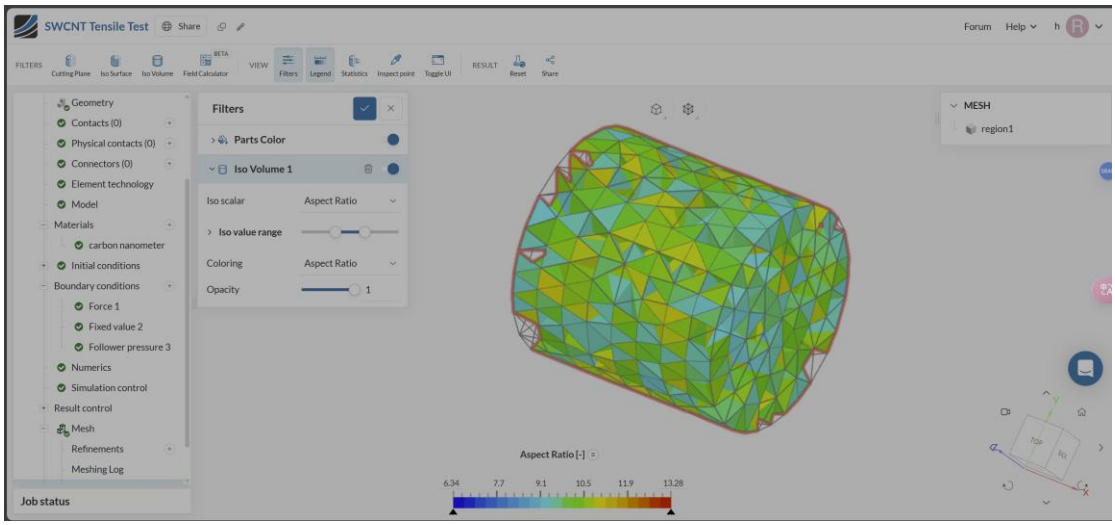
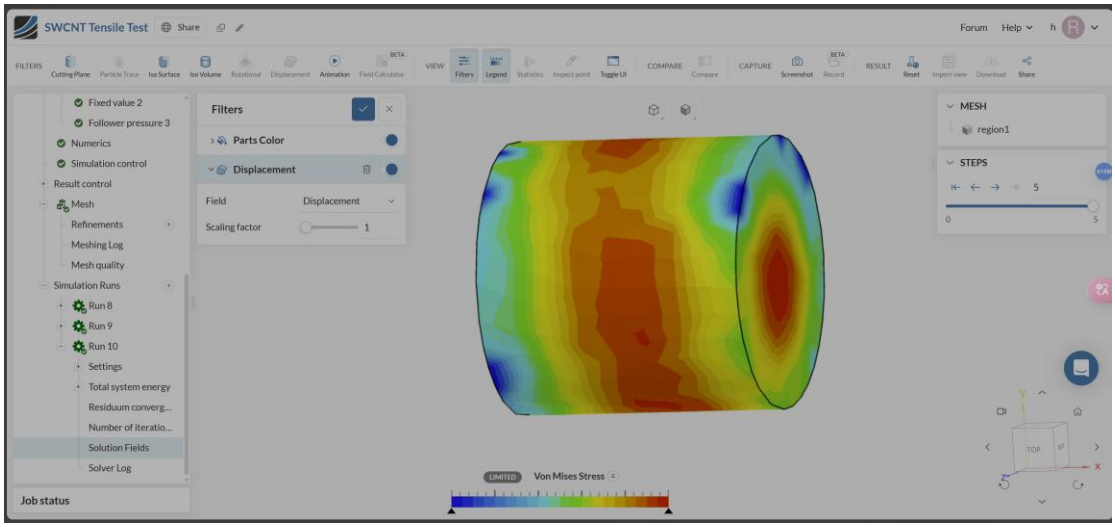
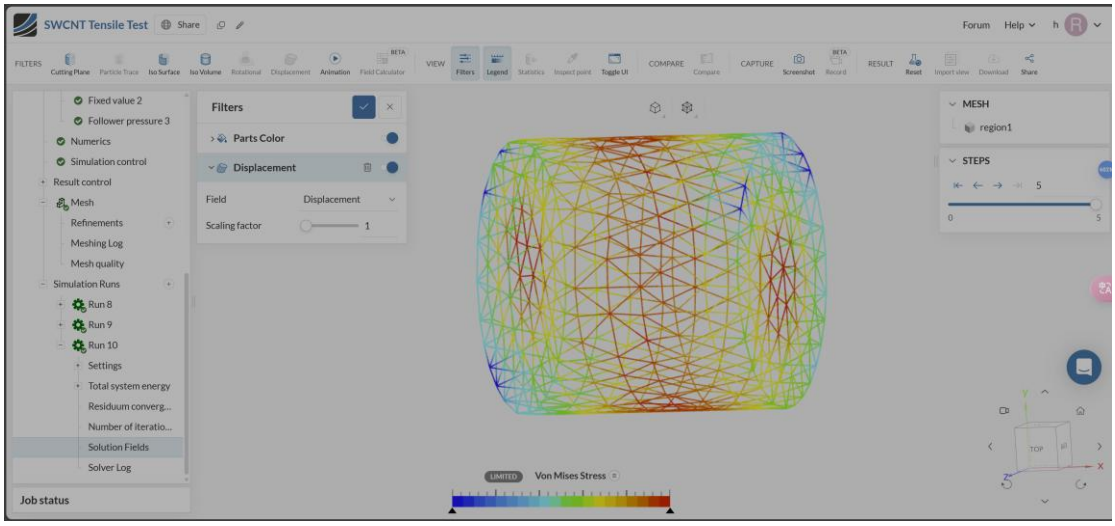



Mesh quality(Above)




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

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93200e+00, dernier instant archivé : 4.93200e+00, au numéro d'ordre :

4932

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Time of computation: 4.933000000000e+00

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| 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 | | | | | |

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| 4.93300E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6004E-24 | -1.6004E-24 | -3.6544E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-16 with the node and degree of

freedom N438 DY

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

freedom N438 DY

Temps CPU consommé dans ce pas de temps : 0.184 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1317.43 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.933000000000e+00 for the sequence number 4933

Field stored SIEF_ELGA at time 4.933000000000e+00 for the sequence number 4933

Field stored VARI_ELGA at time 4.933000000000e+00 for the sequence number 4933

Field stored COMPORTEMENT at time 4.933000000000e+00 for the sequence

number 4933

Field stored VITE at time 4.933000000000e+00 for the sequence number 4933

Field stored ACCE at time 4.933000000000e+00 for the sequence number 4933

Field stored FORC_AMOR at time 4.933000000000e+00 for the sequence number 4933

Field stored FORC_LIAI at time 4.933000000000e+00 for the sequence number 4933

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93300e+00, dernier instant archivé : 4.93300e+00, au numéro d'ordre :

4933

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Time of computation: 4.934000000000e+00

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| 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 |

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| 4.93400E+00 | 0 | 7.88690E-16 | 6.38378E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6181E-24 | -1.6181E-24 | 5.7284E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N404 DX

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

freedom N404 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1318.04 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.934000000000e+00 for the sequence number 4934

Field stored SIEF_ELGA at time 4.934000000000e+00 for the sequence number 4934

Field stored VARI_ELGA at time 4.934000000000e+00 for the sequence number 4934

Field stored COMPORTEMENT at time 4.934000000000e+00 for the sequence number 4934

Field stored VITE at time 4.934000000000e+00 for the sequence number 4934

Field stored ACCE at time 4.934000000000e+00 for the sequence number 4934

Field stored FORC_AMOR at time 4.934000000000e+00 for the sequence number 4934

Field stored FORC_LIAI at time 4.934000000000e+00 for the sequence number 4934

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93400e+00, dernier instant archivé : 4.93400e+00, au numéro d'ordre :

4934

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Time of computation: 4.935000000000e+00

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| 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 |

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| 4.93500E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6025E-24 | -1.6025E-24 | -8.8305E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791241e-16 with the node and degree of

freedom N471 DZ

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

freedom N471 DZ

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1318.64 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.935000000000e+00 for the sequence number 4935

Field stored SIEF_ELGA at time 4.935000000000e+00 for the sequence number 4935

Field stored VARI_ELGA at time 4.935000000000e+00 for the sequence number 4935

Field stored COMPORTEMENT at time 4.935000000000e+00 for the sequence number 4935

Field stored VITE at time 4.935000000000e+00 for the sequence number 4935

Field stored ACCE at time 4.935000000000e+00 for the sequence number 4935

Field stored FORC_AMOR at time 4.935000000000e+00 for the sequence number 4935

Field stored FORC_LIAI at time 4.935000000000e+00 for the sequence number 4935

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93500e+00, dernier instant archivé : 4.93500e+00, au numéro d'ordre :

4935

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Time of computation: 4.936000000000e+00

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| 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 |

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| 4.93600E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6071E-24 | -1.6071E-24 | 9.4013E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N520 DY

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

freedom N520 DY

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1319.25 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.936000000000e+00 for the sequence number 4936

Field stored SIEF_ELGA at time 4.936000000000e+00 for the sequence number 4936

Field stored VARI_ELGA at time 4.936000000000e+00 for the sequence number 4936

Field stored COMPORTEMENT at time 4.936000000000e+00 for the sequence

number 4936

Field stored VITE at time 4.936000000000e+00 for the sequence number 4936

Field stored ACCE at time 4.936000000000e+00 for the sequence number 4936

Field stored FORC_AMOR at time 4.936000000000e+00 for the sequence number 4936

Field stored FORC_LIAI at time 4.936000000000e+00 for the sequence number 4936

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93600e+00, dernier instant archivé : 4.93600e+00, au numéro d'ordre :

4936

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Time of computation: 4.937000000000e+00

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| 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 |

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| 4.93700E+00 | 0 | 7.20108E-16 | 5.82867E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6109E-24 | -1.6109E-24 | -8.8158E-45 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317336e-16 with the node and degree of

freedom N527 DY

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

freedom N527 DY

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1319.86 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.937000000000e+00 for the sequence number 4937

Field stored SIEF_ELGA at time 4.937000000000e+00 for the sequence number 4937

Field stored VARI_ELGA at time 4.937000000000e+00 for the sequence number 4937

Field stored COMPORTEMENT at time 4.937000000000e+00 for the sequence number 4937

Field stored VITE at time 4.937000000000e+00 for the sequence number 4937

Field stored ACCE at time 4.937000000000e+00 for the sequence number 4937

Field stored FORC_AMOR at time 4.937000000000e+00 for the sequence number 4937

Field stored FORC_LIAI at time 4.937000000000e+00 for the sequence number 4937

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93700e+00, dernier instant archivé : 4.93700e+00, au numéro d'ordre :

4937

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Time of computation: 4.938000000000e+00

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| 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 |

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| 4.93800E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6127E-24 | -1.6127E-24 | 1.1165E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791241e-16 with the node and degree of

freedom N435 DX

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

freedom N435 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1320.46 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.938000000000e+00 for the sequence number 4938

Field stored SIEF_ELGA at time 4.938000000000e+00 for the sequence number 4938

Field stored VARI_ELGA at time 4.938000000000e+00 for the sequence number 4938

Field stored COMPORTEMENT at time 4.938000000000e+00 for the sequence number 4938

Field stored VITE at time 4.938000000000e+00 for the sequence number 4938

Field stored ACCE at time 4.938000000000e+00 for the sequence number 4938

Field stored FORC_AMOR at time 4.938000000000e+00 for the sequence number 4938

Field stored FORC_LIAI at time 4.938000000000e+00 for the sequence number 4938

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93800e+00, dernier instant archivé : 4.93800e+00, au numéro d'ordre :

4938

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Time of computation: 4.939000000000e+00

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| 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 | |

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| 4.93900E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.5916E-24 | -1.5916E-24 | -1.5295E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-16 with the node and degree of

freedom N581 DX

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

freedom N581 DX

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1321.07 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.939000000000e+00 for the sequence number 4939

