
Title and subtitle of a produced concept

1 Goal

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

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

- that is to say definite by default,
- that is to say 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 the structure of data 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 simple keyword `TITRE`.

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 an impression 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 `CONTINUATION`. It is thus not attached to a concept.

The composition of a subtitle is possible since the procedure has the simple keyword `SOUS_TITRE` (possibly under a keyword 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 Tools

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

Examples of “demons”:

| | |
|--------|--|
| &date | return the date of execution, |
| &heure | return the hour of execution, |
| &RL | return information according to which it is necessary to go to the 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:

```
TITLE = 'My passage was carried out the &date with &heure'
```

2.2 Parameterized “demons”

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

| | |
|-------|-------------------------------|
| &TYPE | return 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 indicate a concept. |
|------------|------------------------|

Action by default:

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

2.3 Title by default

For any operator for whom the keyword `TITLE` is envisaged, the value by default is:

```
TITLE = ( 'ASTER &VERSION CONCEPT &RESULTAT',  
          'THE &DATE WITH &HEURE OF THE TYPE &TYPE CALCULATES' )
```

What gives for an operator who produces a named concept `RIGIDITY` and of type `MATR_ASSE_DEPL_R` :

```
ASTER 1.02.12 CONCEPT RIGIDITY CALCULATES THE 10/24/90 AT 13:24: 51  
OF TYPE  
MATR_ASSE_DEPL_R
```

2.4 Under title by default

For any procedure for which the keyword SOUS_TITRE is envisaged, the value by default is:

- for one CHAM_GD
 - for one CHAM_NO
SOUS_TITRE = ('FIELD WITH THE NODES')
 - for one CHAM_ELEM
SOUS_TITRE = ('FIELD BY ELEMENT &LOC (cham_elem)')

what gives for a procedure which publishes a named concept CHAM of type CHAM_ELEM_SIGM_R with values at the points of Gauss.

```
FIELD BY ELEMENT AT THE POINTS OF GAUSS
```

- for one result
 - for one CHAM_NO
SOUS_TITRE = ('FIELD WITH THE NODES',
'OF REFERENCE SYMBOL &NOM_SYMB (result, cham_no)
&RL',
'NUMBER D '' ORDER: &NUMÉRIQUE_ORDRE (result,
cham_no)',
'&ACCES (result, cham_no)')

what gives for a procedure which publishes a named concept LMBO of type mode_meca of reference symbol DEPL, of sequence number 2.

```
FIELD WITH THE NODES OF REFERENCE SYMBOL DEPL  
SEQUENCE NUMBER: 2 NUMERO_MODE: 3  FREQ: 5.52739E+00
```

- for one CHAM_ELEM
SOUS_TITRE= ('FIELD BY ELEMENT &LOC (cham_elem)'
'OF NAME SYMBOLIQUE&NOM_SYMB (result, cham_elem)
&RL',
'NUMBER D '' ORDER: &NUMÉRIQUE_ORDRE (result,
cham_elem)',
'&ACCES (result, cham_elem)')

what gives for a procedure which publishes a named concept LMBO of type evol_elas of reference symbol EPSI_ELNO_LINE, of sequence number 1.

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

Annexe 1 Definition of the “demons” usable

| Name of the “demon” | (1) | (2) | Definition of the “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 | Date and hour of creation of the title or under title |
| &CODE | 0 | ST | Name of “code” of the passage (cf procedure BEGINNING) |
| &RESULTAT | 0 | T | Name of the concept produced by the current operator |
| &TYPE | 1 | ST | Type of a concept |
| &COMMANDE | 0 | ST | Name of the current order |
| &TITRE_MAILLAGE | 0 | ST | Title associated with the grid read by LIRE_MAILLAGE |
| &DIM_GEOM | 1 | ST | Dimension of the 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 | Reference symbol of a field of a result |
| &NUMÉRIQUE_ORDRE | 2 | S | Sequence number of a field of a result |
| &LOC | 1 | S | Localization of one <code>cham_elem</code> (node, not of Gauss) |
| &ACCES | 2 | S | Reference symbols and values of the parameters of access to a field of a result |
| &RL | | | Return to the line |
| &VALEUR | 1 | ST | Value of variable of an 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 concept `result` and the second the nature of the field (`cham_no` or `cham_elem`) to treat.

Annexe 2 Effects of the “demons”

| The request | | The result | |
|---------------------|-------------------|--|-----------------|
| Name of the “demon” | Many arguments *v | Text | 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-90 13:24: 51" | 24 |
| &CODE | 0 | "SDLL01A" | 8 |
| &RESULTAT | 0 | "GRID" | variable <= 8 |
| &TYPE | 1 | "MATR_ASSE_DEPL_R" | variable <= 16 |
| &COMMANDE | 0 | "LIRE_MAILLAGE" | variable <= 16 |
| &TITRE_MAILLAGE | 0 | the title of the grid | 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 | "MECHANICAL" | variable <= 16 |
| &NB_EQUA | 1 | "5213" | variable |
| &NOM_SYMB | 2 | "DEPL" | variable <= 16 |
| &NUMÉRIQUE_ORDRE | 2 | "12" | variable <= 16 |
| &LOC | 1 | "WITH THE NODES" "AT THE POINTS OF GAUSS" | variable |
| &ACCES | 2 | "NUMERO_MODE:. FREQUENCY: ." | variable |
| &RL | 0 | return to the line | 0 |
| &VALEUR | 1 | "356." | variable |

Note:

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