Code_Aster

Version default

Titre : Opérateur LIRE_EUROPLEXUS
Responsable : POTAPOV Serguei

Date : 22/07/2015 Page : 1/4
Clé : U7.03.09   Révision   :
157436b2272b

Operator `LIRE_EUROPLEXUS`

1   Goal

The macro-order `LIRE_EUROPLEXUS` allows to read a result resulting from a Europlexus calculation contained in a file MED and to transform it of structure of data of Code_Aster `evol_noli`.

This macro-order is not able to read any result. It is necessary imperatively that the model contains only elements accepted by `CALC_EUROPLEXUS` and of the laws of behavior accepted by `CALC_EUROPLEXUS`. For more details to see the document of use of `CALC_EUROPLEXUS` U7.03.10.

Code_Aster

Version
default

Titre : Opérateur LIRE_EUROPLEXUS
Responsable : POTAPOV Serguei

Date : 22/07/2015 Page : 2/4
Clé : U7.03.09   Révision   :
157436b2272b

2   Syntax

```
evol = LIRE_EUROPLEXUS (

        ♦   UNITE_MED       =     unit                      [I]
        ♦   MODEL           =     Mo,                       [model]
        ◊   CARA_ELEM       =     carac,                    [cara_elem]
        ◊   CHAM_MATER      =     chmat,                    [cham_mater]
        ♦   BEHAVIOR =    _F (
                ♦   RELATION         = 'ELAS'           [DEFECT]
                                     = 'GLRC_DAMAGE'     [TMX]
                                     = 'VMIS_ISOT_TRAC'  [TMX]
                ♦   GROUP_MA         = l_grma            [l_gr_GROUP_MA]

        ◊   EXCIT        = _F (
                ♦   LOAD      =    cho,                   [char_meca]
                ◊   FONC_MULT =    fi,                    [function/formula]
                          ),

        ◊   INFORMATION  = /  1,                          [DEFECT]
                           /  2,                          [I]
                )
```

Titre : Opérateur LIRE_EUROPLEXUS
Responsable : POTAPOV Serguei

Date : 22/07/2015 Page : 3/4
Clé : U7.03.09

Révision :
157436b2272b

Version
default

3 Operands

3.1 Opérande UNITE_MED

♦ UNITE_MED = unit,

Logical unit of file MED containing the result resulting from EPX.

3.2 Operands MODELS/CHAM_MATER/CARA_ELEM

♦ MODEL = Mo,

Name of the model whose elements are the object of mechanical calculation.

◊ CHAM_MATER = chmat,

Name of the affected material field on the model Mo. Allows that the result created has a material field.

♦ CARA_ELEM = carac,

Name of the characteristics (carac) elements of hull, beam, pipe, bars, cable, and elements discrete affected on the model Mo. Obviously, this keyword is optional: if the model does not contain such elements, it is not useful; on the other hand, if the model contains such elements, it is obligatory.
It makes it possible to transform the stress fields resulting from EPX into fields of efforts for certain elements.

3.3 Keyword BEHAVIOR

```
♦   BEHAVIOR =    _F (
              ♦    RELATION        = 'ELAS'              [DEFECT]
                                   = 'GLRC_DAMAGE'       [TMX]
                                   = 'VMIS_ISOT_TRAC'    [TMX]
              ♦    GROUP_MA        =    l_grma           [l_gr_GROUP_MA]
```

On the model of the operators such as STAT_NON_LINE and DYNA_NON_LINE , the keyword BEHAVIOR allows to assign a behavior to the groups of meshs modelled in calculation.

The only behaviors available are 'ELAS' , 'GLRC_DAMAGE' and 'VMIS_ISOT_TRAC' . They are indicated by keyword RELATION .
This keyword makes it possible to make the translation of the internal components of variables.

3.4 Keyword EXCIT

◊ EXCIT

This keyword factor makes it possible to define loads. These loads result from the operator AFFE_CHAR_MECA. The only effect of the presence of this keyword is to declare loads with the result created.

3.5 Keyword INFORMATION

Code_Aster

Titre : Opérateur LIRE_EUROPLEXUS
Responsable : POTAPOV Serguei

Version default

Date : 22/07/2015 Page : 4/4
Clé : U7.03.09 *Révision :*
157436b2272b

◊   INFORMATION = / 1, [DEFECT]
          / 2,

Allows to control the level of message of the macro-order.