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## Titrate and subtitles of a product concept

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### 1 Drank

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To define a title or a subtitle during the execution of an Aster command .

The title and under title when they are envisaged by the command are:

- either definite by default,
- or composed by the user.

In this last case the user has a certain number of tools allowing him to compose his title or his subtitle.

The title is attached to data structure produced by an operator.

The titles of the modified concepts are piled up.

The composition of a title is possible since the operator has a key word simple `TITER`.

The expected argument is a list of texts (`l_Kn`).

The text provided by the user is used such as it is; in particular, there is no tiny/capital implicit conversion.

The subtitle makes it possible to add comments at the time of a printing by a procedure.

The subtitle exists only the time of the procedure and thus must be reconstituted with each call to the procedure, in particular if that `Ci` is re-used in `POURSUITE`. It is thus not attached to a concept.

The composition of a subtitle is possible since the procedure has key word simple `SOUS_TITRE` (possibly under a key word factor). It is thus not attached to a concept. The expected argument is a list of texts (`l_Kn`).

## 2 Composition of a title or a subtitle

### 2.1 the tools

As we said, the user lays out of named tools “demons” making it possible to integrate certain information into the title; these “demons” will seek corresponding information dynamically. The macro-commands do not treat “” the démons’ “.

Examples of “demons”:

&date	returns the date of execution,
&heure	returns the hour of execution,
&RL	returns information according to which it is necessary to go at line in the composition of the title.

The complete listing of the “demons” and their effect is provided in appendix.

Notice syntactic:

- the “demons” are preceded by the special character “&”, it is thus not recommended to use this special character in a title.

Simple example of title:

```
TITER = "My transition was carried out the &date with &heure"
```

### 2.2 the parameterized “demons”

the preceding examples of “demons” are known as simple or independent of the context, but there exist demons which are parameterized. Example:

```
&TYPErenvoie the type of a concept.
```

It is seen well that it is necessary to specify the name of the concept whose one wants to write the type:

```
&TYPE (my) my indicates a concept.
```

**Action by default:**

If no argument is specified, one takes the product concept like argument by the operator.

### 2.3 Titrate by default

For any operator for whom key word TITER is planned, the default value is:

```
TITER = ( " ASTER &VERSION CONCEPT &RESULTAT',  
          "CALCULATES LE &DATE A &HEURE OF TYPE &TYPE" )
```

What gives for an operator who produces a concept named STIFFNESS and of type MATR\_ASSE\_DEPL\_R:

```
ASTER 1.02.12 CONCEPT STIFFNESS LE CALCULATES 10/24/90 A 13:24: 51 OF  
TYPE  
MATR_ASSE_DEPL_R
```

## 2.4 Under title by default

For any procedure for which key word SOUS\_TITRE is planned, the default value is:

- for a CHAM\_GD
  - for a CHAM\_NO  
SOUS\_TITRE = ( "Field at nodes" )
  - for a CHAM\_ELEM  
SOUS\_TITRE = ( "FIELD PAR ELEMENT &LOC (cham\_elem)" )

what gives for a procedure which publishes a concept named CHAM of the type CHAM\_ELEM\_SIGM\_R to values with Gauss points.

```
FIELD PAR ELEMENT WITH Gauss points
```

- for result
  - for a CHAM\_NO  
SOUS\_TITRE = ("Field at nodes",  
"OF Symbolic name &NOM\_SYMB (result, cham\_no) &RL",  
"NUMERO D ' ' ORDRE: &NUMÉRIQUE\_ORDRE (result,  
cham\_no)",  
"&ACCES (result, cham\_no)")

what gives for a procedure which publishes a concept named LMBO of the mode\_meca type of symbolic name DEPL, of sequence number 2.

```
FIELD AT NODES OF SYMBOLIC NAME DEPL  
SEQUENCE NUMBER: 2NUMERO_MODE : 3FREQ : 5.52739E+00
```

