Code_Aster

Version
default

Titre : Procédure TEST_FICHIER
Responsable : Mathieu COURTOIS

Date : 12/11/2012 Page : 1/5
Clé : U4.92.04   Révision : 10060

Procedure `TEST_FICHIER`

1   Drank

This macro-command makes it possible to test non regression files produced by the commands Code_Aster, mainly `IMPR_RESU`, but one can use it on any textual file.

To test a file, one extracts the list from the real numbers and whole present in the file, the cardinal of this list, and the group of the remaining text (once extracted numbers).

For the numbers, one checks non regression sum, absolute sum or min/max of the values except for an accuracy.
To test the text of the file, the modulus Python md5 is used which provides a "signature" of the text (called md5sum).

Turn over `OK` if the file is identical, to the round-offs of the real numbers close, to the file which was used as reference, `NOOK` if not.

This command is used primarily by the cases tests to validate the NON-regression of the results.

Code_Aster

Titre : Procédure TEST_FICHIER
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Version default

Date : 12/11/2012 Page : 2/5
Clé : U4.92.04   Révision : 10060

2   Syntax

```
TEST_FICHIER  (
        ♦FICHIER=fich        ,                                    [kN]
        ◊EXPR_IGNORE  = regexp,                                   [l_Kn]
          TYPE_TEST =   "SOMM",
[DEFAULT]
                        /"SOMM_ABS",
                        /"MAXI",
                        /"MINI",
                        /"MAXI_ABS",
                        /"MINI_ABS",
        ♦NB_VALE  =  nbval ,                                      [I]

        #  Definition of the value of reference:
        #  to see TEST_RESU [u4.92.01]

        ◊INFO  =/1          ,
[DEFAULT]
                 /2  ,

           )
```

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Titre : Procédure TEST_FICHIER
Responsable : Mathieu COURTOIS

Version
default

Date : 12/11/2012 Page : 3/5
Clé : U4.92.04   Révision : 10060

3   General information

This procedure makes it possible to test non regression files produced by the Aster commands, mainly `IMPR_RESU`, but one can use it on any textual file.

To test a file, one extracts the list from the real numbers and whole present in the file, the cardinal of this list, and the group of the remaining text (once extracted numbers).

For the numbers, one checks non regression sum, absolute sum or min/max of the values except for an accuracy.
One also checks (and it is the only compulsory test) the cardinal of the list of the real numbers and integers identified in the file.
To test the text of the file, the modulus Python md5 `is used` which provides a "signature" of the text (called md5sum). Thus, any variation of a text (title, name of a component) compared to a file of reference will involve a change of the signature of the file.

Notice 1:

> The file must be closed so that the value is reliable (with for example `DEFI_FICHIER`, `ACTION = "LIBERER"`).

Notice 2:

> The command does not give a relevant information about binary files.

The function `test_ file` can be called out of *Code_Aster* to obtain the value of `the md5sum` of a file after round-offs:

```
iret, sum = test_file (filename=' nom_fichier',
                       type_test=' SOMM',
                       verbose=True)
```

4   Operands

4.1   Operand **FICHIER**

♦`FICHIER=fich        ,`

One provides the name of the file here to be analyzed with its access path into relative compared to the directory of execution or absolute. Examples: `"fort.37"` or `". /REPE_OUT/resultats.pos"`. Operand

4.2   **EXPR_IGNORE ◊**

`EXPR_IGNORE    = regexp`

the lines of the file satisfying the regular statements given behind this key word will be ignored in the analysis of the file. Example:

`* EXPR_IGNORE`

`= ("DATE=  [0-9] {2}/[0-9] {2}/[0-9] {4}", "^`
`VERSION") Here`

the lines containing DATE $=jj/mm/aaaa$ where j, m are a figures or **starting** with VERSION are ignored. Operand

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Code_Aster

Titre : Procédure TEST_FICHIER
Responsable : Mathieu COURTOIS

Version default

Date : 12/11/2012 Page : 4/5
Clé : U4.92.04 Révision : 10060

4.3 TYPE_TEST `Standard`

of the test made on the actual values and whole of the file. The possible values are: SOMM
- : adds values SOMM_ABS
- : adds absolute values MAXI
- : maximum value MINI
- : minimal value MAXI_ABS
- : maximum of absolute values MINI_ABS
- : minimum of the absolute values Operand

4.4 NB_VALE `It`

acts amongst values (real and whole) expected in the file. It is the only compulsory test. Key words

4.5 common to commands TEST _xxx

the definition of the values of non regression and reference, as well as acceptable tolerances, the comparison criterion is detailed in documentation [u4.92.01] of the command TEST _RESU.

Specificities of TEST _FICHIER are : no
- the whole or complex values, not
- of test in absolute value (except with TYPE_TEST), VALE
- _CALC and VALE _CALC_K can be provided together, not
- of tolerance on the value of the parameter (TOLE_MACHINE and CRITERE take only one value). VALE

- _CALC provides the value of reference expected for the test on the actual values and whole (the sum or maximum or…). VALE
- _CALC_K provides the signature md5 text of the file after the all actual values and whole were withdrawn. To obtain the value on the file of reference, it is enough to launch command TEST _FICHIER and to record the displayed value (it is about a succession of 32 hexadecimal natures). Operand

4.6 INFO ◊

INFO = inf Specifies

the detail of the information printed in the message file. If
inf =1, one has the following abstract: (extracted

from ssls108a) Name

```
                                of      the     file:                    ./REPE_OUT/DEP12.pos
-----------------------------------------------------------------
                      |
                        FILE                  |              REFERENCE               |
------------------------------------------------------------------------------------
   |
  Number of values | 10551            |              10551         |          |
  Somme values | 1.6431683837230      e+04 |      1.6431700000000      e+04 |      |
      md5sum   of   the   texts   |   e5050b2a3517728c4cc0e23af2b16ba5   |   not   tested   |
------------------------------------------------------------------------------------
   If
```

inf =2, one has the list of the all values recorded in the file (10551 values in the example): Real numbers

```
and integers: ["
0.000000000000000E+00",        "-       5.5000001200000004E-01",        "0.0000000000000000E+00",
"0.0000000000000000E+00", "5.5000001200000004E-01",… as well as
```

the group of the text remaining once all extracted numbers: Text

Code_Aster

Titre : Procédure TEST_FICHIER
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Version default

Date : 12/11/2012 Page : 5/5
Clé : U4.92.04   Révision : 10060

```
: $NOD
$ENDNOD$ELM$ENDELM
```