

## Structures of data sd\_cara\_elem

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### Summary:

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## 1 General information

The structure of data `cara_elem` is a set of cards [D4.06.05] which contain the information assigned to the finite elements of the model.

In general, this information relates to the elements of structure: hulls, beams,... they are for example the thickness of the hulls, the characteristics of inertia of the beams,...

It is also used `CARA_ELEM` to assign an orientation (a local reference mark) to elements parametric Iso-. This orientation is necessary if for example the material is not isotropic.

## 2 Tree structure

```
cara_elem (K8) :: =record

| ' .CANBSP' | MAP
| ' .CARARCPO' | MAP
| ' .CARCABLE' | MAP
| ' .CARCOQUE' | MAP
| ' .CARDISCA' | MAP
| ' .CARDISCK' | MAP
| ' .CARDISCM' | MAP
| ' .CARGENBA' | MAP
| ' .CARGENPO' | MAP
| ' .CARGEoba' | MAP
| ' .CARGEoPO' | MAP
| ' .CARMASSI' | MAP
| ' .CARORIEN' | MAP
| ' .CARPOUFL' | MAP
```

## 3 Description of the cards composing it CARA\_ELEM

name of the map	name of the size	Description
\.CANBSP'	NBSP_I	Entireties allowing to calculate the number of under-points of the elements under-points: many layers, of sectors, fibres,...
\.CARARCPO'	CAARPO	characteristics of the curved elements of beam
\.CARCABLE'	CACABL	characteristics of the elements of cable
\.CARCOQUE'	CACOQU	characteristics of the elements of hull
\.CARDISCA'	CADISA	characteristics of damping of the discrete elements
\.CARDISCK'	CADISK	characteristics of rigidity of the discrete elements
\.CARDISCM'	CADISM	characteristics of mass of the discrete elements
\.CARGENBA'	CAGNBA	surface of the section of the elements of bar
\.CARGENPO'	CAGNPO	inertial characteristics of the sections of the elements of beam
\.CARGEoPO'	CAGEPO	geometrical characteristics of the elements of beam with rectangular or circular section
\.CARMASSI'	CAMASS	reference mark of orthotropism for the solid elements 3D or 2D
\.CARORIEN'	CAORIE	orientation: nautical angles of the local reference mark

`.CARPOUFL`	CAPOUF	characteristics of the elements of modeling 3D_FAISCEAU
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