Operator MODI_OBSTACLE

1 Goal

Allows to recompute the profiles of obstacles in the systems guidance-tube after wearing.

The result concept of MODI_OBSTACLE is of table_fonction type. Its structure is similar to the product concept by DEFI_OBSTACLE with the DISCRETE keyword: parameters of wear (clearances, used surfaces, depth of wear…) are expressed on each sector (characterized by its polar coordinates) of the pencil or the guide. This form, called *figure of clearance*, is usable in operator DYNA_TRAN_MODAL under key key OBSTACLE.

MODI_OSTACLE can be used either directly, by informing the parameters of wear, or to intervene following a computation of dynamics with DYNA_TRAN_MODAL: one initially calculates the volumes used with operator POST_USURE; TABL_USURE resulting from POST_USURE contains the volumes used during dynamic computation. MODI_OBSTACLE to compute: uses TABL_USURE the new figure of clearance after wearing.

The use of the empirically given models specific from feedback on the control rods currently limits the use of this option to the specific case of this component.

Warning : The translation process used on this website is a "Machine Translation". It may be imprecise and inaccurate in whole or in part and is provided as a convenience.

Licensed under the terms of the GNU FDL (http://www.gnu.org/copyleft/fdl.html)

2 Syntax

```
figure1 = MODI_OBSTACLE                                    [obstacle_sdaster]
             (
                    ♦GUIDE                 =guid  ,        [obstacle_sdaster]
                    ◊/CRAYON=crayon                       ,
[obstacle_sdaster]
                       /R_MOBILE            =rcray   ,        [R]
                    ◊OBSTACLE=figure0                     ,
[obstacle_sdaster]
                    ◊PERCEMENT=perce                  ,        [R]
                    ♦/♦V_USUR_OBST=vusob                  ,        [l_R]
                           ♦V_USUR_TUBE=vustu         ,   [l_R]
                       /♦     TABL_USURE=tabuse       ,    [table_sdaster]
                           ◊   INST           =inst ,        [R]
                    ◊      INFO=/1                  ,           [DEFAULT]
                                                 /2,
             )
```

Warning : The translation process used on this website is a "Machine Translation". It may be imprecise and inaccurate in whole or in part and is provided as a convenience.

Licensed under the terms of the GNU FDL (http://www.gnu.org/copyleft/fdl.html)

3 Operands

3.1 Operand GUIDE

♦GUIDE

compulsory keyword GUIDE makes it possible to define guidance used. This guidance is defined by DEFI_OBSTACLE.

It is of " DISCRETE" type or "GUID_*_*_*" if option TABL_USURE is not used. It is obligatorily of type "GUID_*_*_*" if option TABL_USURE is used (the removal of the preset forms of wear is valid only starting from the new antagonists).

"GUID_*_*_*" contains the type of card, the type of bearing, radius and the thickness of guidance. By default, it provides also the pencil adapted to the guide. "GUID_*_*_*" can take the values indicated exhaustively in the list below:

"GUID_A_CARTE_900"	"GUID_D_CARTE_900"
"GUID_A_GCONT_900"	"GUID_D_GCONT_900"
"GUID_A_GCOMB_900"	"GUID_D_GCOMB_900"
"GUID_B_CARTE_900"	"GUID_E_CARTE_900"
"GUID_B_GCONT_900"	"GUID_E_GCONT_900"
"GUID_B_GCOMB_900"	"GUID_E_GCOMB_900"
"GUID_C_CARTE_900"	"GUID_F_CARTE_900"
"GUID_C_GCONT_900"	"GUID_F_GCONT_900"
"GUID_C_GCOMB_900"	"GUID_F_GCOMB_900"

