

Structure of data sd_interf_dyna_clas

Summary:

One describes the structure of data here produced by the order `DEFI_INTERF_DYNA`.
It defines the interfaces associated with a given macronutrient.
A macronutrient can comprise several interfaces.

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1 General information

The structure of data `sd_interf_dyna_clas` is exclusively produced by the order `DEFI_INTERF_DYNA`. This one defines the interfaces of a structure for the modal recombination or the dynamic under-structuring by modal synthesis.

2 Tree structure of the Structure of Data

`sd_interf_dyna_clas` (K8)

◆	<code>\.IDC_DDAC'</code>	:	OJB	XD	V	I	NUM ()	VARI
◆	<code>\.IDC_DEFO'</code>	:	OJB	S	V	I		
◆	<code>\.IDC_DESC'</code>	:	OJB	S	V	I	LONG=5	
◆	<code>\.IDC_LINO'</code>	:	OJB	XD	V	I	NUM ()	VARI
◆	<code>\.IDC_NOMS'</code>	:	OJB	S	NR		K8	
◆	<code>\.IDC_REFE'</code>	:	OJB	S	V	K24	LONG=3	
◆	<code>\.IDC_TYPE'</code>	:	OJB	S	V		K8	
◆	<code>\.IDC_DY_FREQ'</code>	:	OJB	S	V	R	LONG=1	

3 Contents of the objects JEVEUX

3.1 General information

One `sd_interf_dyna_clas` contains one or more interfaces (`nb_intf`) named.

Each interface contains one or more nodes. Each node of interface carries a certain number of ddls (component of the size `DEPL_R`). For each node of interface, the user chooses a subset of the ddls carried by this node: they are the "active" ddls of the node.

For each ddl active of `sd_interf_dyna_clas`, one will calculate (later in `DEFI_BASE_MODAL`) a static deformation.

One is interested in the size `DEPL_R`.

3.2 Object `.IDC_REFE`

`\.IDC_REFE' : S V LONG K24 = 3`

V (1)	Name of <code>sd_maillage</code>
V (2)	Name of <code>sd_num</code>
V (3)	vacuum

3.3 Object.IDC_DESC

`\.IDC_DESC' : S V I LENGTH = 5`

V (1)	1
V (2)	Many coded entreties necessary to the size DEPL_R (nbec)
V (3)	Component count maximum for the size DEPL_R
V (4)	Number of the size DEPL_R in the catalogue of the sizes
V (5)	Many static deformations to calculate (nb_def)

3.4 Object . IDC_NOMS

`\.IDC_NOMS' : S NR LONG K8 = nb_intf`

It is the pointer of names giving the correspondence number of the interface ↔ name of the interface

V (I): name of the interface number I

3.5 Object.IDC_TYPE

`\.IDC_TYPE' : S V LONG K8 = nb_intf`

V (1 with nb_intf) : type of the interface (' CRAIGB ', ' MNEAL ', ' CB_HARMO ' or ' NONE ')

3.6 Object . IDC_LINO

`\.IDC_LINO' : XD V I NUM () VARI NB_OBJ = nb_intf`

This collection comprises a number of elements equal to the numbers of interface (nb_intf).

That is to say v I^{ème} object of the collection

v as a dimension the number of nodes of the interface number I have (nbno).

V (1 with nbno) : number (in the grid) of the nodes of the interface number I

3.7 Object . IDC_DDAC

`\.IDC_DDAC' : XD V I NUM () VARI NB_OBJ = nb_intf`

This collection comprises a number of elements equal to the numbers of interface (nb_intf)

That is to say v I^{ème} object of the collection.

v as a dimension the number of nodes of the interface number I have (nbno) multiplied by the number of entirety coded necessary to the description of the size DEPL_R (nbec).

V (1 with nbno*nbec) : list of the coded entreties describing the active ddls of the interface number I

3.8 Object . IDC_DY_FREQ

`\.IDC_DY_FREQ' : S V R LONG = 1`

V (1) : Value of the frequency used for the calculation of the harmonic constrained modes

3.9 Object.IDC_DEFO

``.IDC_DEFO' : S V I LENGTH = (2+nbec) *nbnot`

This object describes them (nbnot) nodes of sd_interf_dyna_clas and their ddls active. It describes also the classification of the static deformations (which one will calculate later) associated with the active ddls with sd_interf_dyna_clas .

The number of nodes of sd_interf_dyna_clas (nbnot) is possibly lower than the composing sum of the numbers of nodes of the various interfaces sd_interf_dyna_clas because interfaces of the same type (' CRAIGB ',...) can have joint nodes (which "will then be amalgamated" in sd_interf_dyna_clas).

Each node of sd_interf_dyna_clas a type has 'MNEAL', 'CRAIGB', 'CB_HARMO', 'NONE'.

Nodes of sd_interf_dyna_clas are gathered per packages in the same way standard. These nodes are arranged in the order: 'MNEAL', 'CRAIGB', 'CB_HARMO', 'NONE'.

That is to say nmn , ncb , ncbh , nau : numbers of nodes of sd_interf_dyna_clas types: 'MNEAL', 'CRAIGB', 'CB_HARMO', 'NONE'.

That is to say: nbnot = nmn + ncb + ncbh + nau

The vector . IDC_DEFO is made of 3 "blocks":

Numbers (in the grid) of the nodes:

`V (ino) : number of inoème node of sd_interf_dyna_clas`

Numbers of the 1^{eras} deformations carried by each node:

`V (nbnot+ino) : number of the 1era deformation of suddenly of sd_interf_dyna_clas`

This storage block is used very little in the code. One makes use of it (temporarily) in the order DEFI_INTERF_DYNA who creates the SD. Once the SD created, the final contents of this block is used only in the routine bmnodi.f (REST_GENE_PHYS , MODE_ITER_CYCL)

Coded entreties describing the active ddls of the nodes:

`V (2*nbnot+ nbec* (ino-1) : 2*nbnot+ nbec* (ino)) : coded entreties describing the active ddls of the inoème node of sd_interf_dyna_clas`