Field stored SIEF_ELGA at time 4.939000000000e+00 for the sequence number 4939

Field stored VARI_ELGA at time 4.939000000000e+00 for the sequence number 4939

Field stored COMPORTEMENT at time 4.939000000000e+00 for the sequence

number 4939

Field stored VITE at time 4.939000000000e+00 for the sequence number 4939

Field stored ACCE at time 4.939000000000e+00 for the sequence number 4939

Field stored FORC_AMOR at time 4.939000000000e+00 for the sequence number 4939

Field stored FORC_LIAI at time 4.939000000000e+00 for the sequence number 4939

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.93900e+00, dernier instant archivé : 4.93900e+00, au numéro d'ordre :

4939

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Time of computation: 4.940000000000e+00

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| 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 |

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| 4.94000E+00 | 0 | 8.57271E-16 | 6.93889E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6272E-24 | -1.6272E-24 | 2.2319E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N400 DX

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

freedom N400 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1321.67 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.940000000000e+00 for the sequence number 4940

Field stored SIEF_ELGA at time 4.940000000000e+00 for the sequence number 4940

Field stored VARI_ELGA at time 4.940000000000e+00 for the sequence number 4940

Field stored COMPORTEMENT at time 4.940000000000e+00 for the sequence number 4940

Field stored VITE at time 4.940000000000e+00 for the sequence number 4940

Field stored ACCE at time 4.940000000000e+00 for the sequence number 4940

Field stored FORC_AMOR at time 4.940000000000e+00 for the sequence number 4940

Field stored FORC_LIAI at time 4.940000000000e+00 for the sequence number 4940

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94000e+00, dernier instant archivé : 4.94000e+00, au numéro d'ordre :

4940

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Time of computation: 4.941000000000e+00

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| 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 |

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| 4.94100E+00 | 0 | 7.20108E-16 | 5.82867E-16 | |TANGENTE | | |

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

| PAS COURANT | -1.6032E-24 | -1.6032E-24 | -2.4888E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317336e-16 with the node and degree of

freedom N432 DZ

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

freedom N432 DZ

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1322.27 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.941000000000e+00 for the sequence number 4941

Field stored SIEF_ELGA at time 4.941000000000e+00 for the sequence number 4941

Field stored VARI_ELGA at time 4.941000000000e+00 for the sequence number 4941

Field stored COMPORTEMENT at time 4.941000000000e+00 for the sequence number 4941

Field stored VITE at time 4.941000000000e+00 for the sequence number 4941

Field stored ACCE at time 4.941000000000e+00 for the sequence number 4941

Field stored FORC_AMOR at time 4.941000000000e+00 for the sequence number 4941

Field stored FORC_LIAI at time 4.941000000000e+00 for the sequence number 4941

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94100e+00, dernier instant archivé : 4.94100e+00, au numéro d'ordre :

4941

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Time of computation: 4.942000000000e+00

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| 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 |

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| 4.94200E+00 | 0 | 9.25853E-16 | 7.49401E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6014E-24 | -1.6014E-24 | 2.3371E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.258529265147e-16 with the node and degree of

freedom N405 DY

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

freedom N405 DY

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1322.88 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.942000000000e+00 for the sequence number 4942

Field stored SIEF_ELGA at time 4.942000000000e+00 for the sequence number 4942

Field stored VARI_ELGA at time 4.942000000000e+00 for the sequence number 4942

Field stored COMPORTEMENT at time 4.942000000000e+00 for the sequence

number 4942

Field stored VITE at time 4.942000000000e+00 for the sequence number 4942

Field stored ACCE at time 4.942000000000e+00 for the sequence number 4942

Field stored FORC_AMOR at time 4.942000000000e+00 for the sequence number 4942

Field stored FORC_LIAI at time 4.942000000000e+00 for the sequence number 4942

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94200e+00, dernier instant archivé : 4.94200e+00, au numéro d'ordre :

4942

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Time of computation: 4.943000000000e+00

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| 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 |

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| 4.94300E+00 | 0 | 9.60144E-16 | 7.77156E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6138E-24 | -1.6138E-24 | -1.8857E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756448e-16 with the node and degree of

freedom N435 DY

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

freedom N435 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.008 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1323.48 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.943000000000e+00 for the sequence number 4943

Field stored SIEF_ELGA at time 4.943000000000e+00 for the sequence number 4943

Field stored VARI_ELGA at time 4.943000000000e+00 for the sequence number 4943

Field stored COMPORTEMENT at time 4.943000000000e+00 for the sequence number 4943

Field stored VITE at time 4.943000000000e+00 for the sequence number 4943

Field stored ACCE at time 4.943000000000e+00 for the sequence number 4943

Field stored FORC_AMOR at time 4.943000000000e+00 for the sequence number 4943

Field stored FORC_LIAI at time 4.943000000000e+00 for the sequence number 4943

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94300e+00, dernier instant archivé : 4.94300e+00, au numéro d'ordre :

4943

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Time of computation: 4.944000000000e+00

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| 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 |

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| 4.94400E+00 | 0 | 8.57271E-16 | 6.93889E-16 | |TANGENTE | | |

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

| PAS COURANT | -1.5906E-24 | -1.5906E-24 | 1.1481E-44 | 0.0000E+00 | 5.5101E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N435 DY

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

freedom N435 DY

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1324.09 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.944000000000e+00 for the sequence number 4944

Field stored SIEF_ELGA at time 4.944000000000e+00 for the sequence number 4944

Field stored VARI_ELGA at time 4.944000000000e+00 for the sequence number 4944

Field stored COMPORTEMENT at time 4.944000000000e+00 for the sequence number 4944

Field stored VITE at time 4.944000000000e+00 for the sequence number 4944

Field stored ACCE at time 4.944000000000e+00 for the sequence number 4944

Field stored FORC_AMOR at time 4.944000000000e+00 for the sequence number 4944

Field stored FORC_LIAI at time 4.944000000000e+00 for the sequence number 4944

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94400e+00, dernier instant archivé : 4.94400e+00, au numéro d'ordre :

4944

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Time of computation: 4.945000000000e+00

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| 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 |

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| 4.94500E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6236E-24 | -1.6236E-24 | -3.0563E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-16 with the node and degree of

freedom N671 DX

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

freedom N671 DX

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1324.70 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.945000000000e+00 for the sequence number 4945

Field stored SIEF_ELGA at time 4.945000000000e+00 for the sequence number 4945

Field stored VARI_ELGA at time 4.945000000000e+00 for the sequence number 4945

Field stored COMPORTEMENT at time 4.945000000000e+00 for the sequence

number 4945

Field stored VITE at time 4.945000000000e+00 for the sequence number 4945

Field stored ACCE at time 4.945000000000e+00 for the sequence number 4945

Field stored FORC_AMOR at time 4.945000000000e+00 for the sequence number 4945

Field stored FORC_LIAI at time 4.945000000000e+00 for the sequence number 4945

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94500e+00, dernier instant archivé : 4.94500e+00, au numéro d'ordre :

4945

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Time of computation: 4.946000000000e+00

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| 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 |

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| 4.94600E+00 | 0 | 8.57271E-16 | 6.93889E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6030E-24 | -1.6030E-24 | -3.6210E-45 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N404 DZ

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

freedom N404 DZ

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1325.30 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.946000000000e+00 for the sequence number 4946

Field stored SIEF_ELGA at time 4.946000000000e+00 for the sequence number 4946

Field stored VARI_ELGA at time 4.946000000000e+00 for the sequence number 4946

Field stored COMPORTEMENT at time 4.946000000000e+00 for the sequence number 4946

Field stored VITE at time 4.946000000000e+00 for the sequence number 4946

Field stored ACCE at time 4.946000000000e+00 for the sequence number 4946

Field stored FORC_AMOR at time 4.946000000000e+00 for the sequence number 4946

Field stored FORC_LIAI at time 4.946000000000e+00 for the sequence number 4946

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94600e+00, dernier instant archivé : 4.94600e+00, au numéro d'ordre :

4946

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Time of computation: 4.947000000000e+00

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| 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 |

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| 4.94700E+00 | 0 | 9.60144E-16 | 7.77156E-16 | |TANGENTE | | |

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

| PAS COURANT | -1.6056E-24 | -1.6056E-24 | 4.4717E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.601437756448e-16 with the node and degree of

freedom N461 DX

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

freedom N461 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1325.91 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.947000000000e+00 for the sequence number 4947

Field stored SIEF_ELGA at time 4.947000000000e+00 for the sequence number 4947

Field stored VARI_ELGA at time 4.947000000000e+00 for the sequence number 4947

Field stored COMPORTEMENT at time 4.947000000000e+00 for the sequence number 4947

Field stored VITE at time 4.947000000000e+00 for the sequence number 4947

Field stored ACCE at time 4.947000000000e+00 for the sequence number 4947

Field stored FORC_AMOR at time 4.947000000000e+00 for the sequence number 4947

Field stored FORC_LIAI at time 4.947000000000e+00 for the sequence number 4947

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94700e+00, dernier instant archivé : 4.94700e+00, au numéro d'ordre :

4947

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Time of computation: 4.948000000000e+00

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| 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 |

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| 4.94800E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6101E-24 | -1.6101E-24 | -3.8660E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N527 DZ

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

freedom N527 DZ

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1326.52 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.948000000000e+00 for the sequence number 4948

Field stored SIEF_ELGA at time 4.948000000000e+00 for the sequence number 4948

Field stored VARI_ELGA at time 4.948000000000e+00 for the sequence number 4948

Field stored COMPORTEMENT at time 4.948000000000e+00 for the sequence

number 4948

Field stored VITE at time 4.948000000000e+00 for the sequence number 4948

Field stored ACCE at time 4.948000000000e+00 for the sequence number 4948

Field stored FORC_AMOR at time 4.948000000000e+00 for the sequence number 4948

Field stored FORC_LIAI at time 4.948000000000e+00 for the sequence number 4948

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94800e+00, dernier instant archivé : 4.94800e+00, au numéro d'ordre :

4948

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Time of computation: 4.949000000000e+00

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| 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 |

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| 4.94900E+00 | 0 | 8.57271E-16 | 6.93889E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6186E-24 | -1.6186E-24 | 5.4441E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N392 DX

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

freedom N392 DX

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1327.12 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.949000000000e+00 for the sequence number 4949

Field stored SIEF_ELGA at time 4.949000000000e+00 for the sequence number 4949

Field stored VARI_ELGA at time 4.949000000000e+00 for the sequence number 4949

Field stored COMPORTEMENT at time 4.949000000000e+00 for the sequence number 4949

Field stored VITE at time 4.949000000000e+00 for the sequence number 4949

Field stored ACCE at time 4.949000000000e+00 for the sequence number 4949

Field stored FORC_AMOR at time 4.949000000000e+00 for the sequence number 4949

Field stored FORC_LIAI at time 4.949000000000e+00 for the sequence number 4949

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.94900e+00, dernier instant archivé : 4.94900e+00, au numéro d'ordre :

4949

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Time of computation: 4.950000000000e+00

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| 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 | |

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| 4.95000E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.5971E-24 | -1.5971E-24 | -8.7945E-45 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N472 DX

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

freedom N472 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1327.73 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.950000000000e+00 for the sequence number 4950

Field stored SIEF_ELGA at time 4.950000000000e+00 for the sequence number 4950

Field stored VARI_ELGA at time 4.950000000000e+00 for the sequence number 4950

Field stored COMPORTEMENT at time 4.950000000000e+00 for the sequence number 4950

Field stored VITE at time 4.950000000000e+00 for the sequence number 4950

Field stored ACCE at time 4.950000000000e+00 for the sequence number 4950

Field stored FORC_AMOR at time 4.950000000000e+00 for the sequence number 4950

Field stored FORC_LIAI at time 4.950000000000e+00 for the sequence number 4950

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

1.000000000000e-03.

