
Procedure ENGENDRE_TEST

1 Goal

To write a “piece of file” to check the later not-regression of the code.

This piece of file (containing orders `TEST_RESU` and `TEST_TABLE`) could be inserted in a case test to check the not-regression of the contents of objects `JEVEUX` created by this case test.

This order is useful only for the developers (and mainteneurs) of the code.

2 Syntax

```
ENGENDRE_TEST (
/  FORMAT = 'OBJECT' ,
  ♦ /  ALL   = 'YES' ,
    /  CO    = l_conc ,                [l_CO ()]
  ♦  TYPE_TEST = 'NAP' ,                [DEFECT]

/  # if the keyword FORMAT = 'OBJECT' is not used:
  ♦  CO      = l_conc ,                /  [sd_resultat]
                                      /  [field]
                                      /  [table]

  ♦  TYPE_TEST = /  'SOMME_ABS' ,      [DEFECT]
                  /  'NAP' ,
                  /  'MIN' ,
                  /  'MAX' ,

♦  UNIT      = /  iunit ,              [I]
                /  8 ,                [DEFECT]

♦  FORMAT_R  = /  format ,             [TXM]
                /  '1PE20.13' ,      [DEFECT]

♦  PREC_R    = /  prec ,               [TXM]
                /  '1.E-10' ,        [DEFECT]

)
```

3 Operands

3.1 General information

This order is used to generate “pieces” of file which one can include in the command file of a test in order to check the “not-regression” of the code.

When the keyword is not used `FORMAT=' OBJET '` (what is advised), the types of concepts which one can test are fewer: tables, fields and `sd_resultat`. For each concept, the order `ENGENDRE_TEST` an order will generate `TEST_TABLE` or `TEST_RESU`.

If the concept is a table, each column of the table will be tested. If the concept is a `sd_resultat`, all the fields will be tested for all the sequence numbers.

If the keyword is used `FORMAT=' OBJET '` (what is not recommended), the order will write in the file attached to the unit `iunit` (`RESULT` by default) of the lines of the type:

```
_F (NOM=' CHAMEL14 .VALE', S_R=-1.45779E+08, PRECISION=1.D-5,,),  
_F (NOM=' CHAMNO3 .VALE', S_R= 1.16344E+06, PRECISION=1.D-5,,),  
_F (NOM=' LR3 .NBPA', S_I= 5, PRECISION=0.,),  
_F (NOM=' LR3 .BINT', S_R= 1.00000E+01, PRECISION=1.D-5,,),  
_F (NOM=' LR3 .VALE', S_R= 3.00000E+01, PRECISION=1.D-5,,),  
_F (NOM=' FO20 .VALE', S_R=-1.16733E+06, PRECISION=1.D-5,,),
```

These lines can be then inserted in the text of an order `TEST_RESU` :

```
TEST_RESU (OBJET= (  
<< lines insérées >>  
) ,)
```

Each line will cause an occurrence of the keyword `OBJECT` order `TEST_RESU`. One will thus test thus the not-regression of the contents of specified objects `JEVEUX`.

To be able to print the contents of objects `JEVEUX`, it is necessary obviously that these objects exist and this is why this order is generally called at the end of the command file.

3.2 Operand ALL

♦ / ALL = 'YES'

All objects present on the basis `TOTAL` at the time of the call to `ENGENDRE_TEST` will cause a test of not-regression.

3.3 Operand co

/ CO = l_conc

`l_conc` is the list of the concepts for which one wants engendrer tests of not-regression.

3.4 Operand TYPE_TEST = 'NAP'

◇ TYPE_TEST = 'NAP'

For each object JEVEUX selected, one tests:

NAP	The value tested corresponds to the sum of the values of the numbers contained in the object.
SOMME_ABS	The value tested corresponds to the sum of the absolute values of the numbers contained in the object.
MIN	The value tested corresponds at least of the values of the numbers contained in the object.
MAX	The value tested corresponds to the maximum of the values of the numbers contained in the object.

3.5 Operand UNIT

◇ UNIT = / iunit,
/ 8

This integer makes it possible to choose the logical unit of the file where the impression will be done. By default the impression will be carried out on the logical unit associated with the file fort.8.

3.6 Operand FORMAT_R

◇ FORMAT_R = / format,
/ '1PE20.13', [DEFECT]

This character string makes it possible to choose the number of decimals printed for the real numbers.

3.7 Operand PREC_R

◇ PREC_R = / prec,
/ '1.E-10', [DEFECT]

This character string makes it possible to choose the precision with which the test in the order will be made TEST_RESU (for the floating numbers).

4 Example

```
ENGENDRE_TEST (CO= (chamno, chamel, tabl2, evolth))
```