Operator **RECU_TABLE**

1 Goal

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

table = RECU_TABLE
(  
  ♦ CO = nomsd ,  
  ♦ / NOM_TABLE = nomtab,  
  ♦ / NOM_PARA = will lpara ,  
  ◊ TITLE = titr ,  
)

3 Operands

♦ 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'hui 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 makes it possible 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.

♦ TITLE = titr,
   Title which one wants to give to the table result.
4 Examples

- recovery of some geometrical characteristics of a grid:
  
  \[
  \text{cargeo} = \text{RECU}\_\text{TABLE} (\text{CO} = \text{grid}, \quad \text{NOM}\_\text{TABLE} = \text{`CARA}\_\text{GEOM`} ,)
  \]

- recovery of the values "observed" in the order \text{DYNA}\_\text{NON}\_\text{LINE}

  The order \text{DYNA}\_\text{NON}\_\text{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 \text{OBSERVATION}).

  \[
  \text{dynl} = \text{DYNA}\_\text{NON}\_\text{LINE} (...)\_\text{OBSERVATION} = \_F (...)\ldots
  \]

  \[
  \text{tabobs} = \text{RECU}\_\text{TABLE} (\text{CO} = \text{dynl}, \text{NOM}\_\text{TABLE} = \text{`OBSERVATION`} ,)
  \]

- recovery of the parameter of piloting of one \text{SD} of type \text{evol_noli}

  \[
  \text{stnl} = \text{STAT}\_\text{NON}\_\text{LINE} (...)\_\text{PILOTING} = \_F (...)\ldots
  \]

  \[
  \text{etapilo} = \text{RECU}\_\text{TABLE} (\text{CO} = \text{stnl}, \text{NOM}\_\text{PARA} = \text{`ETA}\_\text{PILOTAGE`} ,)
  \]