[ 98%] Instant calculé : 4.95000e+00, dernier instant archivé : 4.95000e+00, au numéro d'ordre :

4950

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Time of computation: 4.951000000000e+00

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| 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 | | | | | |

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| 4.95100E+00 | 0 | 9.94435E-16 | 8.04912E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6055E-24 | -1.6055E-24 | 1.0205E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.944346247750e-16 with the node and degree of

freedom N464 DY

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

freedom N464 DY

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1328.33 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.951000000000e+00 for the sequence number 4951

Field stored SIEF_ELGA at time 4.951000000000e+00 for the sequence number 4951

Field stored VARI_ELGA at time 4.951000000000e+00 for the sequence number 4951

Field stored COMPORTEMENT at time 4.951000000000e+00 for the sequence

number 4951

Field stored VITE at time 4.951000000000e+00 for the sequence number 4951

Field stored ACCE at time 4.951000000000e+00 for the sequence number 4951

Field stored FORC_AMOR at time 4.951000000000e+00 for the sequence number 4951

Field stored FORC_LIAI at time 4.951000000000e+00 for the sequence number 4951

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95100e+00, dernier instant archivé : 4.95100e+00, au numéro d'ordre :

4951

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Time of computation: 4.952000000000e+00

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| 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 |

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| 4.95200E+00 | 0 | 8.05835E-16 | 6.52256E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6154E-24 | -1.6154E-24 | -8.8916E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.058349545591e-16 with the node and degree of

freedom N745 DX

The residue of the type RESI_GLOB_MAXI is worth 6.522560269673e-16 with the node and degree of

freedom N745 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1328.94 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.952000000000e+00 for the sequence number 4952

Field stored SIEF_ELGA at time 4.952000000000e+00 for the sequence number 4952

Field stored VARI_ELGA at time 4.952000000000e+00 for the sequence number 4952

Field stored COMPORTEMENT at time 4.952000000000e+00 for the sequence number 4952

Field stored VITE at time 4.952000000000e+00 for the sequence number 4952

Field stored ACCE at time 4.952000000000e+00 for the sequence number 4952

Field stored FORC_AMOR at time 4.952000000000e+00 for the sequence number 4952

Field stored FORC_LIAI at time 4.952000000000e+00 for the sequence number 4952

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95200e+00, dernier instant archivé : 4.95200e+00, au numéro d'ordre :

4952

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Time of computation: 4.953000000000e+00

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| 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 |

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| 4.95300E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.6021E-24 | -1.6021E-24 | 5.7764E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N464 DY

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

freedom N464 DY

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1329.55 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.953000000000e+00 for the sequence number 4953

Field stored SIEF_ELGA at time 4.953000000000e+00 for the sequence number 4953

Field stored VARI_ELGA at time 4.953000000000e+00 for the sequence number 4953

Field stored COMPORTEMENT at time 4.953000000000e+00 for the sequence number 4953

Field stored VITE at time 4.953000000000e+00 for the sequence number 4953

Field stored ACCE at time 4.953000000000e+00 for the sequence number 4953

Field stored FORC_AMOR at time 4.953000000000e+00 for the sequence number 4953

Field stored FORC_LIAI at time 4.953000000000e+00 for the sequence number 4953

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95300e+00, dernier instant archivé : 4.95300e+00, au numéro d'ordre :

4953

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Time of computation: 4.954000000000e+00

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| 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 |

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| 4.95400E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5994E-24 | -1.5994E-24 | -5.8924E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N465 DY

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

freedom N465 DY

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1330.15 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.954000000000e+00 for the sequence number 4954

Field stored SIEF_ELGA at time 4.954000000000e+00 for the sequence number 4954

Field stored VARI_ELGA at time 4.954000000000e+00 for the sequence number 4954

Field stored COMPORTEMENT at time 4.954000000000e+00 for the sequence

number 4954

Field stored VITE at time 4.954000000000e+00 for the sequence number 4954

Field stored ACCE at time 4.954000000000e+00 for the sequence number 4954

Field stored FORC_AMOR at time 4.954000000000e+00 for the sequence number 4954

Field stored FORC_LIAI at time 4.954000000000e+00 for the sequence number 4954

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95400e+00, dernier instant archivé : 4.95400e+00, au numéro d'ordre :

4954

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Time of computation: 4.955000000000e+00

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| 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 |

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| 4.95500E+00 | 0 | 7.88690E-16 | 6.38378E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6127E-24 | -1.6127E-24 | 7.9543E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N546 DX

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

freedom N546 DX

Temps CPU consommé dans ce pas de temps : 0.180 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.100 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1330.76 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.955000000000e+00 for the sequence number 4955

Field stored SIEF_ELGA at time 4.955000000000e+00 for the sequence number 4955

Field stored VARI_ELGA at time 4.955000000000e+00 for the sequence number 4955

Field stored COMPORTEMENT at time 4.955000000000e+00 for the sequence number 4955

Field stored VITE at time 4.955000000000e+00 for the sequence number 4955

Field stored ACCE at time 4.955000000000e+00 for the sequence number 4955

Field stored FORC_AMOR at time 4.955000000000e+00 for the sequence number 4955

Field stored FORC_LIAI at time 4.955000000000e+00 for the sequence number 4955

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95500e+00, dernier instant archivé : 4.95500e+00, au numéro d'ordre :

4955

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Time of computation: 4.956000000000e+00

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| 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 |

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| 4.95600E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6122E-24 | -1.6122E-24 | -6.3313E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791242e-16 with the node and degree of

freedom N396 DY

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

freedom N396 DY

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1331.36 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.956000000000e+00 for the sequence number 4956

Field stored SIEF_ELGA at time 4.956000000000e+00 for the sequence number 4956

Field stored VARI_ELGA at time 4.956000000000e+00 for the sequence number 4956

Field stored COMPORTEMENT at time 4.956000000000e+00 for the sequence number 4956

Field stored VITE at time 4.956000000000e+00 for the sequence number 4956

Field stored ACCE at time 4.956000000000e+00 for the sequence number 4956

Field stored FORC_AMOR at time 4.956000000000e+00 for the sequence number 4956

Field stored FORC_LIAI at time 4.956000000000e+00 for the sequence number 4956

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95600e+00, dernier instant archivé : 4.95600e+00, au numéro d'ordre :

4956

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Time of computation: 4.957000000000e+00

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| 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 |

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| 4.95700E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6091E-24 | -1.6091E-24 | 4.4248E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791242e-16 with the node and degree of

freedom N671 DX

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

freedom N671 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1331.97 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.957000000000e+00 for the sequence number 4957

Field stored SIEF_ELGA at time 4.957000000000e+00 for the sequence number 4957

Field stored VARI_ELGA at time 4.957000000000e+00 for the sequence number 4957

Field stored COMPORTEMENT at time 4.957000000000e+00 for the sequence

number 4957

Field stored VITE at time 4.957000000000e+00 for the sequence number 4957

Field stored ACCE at time 4.957000000000e+00 for the sequence number 4957

Field stored FORC_AMOR at time 4.957000000000e+00 for the sequence number 4957

Field stored FORC_LIAI at time 4.957000000000e+00 for the sequence number 4957

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95700e+00, dernier instant archivé : 4.95700e+00, au numéro d'ordre :

4957

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Time of computation: 4.958000000000e+00

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| 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 |

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| 4.95800E+00 | 0 | 6.85817E-16 | 5.55112E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6034E-24 | -1.6034E-24 | -3.6919E-45 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.858169826035e-16 with the node and degree of

freedom N400 DZ

The residue of the type RESI_GLOB_MAXI is worth 5.551115123126e-16 with the node and degree of

freedom N400 DZ

Temps CPU consommé dans ce pas de temps : 0.184 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1332.57 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.958000000000e+00 for the sequence number 4958

Field stored SIEF_ELGA at time 4.958000000000e+00 for the sequence number 4958

Field stored VARI_ELGA at time 4.958000000000e+00 for the sequence number 4958

Field stored COMPORTEMENT at time 4.958000000000e+00 for the sequence number 4958

Field stored VITE at time 4.958000000000e+00 for the sequence number 4958

Field stored ACCE at time 4.958000000000e+00 for the sequence number 4958

Field stored FORC_AMOR at time 4.958000000000e+00 for the sequence number 4958

Field stored FORC_LIAI at time 4.958000000000e+00 for the sequence number 4958

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95800e+00, dernier instant archivé : 4.95800e+00, au numéro d'ordre :

4958

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Time of computation: 4.959000000000e+00

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| 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 |

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| 4.95900E+00 | 0 | 7.20108E-16 | 5.82867E-16 | |TANGENTE | | |

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

| PAS COURANT | -1.5876E-24 | -1.5876E-24 | -3.9295E-46 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317336e-16 with the node and degree of

freedom N559 DX

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

freedom N559 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1333.18 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.959000000000e+00 for the sequence number 4959

Field stored SIEF_ELGA at time 4.959000000000e+00 for the sequence number 4959

Field stored VARI_ELGA at time 4.959000000000e+00 for the sequence number 4959

Field stored COMPORTEMENT at time 4.959000000000e+00 for the sequence number 4959

Field stored VITE at time 4.959000000000e+00 for the sequence number 4959

Field stored ACCE at time 4.959000000000e+00 for the sequence number 4959

Field stored FORC_AMOR at time 4.959000000000e+00 for the sequence number 4959

Field stored FORC_LIAI at time 4.959000000000e+00 for the sequence number 4959

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.95900e+00, dernier instant archivé : 4.95900e+00, au numéro d'ordre :

4959

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Time of computation: 4.960000000000e+00

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| 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 |

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| 4.96000E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6328E-24 | -1.6328E-24 | 9.5621E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N403 DX

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

freedom N403 DX

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1333.79 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.960000000000e+00 for the sequence number 4960

Field stored SIEF_ELGA at time 4.960000000000e+00 for the sequence number 4960

Field stored VARI_ELGA at time 4.960000000000e+00 for the sequence number 4960

Field stored COMPORTEMENT at time 4.960000000000e+00 for the sequence

number 4960

Field stored VITE at time 4.960000000000e+00 for the sequence number 4960

Field stored ACCE at time 4.960000000000e+00 for the sequence number 4960

Field stored FORC_AMOR at time 4.960000000000e+00 for the sequence number 4960

Field stored FORC_LIAI at time 4.960000000000e+00 for the sequence number 4960

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96000e+00, dernier instant archivé : 4.96000e+00, au numéro d'ordre :

4960

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Time of computation: 4.961000000000e+00

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| 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 |

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| 4.96100E+00 | 0 | 6.85817E-16 | 5.55112E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6018E-24 | -1.6018E-24 | -1.5648E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 6.858169826035e-16 with the node and degree of

freedom N527 DY

The residue of the type RESI_GLOB_MAXI is worth 5.551115123126e-16 with the node and degree of

freedom N527 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1334.39 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.961000000000e+00 for the sequence number 4961

Field stored SIEF_ELGA at time 4.961000000000e+00 for the sequence number 4961

Field stored VARI_ELGA at time 4.961000000000e+00 for the sequence number 4961

Field stored COMPORTEMENT at time 4.961000000000e+00 for the sequence number 4961

Field stored VITE at time 4.961000000000e+00 for the sequence number 4961

Field stored ACCE at time 4.961000000000e+00 for the sequence number 4961

Field stored FORC_AMOR at time 4.961000000000e+00 for the sequence number 4961

Field stored FORC_LIAI at time 4.961000000000e+00 for the sequence number 4961

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96100e+00, dernier instant archivé : 4.96100e+00, au numéro d'ordre :

4961

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Time of computation: 4.962000000000e+00

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| 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 |

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| 4.96200E+00 | 0 | 7.20108E-16 | 5.82867E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6079E-24 | -1.6079E-24 | 1.6797E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.201078317336e-16 with the node and degree of

freedom N400 DY

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

freedom N400 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1334.99 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.962000000000e+00 for the sequence number 4962

Field stored SIEF_ELGA at time 4.962000000000e+00 for the sequence number 4962

Field stored VARI_ELGA at time 4.962000000000e+00 for the sequence number 4962

Field stored COMPORTEMENT at time 4.962000000000e+00 for the sequence number 4962

