

Structure of data sd_partition

Summary:

This structure of data is related to the parallelism of elementary calculations and the assemblies. It is attached to one `model` and allows to know which processor must calculate (and to assemble) which finite element.

Remarks :

- For a sequential version of the code, this structure of data does not exist.
- If `PARALLELISME=' CENTRALISE '`, this structure of data does not exist.
- The finite elements "late" (those of the dualized loads or the loads of contact for the method "CONTINUES") all are treated by processor 0 except if `PARALLELISME=' GROUP_ELEM '`.

Contents

1 Tree structure.....	3
2 Contents of objects JEVEUX.....	3
2.1 '.PRTI': S V I length = 1.....	3
2.2 '.PRTK': S V long K24 = 2.....	3
2.3 '.NUPROC.MAILLE': S V I.....	3

1 Tree structure

```
sd_partition      (K8)      :: =record
(O)  '.PRTK'        :      OJB  S  V  K24  length = 2
(O)  '.PRTI'        :      OJB  S  V  I    length = 1
(F)  '.NUPROC.MAILLE' :      OJB  S  V  I  length = nb_mailles (grid) + 1
```

2 Contents of objects JEVEUX

2.1 '.PRTI' : S V I length = 1

V (1)	nbproc : many processors MPI available at the time of the creation of sd_partition
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2.2 '.PRTK' : S V long K24 = 2

V (1)	Type of parallelism requested by the user: / 'GROUP_ELEM' / 'SOUS_DOMAINE' / 'MAIL_CONTIGU' / 'MAIL_DISPERSE'
V (2)	Name of sd_partit if v (1) = ' SOUS_DOMAINE '

2.3 '.NUPROC.MAILLE' : S V I

This object is length $nb_ma + 1$, with nb_ma : many meshes of the grid subjacent with `ligrel`.

It informs about the distribution of the finite elements carried by the meshes of the grid.

V ($nb_ma + 1$)	nbproc : many processors MPI available (identical to PRTI (1))
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for ima of 1, nb_ma :

V (ima)	number of the processor (of 0 with $nbproc - 1$) who must treat the finite element carried by the mesh ima
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If V (ima) == -999 : the mesh ima do not carry a finite element in `ligrel`