTAL		4373.02	304655	344838
00000001	MATER_SDASTER	0.00	9	9
00000002	MAILLAGE_SDASTER	0.46	38	67
00000003	MODELE_SDASTER	0.20	9	14
00000004	CHAM_MATER	0.03	9	14
00000005	CHAM_NO_SDASTER	0.02	5	5
00000006	FORMULE	0.00	4	4
00000007	FORMULE	0.00	4	4
00000008	FORMULE	0.00	4	4

00000009	CHAM_NO_SDASTER	0.10	10	12
0000000a	CHAM_NO_SDASTER	0.10	10	12
0000000b	CHAM_NO_SDASTER	0.02	5	5
0000000c	FORMULE	0.00	4	4
0000000d	FORMULE	0.00	4	4
0000000e	FORMULE	0.00	4	4
0000000f	CHAM_NO_SDASTER	0.10	10	12
00000010	CHAM_NO_SDASTER	0.10	10	12
00000011	CHAM_NO_SDASTER	0.02	5	5
00000012	FORMULE	0.00	4	4
00000013	FORMULE	0.00	4	4
00000014	FORMULE	0.00	4	4
00000015	CHAM_NO_SDASTER	0.10	10	12
00000016	CHAM_NO_SDASTER	0.10	10	12
00000017	CHAM_NO_SDASTER	0.02	5	5
00000018	CHAM_ELEM	0.28	5	5

00000019	FORMULE	0.00	4	4
0000001a	FORMULE	0.00	4	4
0000001b	FORMULE	0.00	4	4
0000001c	FORMULE	0.00	4	4
0000001d	FORMULE	0.00	4	4
0000001e	FORMULE	0.00	4	4
0000001f	CHAM_ELEM	1.54	5	5
00000020	CHAM_ELEM	1.54	5	5
00000021	CHAM_ELEM	0.31	5	5
00000022	FORMULE	0.00	4	4
00000023	FORMULE	0.00	4	4
00000024	FORMULE	0.00	4	4
00000025	FORMULE	0.00	4	4
00000026	CHAR_MECA	0.03	32	37
00000027	CHAR_MECA	0.04	32	37
00000028	CHAR_CINE_MECA	0.03	4	4

00000029	CHAR_MECA	0.01	32	37
0000002a	LISTR8_SDASTER	0.03	6	6
0000002b	LIST_INST	0.03	9	9
0000002c	EVOL_NOLI	3175.63	184127	204147
00000031	EVOL_NOLI	1161.14	120061	140078
0000002e	TABLE_SDASTER	0.43	19	19
0000002f	MAILLAGE_SDASTER	0.42	38	52
00000030	MODELE_SDASTER	0.18	9	14
&FOZERO		0.00	2	2
&&_NUM_C		0.00	1	1
&CATA.AC		0.00	2	4
&CATA.CL		0.62	1	3
&CATA.GD		0.19	4	11
&CATA.ME		0.22	2	4
&CATA.OP		0.32	4	19
&CATA.PH		0.00	1	1

```
      &CATA.PR                                0.00                2
4
      &CATA.TE                               28.61               17
42
      &CATA.TH                                0.01                2
4
      &CATA.TM                                0.01                7
11
 ------------------------------------------------------------------------
-
Nom de la base                          :  GLOBALE
        Nombre d'enregistrements utilisés       :  6208
        Nombre d'enregistrements maximum        :  2684354
        Nombre d'enregistrements par fichier    :  15728
        Longueur d'enregistrement (octets)      :  819200
        Nombre total d'accès en lecture         :  103703
        Volume des accès en lecture             :       81017.97 Mo.
        Nombre total d'accès en écriture        :  3195
        Volume des accès en écriture            :       2496.09 Mo.
        Nombre d'identificateurs utilisés       :  344867
        Taille maximum du répertoire            :  512000
        Pourcentage d'utilisation du répertoire :  67 %
Nom de la base                          :  VOLATILE
        Nombre d'enregistrements utilisés       :  11422
        Nombre d'enregistrements maximum        :  2684354
        Nombre d'enregistrements par fichier    :  15728
        Longueur d'enregistrement (octets)      :  819200
        Nombre total d'accès en lecture         :  25331
```

Volume des accès en lecture : 19789.84 Mo.

Nombre total d'accès en écriture : 22943

Volume des accès en écriture : 17924.22 Mo.

Nombre d'identificateurs utilisés : 86282

Taille maximum du répertoire : 128000

Pourcentage d'utilisation du répertoire : 67 %

<I> <FIN> ARRET NORMAL DANS "FIN" PAR APPEL A "JEFINI".

<I> <FIN> MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 291.71 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 17804.41 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 18739.97 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 17804 Mo.

TAILLE CUMULEE LIBEREE : 24249 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 17806790

NOMBRE TOTAL DE LIBERATIONS : 17806790

APPELS AU MECANISME DE LIBERATION : 7

TAILLE MEMOIRE CUMULEE RECUPEREE : 15228 Mo.

VOLUME DES LECTURES : 3 Mo.

VOLUME DES ECRITURES : 10874 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 291.71 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 17804.41 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 18739.97 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : ME-22-JANV-2025 09:25:11

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
57e3ffcacc1753b4c97835018cfea770c124f1e6664091890292c523fedb7c0f

Signature of info file :
2430df9d0b8b6d14052313012f791712f1f9d6516d988d3e0a59f744e2e260b5

Signature of Jeveux database:
feb5c90bbb5de39a66e2cb0bdda5da85548df5612926397534751f2354fc20ad

****

* COMMAND : USER : SYSTEM : USER+SYS : ELAPSED *

****

* POURSUITE : 0.88 : 2.63 : 3.51 : 3.51 *

* MODI_MODELE : 0.00 : 0.00 : 0.00 : 0.00 *

* GET_ENERGIE : 0.12 : 0.01 : 0.13 : 0.14 *

* DEFI_FICHIER : 0.01 : 0.00 : 0.01 : 0.00 *

* IMPR_TABLE : 0.02 : 0.00 : 0.02 : 0.03 *

* DEFI_FICHIER : 0.00 : 0.00 : 0.00 : 0.00 *

* CALC_CHAMP : 220.01 : 62.58 : 282.59 : 282.65 *

* CREA_MAILLAGE : 0.02 : 0.00 : 0.02 : 0.02 *

```
 * AFFE_MODELE                :          0.01 :          0.00 :          0.01 :          0.01
*
 * EXTR_RESU                  :         73.16 :         14.39 :         87.55 :         87.62 *
 * DETRUIRE                   :          0.02 :          0.00 :          0.02 :          0.03 *
 * IMPR_RESU                  :         28.84 :         24.32 :         53.16 :         53.24
*
 * FIN                        :          0.58 :          0.38 :          0.96 :          0.98 *
 *    . check syntax          :          0.07 :          0.00 :          0.07 :          0.03 *
 *    . fortran               :        322.48 :        102.04 :        424.52 :        424.77 *
 ********************************************************************************
 * TOTAL_JOB                  :        323.68 :        104.33 :        428.01 :        428.26
*
 ********************************************************************************
# Mémoire (Mo) : 18739.97 /    1112.70 / 17804.41 /     291.71 (VmPeak / VmSize /
Optimum / Minimum)
# Fin commande #0015      user+syst:              0.58s (syst:              0.38s, elaps:
0.98s)
# ------------------------------------------------------------------------------
----------------------
End of the Code_Aster execution
Code_Aster MPI exits normally
Exited
EXECUTION_CODE_ASTER_EXIT_12=0
```

Simulation interval 4s Maximum time step length 0.001s pressure 30 pa