

Operator CALC_CORR_SSD

1 Goal

To estimate the quality of the scale models within the framework of the modal analysis. This order makes it possible to calculate work of the residual efforts of coupling on the level of each interface, as well as work of the residual efforts on the internal parts of under structures.

In addition, on the basis of this work, the order calculation of the terms of enrichments, based on:

- work of the residual efforts to the interfaces, for each under structure,
- work of the residual efforts on the internal parts, for each under structure,
- differential displacements (separation) being able to appear with the interfaces between under structures.

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2 Syntax

```
TABLE [TABLE_CONTAINER] = CALC_CORR_SSD (  
  
  ◆ MODELE_GENE = model, [modele_gene]  
  
  ◆ RESU_GENE = resu, [mode_gene]  
  
  ◇ SHIFT = /1. , [DEFECT]  
           /shift, [R]  
  
  ◇ UNIT = unit, [I]  
  
  ◇ VERIF =_F ( ◇ STOP_ERREUR = / 'YES' , [DEFECT]  
                / 'NOT' ,  
  
                ◇ PRECISION = / 1.E-3, [DEFECT]  
                / R, [R]  
  
                ◇ CRITERION = / 'RELATIVE' , [DEFECT]  
                / 'ABSOLUTE' ,  
  
                )  
  )
```

3 Operands

3.1 Keyword **MODELE_GENE**

◆ MODELE_GENE

Name of the generalized model whose one wishes to check quality. Calculations carried out are detailed in documentation [U2.06.04].

3.2 Keyword **RESU_GENE**

◆ RESU_GENE

Name of the result generalized on the basis of which the quality of the generalized model is checked, and which then makes it possible to calculate enrichments.

3.3 Keyword **SHIFT**

◇ SHIFT

Value of the shift of frequency allowing to calculate the terms of enrichment for the macros elements whose matrix of stiffness singular would once be released the boundary conditions of the interfaces.

It is for example the case in test SDLS122A, where one considers macros square elements, embedded on the edge associated with the interface, and simply pressed on the 2 other free corners. By releasing the embedding of the edge of interface, the structure becomes articulated, and thus presents modes of rigid body. In the absence of $SHIFT > 0$, the matrix is singular and calculation cannot proceed correctly.

3.4 Keyword **UNIT**

◇ UNIT

Specify the unit of the file in which the results of calculations of work of interface will be printed. By defaults, the results are printed in unit 8.

3.5 Keyword **VERIF**

◇ VERIF

Keyword factor inherited the definition of the generalized model, in order to check coherence of it. One determines if the connection is compatible or not. The nodes of the two interfaces do not have a priori to be ordered so that they are two to two confused. If the nodes of the interfaces are not in opposite two to two, the code detects this state and reorders the nodes in order to give them in opposite.

3.5.1 Operand **STOP_ERREUR**

Allows to carry out or not the checking of coherence of the generalized model.

3.5.2 Operand **PRECISION/CRITERION**

Indicate the threshold of precision to beyond which the connections are incompatible. It is the distance (relative or absolute following `CRITERION`) beyond which the nodes of connection are considered as too distant to be actually connected.