Field stored VITE at time 4.962000000000e+00 for the sequence number 4962

Field stored ACCE at time 4.962000000000e+00 for the sequence number 4962

Field stored FORC_AMOR at time 4.962000000000e+00 for the sequence number 4962

Field stored FORC_LIAI at time 4.962000000000e+00 for the sequence number 4962

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96200e+00, dernier instant archivé : 4.96200e+00, au numéro d'ordre :

4962

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Time of computation: 4.963000000000e+00

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| 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 | | | | | |

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| 4.96300E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6120E-24 | -1.6120E-24 | -1.6021E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N400 DY

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

freedom N400 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1335.60 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.963000000000e+00 for the sequence number 4963

Field stored SIEF_ELGA at time 4.963000000000e+00 for the sequence number 4963

Field stored VARI_ELGA at time 4.963000000000e+00 for the sequence number 4963

Field stored COMPORTEMENT at time 4.963000000000e+00 for the sequence

number 4963

Field stored VITE at time 4.963000000000e+00 for the sequence number 4963

Field stored ACCE at time 4.963000000000e+00 for the sequence number 4963

Field stored FORC_AMOR at time 4.963000000000e+00 for the sequence number 4963

Field stored FORC_LIAI at time 4.963000000000e+00 for the sequence number 4963

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96300e+00, dernier instant archivé : 4.96300e+00, au numéro d'ordre :

4963

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Time of computation: 4.964000000000e+00

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| 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 |

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| 4.96400E+00 | 0 | 8.91562E-16 | 7.21645E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.5996E-24 | -1.5996E-24 | 1.3296E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-16 with the node and degree of

freedom N435 DY

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

freedom N435 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1336.20 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.964000000000e+00 for the sequence number 4964

Field stored SIEF_ELGA at time 4.964000000000e+00 for the sequence number 4964

Field stored VARI_ELGA at time 4.964000000000e+00 for the sequence number 4964

Field stored COMPORTEMENT at time 4.964000000000e+00 for the sequence number 4964

Field stored VITE at time 4.964000000000e+00 for the sequence number 4964

Field stored ACCE at time 4.964000000000e+00 for the sequence number 4964

Field stored FORC_AMOR at time 4.964000000000e+00 for the sequence number 4964

Field stored FORC_LIAI at time 4.964000000000e+00 for the sequence number 4964

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96400e+00, dernier instant archivé : 4.96400e+00, au numéro d'ordre :

4964

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Time of computation: 4.965000000000e+00

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| 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 |

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| 4.96500E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6054E-24 | -1.6054E-24 | -1.0714E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N527 DX

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

freedom N527 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1336.81 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.965000000000e+00 for the sequence number 4965

Field stored SIEF_ELGA at time 4.965000000000e+00 for the sequence number 4965

Field stored VARI_ELGA at time 4.965000000000e+00 for the sequence number 4965

Field stored COMPORTEMENT at time 4.965000000000e+00 for the sequence number 4965

Field stored VITE at time 4.965000000000e+00 for the sequence number 4965

Field stored ACCE at time 4.965000000000e+00 for the sequence number 4965

Field stored FORC_AMOR at time 4.965000000000e+00 for the sequence number 4965

Field stored FORC_LIAI at time 4.965000000000e+00 for the sequence number 4965

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96500e+00, dernier instant archivé : 4.96500e+00, au numéro d'ordre :

4965

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Time of computation: 4.966000000000e+00

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| 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 | | | | | |

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| 4.96600E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6128E-24 | -1.6128E-24 | 1.2544E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791242e-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 : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1337.42 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.966000000000e+00 for the sequence number 4966

Field stored SIEF_ELGA at time 4.966000000000e+00 for the sequence number 4966

Field stored VARI_ELGA at time 4.966000000000e+00 for the sequence number 4966

Field stored COMPORTEMENT at time 4.966000000000e+00 for the sequence

number 4966

Field stored VITE at time 4.966000000000e+00 for the sequence number 4966

Field stored ACCE at time 4.966000000000e+00 for the sequence number 4966

Field stored FORC_AMOR at time 4.966000000000e+00 for the sequence number 4966

Field stored FORC_LIAI at time 4.966000000000e+00 for the sequence number 4966

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96600e+00, dernier instant archivé : 4.96600e+00, au numéro d'ordre :

4966

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Time of computation: 4.967000000000e+00

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| 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 |

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| 4.96700E+00 | 0 | 7.88690E-16 | 6.38378E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6087E-24 | -1.6087E-24 | -1.3341E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N406 DY

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

freedom N406 DY

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1338.02 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.967000000000e+00 for the sequence number 4967

Field stored SIEF_ELGA at time 4.967000000000e+00 for the sequence number 4967

Field stored VARI_ELGA at time 4.967000000000e+00 for the sequence number 4967

Field stored COMPORTEMENT at time 4.967000000000e+00 for the sequence number 4967

Field stored VITE at time 4.967000000000e+00 for the sequence number 4967

Field stored ACCE at time 4.967000000000e+00 for the sequence number 4967

Field stored FORC_AMOR at time 4.967000000000e+00 for the sequence number 4967

Field stored FORC_LIAI at time 4.967000000000e+00 for the sequence number 4967

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96700e+00, dernier instant archivé : 4.96700e+00, au numéro d'ordre :

4967

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Time of computation: 4.968000000000e+00

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| 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 |

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| 4.96800E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5974E-24 | -1.5974E-24 | 9.6984E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-16 with the node and degree of

freedom N553 DZ

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

freedom N553 DZ

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1338.63 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.968000000000e+00 for the sequence number 4968

Field stored SIEF_ELGA at time 4.968000000000e+00 for the sequence number 4968

Field stored VARI_ELGA at time 4.968000000000e+00 for the sequence number 4968

Field stored COMPORTEMENT at time 4.968000000000e+00 for the sequence number 4968

Field stored VITE at time 4.968000000000e+00 for the sequence number 4968

Field stored ACCE at time 4.968000000000e+00 for the sequence number 4968

Field stored FORC_AMOR at time 4.968000000000e+00 for the sequence number 4968

Field stored FORC_LIAI at time 4.968000000000e+00 for the sequence number 4968

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96800e+00, dernier instant archivé : 4.96800e+00, au numéro d'ordre :

4968

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Time of computation: 4.969000000000e+00

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| 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 | | | | | |

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| 4.96900E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6346E-24 | -1.6346E-24 | -1.6152E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N406 DY

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

freedom N406 DY

Temps CPU consommé dans ce pas de temps : 0.184 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1339.23 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.969000000000e+00 for the sequence number 4969

Field stored SIEF_ELGA at time 4.969000000000e+00 for the sequence number 4969

Field stored VARI_ELGA at time 4.969000000000e+00 for the sequence number 4969

Field stored COMPORTEMENT at time 4.969000000000e+00 for the sequence

number 4969

Field stored VITE at time 4.969000000000e+00 for the sequence number 4969

Field stored ACCE at time 4.969000000000e+00 for the sequence number 4969

Field stored FORC_AMOR at time 4.969000000000e+00 for the sequence number 4969

Field stored FORC_LIAI at time 4.969000000000e+00 for the sequence number 4969

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.96900e+00, dernier instant archivé : 4.96900e+00, au numéro d'ordre :

4969

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Time of computation: 4.970000000000e+00

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| 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 |

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| 4.97000E+00 | 0 | 7.54399E-16 | 6.10623E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.5873E-24 | -1.5873E-24 | -9.3543E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-16 with the node and degree of

freedom N370 DZ

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

freedom N370 DZ

Temps CPU consommé dans ce pas de temps : 0.184 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1339.84 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.970000000000e+00 for the sequence number 4970

Field stored SIEF_ELGA at time 4.970000000000e+00 for the sequence number 4970

Field stored VARI_ELGA at time 4.970000000000e+00 for the sequence number 4970

Field stored COMPORTEMENT at time 4.970000000000e+00 for the sequence number 4970

Field stored VITE at time 4.970000000000e+00 for the sequence number 4970

Field stored ACCE at time 4.970000000000e+00 for the sequence number 4970

Field stored FORC_AMOR at time 4.970000000000e+00 for the sequence number 4970

Field stored FORC_LIAI at time 4.970000000000e+00 for the sequence number 4970

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97000e+00, dernier instant archivé : 4.97000e+00, au numéro d'ordre :

4970

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Time of computation: 4.971000000000e+00

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| 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 |

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| 4.97100E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6109E-24 | -1.6109E-24 | 1.4232E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-16 with the node and degree of

freedom N471 DZ

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

freedom N471 DZ

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1340.45 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.971000000000e+00 for the sequence number 4971

Field stored SIEF_ELGA at time 4.971000000000e+00 for the sequence number 4971

Field stored VARI_ELGA at time 4.971000000000e+00 for the sequence number 4971

Field stored COMPORTEMENT at time 4.971000000000e+00 for the sequence number 4971

Field stored VITE at time 4.971000000000e+00 for the sequence number 4971

Field stored ACCE at time 4.971000000000e+00 for the sequence number 4971

Field stored FORC_AMOR at time 4.971000000000e+00 for the sequence number 4971

Field stored FORC_LIAI at time 4.971000000000e+00 for the sequence number 4971

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97100e+00, dernier instant archivé : 4.97100e+00, au numéro d'ordre :

4971

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Time of computation: 4.972000000000e+00

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| 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 | | | | | |

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| 4.97200E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6019E-24 | -1.6019E-24 | -1.5628E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282543e-16 with the node and degree of

freedom N528 DX

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

freedom N528 DX

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1341.05 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.972000000000e+00 for the sequence number 4972

Field stored SIEF_ELGA at time 4.972000000000e+00 for the sequence number 4972

Field stored VARI_ELGA at time 4.972000000000e+00 for the sequence number 4972

Field stored COMPORTEMENT at time 4.972000000000e+00 for the sequence

number 4972

Field stored VITE at time 4.972000000000e+00 for the sequence number 4972

Field stored ACCE at time 4.972000000000e+00 for the sequence number 4972

Field stored FORC_AMOR at time 4.972000000000e+00 for the sequence number 4972

Field stored FORC_LIAI at time 4.972000000000e+00 for the sequence number 4972

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97200e+00, dernier instant archivé : 4.97200e+00, au numéro d'ordre :

4972

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Time of computation: 4.973000000000e+00

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| 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 | | | | | |

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| 4.97300E+00 | 0 | 7.88690E-16 | 6.38378E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6131E-24 | -1.6131E-24 | 1.7875E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N400 DX

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

freedom N400 DX

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1341.66 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.973000000000e+00 for the sequence number 4973

Field stored SIEF_ELGA at time 4.973000000000e+00 for the sequence number 4973

Field stored VARI_ELGA at time 4.973000000000e+00 for the sequence number 4973

Field stored COMPORTEMENT at time 4.973000000000e+00 for the sequence number 4973

Field stored VITE at time 4.973000000000e+00 for the sequence number 4973

Field stored ACCE at time 4.973000000000e+00 for the sequence number 4973

Field stored FORC_AMOR at time 4.973000000000e+00 for the sequence number 4973

Field stored FORC_LIAI at time 4.973000000000e+00 for the sequence number 4973

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97300e+00, dernier instant archivé : 4.97300e+00, au numéro d'ordre :

4973

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Time of computation: 4.974000000000e+00

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| 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 |

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| 4.97400E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6087E-24 | -1.6087E-24 | -1.7901E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-16 with the node and degree of

freedom N671 DX

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

freedom N671 DX

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1342.26 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.974000000000e+00 for the sequence number 4974

Field stored SIEF_ELGA at time 4.974000000000e+00 for the sequence number 4974

Field stored VARI_ELGA at time 4.974000000000e+00 for the sequence number 4974

Field stored COMPORTEMENT at time 4.974000000000e+00 for the sequence number 4974

Field stored VITE at time 4.974000000000e+00 for the sequence number 4974

Field stored ACCE at time 4.974000000000e+00 for the sequence number 4974

Field stored FORC_AMOR at time 4.974000000000e+00 for the sequence number 4974

Field stored FORC_LIAI at time 4.974000000000e+00 for the sequence number 4974

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97400e+00, dernier instant archivé : 4.97400e+00, au numéro d'ordre :

