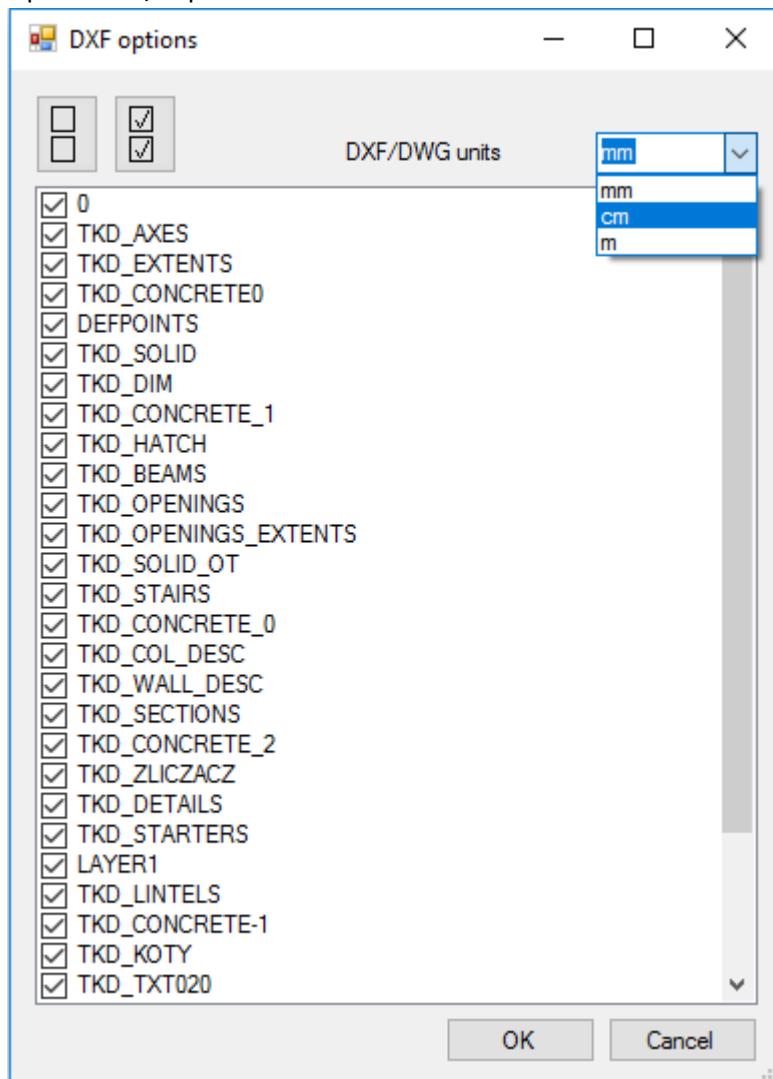


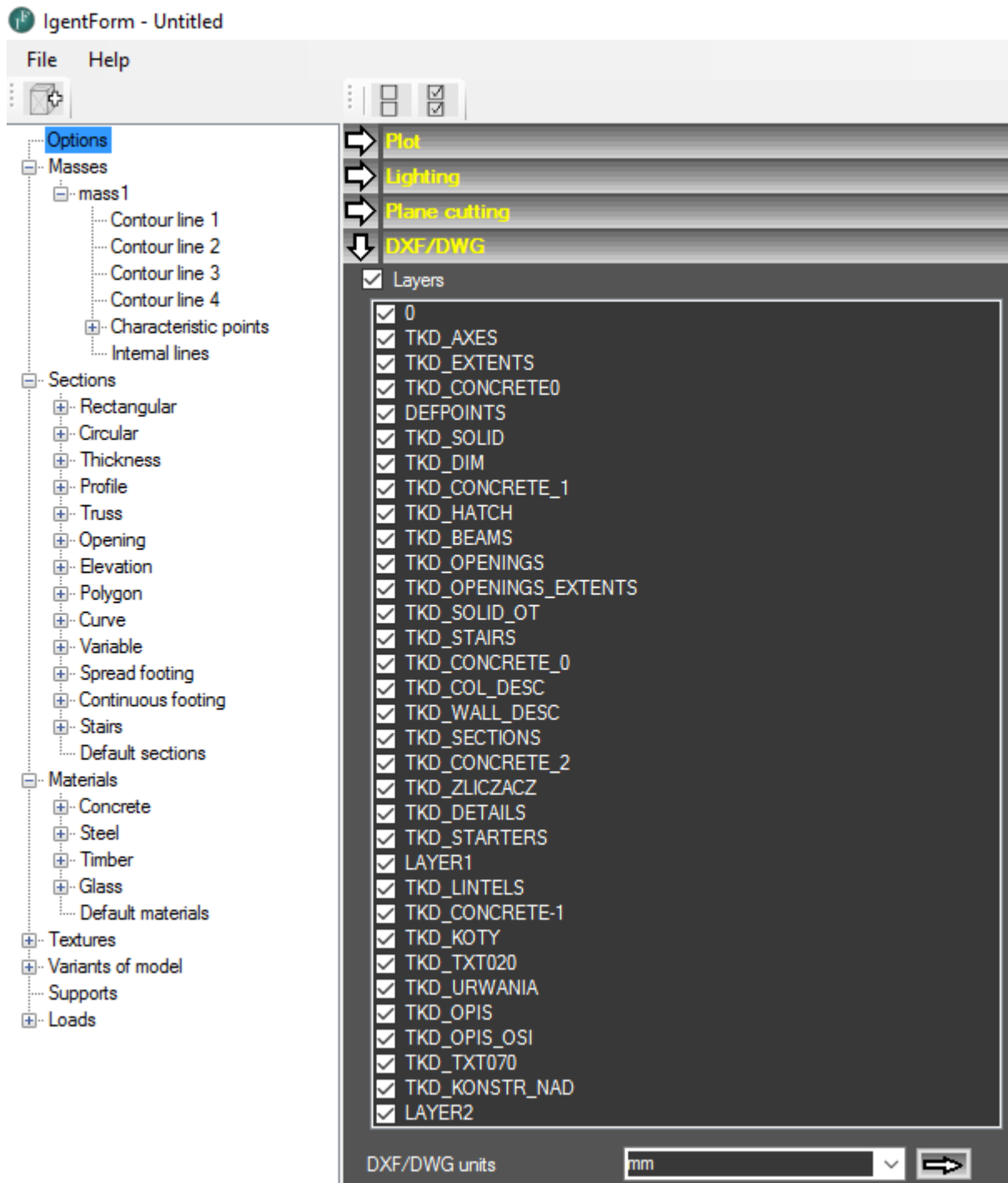
- 1) Read DWG/DXF file (for the moment program supports only DXF v12)
Option: File/Import



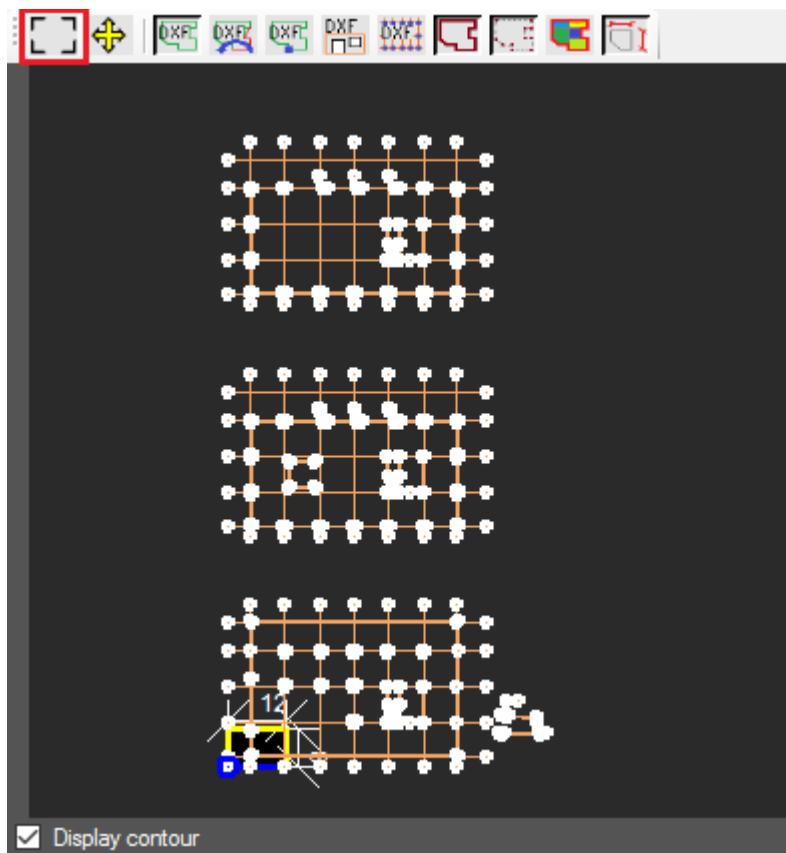
One should choose units, which are used in the file.
