Code_Aster

Titre : Opérateur EXTR_RESU
Responsable : LEFEBVRE Jean-Pierre

Version default

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Clé : U4.71.04 Révision :
7d33dacbca29

Operator `EXTR_RESU`

1 Goal

To extract from the fields within a structure of data of the type `result`. The extraction results in reducing the obstruction of the structure of starting data, when the concept result is réentrant.

The reduction of the obstruction of the structure of data `result` is obtained by filing part of the fields which it contains. One can choose the fields to be filed either by indicating the fields to be preserved, or by indicating the fields to be excluded.

The extraction can also be done on part of the grid or model on which the structure of data result rests.

If the structure of data has the same name as the initial structure, the not saved fields are destroyed.

To recover indeed the disk space associated with the base `TOTAL`, it is necessary to use the option `RETASSAGE` order `END` (cf [U4.11.02]).

D-entering operator.

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2   Syntax

```
RESUOUT = EXTR_RESU (
              ◊   reuse = RESUOUT,
              ♦   RESULT =  RESUIN,                        /   [evol_elas]
                                                          /   [dyna_trans]
                                                          /   [dyna_harmo]
                                                          /   [acou_harmo]
                                                          /   [mode_meca]
                                                          /   [mode_acou]
                                                          /   [mode_stat_depl]
                                                          /   [mode_stat_acce]
                                                          /   [mode_stat_forc]
                                                          /   [evol_ther]
                                                          /   [evol_noli]
                                                          /   [mult_elas]
                                                          /   [fourier_elas]

              ◊       ARCHIVAGE=_F (
                  ◊   /  LIST_ARCH    =  LIARCH ,          [listis]
                      /  PAS_ARCH     =  NOT ,             [I]
                  #  selection fields
                  ◊   /  CHAM_EXCLU   =  CHAMEXCLU,        [l_Kn]
                      /  NOM_CHAM     =  NOMCHAM,          [l_Kn]
                  #  selection sequence numbers
                  ◊   /  NUME_ORDRE   =  LORDRE,           [l_I]
                      /  LIST_ORDRE   =  LENTI,            [listis]
                      /  NUME_MODE    =  LMODE,            [l_I]
                      /  NOEUD_CMP    =  LNOECMP,          [l_K16]
                      /  NOM_CAS      =  NCAS,             [l_K16]
                      /  /   FREQ     =  LFREQ,            [l_R]
                          /  LIST_FREQ =  LREEL,           [listr8]
                          /  INST      =  LINST,           [l_R]
                          /  LIST_INST =  LREEL,           [listr8]

                  ◊   |  PRECISION    =  /  PREC ,         [R]
                                         /  1.0D-6,        [DEFECT]
                      |  CRITERION    =  /  'RELATIVE',    [DEFECT]
                                         /  'ABSOLUTE',
                              ),
              ◊       RESTRICTED=_F(
                  ♦   /  GRID       =  my,                 [grid]
                      /  MODEL      =  Mo,                 [model]
                  ◊   CHAM_MATER    =  chmat,             [cham_mater]
                  ◊   CARA_ELEM     =  carele,            [cara_elem]
                              ),
              ◊   TITLE =  title                           [l_Kn]
              ◊   INFORMATION  =  / 1                            [DEFECT]
                          / 2
              )
```

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3   Operands

3.1   Operand `RESULT`

Structure of data of result starting.
If `REUSIN` is different from `RESUOUT`, then `RESUIN` is not modified.

Note:
- If `RESUIN` one contains (or several) tables, for example: 'OBSERVATION', 'PARA_CALC', …, those are ignored by the order.
- Concepts of the type `FOURIER_THER` are not treated by the operator `EXTR_RESU`.

3.2   Keyword factor `FILING`

Defines the fields to be saved. This perhaps more repeated keyword once.

3.2.1   Operands `LIST_ARCH` and `PAS_ARCH`

Define the sequence numbers to save.

```
LIST_ARCH  =  LIARCH ; list of the sequence numbers obtained by the order DEFI_LIST_ENTI
              [U4.34.02],
PAS_ARCH   =  NOT ; safeguard of the results from the first, all them "not" sequence numbers.
```

3.2.2   Operands `CHAM_EXCLU` and `NOM_CHAM`

Defines the types of results which one does not wish to save (`SIEF_ELNO`,…) according to the type of the structure of data result `RESUIN` as starter. To specify the fields which one does not wish to save, one can:
- that is to say to list the fields to be preserved with the operand `NOM_CHAM`,
- that is to say to list the fields to be excluded with the operand `CHAM_EXCLU`.

If one of the fields to be retained is not part of the structure of data `result`, the code stops in fatal error.

3.3   Keyword factor `RESTRICTED`

This keyword makes it possible to restrict the fields of the result on a restricted grid built using the order `RESTRICTED CREA_MAILLAGE/`.

If the restriction relates to only fields with the nodes, the user can provide only the grid restricted using the keyword `GRID`. If the restriction relates to also fields with elements, it is necessary to provide one `MODEL` restricted resting on the restricted grid.
If the model contains elements of structure (beams, plates,…), it is in general necessary to provide one `CARA_ELEM` restricted.
For some post treatments, it can also be necessary to provide one `CHAM_MATER` restricted.

3.4   Operand `TITLE`

Title given to the structure of data `RESUOUT` created (cf [U4.03.01]).

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3.5 Operands `NUME_ORDRE` / `LIST_ORDRE` / `INST` / `LIST_INST` / `FREQ` / `LIST_FREQ` / `NUME_MODE` / `NOEUD_CMP` / `NOM_CAS` / `PRECISION` / `CRITERION`

Selection in a structure of data `result` (*cf.* [U4.71.00]).

3.6 Operand `INFORMATION`

◊ INFORMATION = information

If `INFO=2`, the parameters of each extracted field are displayed.

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4   Examples

Recopy in the structure of data FREQ2 of a mode on 8 of the structure of data FREQ.

```
FREQ  = CALC_MODES (MATR_RIGI= MATASSR,
                      MATR_MASS= MATASSM
                      OPTION= 'ADJUSTS',
                      CALC_FREQ= _F (FREQ= (5. , 10. , 15. , 20. , 24. ,
27. , 30. , 32. ,)),
                      SOLVEUR_MODAL=_F ('DIRECT' OPTION_INV=))

FREQ2  = EXTR_RESU (RESULT  = FREQ,
                     FILING = _F (  PAS_ARCH = 8)
                   )
```