

## Operator LIRE\_EUROPLEXUS

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### 1 Goal

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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`.

## 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]  
                  )
```

## 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 meshes 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

◇ INFORMATION = / 1, [DEFECT]  
/ 2,

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