It is possible to read all layers or only selected.

2) Layers visibility can be set in option Options.

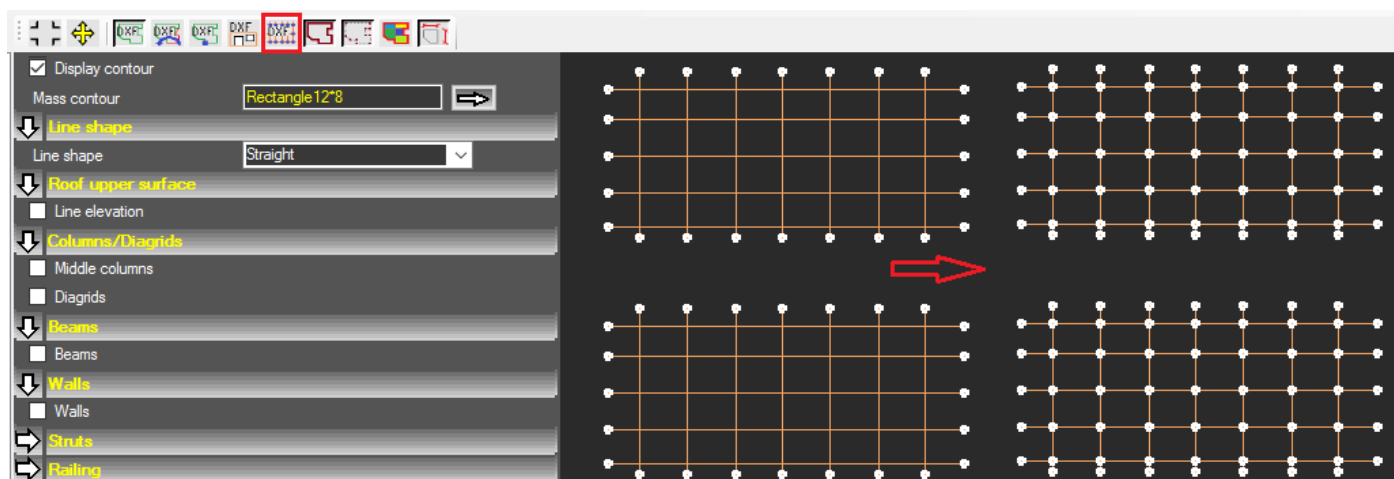
It is possible to switch on or off all layers thanks to icons, which are available on toolbar.



