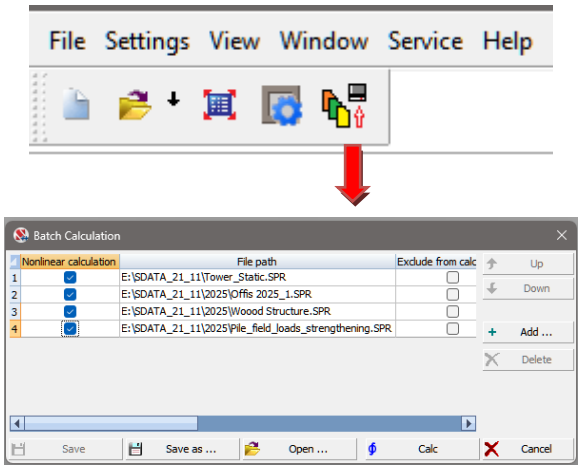
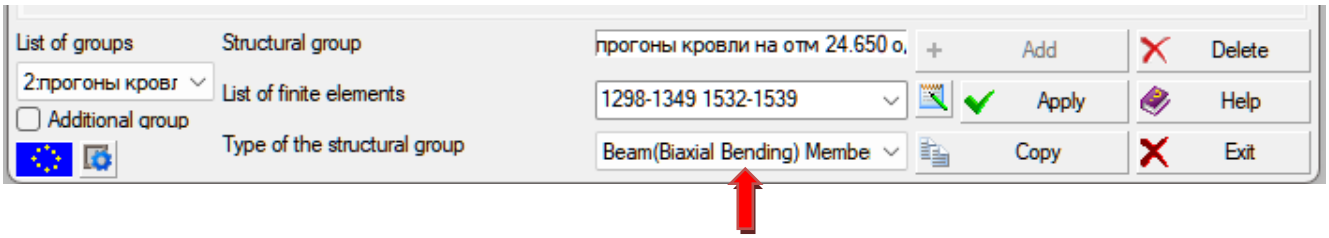
New Features of SCAD Office System, Version 27.1

SCAD++

Batch calculation of multiple tasks has been implemented



A new type of structural steel element has been added – beam (biaxial bending)



Reinforced Concrete

When checking reinforced concrete slabs, in addition to the factor for maximum crack width, factors for crack width in the top and bottom zones have been added.

When selecting reinforcement in bars, a user-defined percentage of minimum reinforcement can be specified in *Additional Settings*.

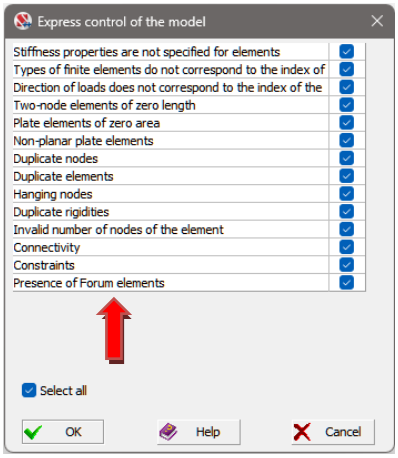
After the punching shear analysis, shear reinforcement can be assigned/changed.

Nonlinear Analysis

When creating nonlinear load cases, it is now possible to create several load cases at once that correspond to linear load cases and/or combinations.

Extended settings for nonlinear analysis.

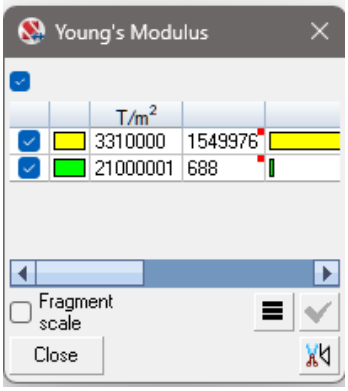
A check for the presence of Forum elements has been added to Express Check



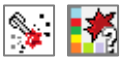
Displacement Merge Groups

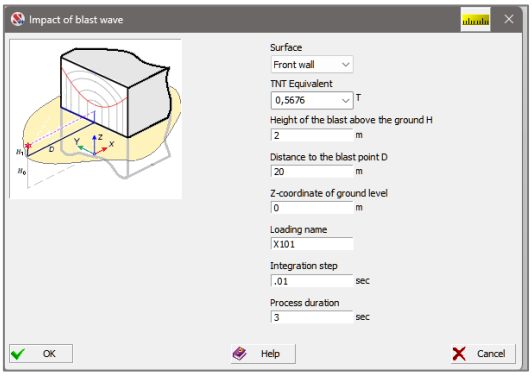
The ***Display of Displacement Merge Groups*** filter allows you to create groups by displacement merge directions.