"GUID_A_CARTE_1300"	"GUID_D_CARTE_1300"	"GUID_A_CAR11_1300"
"GUID_A_GCONT_1300"	"GUID_D_GCONT_1300"	"GUID_B_CAR11_1300"
"GUID_A_GCOMB_1300"	"GUID_D_GCOMB_1300	"GUID_C_CAR11_1300"
"GUID_B_CARTE_1300"	"GUID_E_CARTE_1300"	"GUID_D_CAR11_1300"
"GUID_B_GCONT_1300"	"GUID_E_GCONT_1300"	"GUID_E_CAR11_1300"
"GUID_B_GCOMB_1300"	"GUID_E_GCOMB_1300"	"GUID_F_CAR11_1300"
"GUID_C_CARTE_1300"	"GUID_F_CARTE_1300"	
"GUID_C_GCONT_1300"	"GUID_F_GCONT_1300"	
"GUID_C_GCOMB_1300"	"GUID_F_GCOMB_1300"	

3.2 Operands CRAYON/R_MOBILE

Make it possible to define the mobile structure of which it is necessary to take account in the definition of the figure of clearance.
These operands are optional when one uses a guide "GUID_*_*_*", since by default the nature of pencil (900 or 1300MW) is implicitly given. Keywords "CRAYON" or "R_MOBILE" are exclusive L" one of the other.

Operand CRAYON makes it possible to define a figure of clearance resulting from DEFI_OBSTACLE. It is of " DISCRETE" type, "CRAYON_900" or "CRAYON_1300" if option TABL_USURE is not used. It is obligatorily of type "CRAYON_900" or "CRAYON_1300" if option TABL_USURE is used, because the removal of the preset forms of wear is valid only from new antagonists (see §3.6).

Operand R_MOBILE makes it possible to define a pencil of constant radius rcray (value in meter).

Warning : The translation process used on this website is a "Machine Translation". It may be imprecise and inaccurate in whole or in part and is provided as a convenience.

Licensed under the terms of the GNU FDL (http://www.gnu.org/copyleft/fdl.html)

3.3 Operand OBSTACLE

optional keyword OBSTACLE makes it possible to introduce the initial figure of clearance figure0 from which one calculates the obstacle result figure1.

If figure1 = MODI_OBSTACLE (reuse = figure1), the obstacle figure1 is modified in output of MODI_OBSTACLE.

3.4 Operand PERCEMENT

optional keyword PERCEMENT applies to the tube. It makes it possible to give the ratio thickness used on initial thickness which sets off an alarm. The release of alarm corresponds to a boring of the tube.

3.5 Operands V_USUR_OBST and V_USUR_TUBE

keywords V_USUR_OBST and V_USUR_TUBE make it possible to the user to give volumes used to apply respectively to the obstacle and the tube. vusob and vustu are lists of volumes used by angular sector. They have same structure as the lists of worn volumes resulting from POST_USURE.

These key keys are used only to carry out computations of test using MODI_OBSTACLE. During the use of MODI_OBSTACLE following a dynamic computation, one more often uses TABL_USURE.

3.6 Operands TABL_USURE and INST

tabuse is an array of wear defined by POST_USURE. It contains the volumes used on the guide and the pencil by angular sectors and for various dates. MODI_OBSTACLE reads the volumes used at time INST and applies these volumes to the guide and the pencil according to precise profiles. These profiles result from feedback.

These rules are valid only from new obstacles, i.e. the guide and the pencil used must be respectively defined by "GUID_*_*_*" and "CRAYON_*" in DEFI_OBSTACLE.