4974

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Time of computation: 4.975000000000e+00

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| 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 | | | | | |

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| 4.97500E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6145E-24 | -1.6145E-24 | 1.8153E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-16 with the node and degree of

freedom N453 DX

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

freedom N453 DX

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1342.86 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.975000000000e+00 for the sequence number 4975

Field stored SIEF_ELGA at time 4.975000000000e+00 for the sequence number 4975

Field stored VARI_ELGA at time 4.975000000000e+00 for the sequence number 4975

Field stored COMPORTEMENT at time 4.975000000000e+00 for the sequence

number 4975

Field stored VITE at time 4.975000000000e+00 for the sequence number 4975

Field stored ACCE at time 4.975000000000e+00 for the sequence number 4975

Field stored FORC_AMOR at time 4.975000000000e+00 for the sequence number 4975

Field stored FORC_LIAI at time 4.975000000000e+00 for the sequence number 4975

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97500e+00, dernier instant archivé : 4.97500e+00, au numéro d'ordre :

4975

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Time of computation: 4.976000000000e+00

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| 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 |

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| 4.97600E+00 | 0 | 7.88690E-16 | 6.38378E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6016E-24 | -1.6016E-24 | -1.8783E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N451 DZ

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

freedom N451 DZ

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1343.47 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.976000000000e+00 for the sequence number 4976

Field stored SIEF_ELGA at time 4.976000000000e+00 for the sequence number 4976

Field stored VARI_ELGA at time 4.976000000000e+00 for the sequence number 4976

Field stored COMPORTEMENT at time 4.976000000000e+00 for the sequence number 4976

Field stored VITE at time 4.976000000000e+00 for the sequence number 4976

Field stored ACCE at time 4.976000000000e+00 for the sequence number 4976

Field stored FORC_AMOR at time 4.976000000000e+00 for the sequence number 4976

Field stored FORC_LIAI at time 4.976000000000e+00 for the sequence number 4976

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97600e+00, dernier instant archivé : 4.97600e+00, au numéro d'ordre :

4976

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Time of computation: 4.977000000000e+00

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| 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 | |

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| 4.97700E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | | |

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

| PAS COURANT | -1.5993E-24 | -1.5993E-24 | 1.7299E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-16 with the node and degree of

freedom N559 DX

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

freedom N559 DX

Temps CPU consommé dans ce pas de temps : 0.184 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1344.07 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.977000000000e+00 for the sequence number 4977

Field stored SIEF_ELGA at time 4.977000000000e+00 for the sequence number 4977

Field stored VARI_ELGA at time 4.977000000000e+00 for the sequence number 4977

Field stored COMPORTEMENT at time 4.977000000000e+00 for the sequence number 4977

Field stored VITE at time 4.977000000000e+00 for the sequence number 4977

Field stored ACCE at time 4.977000000000e+00 for the sequence number 4977

Field stored FORC_AMOR at time 4.977000000000e+00 for the sequence number 4977

Field stored FORC_LIAI at time 4.977000000000e+00 for the sequence number 4977

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97700e+00, dernier instant archivé : 4.97700e+00, au numéro d'ordre :

4977

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Time of computation: 4.978000000000e+00

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| 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 | | | | | |

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| 4.97800E+00 | 0 | 9.25853E-16 | 7.49401E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6163E-24 | -1.6163E-24 | -1.3303E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.258529265147e-16 with the node and degree of

freedom N465 DZ

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

freedom N465 DZ

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1344.68 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.978000000000e+00 for the sequence number 4978

Field stored SIEF_ELGA at time 4.978000000000e+00 for the sequence number 4978

Field stored VARI_ELGA at time 4.978000000000e+00 for the sequence number 4978

Field stored COMPORTEMENT at time 4.978000000000e+00 for the sequence

number 4978

Field stored VITE at time 4.978000000000e+00 for the sequence number 4978

Field stored ACCE at time 4.978000000000e+00 for the sequence number 4978

Field stored FORC_AMOR at time 4.978000000000e+00 for the sequence number 4978

Field stored FORC_LIAI at time 4.978000000000e+00 for the sequence number 4978

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97800e+00, dernier instant archivé : 4.97800e+00, au numéro d'ordre :

4978

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Time of computation: 4.979000000000e+00

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| 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 |

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| 4.97900E+00 | 0 | 7.54399E-16 | 6.10623E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6110E-24 | -1.6110E-24 | 1.1034E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-16 with the node and degree of

freedom N554 DZ

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

freedom N554 DZ

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1345.29 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.979000000000e+00 for the sequence number 4979

Field stored SIEF_ELGA at time 4.979000000000e+00 for the sequence number 4979

Field stored VARI_ELGA at time 4.979000000000e+00 for the sequence number 4979

Field stored COMPORTEMENT at time 4.979000000000e+00 for the sequence number 4979

Field stored VITE at time 4.979000000000e+00 for the sequence number 4979

Field stored ACCE at time 4.979000000000e+00 for the sequence number 4979

Field stored FORC_AMOR at time 4.979000000000e+00 for the sequence number 4979

Field stored FORC_LIAI at time 4.979000000000e+00 for the sequence number 4979

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.97900e+00, dernier instant archivé : 4.97900e+00, au numéro d'ordre :

4979

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Time of computation: 4.980000000000e+00

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| 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 |

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| 4.98000E+00 | 0 | 1.06302E-15 | 8.60423E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5942E-24 | -1.5942E-24 | -1.3769E-44 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.063016323035e-15 with the node and degree of

freedom N529 DZ

The residue of the type RESI_GLOB_MAXI is worth 8.604228440845e-16 with the node and degree of

freedom N529 DZ

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1345.89 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.980000000000e+00 for the sequence number 4980

Field stored SIEF_ELGA at time 4.980000000000e+00 for the sequence number 4980

Field stored VARI_ELGA at time 4.980000000000e+00 for the sequence number 4980

Field stored COMPORTEMENT at time 4.980000000000e+00 for the sequence number 4980

Field stored VITE at time 4.980000000000e+00 for the sequence number 4980

Field stored ACCE at time 4.980000000000e+00 for the sequence number 4980

Field stored FORC_AMOR at time 4.980000000000e+00 for the sequence number 4980

Field stored FORC_LIAI at time 4.980000000000e+00 for the sequence number 4980

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98000e+00, dernier instant archivé : 4.98000e+00, au numéro d'ordre :

4980

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Time of computation: 4.981000000000e+00

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| 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 |

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| 4.98100E+00 | 0 | 7.54399E-16 | 6.10623E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6166E-24 | -1.6166E-24 | 1.6014E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-16 with the node and degree of

freedom N729 DY

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

freedom N729 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1346.50 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.981000000000e+00 for the sequence number 4981

Field stored SIEF_ELGA at time 4.981000000000e+00 for the sequence number 4981

Field stored VARI_ELGA at time 4.981000000000e+00 for the sequence number 4981

Field stored COMPORTEMENT at time 4.981000000000e+00 for the sequence

number 4981

Field stored VITE at time 4.981000000000e+00 for the sequence number 4981

Field stored ACCE at time 4.981000000000e+00 for the sequence number 4981

Field stored FORC_AMOR at time 4.981000000000e+00 for the sequence number 4981

Field stored FORC_LIAI at time 4.981000000000e+00 for the sequence number 4981

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98100e+00, dernier instant archivé : 4.98100e+00, au numéro d'ordre :

4981

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Time of computation: 4.982000000000e+00

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| 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 |

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| 4.98200E+00 | 0 | 8.22980E-16 | 6.66134E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6058E-24 | -1.6058E-24 | -1.6658E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791242e-16 with the node and degree of

freedom N435 DZ

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

freedom N435 DZ

Temps CPU consommé dans ce pas de temps : 0.184 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1347.11 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.982000000000e+00 for the sequence number 4982

Field stored SIEF_ELGA at time 4.982000000000e+00 for the sequence number 4982

Field stored VARI_ELGA at time 4.982000000000e+00 for the sequence number 4982

Field stored COMPORTEMENT at time 4.982000000000e+00 for the sequence number 4982

Field stored VITE at time 4.982000000000e+00 for the sequence number 4982

Field stored ACCE at time 4.982000000000e+00 for the sequence number 4982

Field stored FORC_AMOR at time 4.982000000000e+00 for the sequence number 4982

Field stored FORC_LIAI at time 4.982000000000e+00 for the sequence number 4982

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98200e+00, dernier instant archivé : 4.98200e+00, au numéro d'ordre :

4982

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Time of computation: 4.983000000000e+00

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| 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 |

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| 4.98300E+00 | 0 | 8.22980E-16 | 6.66134E-16 | |TANGENTE | |

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

| PAS COURANT | -1.5979E-24 | -1.5979E-24 | 1.3559E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791242e-16 with the node and degree of

freedom N581 DY

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

freedom N581 DY

Temps CPU consommé dans ce pas de temps : 0.184 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1347.71 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.983000000000e+00 for the sequence number 4983

Field stored SIEF_ELGA at time 4.983000000000e+00 for the sequence number 4983

Field stored VARI_ELGA at time 4.983000000000e+00 for the sequence number 4983

Field stored COMPORTEMENT at time 4.983000000000e+00 for the sequence number 4983

Field stored VITE at time 4.983000000000e+00 for the sequence number 4983

Field stored ACCE at time 4.983000000000e+00 for the sequence number 4983

Field stored FORC_AMOR at time 4.983000000000e+00 for the sequence number 4983

Field stored FORC_LIAI at time 4.983000000000e+00 for the sequence number 4983

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98300e+00, dernier instant archivé : 4.98300e+00, au numéro d'ordre :

4983

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Time of computation: 4.984000000000e+00

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| 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 | | | | | |

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| 4.98400E+00 | 0 | 1.02873E-15 | 8.32667E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6201E-24 | -1.6201E-24 | -8.0865E-45 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.028725473905e-15 with the node and degree of

freedom N527 DX

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

freedom N527 DX

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1348.32 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.984000000000e+00 for the sequence number 4984

Field stored SIEF_ELGA at time 4.984000000000e+00 for the sequence number 4984

Field stored VARI_ELGA at time 4.984000000000e+00 for the sequence number 4984

Field stored COMPORTEMENT at time 4.984000000000e+00 for the sequence

number 4984

Field stored VITE at time 4.984000000000e+00 for the sequence number 4984

Field stored ACCE at time 4.984000000000e+00 for the sequence number 4984

Field stored FORC_AMOR at time 4.984000000000e+00 for the sequence number 4984

Field stored FORC_LIAI at time 4.984000000000e+00 for the sequence number 4984

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98400e+00, dernier instant archivé : 4.98400e+00, au numéro d'ordre :

4984

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Time of computation: 4.985000000000e+00

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| 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 |

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| 4.98500E+00 | 0 | 8.91562E-16 | 7.21645E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.5972E-24 | -1.5972E-24 | 1.8634E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-16 with the node and degree of

freedom N455 DX

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

freedom N455 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1348.92 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.985000000000e+00 for the sequence number 4985

Field stored SIEF_ELGA at time 4.985000000000e+00 for the sequence number 4985

Field stored VARI_ELGA at time 4.985000000000e+00 for the sequence number 4985

Field stored COMPORTEMENT at time 4.985000000000e+00 for the sequence number 4985

Field stored VITE at time 4.985000000000e+00 for the sequence number 4985

Field stored ACCE at time 4.985000000000e+00 for the sequence number 4985

Field stored FORC_AMOR at time 4.985000000000e+00 for the sequence number 4985

Field stored FORC_LIAI at time 4.985000000000e+00 for the sequence number 4985

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98500e+00, dernier instant archivé : 4.98500e+00, au numéro d'ordre :

4985

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Time of computation: 4.986000000000e+00

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| 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 |

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| 4.98600E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6079E-24 | -1.6079E-24 | 7.4784E-46 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791242e-16 with the node and degree of

freedom N596 DY

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

freedom N596 DY

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1349.53 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.986000000000e+00 for the sequence number 4986