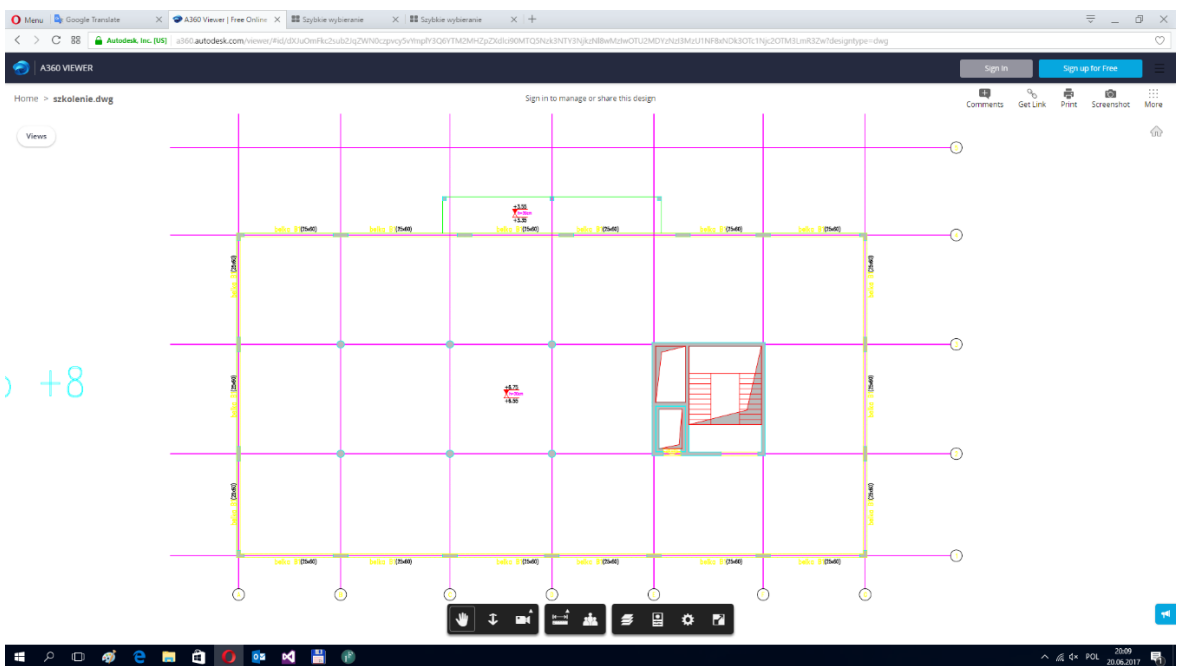
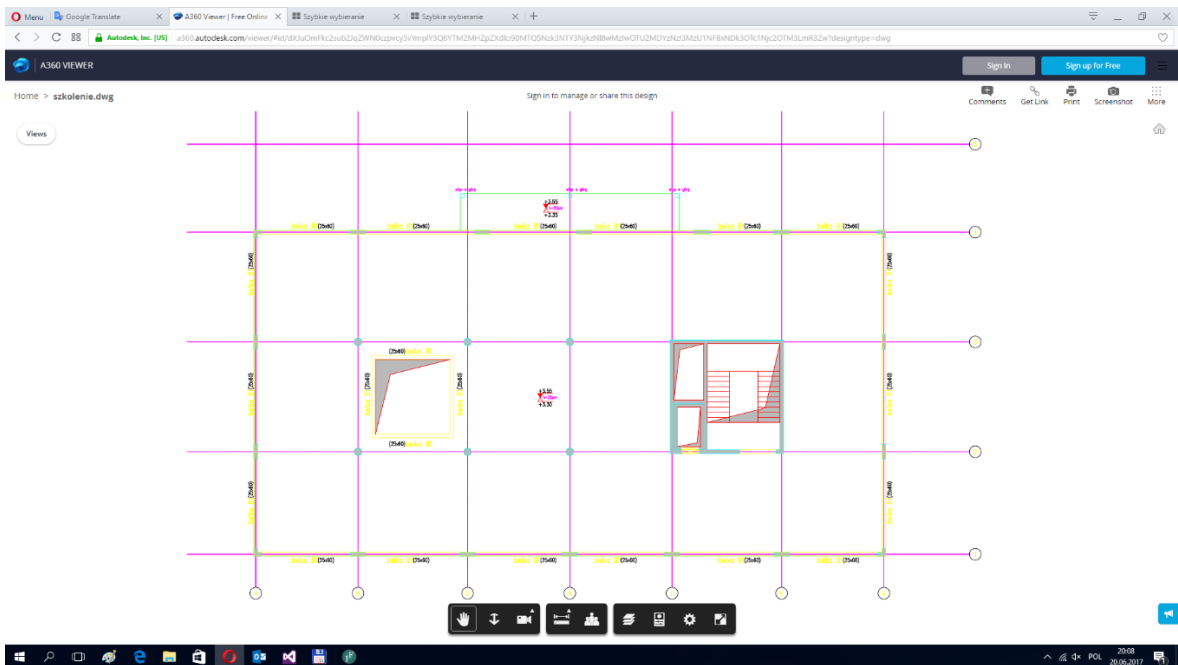
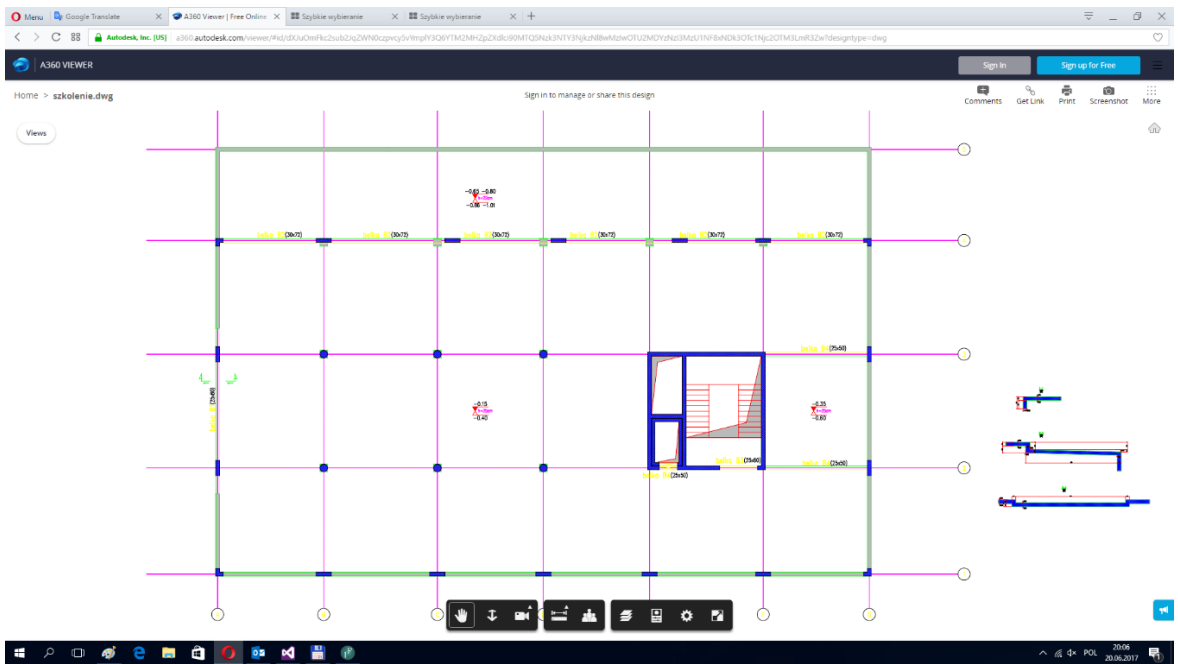
- 3) DWG/DXF background is displayed, if view 2D is active. It appears, when program is line edition mode (contour line or internal) or in the mode of contour edition.
- View 2D can be displayed in the big window (in the place where view 3D is displayed) thanks to icon “View in the whole window”.
- For the moment program displays only elements which are lines or polylines.




