

CALCULATION OF TWO WALLS IN INTERACTION

RIDO V:4.20

Extension of the language of the data description:

Both walls and their phases of works are to be described in two files of data names of which begin with P1 (or p1) and with P2 (or p2) and end in a identical way..
The first one will concern the wall 1 and the second the wall 2.

For example P1but.RIO and P2but.RIO.

The interaction between both screens will be made generally by struts or anchors.

The predefined constant Px will have for value 1 in the data of the wall 1, the value 2 in the data of the wall 2 and the value 0 if the name of file does not correspond to the previous specification..

As in the data of every screen it is useful to get back exportable constants of the other one, the directive CONST can be written

CONST=@*

where * will be interpreted as P2 ____ .RIO in P1 ____ .RIO and mutually.

The working environment WRIDO :

- Recognition of the files of data named P1 ____ .RIO and P2 ____ .RIO as data of walls in interaction (example P1but.RIO and P2but.RIO)
- Fast switching between the data and the results of P1 ____ and P2 ____ depressing the key F8.
- Depressing the key F5 the calculation is made with the current data.
- Same for the key F6 but with initialisation of the iterative calculation between the two set of data. (The current set of data must be P1____.RIO).
- Depressing the key F7 you launch the iterations (until 50) with so necessary continuation depressing again.
- Depressing on CTRL-F7 you launch one unique iteration

It belongs to the user to choose how will be led the iterative calculation. The simplest solution will consist not in iterations on the strengths of the struts or anchors but in interactions on the movement of the anchor point on the opposite wall. We shall use the order GAP (see the supplied examples).
The intern function result () will play a major role.

Remark : Before launching the iterations make a calculation or a check on P1 ____ .RIO as well as on P2 ____ .RIO for the detection of possible errors.

After any change in the files P1____.RIO or P2____.RIO it is necessary to made "INITIALIZATION OF ITERATIONS"

As for all the other commands in WRIDO, a click with the mouse in zones clearly identified on the display will be more practical than depressing the function keys.

Examples :

Within the folder ..\RIDO420\BIRIDO\English we shall find 3 commented examples which can serve as models for the variety of the possible cases.

Within the folder **Anchor** :

A main wall retained by an oblique anchor anchored in a secondary screen

Within the folder **Cofferdam**

Calculation of two screens of different inertia connected by horizontal anchors and backfilling in the space which they bound.

Within the folder **SheetedTrenche**

Excavation between two molded walls retained by struts and with surcharge on a single side.