Field stored SIEF_ELGA at time 4.986000000000e+00 for the sequence number 4986

Field stored VARI_ELGA at time 4.986000000000e+00 for the sequence number 4986

Field stored COMPORTEMENT at time 4.986000000000e+00 for the sequence number 4986

Field stored VITE at time 4.986000000000e+00 for the sequence number 4986

Field stored ACCE at time 4.986000000000e+00 for the sequence number 4986

Field stored FORC_AMOR at time 4.986000000000e+00 for the sequence number 4986

Field stored FORC_LIAI at time 4.986000000000e+00 for the sequence number 4986

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98600e+00, dernier instant archivé : 4.98600e+00, au numéro d'ordre :

4986

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Time of computation: 4.987000000000e+00

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| 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 | | | | | |

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| 4.98700E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | TANGENTE | | | | | | |

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

| PAS COURANT | -1.6090E-24 | -1.6090E-24 | -4.4449E-46 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282544e-16 with the node and degree of

freedom N529 DZ

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

freedom N529 DZ

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1350.13 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.987000000000e+00 for the sequence number 4987

Field stored SIEF_ELGA at time 4.987000000000e+00 for the sequence number 4987

Field stored VARI_ELGA at time 4.987000000000e+00 for the sequence number 4987

Field stored COMPORTEMENT at time 4.987000000000e+00 for the sequence

number 4987

Field stored VITE at time 4.987000000000e+00 for the sequence number 4987

Field stored ACCE at time 4.987000000000e+00 for the sequence number 4987

Field stored FORC_AMOR at time 4.987000000000e+00 for the sequence number 4987

Field stored FORC_LIAI at time 4.987000000000e+00 for the sequence number 4987

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98700e+00, dernier instant archivé : 4.98700e+00, au numéro d'ordre :

4987

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Time of computation: 4.988000000000e+00

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| 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 |

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| 4.98800E+00 | 0 | 1.06302E-15 | 8.60423E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6094E-24 | -1.6094E-24 | 1.1382E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 1.063016323035e-15 with the node and degree of

freedom N390 DZ

The residue of the type RESI_GLOB_MAXI is worth 8.604228440845e-16 with the node and degree of

freedom N390 DZ

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1350.73 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.988000000000e+00 for the sequence number 4988

Field stored SIEF_ELGA at time 4.988000000000e+00 for the sequence number 4988

Field stored VARI_ELGA at time 4.988000000000e+00 for the sequence number 4988

Field stored COMPORTEMENT at time 4.988000000000e+00 for the sequence number 4988

Field stored VITE at time 4.988000000000e+00 for the sequence number 4988

Field stored ACCE at time 4.988000000000e+00 for the sequence number 4988

Field stored FORC_AMOR at time 4.988000000000e+00 for the sequence number 4988

Field stored FORC_LIAI at time 4.988000000000e+00 for the sequence number 4988

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98800e+00, dernier instant archivé : 4.98800e+00, au numéro d'ordre :

4988

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Time of computation: 4.989000000000e+00

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| 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 |

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| 4.98900E+00 | 0 | 8.57271E-16 | 6.93889E-16 | |TANGENTE | | |

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

| PAS COURANT | -1.6029E-24 | -1.6029E-24 | -3.1395E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282544e-16 with the node and degree of

freedom N403 DY

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

freedom N403 DY

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1351.34 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.989000000000e+00 for the sequence number 4989

Field stored SIEF_ELGA at time 4.989000000000e+00 for the sequence number 4989

Field stored VARI_ELGA at time 4.989000000000e+00 for the sequence number 4989

Field stored COMPORTEMENT at time 4.989000000000e+00 for the sequence number 4989

Field stored VITE at time 4.989000000000e+00 for the sequence number 4989

Field stored ACCE at time 4.989000000000e+00 for the sequence number 4989

Field stored FORC_AMOR at time 4.989000000000e+00 for the sequence number 4989

Field stored FORC_LIAI at time 4.989000000000e+00 for the sequence number 4989

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.98900e+00, dernier instant archivé : 4.98900e+00, au numéro d'ordre :

4989

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Time of computation: 4.990000000000e+00

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| 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 |

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| 4.99000E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6112E-24 | -1.6112E-24 | 5.4823E-45 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N405 DY

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

freedom N405 DY

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.026 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1351.95 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.990000000000e+00 for the sequence number 4990

Field stored SIEF_ELGA at time 4.990000000000e+00 for the sequence number 4990

Field stored VARI_ELGA at time 4.990000000000e+00 for the sequence number 4990

Field stored COMPORTEMENT at time 4.990000000000e+00 for the sequence

number 4990

Field stored VITE at time 4.990000000000e+00 for the sequence number 4990

Field stored ACCE at time 4.990000000000e+00 for the sequence number 4990

Field stored FORC_AMOR at time 4.990000000000e+00 for the sequence number 4990

Field stored FORC_LIAI at time 4.990000000000e+00 for the sequence number 4990

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99000e+00, dernier instant archivé : 4.99000e+00, au numéro d'ordre :

4990

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Time of computation: 4.991000000000e+00

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| 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 |

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| 4.99100E+00 | 0 | 7.88690E-16 | 6.38378E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6013E-24 | -1.6013E-24 | -8.7594E-45 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N554 DY

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

freedom N554 DY

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1352.55 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.991000000000e+00 for the sequence number 4991

Field stored SIEF_ELGA at time 4.991000000000e+00 for the sequence number 4991

Field stored VARI_ELGA at time 4.991000000000e+00 for the sequence number 4991

Field stored COMPORTEMENT at time 4.991000000000e+00 for the sequence number 4991

Field stored VITE at time 4.991000000000e+00 for the sequence number 4991

Field stored ACCE at time 4.991000000000e+00 for the sequence number 4991

Field stored FORC_AMOR at time 4.991000000000e+00 for the sequence number 4991

Field stored FORC_LIAI at time 4.991000000000e+00 for the sequence number 4991

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99100e+00, dernier instant archivé : 4.99100e+00, au numéro d'ordre :

4991

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Time of computation: 4.992000000000e+00

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| 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 |

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| 4.99200E+00 | 0 | 9.94435E-16 | 8.04912E-16 | |TANGENTE | |

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

| PAS COURANT | -1.6220E-24 | -1.6220E-24 | 1.3414E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 9.944346247751e-16 with the node and degree of

freedom N464 DX

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

freedom N464 DX

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1353.16 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.992000000000e+00 for the sequence number 4992

Field stored SIEF_ELGA at time 4.992000000000e+00 for the sequence number 4992

Field stored VARI_ELGA at time 4.992000000000e+00 for the sequence number 4992

Field stored COMPORTEMENT at time 4.992000000000e+00 for the sequence number 4992

Field stored VITE at time 4.992000000000e+00 for the sequence number 4992

Field stored ACCE at time 4.992000000000e+00 for the sequence number 4992

Field stored FORC_AMOR at time 4.992000000000e+00 for the sequence number 4992

Field stored FORC_LIAI at time 4.992000000000e+00 for the sequence number 4992

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99200e+00, dernier instant archivé : 4.99200e+00, au numéro d'ordre :

4992

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Time of computation: 4.993000000000e+00

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| 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 | | | | | |

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| 4.99300E+00 | 0 | 8.57271E-16 | 6.93889E-16 | | | | |

| | |TANGENTE | | | | | |

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

| PAS COURANT | -1.6074E-24 | -1.6074E-24 | -1.5902E-44 | 0.0000E+00 | -1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282544e-16 with the node and degree of

freedom N464 DX

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

freedom N464 DX

Temps CPU consommé dans ce pas de temps : 0.181 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1353.76 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.993000000000e+00 for the sequence number 4993

Field stored SIEF_ELGA at time 4.993000000000e+00 for the sequence number 4993

Field stored VARI_ELGA at time 4.993000000000e+00 for the sequence number 4993

Field stored COMPORTEMENT at time 4.993000000000e+00 for the sequence

number 4993

Field stored VITE at time 4.993000000000e+00 for the sequence number 4993

Field stored ACCE at time 4.993000000000e+00 for the sequence number 4993

Field stored FORC_AMOR at time 4.993000000000e+00 for the sequence number 4993

Field stored FORC_LIAI at time 4.993000000000e+00 for the sequence number 4993

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99300e+00, dernier instant archivé : 4.99300e+00, au numéro d'ordre :

4993

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Time of computation: 4.994000000000e+00

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| 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 |

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| 4.99400E+00 | 0 | 8.57271E-16 | 6.93889E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6078E-24 | -1.6078E-24 | 1.5643E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.572712282544e-16 with the node and degree of

freedom N403 DY

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

freedom N403 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.027 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1354.37 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.994000000000e+00 for the sequence number 4994

Field stored SIEF_ELGA at time 4.994000000000e+00 for the sequence number 4994

Field stored VARI_ELGA at time 4.994000000000e+00 for the sequence number 4994

Field stored COMPORTEMENT at time 4.994000000000e+00 for the sequence number 4994

Field stored VITE at time 4.994000000000e+00 for the sequence number 4994

Field stored ACCE at time 4.994000000000e+00 for the sequence number 4994

Field stored FORC_AMOR at time 4.994000000000e+00 for the sequence number 4994

Field stored FORC_LIAI at time 4.994000000000e+00 for the sequence number 4994

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99400e+00, dernier instant archivé : 4.99400e+00, au numéro d'ordre :

4994

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Time of computation: 4.995000000000e+00

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| 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 |

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| 4.99500E+00 | 0 | 7.54399E-16 | 6.10623E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.5946E-24 | -1.5946E-24 | -1.6906E-44 | 0.0000E+00 | 1.8367E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.543986808638e-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 : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1354.98 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.995000000000e+00 for the sequence number 4995

Field stored SIEF_ELGA at time 4.995000000000e+00 for the sequence number 4995

Field stored VARI_ELGA at time 4.995000000000e+00 for the sequence number 4995

Field stored COMPORTEMENT at time 4.995000000000e+00 for the sequence number 4995

Field stored VITE at time 4.995000000000e+00 for the sequence number 4995

Field stored ACCE at time 4.995000000000e+00 for the sequence number 4995

Field stored FORC_AMOR at time 4.995000000000e+00 for the sequence number 4995

Field stored FORC_LIAI at time 4.995000000000e+00 for the sequence number 4995

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99500e+00, dernier instant archivé : 4.99500e+00, au numéro d'ordre :

4995

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Time of computation: 4.996000000000e+00

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| 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 |

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| 4.99600E+00 | 0 | 8.91562E-16 | 7.21645E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6182E-24 | -1.6182E-24 | 2.0132E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-16 with the node and degree of

freedom N554 DY

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

freedom N554 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1355.58 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.996000000000e+00 for the sequence number 4996

Field stored SIEF_ELGA at time 4.996000000000e+00 for the sequence number 4996

Field stored VARI_ELGA at time 4.996000000000e+00 for the sequence number 4996

Field stored COMPORTEMENT at time 4.996000000000e+00 for the sequence

number 4996

Field stored VITE at time 4.996000000000e+00 for the sequence number 4996

Field stored ACCE at time 4.996000000000e+00 for the sequence number 4996

Field stored FORC_AMOR at time 4.996000000000e+00 for the sequence number 4996

Field stored FORC_LIAI at time 4.996000000000e+00 for the sequence number 4996

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99600e+00, dernier instant archivé : 4.99600e+00, au numéro d'ordre :

4996

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Time of computation: 4.997000000000e+00

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| 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 |

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| 4.99700E+00 | 0 | 8.91562E-16 | 7.21645E-16 |
| | |TANGENTE | | |

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

| PAS COURANT | -1.6095E-24 | -1.6095E-24 | -2.0690E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.915620773845e-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 : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.101 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1356.19 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.997000000000e+00 for the sequence number 4997

Field stored SIEF_ELGA at time 4.997000000000e+00 for the sequence number 4997

Field stored VARI_ELGA at time 4.997000000000e+00 for the sequence number 4997

Field stored COMPORTEMENT at time 4.997000000000e+00 for the sequence number 4997

Field stored VITE at time 4.997000000000e+00 for the sequence number 4997

Field stored ACCE at time 4.997000000000e+00 for the sequence number 4997

Field stored FORC_AMOR at time 4.997000000000e+00 for the sequence number 4997

Field stored FORC_LIAI at time 4.997000000000e+00 for the sequence number 4997

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99700e+00, dernier instant archivé : 4.99700e+00, au numéro d'ordre :

4997

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Time of computation: 4.998000000000e+00

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| 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 |

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| 4.99800E+00 | 0 | 8.22980E-16 | 6.66134E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6063E-24 | -1.6063E-24 | 1.8100E-44 | 0.0000E+00 | 3.6734E-40 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 8.229803791242e-16 with the node and degree of

freedom N488 DY

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

freedom N488 DY

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1356.79 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.998000000000e+00 for the sequence number 4998

Field stored SIEF_ELGA at time 4.998000000000e+00 for the sequence number 4998

Field stored VARI_ELGA at time 4.998000000000e+00 for the sequence number 4998

Field stored COMPORTEMENT at time 4.998000000000e+00 for the sequence number 4998

Field stored VITE at time 4.998000000000e+00 for the sequence number 4998

Field stored ACCE at time 4.998000000000e+00 for the sequence number 4998

Field stored FORC_AMOR at time 4.998000000000e+00 for the sequence number 4998

Field stored FORC_LIAI at time 4.998000000000e+00 for the sequence number 4998

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

1.000000000000e-03.