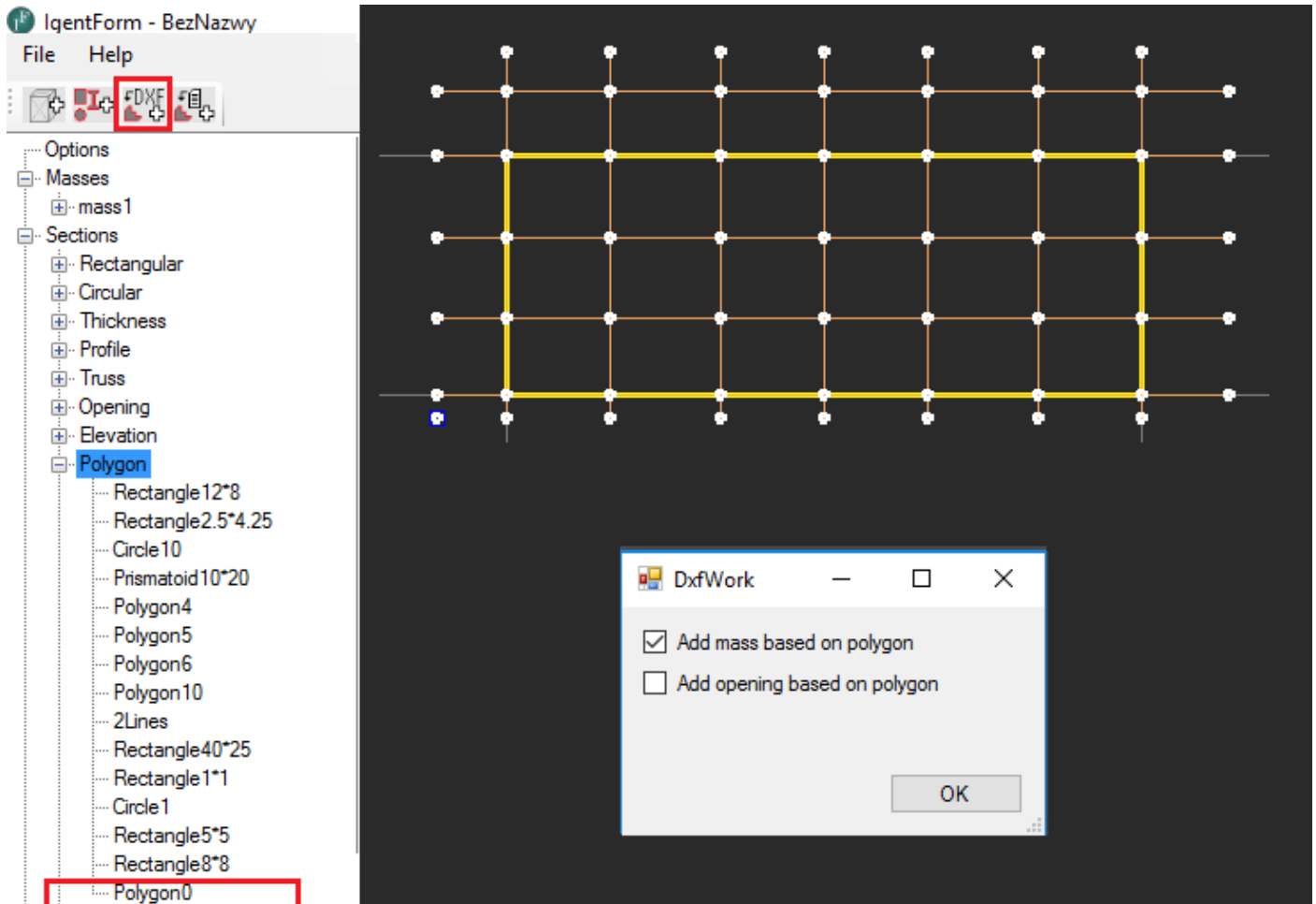
- 4) If in the DWG/DXF file there are no points in the points of axes intersections, these points can be additionally generated. To do this one should switch on visibility of only axes layers and use option “Add points of DWG/DXF lines intersections”



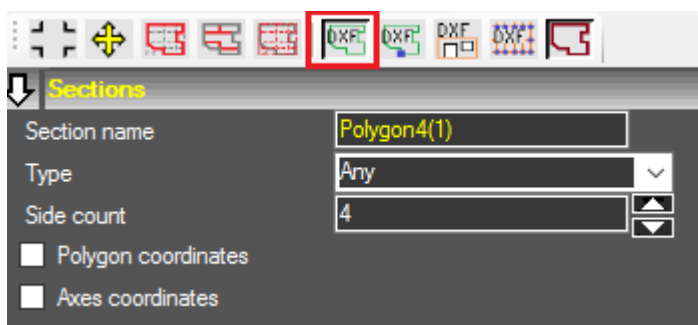
- 5) Full DWG/DXF model can be displayed in parallel in any other program, which displays all elements.
- Below full drawings of model presented above are shown. Building consists of 10 storeys, storeys 3-10 are repeatable.



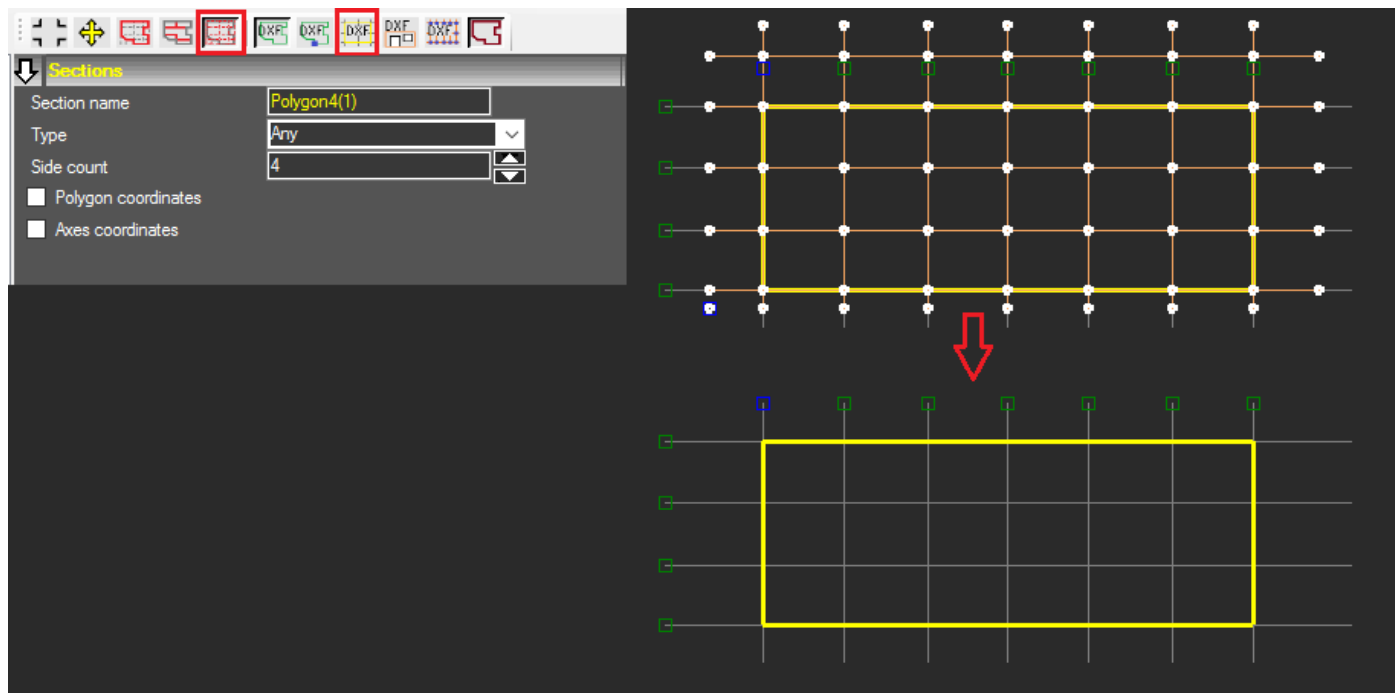
- 6) To add contour on the base of DWG?DXF file, one should select branch Sections/Polygon and use option „Add section on the base of DWG/DXF