

Procedure PRE_IDEAS

1 Goal

To convert a file of grid of “universal” format IDEAS with the format *Aster*. It can then be read by *Aster* via the order `LIRE_MALLAGE`.

Versions I-DEAS^{MT} treated are versions 4.5 and 6 as well as versions 1. , 2. , 3. , 4. , 5. , 6. , 7. , 8. , 9. , 10. , 11. and 12. NX Series.

2 Syntax

```
PRE_IDEAS
(
  ◇ UNITE_IDEAS      = / 19 ,           [DEFECT]
                        / usuper ,       [I]
  ◇ UNITE_MALLAGE    = / 20 ,           [DEFECT]
                        / uaster ,       [I]
  ◇ CREA_GROUP_COUL = / 'YES' ,
                        / 'NOT' ,       [DEFECT]
)

```

3 Operands

3.1 Operand UNITE_IDEAS

◇ UNITE_IDEAS

Logical number of unit of file known as “universal” IDEAS. The value by default is 19. It is necessary to pay attention at the time of the declaration of the file of grid of IDEAS in `astk` : one declares this file like input file with the corresponding logical unit (19, if one uses the value by default).

3.2 Operand UNITE_MALLAGE

◇ UNITE_MALLAGE =

Logical number of unit of the file of grid *Aster*. The value by default is 20.

3.3 Operand CREA_GROUP_COUL

◇ CREA_GROUP_COUL = / 'YES' ,
/ 'NOT' , [DEFECT]

The user can ask for the creation of groups of meshes and nodes gathering all of the same meshes and nodes color while indicating `CREA_GROUP_COUL = 'YES'` in the order `PRE_IDEAS`. These groups are named `COUL_n` or `N` is the number of the color in IDEAS.

In order not to unnecessarily increase the number of groups of meshes and nodes and consequently the size of the file of grid, it is decided automatically not to create the groups of meshes of the same color: `CREA_GROUP_COUL = 'NOT'` [DEFECT].

Note:

- 1) *The order PRE_IDEAS treat only Cartesian frames of reference.*
- 2) *The order PRE_IDEAS manage one Cartesian frame of reference.*
- 3) *During the conversion of universal file IDEAS, the order PRE_IDEAS check if the user defined several frames of reference. If it is the case, a message of alarm informs the user of it, to require of him to check that all the frames of reference are identical.*

4 Use

On the level of the environment of use `astk`, file known as “universal” IDEAS must be of type `.msup` or `.unv`.

The document [U3.03.01] described the principles of conversion of under files (**dated sets**) file IDEAS in subfiles *Aster* and rules of development of the names of nodes, meshes, groups of nodes and groups of meshes produced, as well as the direction of connectivity of the meshes.

If, in the environment of use, one associated file IDEAS with the logical unit 19 (value by default for the file of the type `.unv/.msup`), the concept grid is created *Aster* as follows:

```
PRE_IDEAS ()  
e-mail = LIRE_MAILLAGE ()
```