

## Operator RECU\_TABLE

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### 1 Goal

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Allows to recover in a table the values of a parameter of a structure of data result, or, to extract a table contained in another structure of data for those which allow it.

The table created can then be used in other orders ( `IMPR_TABLE` for example).

Product a structure of data of the type `table` .

## 2 Syntax

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```
table = RECU_TABLE (
    ♦ CO = nomsd , [ * ]
    ♦ / NOM_TABLE = nomtab, [KN]
      / NOM_PARA = will lpara , [l_Kn]
      / ALL_PARA = 'YES' ,
    ♦ TITLE = titr , [l_K80]
)
```

## 3 Operands

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- ♦ CO = nomsd,  
Name of the structure of data in which one wants to extract a table.
- ♦ / NOM\_TABLE = nomtab,  
Name of the table stored in the structure of data.

Aujourd' today, the Structures of data containing a table which one can extract by RECU\_TABLE / NOM\_TABLE are the following ones:

- a structure of data of the type `evol_noli` obtained by `STAT_NON_LINE` or `DYNA_NON_LINE`, the name of table is then 'OBSERVATION',
- a structure of data of the type `grid`. The name of the table is then 'CARA\_GEOM',
- a structure of data of the type `cabl_precont` obtained by the order `DEFI_CABLE_BP`. The name of the table is then 'CABLE\_BP',
- a structure of data of the type `melasflu` obtained by the order `CALC_FLUI_STRU`; the name of the table is then 'MATR\_GENE'.
- structures of data of the type `evol_elas` and `evol_noli` containing the calculated total estimators of error by `CALC_ERREUR`. The name of the table is then 'ESTI\_GLOB'.
- a structure of data of the type `evol_noli` obtained by `STAT_NON_LINE`, `DYNA_NON_LINE` or of type `evol_elas` obtained by `DYNA_VIBRA` on physical basis a table contains of name 'PARA\_CALC' comprising the list of the really calculated moments and, if the user activates his calculation, the energy balance. The table contains 7 columns:
  - INST : moment of calculation,
  - TRAV\_EXT : work of the external efforts,
  - ENER\_CIN : kinetic energy,
  - ENER\_TOT : total deformation energy,
  - TRAV\_AMOR : energy dissipated by damping,
  - TRAV\_LIAI : energy dissipated and/or stored by the connections,
  - DISS\_SCH : energy dissipated by the digital diagram.
- ♦ / NOM\_PARA = will lpara,  
List of the names of the parameters to be extracted from SD RESULT nomsd.

This functionality allows to extract in the form of a table the evolution from certain parameters from one SD RESULT, for example the parameter of piloting `ETA_PILOTAGE` in the case of one SD of type `evol_noli`. The extracted parameters must be of type whole, real or complex, excluding from this fact the character strings. The first column of the produced table contains the sequence numbers (`NUME_ORDRE`) and the following ones contain the evolution of the parameters `will lpara`.

◆ / ALL\_PARA = 'YES',

This keyword makes it possible to extract all the parameters from SD RESULT nomsd of whole type, real or complex.

That produced the same table as if one gives all these parameters to NOM\_PARA .

◇ TITLE = titr,

Title which one wants to give to the table result.

## 4 Examples

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- recovery of some geometrical characteristics of a grid:

```
chargeo = RECU_TABLE (CO = grid , NOM_TABLE = 'CARA_GEOM',)
```

- recovery of the values “observed” in the order DYNA\_NON\_LINE

The order DYNA\_NON\_LINE [U4.53.01] allows to choose a set of meshes or of nodes for which one wishes to observe one or more components of certain fields (keyword OBSERVATION).

```
dynl = DYNA_NON_LINE (...OBSERVATION = _F (...))
```

```
tabobs = RECU_TABLE (CO = dynl, NOM_TABLE = 'OBSERVATION',)
```

- recovery of the parameter of piloting of one SD of type evol\_noli

```
stnl = STAT_NON_LINE (...PILOTING = _F (...))
```

```
etapilo = RECU_TABLE (CO = stnl , NOM_PARA = 'ETA_PILOTAGE',)
```