lines”. Program automatically adds new section to section database with number of points equals to zero and goes into Add contour mode (cursor is changed into ) Contour is defined by clicking subsequent points. The input is completed when the last or first point is clicked again. After contour input it is possible to automatically generate mass based on currently defined contour. Additionally, mass can be treated as opening, which can be cut in another mass – in this mode program automatically sets mass cutting parameters. Height of mass can be set in option Basic shape/Mass height.



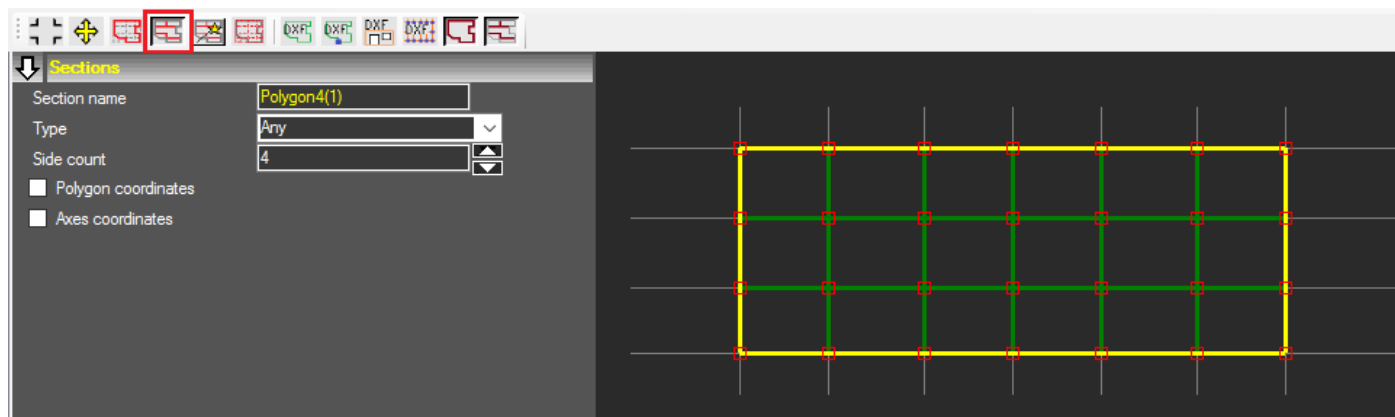
Visibility of DWG/DXF background can be switched at any moment thanks to icon „Display/Hide DWG/DXF lines”