A non-interval scale of elastic moduli has been added



Analysis for the effect of a blast wave on the front walls and roofs of protective structures has been implemented, based on the recommendations of UFC 3-340-02





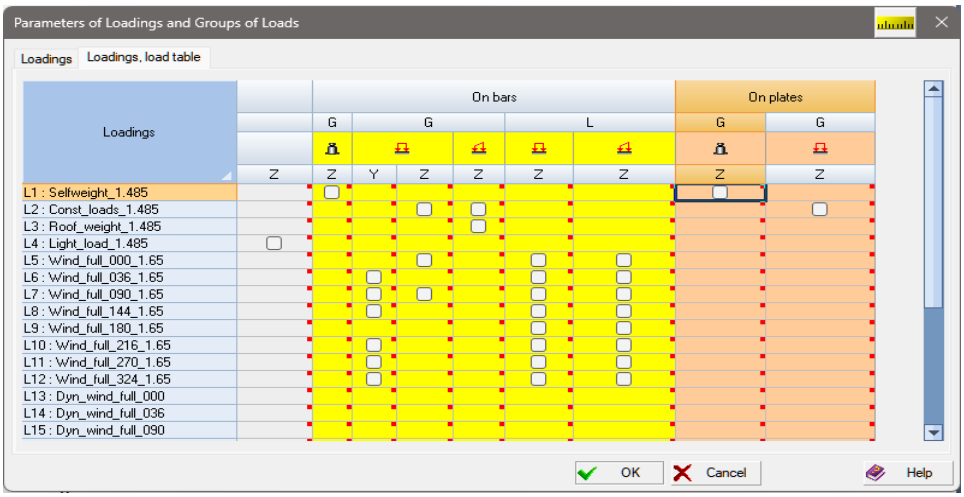
Steel Structures

When designing truss joints, different steel grades can be specified for chord members and web members.

The stiffener spacing can be specified either as the distance between them or as a coefficient applied to the web height.

The analysis of local stability of the web of eccentrically compressed steel members according to SP has been refined, as has the strength analysis of eccentrically compressed steel members taking into account the development of limited plastic deformations.

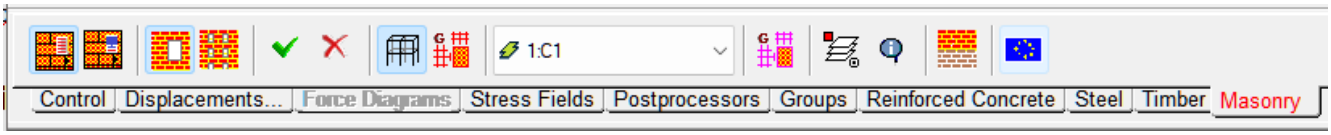
In the multi-page dialog box *Load Case and Load Group Parameters*, tabs have been added with information on the presence of loads of various types in load cases and load groups



It is possible to select the corresponding nodes or elements/

Masonry and Reinforced Masonry Structures





This mode is intended for performing structural analyses and checks of masonry and reinforced masonry elements (walls) for compliance with the requirements of SNiP II-22-81, SP 15.13330, EN 1996-1-1, DBN B.2.6-162:2010, KMK 2.03.07-98.
The checks are performed on the basis of stresses obtained as a result of the effects of both individual load cases and their combinations.

Dynamics

When preparing data for direct integration (if damping coefficients are specified manually), the Rayleigh dissipation curve can be obtained.

Diagnostics of the multipliers for the mass and stiffness matrices has been added to the direct integration of the equations of motion.

Additional Features

Creation of a plate model of a bar has been implemented for some bars of variable cross-section.

Potential energy combinations can be saved to an rsu2comb file.

KRISTAL

For bolted and friction connections, a button has been added that allows you to obtain the bolt parameters.

COMET

When designing truss joints, different steel grades can be specified for chord members and web members.

WEST

New ***Blast*** mode – determination of the parameters of a blast effect on the front walls and roofs of protective structures, based on the recommendations of UFC 3-340-02.



Added

Added a catalog of ropes according to GOST 2688-80.

Added an add-in for data exchange with Revit 2027.

Revit – added import of curved walls.

Added an add-in for data exchange with Tekla 2026.

Added a catalog of welded I-beams according to DSTU 9295:2024.

Extended the catalog of sin-sections.