[ 99%] Instant calculé : 4.99800e+00, dernier instant archivé : 4.99800e+00, au numéro d'ordre :

4998

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Time of computation: 4.999000000000e+00

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| 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 |

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| 4.99900E+00 | 0 | 7.88690E-16 | 6.38378E-16 | | |TANGENTE | |

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

| PAS COURANT | -1.6076E-24 | -1.6076E-24 | -1.5088E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-10 | -1.0899E-01 | 0.0000E+00 | 5.9444E+01 |

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Criterion (S) of convergence reached (S)

The residue of the type RESI_GLOB_RELA is worth 7.886895299940e-16 with the node and degree of

freedom N440 DY

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

freedom N440 DY

Temps CPU consommé dans ce pas de temps : 0.183 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.103 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.020 s

Mémoire (Mo) : 2059.05 / 1357.39 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 4.999000000000e+00 for the sequence number 4999

Field stored SIEF_ELGA at time 4.999000000000e+00 for the sequence number 4999

Field stored VARI_ELGA at time 4.999000000000e+00 for the sequence number 4999

Field stored COMPORTEMENT at time 4.999000000000e+00 for the sequence

number 4999

Field stored VITE at time 4.999000000000e+00 for the sequence number 4999

Field stored ACCE at time 4.999000000000e+00 for the sequence number 4999

Field stored FORC_AMOR at time 4.999000000000e+00 for the sequence number 4999

Field stored FORC_LIAI at time 4.999000000000e+00 for the sequence number 4999

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

9.999999999959e-04.

[ 99%] Instant calculé : 4.99900e+00, dernier instant archivé : 4.99900e+00, au numéro d'ordre :

4999

---

Time of computation: 5.000000000000e+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 |

---

| 5.00000E+00 | 0 | 1.06302E-15 | 8.60423E-16 |
| | |TANGENTE | | |

---

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

| PAS COURANT | -1.6020E-24 | -1.6020E-24 | 1.1661E-44 | 0.0000E+00 | 0.0000E+00 |

| TOTAL | 5.9335E+01 | 5.3903E-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 1.063016323035e-15 with the node and degree of

freedom N464 DZ

The residue of the type RESI_GLOB_MAXI is worth 8.604228440845e-16 with the node and degree of

freedom N464 DZ

Temps CPU consommé dans ce pas de temps : 0.182 s

* Nombre d'itérations de Newton : 1

* Temps total intégration comportement : 0.102 s (3 intégrations)

* Temps total factorisation matrice : 0.026 s (1 factorisations)

* Temps construction second membre : 0.027 s

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

* Temps assemblage matrice : 0.007 s

* Nombre d'itérations de recherche linéaire : 0

* Temps autres opérations : 0.019 s

Mémoire (Mo) : 2059.05 / 1358.00 / 1500.16 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

Filing of the fields

Field stored DEPL at time 5.000000000000e+00 for the sequence number 5000

Field stored SIEF_ELGA at time 5.000000000000e+00 for the sequence number 5000

Field stored VARI_ELGA at time 5.000000000000e+00 for the sequence number 5000

Field stored COMPORTEMENT at time 5.000000000000e+00 for the sequence number 5000

Field stored VITE at time 5.000000000000e+00 for the sequence number 5000

Field stored ACCE at time 5.000000000000e+00 for the sequence number 5000

Field stored FORC_AMOR at time 5.000000000000e+00 for the sequence number 5000

Field stored FORC_LIAI at time 5.000000000000e+00 for the sequence number 5000

[100%] Instant calculé : 5.00000e+00, dernier instant archivé : 5.00000e+00, au numéro d'ordre :

5000

Temps CPU consommé dans le calcul : 16 min 5 s

dont temps CPU "perdu" dans les découpes : 0.000 s

* Nombre de pas de temps : 5000

* Nombre d'itérations de Newton : 5000

* Temps dans l'archivage : 11.533 s

* Temps dans le post-traitement : 47.140 s

* Temps total intégration comportement : 8 min 15 s (15000 intégrations)

* Temps total factorisation matrice : 2 min 7 s (5000 factorisations)

* Temps construction second membre : 2 min 8 s

* Temps total résolution K.U=F : 4.588 s (5000 résolutions)

* Temps assemblage matrice : 35.238 s

* Nombre d'itérations de recherche linéaire : 0

#1 Resolution des systemes lineaires CPU (USER+SYST/SYST/ELAPS): 132.33 9.00 132.22

#2 Calculs elementaires et assemblages CPU (USER+SYST/SYST/ELAPS): 720.65 28.78 720.33

#3 Dechargement de la memoire sur disque CPU (USER+SYST/SYST/ELAPS): 1.40 1.00 1.41

#4 Communications MPI CPU (USER+SYST/SYST/ELAPS): 0.35 0.02 0.38

# 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) : 3886.26 / 3886.26 / 3242.52 / 243.10 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0047 user+syst: 906.72s (syst: 63.20s, elaps: 970.13s)

# --------------------------------------------------------------------------------

```
.. _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 Nombre
de

 d'objets segments

| | | | | |
|---|---|---|---|---|
| TOTAL | | 3025.61 | 170501 | 195642 |
| 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 | 0.04 | 6 | 6 |
| 0000002b | LIST_INST | 0.04 | 9 | 9 |
| 0000002c | EVOL_NOLI | 2990.37 | 170100 | 195114 |
| &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 : 4268

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 26956

Volume des accès en lecture : 21059.38 Mo.

Nombre total d'accès en écriture : 4687

Volume des accès en écriture : 3661.72 Mo.

Nombre d'identificateurs utilisés : 195652

Taille maximum du répertoire : 256000

Pourcentage d'utilisation du répertoire : 76 %

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 : 116018

Volume des accès en lecture : 90639.06 Mo.

Nombre total d'accès en écriture : 1493

Volume des accès en écriture : 1166.41 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 : 243.10 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 3252.47 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 3896.92 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 3252 Mo.

TAILLE CUMULEE LIBEREE : 30370 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 24050781

NOMBRE TOTAL DE LIBERATIONS : 24050761

APPELS AU MECANISME DE LIBERATION : 7

TAILLE MEMOIRE CUMULEE RECUPEREE : 2830 Mo.

VOLUME DES LECTURES : 41 Mo.

VOLUME DES ECRITURES : 2848 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 243.10 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 3252.47 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 3896.92 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : JE-23-JANV-2025 14:29:23

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
8f5f8058cad4e61752323b9c43d6560d26f96ba66a85823e8f2524de9e912948

Signature of info file :
d385a9a9c129be9a50e5ef4a3b59bf4c115982fffe4be2daa132b188e168a54e

Signature of Jeveux database:
e1cc55dce0cabb224f835ebce980a8dd63a0e61e0a9e3d33893f2096bf9067d1

**********

* COMMAND : USER : SYSTEM : USER+SYS : ELAPSED *

**********

* DEBUT : 0.04 : 0.15 : 0.19 : 0.18 *

* DEFI_MATERIAU : 0.00 : 0.00 : 0.00 : 0.01 *

* LIRE_MAILLAGE : 0.01 : 0.00 : 0.01 : 0.01 *

 * DEFI_GROUP : 0.00 : 0.00 : 0.00 : 0.00
*
 * MODI_MAILLAGE : 0.01 : 0.01 : 0.02 : 0.01
*
 * AFFE_MODELE : 0.01 : 0.00 : 0.01 : 0.01
*
 * AFFE_MATERIAU : 0.00 : 0.00 : 0.00 : 0.01
*
 * CREA_CHAMP : 0.01 : 0.00 : 0.01 : 0.00
*
 * FORMULE : 0.00 : 0.00 : 0.00 : 0.00
*
 * FORMULE : 0.00 : 0.00 : 0.00 : 0.00
*
 * FORMULE : 0.00 : 0.00 : 0.00 : 0.00
*
 * 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 : 0.01
*
 * 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 : 0.01 : 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 : 0.01 : 0.00 : 0.01 : 0.00
*
* CREA_CHAMP : 0.00 : 0.00 : 0.00 : 0.01
*
* CREA_CHAMP : 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 : 0.01
*
* 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 : 0.01
*
* CREA_CHAMP : 0.01 : 0.01 : 0.02 : 0.01
*
* CREA_CHAMP : 0.08 : 0.00 : 0.08 : 0.08
*

```
 * CREA_CHAMP                :          0.01 :          0.00 :          0.01 :          0.01
*
 * FORMULE                   :          0.00 :          0.00 :          0.00 :          0.00
*
 * FORMULE                   :          0.00 :          0.00 :          0.00 :          0.00
*
 * FORMULE                   :          0.00 :          0.00 :          0.00 :          0.00
*
 * FORMULE                   :          0.00 :          0.00 :          0.00 :          0.00
*
 * AFFE_CHAR_MECA            :          0.01 :          0.00 :          0.01 :          0.00
*
 * AFFE_CHAR_MECA_F          :          0.00 :          0.00 :          0.00 :          0.01
*
 * AFFE_CHAR_CINE            :          0.01 :          0.00 :          0.01 :          0.00
*
 * AFFE_CHAR_MECA_F          :          0.01 :          0.00 :          0.01 :          0.01
*
 * DEFI_LIST_REEL            :          0.00 :          0.00 :          0.00 :          0.00 *
 * DEFI_LIST_INST            :          0.01 :          0.00 :          0.01 :          0.01 *
 * DYNA_NON_LINE             :        906.72 :         63.20 :        969.92 :
970.13 *
 * FIN                       :          0.68 :          0.46 :          1.14 :          1.15 *
 *    . check syntax         :          0.03 :          0.00 :          0.03 :          0.06 *
 *    . fortran              :        906.61 :         60.06 :        966.67 :        966.87 *
 ********************************************************************************
 * TOTAL_JOB                 :        907.68 :         63.83 :        971.51 :        971.72
*
 ********************************************************************************
# Mémoire (Mo) :    3896.92 /    1571.64 /    3252.47 /     243.10 (VmPeak / VmSize /
```

```
Optimum / Minimum)
# Fin commande #0048      user+syst:              0.68s (syst:              0.46s, elaps:
1.15s)
# ------------------------------------------------------------------------
--------------------
End of the Code_Aster execution
Code_Aster MPI exits normally
Exited
EXECUTION_CODE_ASTER_EXIT_11=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'

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Exécution du : Thu Jan 23 14:29:33 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 : 484.88 Mo

reste pour l'allocation dynamique : 119515.12 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()

--- Detected export files: ['11.export', '12.export']