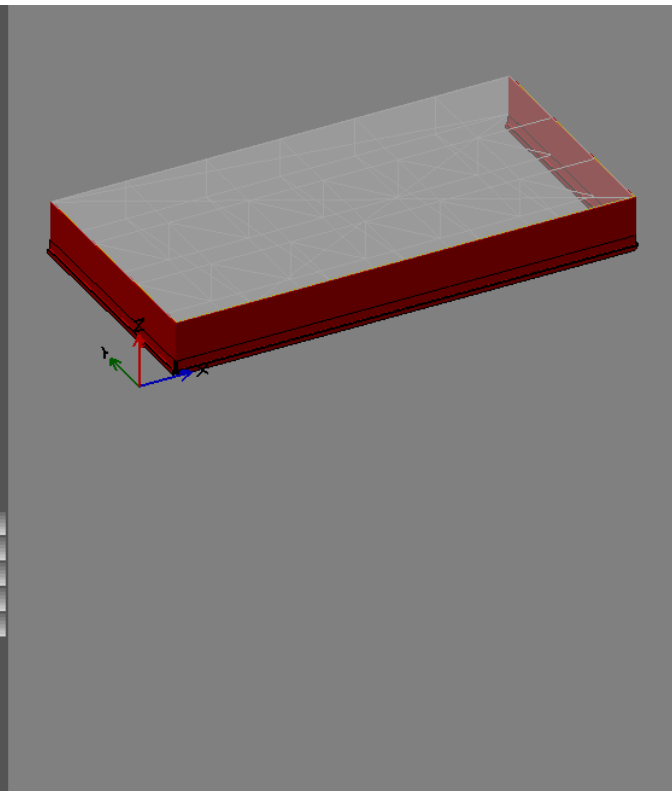
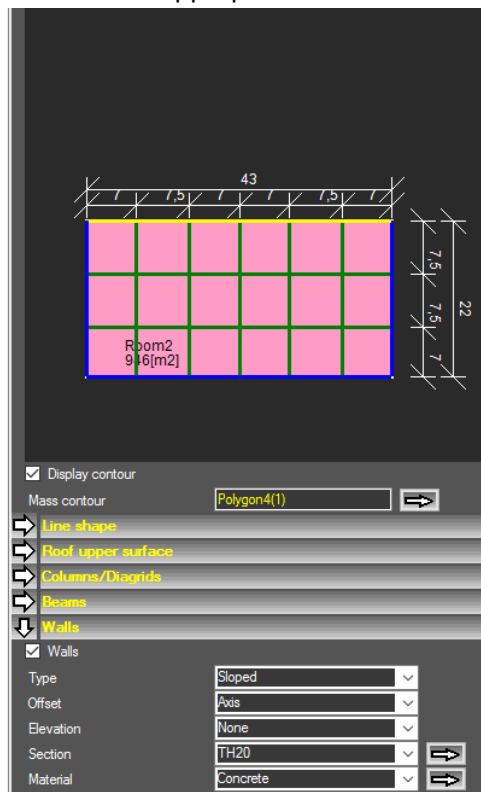
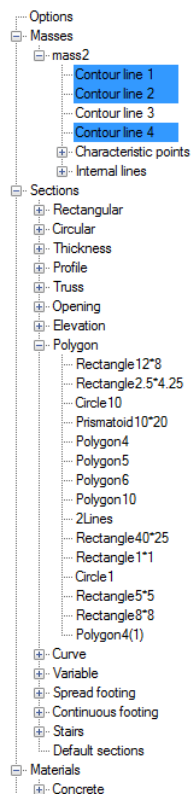
- 7) To add axes to previously defined contour one should choose this contour in the branch Sections/Polygon, Switch on visibility of only layer with axes, click “Axes mode” icon and click „Add axes on the base of DWG/DXF lines intersections with contour” icon.



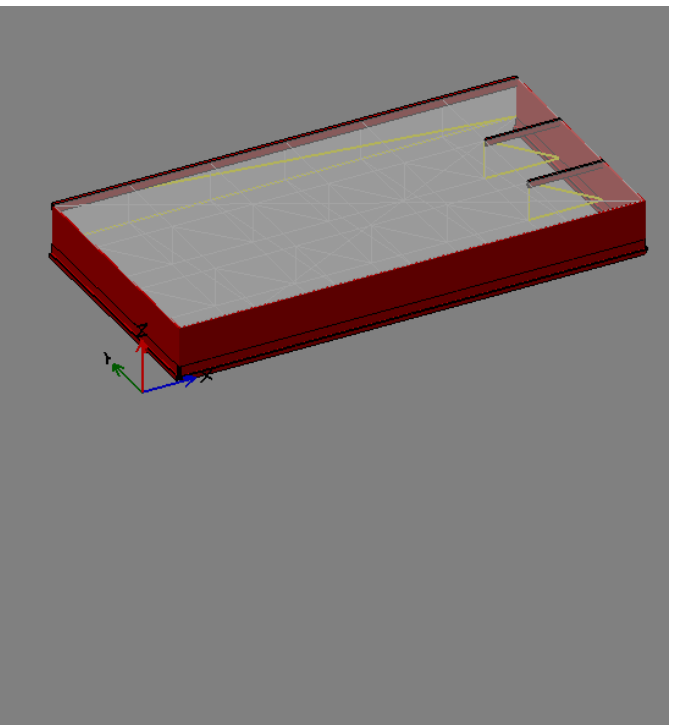
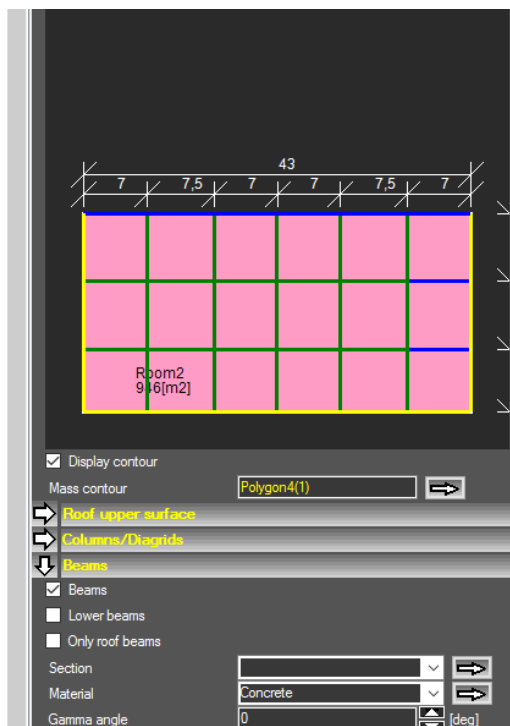
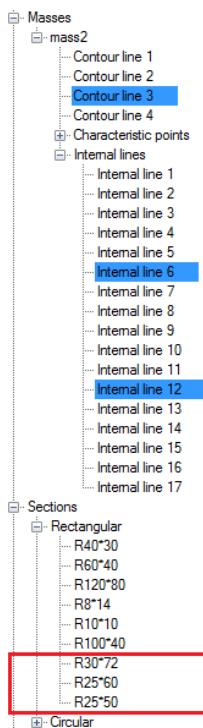
- 8) On the base of axes in contour, one should create internal lines, choosing icon „Internal lines mode” and clicking subsequent points. Program automatically snaps the entered points to the intersection points of axes with axes and contour lines.