- for a CHAM\_ELEM  
SOUS\_TITRE= ("FIELD PAR ELEMENT &LOC (cham\_elem)"  
"OF NOM SYMBOLIQUE&NOM\_SYMB (result, cham\_elem) &RL",  
"NUMERO D ' ' ORDRE: &NUMÉRIQUE\_ORDRE (result,  
cham\_elem)",  
"&ACCES (result, cham\_elem)")

what gives for a procedure which publishes a concept named LMBO of the evol\_elas type of symbolic name EPSI\_ELNO\_LINE, of sequence number 1.

```
FIELD PAR ELEMENT WITH THE NODES OF NOM SYMLBOLIQUE EPSI_ELNO_LINE  
SEQUENCE NUMBER: 1INST : 0.00000E+00
```

## Annexe 1 Definition of the "demons" usable

Name of the "demon"	(1)	(2)	Definition of "demon"
&VERSION	0	ST	Number of the version of Aster
&DATE	0	ST	Creation date of the title or under title
&HEURE	0	ST	Hour of creation of the title or under title
&DATE HEURE	0	ST	Dates and hour of creation of the title or under title
&CODE	0	ST	Name of "code" of the transition (cf procedure debut)
&RESULTAT	0	T	Name of the product concept by the operator running
Standard	&TY PE	1	ST of a concept
&COMMANDE	0	ST	Name of the command current
&TITER_MAILLAGE	0	ST	Titrate associated with the mesh read by LIRE_MAILLAGE
&DIM GEOM	1	ST	Dimension geometry
&NB ELEM	1	ST	Many elements
&NB NOEUD	1	ST	Many nodes
&PHENOMENE	1	ST	Phenomenon
&NB EQUA	1	ST	Many equations
&NOM SYMB	2	S	Symbolic name of a field of result
a	2	S	Sequence number of a field of result
&NUMÉRIQUE ORDRE			
a &LOC	1	S	Localization of a cham_elem (node, Gauss point)
&ACCES	2	S	Symbolic names and values of the parameters of access to a field of result
a &RL			Return at line
&VALEUR	1	ST	Value of a variable of the unspecified type (scalar, text,...)

- (1) Many arguments.  
(2) T applies to the title,  
S applies to the subtitle,  
ST applies to the title and the subtitle.

**Note:**

For the demons with two parameters: the first is the name of the result concept and the second nature of the field ( cham\_no or cham\_elem ) to treating.

## Annexe 2 Effects of the "demons"

the request		result	
the Name of the "demon"	Many arguments *v	Texte	Many characters
&VERSION	0	"01.02.09"	8
&DATE	0	"10/24/90"	8
&HEURE	0	"13:24: 51"	8
&DATE_HEURE	0	"MA-24-OCTO-9013 : 24:51"	24
&CODE	0	"SDLL01A"	8
variable	&RESULTAT	0 "MAILLAGE	" <= 8
variable	&TYPE	1 "MATR_ASSE_DEPL_R	" <= 16
&COMMANDE	0	"LIRE_MAILLAGE"	variable <= 16
&TITER_MAILLAGE	0	the title of mesh	N lines of 80
&DIM_GEOM	1	"1D" or "2D" or "3D"	2
&NB_ELEM	1	"123"	variable
&NB_NOEUD	1	"1400"	variable
&PHENOMENE	1	"MECANIQUE"	variable <= 16
&NB_EQUA	1	"5213"	variable
&NOM_SYMB	2	"DEPL"	variable <= 16
&NUMÉRIQUE_ORDR E	2	"12"	variable <= 16
&LOC	1	"WITH the NODES" "WITH Gauss points the"	variable
&ACCES	2	"NUMERO_MODE:. FREQUENCY: ."	variable
&RL	0	return at line	0
&VALEUR	1	"356."	variable

**Note:**

| The doubles quotes are there only to mark the length of the character string.