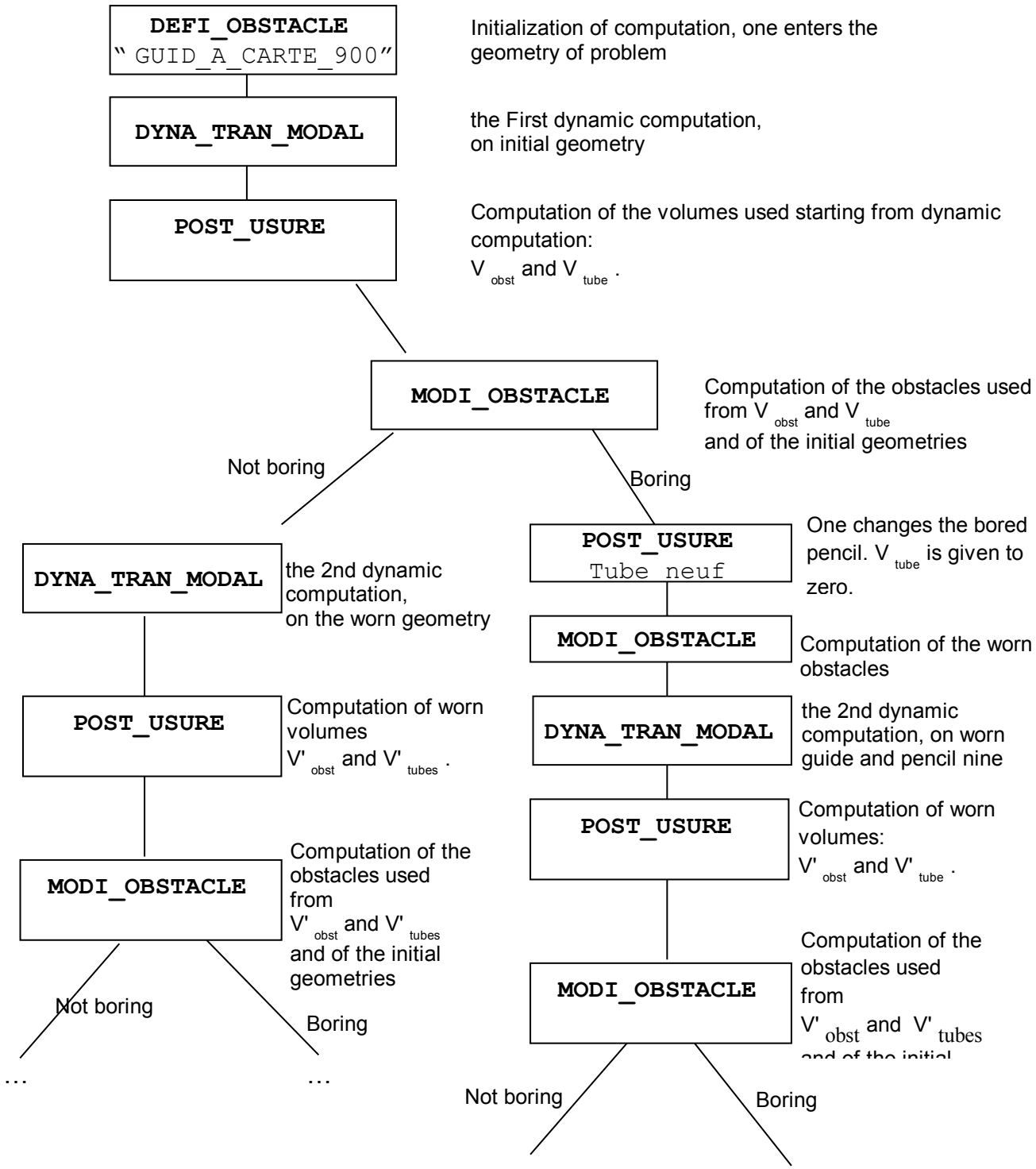
In the case of the use of the option INST of TABL_USURE several times of continuation, it is necessary to take care of well controlling the dates and cumulated times preserved in array TABL_USURE.

Warning : The translation process used on this website is a "Machine Translation". It may be imprecise and inaccurate in whole or in part and is provided as a convenience.

Licensed under the terms of the GNU FDL (http://www.gnu.org/copyleft/fdl.html)

4 Example of use

an example of use is the vibratory computation of a cluster in a guide of cluster.
The approach indicated is then followed [Figure 4-a].



Appear 4-a: Example of computation using MODI_OBSTACLE

Warning : The translation process used on this website is a "Machine Translation". It may be imprecise and inaccurate in whole or in part and is provided as a convenience.

Licensed under the terms of the GNU FDL (http://www.gnu.org/copyleft/fdl.html)