# 3MURI Project

News Version 14.5

STADATA
STRUCTURAL SOFTWARE

Updates

Updated Encirclements calculation Mdoule.

Updated Interface for Calculating encirclements in Local Verifications environment:

The interface has been improved to facilitate the addition and selection of different types of materials and encirclements, making the process faster and more intuitive.
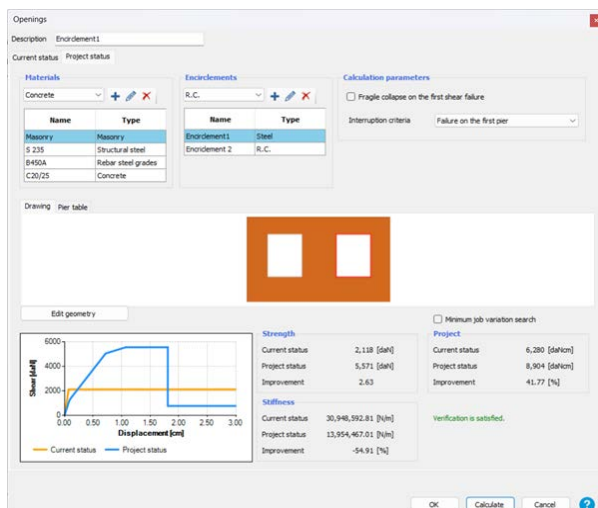
New Calculation Parameters:

New calculation parameters have been introduced, such as brittle collapse at the first shear failure. In addition, various criteria for stopping the pushover curve have been added, such as:

- Failure of the first pier
- Failure of all piers
- 20% decay of maximum shear

Finding the Minimum Work Variation:

in the predimensioning of a steel encirclement, it is possible to use an option that determines the optimal steel profile of the selected family. This profile not only satisfies the strength verification, but also minimizes the work variation between the current state and the design state.

Predimensioning Steel Encirclements:

a family of steel profiles can be selected, and the program automatically calculates the optimal section to be included in the encirclement.

Verification of encirclements made in steel and reinforced concrete:

Defining the cross-section it is possible to directly perform the verification of encirclements made in steel and in reinforced concrete.
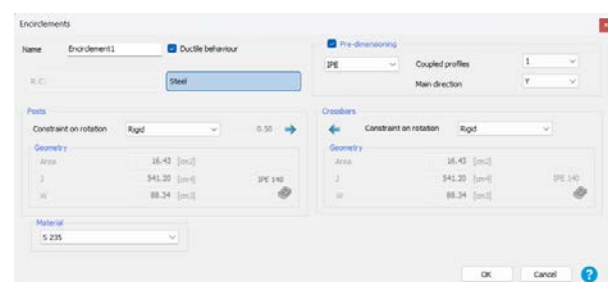

New Ductile Behavior Option:

The Ductile Behavior option allows to calculate the encirclement frame by evaluating, step by step, the formation of plastic hinges on the crossbars and posts. The program calculates the shear and displacement of the frame until the ultimate condition is reached.

New rotational constraint option:

The user can now set rotational constraint conditions for posts and crossbars. Options include rigid constraint, free constraint or a constraint factor set manually by the user

New Feature: Calculation of Center of Mass and Center of Stiffness.

Within the Utility menu, in the FME Analysis environment, a new feature is now available for calculating the center of mass and center of stiffness of the entire structure. The coordinates of both centers, along with eccentricity, are calculated for each level of the structural model. The centers are also represented graphically in a model plan. The origin of the reference system can be changed by selecting another node in the plan.
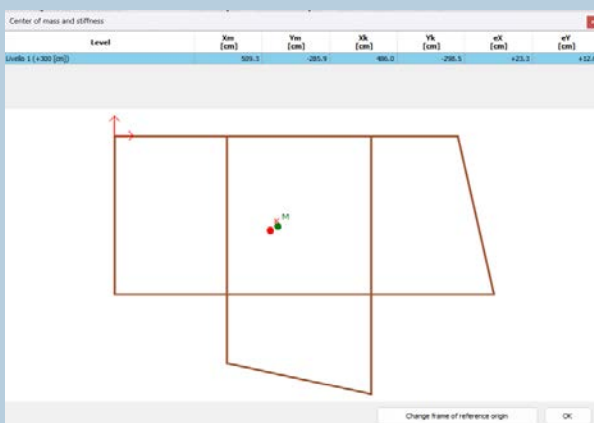
Disconnection at the base of the encirclement posts in the global model

In the global model, it is possible to define both hinges and fixed contraints for the posts of the encirclements
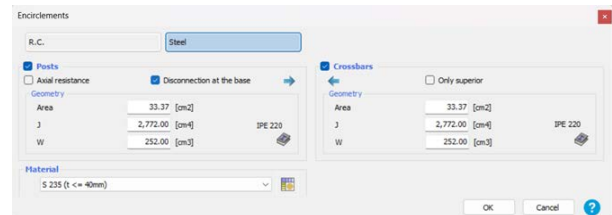
New: Availability of the report in several languages expanded

Croatian:

Report is now available for EC6 and EC8 standards and Kinematics module

Greek:

The report for the Kinematics module is now available

English:

Report is now available for the Foundations module and for the NTC18, NTC18C, SIA, and SIA 269/8 standards