Operator CALC_CHAR_CINE

1 Goal

To calculate the field with the nodes corresponding to the degrees of freedom imposed by AFFE_CHAR_CINE.

This field with the nodes thus calculated will have to be used at the time of the resolution of the linear system with the operator TO SOLVE [U4.51.02].

This operator is useful only for calculations “step by step” where one solves the linear systems by the order TO SOLVE.

Product a structure of data of the type cham_no.
2 Syntax

\[
\begin{align*}
u0 \ [\text{cham\_no\_*}] \ &= \ \text{CALC\_CHAR\_CINE} \\
\&\quad (\star \ \text{NUME\_DDL} \ = \ \text{naked} \ , \ [\text{nume\_ddl}] \\
\&\quad \star \ \text{CHAR\_CINE} = \ \text{chci} \ , \ / \ [\text{l\_char\_cine\_meca}] \\
\&\quad / \ [\text{l\_char\_cine\_ther}] \\
\&\quad / \ [\text{l\_char\_cine\_acou}] \\
\&\quad \star \ \text{INST} = / \ T , \ / \ 0.0 , \ [\text{R}] \\
\&\quad / \ [\text{DEFECT}] \\
\&\quad \star \ \text{INFORMATION} = / \ 1 , \ / \ 2 , \ [\text{DEFECT}] \\
\end{align*}
\]

If CHAR\_CINE : [l\_char\_cine\_meca] then [\*] \ \text{DEPL\_R} \\
[l\_char\_cine\_ther] [\*] \ \text{TEMP\_R} \\
[l\_char\_cine\_acou] [\*] \ \text{PRES\_C}
3 Operands

3.1 Operand NUME_DDL

◊ NUME_DDL = naked

Name of classification associated with the matrix which will be used for the resolution.

3.2 Operand CHAR_CINE

◊ CHAR_CINE = l_chci

List of the names of the loads kinematics to be evaluated.

cham_no calculated will contain:

• the value 0 on the degrees of freedom which are not imposed,
• the specified value by the loads kinematics on the degrees of freedom which are imposed.

Caution:
If a degree of freedom is imposed several times (if it appears in several loads kinematics of the list l_chci), the specified value on this degree of freedom will be nap specified values, which is undoubtedly not what the user wishes! This dangerous behavior is unfortunately supplied with no alarm.

If the kinematic load is of type function, the specified value in a degree of freedom is that obtained by evaluation of the function to the coordinates of the node carrying the degree of freedom and at the moment T [§3.3].

3.3 Operand INST

◊ INST = T

Moment being used to evaluate possible functions of time [§3.2].

3.4 Operand INFORMATION

◊ INFORMATION = impr

Parameter of impression:

1 : (defect) not of impression,
2 : impression of cham_no_* result.

4 Examples

An example of using sequence of orders CALC_CHAR_CINE is given in the documentation of the order AFFE_CHAR_CINE [U4.44.03].

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