---      File 11.export; modtime: 1737642571.4423354; comm-file name: sim

---      File 12.export; modtime: 1737642571.4423354; comm-file name: post

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       :   4268
        Nombre d'enregistrements maximum        :   2684354
        Nombre d'enregistrements par fichier    :   15728
        Longueur d'enregistrement (octets)      :   819200
        Nombre d'identificateurs utilisés       :   195652
        Taille maximum du répertoire            :   256000
        Pourcentage d'utilisation du répertoire :   76 %
Ouverture en lecture du fichier ./glob.1
Ouverture en écriture du fichier ./vola.1
End of reading (lasted 0.000001 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) : 3830.53 / 3828.77 / 3202.44 / 229.91 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0001 user+syst: 1.02s (syst: 4.61s, elaps: 5.64s)

# ----------

.. _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) :  3830.53 /  3828.77 /  3202.44 /  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) :  3835.04 /  3833.12 /  3204.54 /  229.91 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0003 user+syst: 0.14s (syst: 0.00s, elaps: 0.15s)

# ----------

.. _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) : 3835.04 / 3832.37 / 3204.54 / 229.91 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0006 user+syst: 0.00s (syst: 0.00s, elaps: 0.00s)

# ----------

.. _stg1_txt41

# ----------

# Commande #0007 de fort.1, ligne 41

```
IMPR_TABLE(COMMENTAIRE='#',
           COMM_PARA='$$',
           DEBUT_LIGNE='',
           FIN_LIGNE='\n',
           FIN_TABLE='',
           FORMAT='TABLEAU',
```

FORMAT_R='E12.5',

IMPR_FONCTION='NON',

INFO=1,

NOM_PARA=('INST', 'TRAV_EXT', 'ENER_CIN', 'ENER_TOT', 'TRAV_AMOR', 'TRAV_LIAI', 'DISS_SCH'),

SEPARATEUR=',',

TABLE='<0000002e>',

UNITE=30)

# Mémoire (Mo) : 3836.62 / 3832.62 / 3204.54 / 229.91 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0007 user+syst: 0.03s (syst: 0.00s, elaps: 0.04s)

# ------------------------------------------------------------------------

.. _stg1_txt51

# ------------------------------------------------------------------------

# Commande #0008 de fort.1, ligne 51

DEFI_FICHIER(ACTION='LIBERER',

UNITE=30)

# Mémoire (Mo) : 3836.62 / 3832.62 / 3204.54 / 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)
Ouverture en écriture du fichier ./vola.2
#2          Calculs elementaires et assemblages                    CPU
(USER+SYST/SYST/ELAPS):      156.22        24.94       156.09
#3          Dechargement de la memoire sur disque                  CPU
(USER+SYST/SYST/ELAPS):       10.13         8.02        10.15
Critère de destruction du fichier (1.00 %) associé à la base VOLATILE dépassé 1.08 %
 Nombre d'enregistrements utilisés : 28915
 Volume disque occupé                  : 22590 Mo.
 Nombre maximum d'enregistrements    : 2684354
Ouverture en écriture du fichier ./vola.1
 DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats
  return libaster.call_oper(syntax, 0)
# Résultat commande #0009 (CALC_CHAMP): SIM ('<0000002c>') de type
<NonLinearResult>
# Dépend de :
# - TIMELIST ('<0000002a>') de type <ListOfFloats>
# - MATS ('<00000004>') de type <MaterialField>
```

# - BC_0 ('<00000026>') de type <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) : 16149.35 /  3534.16 / 15118.29 /  265.00 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0009  user+syst:  297.19s (syst:  66.75s, elaps:  370.21s)

# ----------

.. _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 23/01/2025 A 14:35:49 DE TYPE MAILLAGE_SDASTER

NOMBRE DE NOEUDS  876

NOMBRE DE MAILLES  4005

TETRA4  4005

NOMBRE DE GROUPES DE MAILLES 1

region1 4005

---

# Résultat commande #0010 (CREA_MAILLAGE): MESH_PP ('<0000002f>') de type <Mesh>

# Dépend de :

# - MESH ('<00000002>') de type <Mesh>

# Mémoire (Mo) : 16149.35 / 3534.59 / 15118.29 / 265.00 (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) : 16149.35 / 3536.51 / 15118.29 / 265.00 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0011 user+syst: 0.01s (syst: 0.01s, 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 5001 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 !

! ... ! ... ! ... ! ... ! ... ! ... ! ... ! ... !

! 5000 ! 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 !

! ... ! ... ! ... ! ... ! ... !
... ! ... ! ... ! ... ! ... !

! 5000 ! K8 ! K8 ! K8 !
K24 ! R ! I ! R !
K24 ! R !

! ---------- !----------------!----------------!----------------!----------
----!----------------!----------------!----------------!----------------!----
----------!

#3 Dechargement de la memoire sur disque CPU
(USER+SYST/SYST/ELAPS): 0.49 0.39 0.51

# Résultat commande #0012 (EXTR_RESU): SIM_PP ('<00000031>') de type
<NonLinearResult>

# Dépend de :

# - MOD_PP ('<00000030>') de type <Model>

# Mémoire (Mo) : 16149.35 / 4005.74 / 15118.29 / 300.99 (VmPeak / VmSize /
Optimum / Minimum)

# Fin commande #0012 user+syst: 112.03s (syst: 18.93s, elaps:
131.01s)

# ----------
----------

.. _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) : 16149.35 / 4005.74 / 15118.29 / 300.99 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0013 user+syst: 0.04s (syst: 0.00s, elaps: 0.04s)

# ----------

.. _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) : 16149.35 / 4036.31 / 15118.29 / 300.99 (VmPeak / VmSize / Optimum / Minimum)

# Fin commande #0014 user+syst: 38.21s (syst: 22.65s, elaps:

60.87s)

# ------------------------------------------------------------------------
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.. _stg1_txt155

# ------------------------------------------------------------------------
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# 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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-

Concepts de la base: G

| Nom | Type | Taille (Mo) | Nombre d'objets | Nombre de segments |
|---|---|---|---|---|
| TOTAL | | 5449.86 | 380655 | 430838 |
| 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 | CHAM_MECA | 0.03 | 32 | 37 |
| 00000027 | CHAM_MECA | 0.04 | 32 | 37 |
| 00000028 | CHAM_CINE_MECA | 0.03 | 4 | 4 |
| 00000029 | CHAM_MECA | 0.01 | 32 | 37 |
| 0000002a | LISTR8_SDASTER | 0.04 | 6 | 6 |
| 0000002b | LIST_INST | 0.04 | 9 | 9 |
| 0000002c | EVOL_NOLI | 3962.36 | 230127 | 255147 |

| | | | | |
|---|---|---|---|---|
| 0000002e | TABLE_SDASTER | 0.54 | 19 | 19 |
| 0000002f | MAILLAGE_SDASTER | 0.42 | 38 | 52 |
| 00000030 | MODELE_SDASTER | 0.18 | 9 | 14 |
| 00000031 | EVOL_NOLI | 1451.12 | 150061 | 175078 |
| &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 : 7669

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 100115

Volume des accès en lecture : 78214.84 Mo.

Nombre total d'accès en écriture : 3883

Volume des accès en écriture : 3033.59 Mo.

Nombre d'identificateurs utilisés : 430873

Taille maximum du répertoire : 512000

Pourcentage d'utilisation du répertoire : 84 %

Nom de la base : VOLATILE

Nombre d'enregistrements utilisés : 130

Nombre d'enregistrements maximum : 2684354

Nombre d'enregistrements par fichier : 15728

Longueur d'enregistrement (octets) : 819200

Nombre total d'accès en lecture : 42509

Volume des accès en lecture : 33210.16 Mo.

Nombre total d'accès en écriture : 54697

Volume des accès en écriture : 42732.03 Mo.

Nombre d'identificateurs utilisés : 40134

Taille maximum du répertoire : 128000

Pourcentage d'utilisation du répertoire : 31 %

<I> <FIN> ARRET NORMAL DANS "FIN" PAR APPEL A "JEFINI".

<I> <FIN> MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 300.99 Mo

<I> <FIN> MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 15118.29 Mo

<I> <FIN> MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS LORS DE L'EXECUTION : 16149.35 Mo

<I> FERMETURE DES BASES EFFECTUEE

STATISTIQUES CONCERNANT L'ALLOCATION DYNAMIQUE :

TAILLE CUMULEE MAXIMUM : 15118 Mo.

TAILLE CUMULEE LIBEREE : 30302 Mo.

NOMBRE TOTAL D'ALLOCATIONS : 22185993

NOMBRE TOTAL DE LIBERATIONS : 22185993

APPELS AU MECANISME DE LIBERATION : 7

TAILLE MEMOIRE CUMULEE RECUPEREE : 24460 Mo.

VOLUME DES LECTURES : 4 Mo.

VOLUME DES ECRITURES : 23628 Mo.

MEMOIRE JEVEUX MINIMALE REQUISE POUR L'EXECUTION : 300.99 Mo

- IMPOSE DE NOMBREUX ACCES DISQUE

- RALENTIT LA VITESSE D'EXECUTION

MEMOIRE JEVEUX OPTIMALE REQUISE POUR L'EXECUTION : 15118.29 Mo

- LIMITE LES ACCES DISQUE

- AMELIORE LA VITESSE D'EXECUTION

MAXIMUM DE MEMOIRE UTILISEE PAR LE PROCESSUS : 16149.35 Mo

- COMPREND LA MEMOIRE CONSOMMEE PAR JEVEUX,

LE SUPERVISEUR PYTHON, LES LIBRAIRIES EXTERNES

<I> FIN D'EXECUTION LE : JE-23-JANV-2025 14:39:03

DeprecationWarning: PY_SSIZE_T_CLEAN will be required for '#' formats

libaster.jeveux_finalize(options)

Signature of pickled file :
01d675b5fea26fe5958a8c40c1ce810d2b6a25872369b3575ca38a812f365785

Signature of info file :
2430df9d0b8b6d14052313012f791712f1f9d6516d988d3e0a59f744e2e260b5

Signature of Jeveux database:
c7f5608e1841497c7d1ba0acb1db14df98ace4eacf66432d39c5f118a8237fa2

```
 ********************************************************************************
 * COMMAND                    :      USER :      SYSTEM :    USER+SYS :
ELAPSED *
 ********************************************************************************
 * POURSUITE                  :      1.02 :      4.61 :      5.63 :      5.64
*
 * MODI_MODELE                :      0.00 :      0.00 :      0.00 :
0.00 *
 * GET_ENERGIE                :      0.14 :      0.00 :      0.14 :      0.15 *
 * DEFI_FICHIER               :      0.00 :      0.00 :      0.00 :      0.00 *
 * IMPR_TABLE                 :      0.03 :      0.00 :      0.03 :      0.04 *
 * DEFI_FICHIER               :      0.00 :      0.00 :      0.00 :      0.00 *
 * CALC_CHAMP                 :    297.19 :     66.75 :    363.94 :
370.21 *
 * CREA_MAILLAGE              :      0.02 :      0.00 :      0.02 :      0.02
*
 * AFFE_MODELE                :      0.01 :      0.01 :      0.02 :      0.01
*
 * EXTR_RESU                  :    112.03 :     18.93 :    130.96 :    131.01
*
 * DETRUIRE                   :      0.04 :      0.00 :      0.04 :      0.04 *
 * IMPR_RESU                  :     38.21 :     22.65 :     60.86 :     60.87
*
 * FIN                        :      1.11 :      0.83 :      1.94 :      1.96 *
```

```
 *    . check syntax                :          0.05 :          0.00 :          0.05 :          0.05 *
 *    . fortran                     :        448.52 :        109.94 :        558.46 :        564.79 *
 ********************************************************************************
 * TOTAL_JOB                       :        449.83 :        113.80 :        563.63 :        569.97
*
 ********************************************************************************
# Mémoire (Mo) : 16149.35 /    1495.79 / 15118.29 /     300.99 (VmPeak / VmSize /
Optimum / Minimum)
# Fin commande #0015      user+syst:              1.11s (syst:              0.83s, elaps:
1.96s)
# --------------------------------------------------------------------------------
--------------------
End of the Code_Aster execution
Code_Aster MPI exits normally
Exited
EXECUTION_CODE_ASTER_EXIT_12=0
```