- 9) To model walls on the base of DWG/DXF background one should add required sections (TH25) to sections database and switch on walls on appropriate lines.




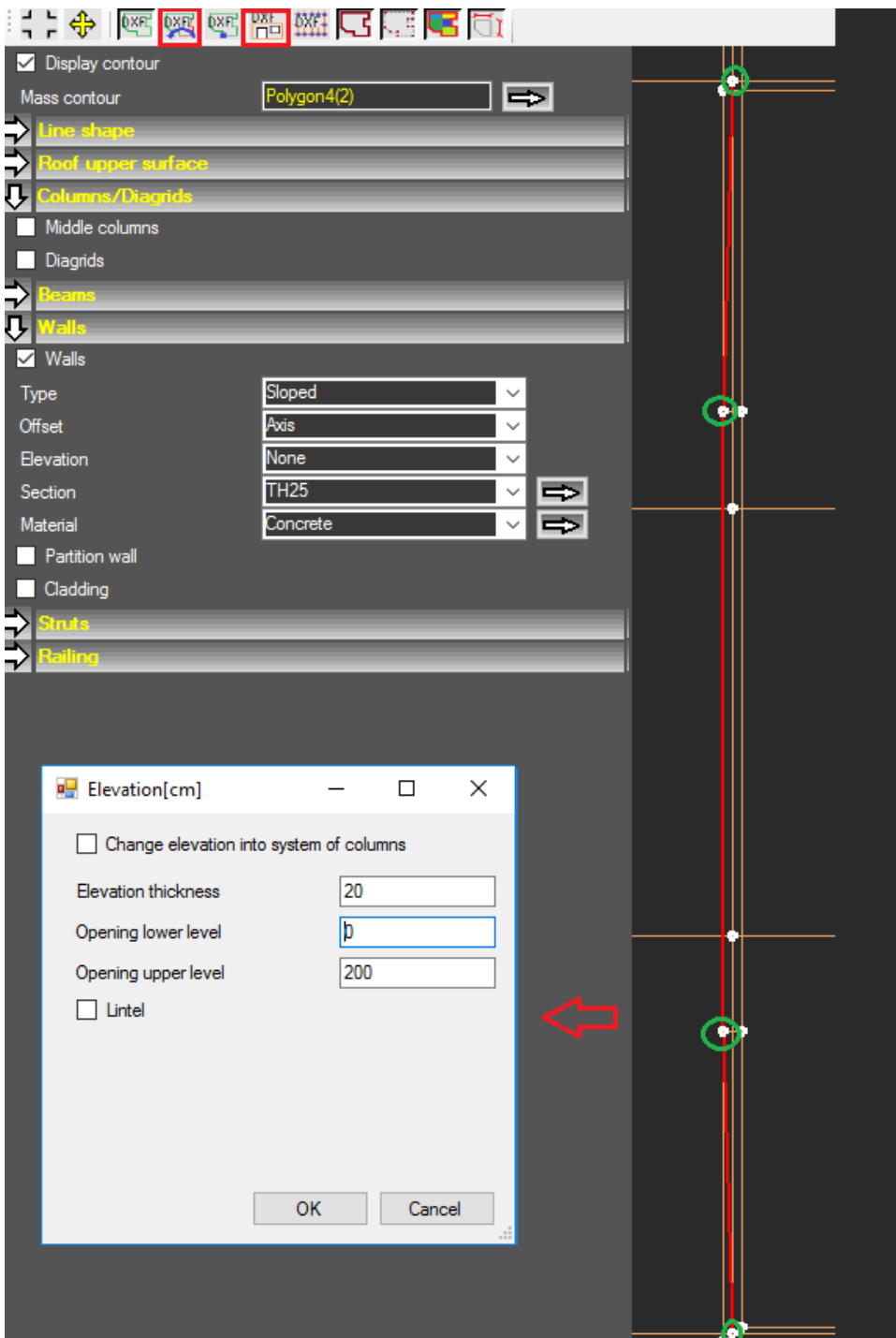
- 10) To model beams on the base of DWG/DXF background one should add required sections (R30*72, R25*60, R25*50) to sections database and switch beams on appropriate lines.



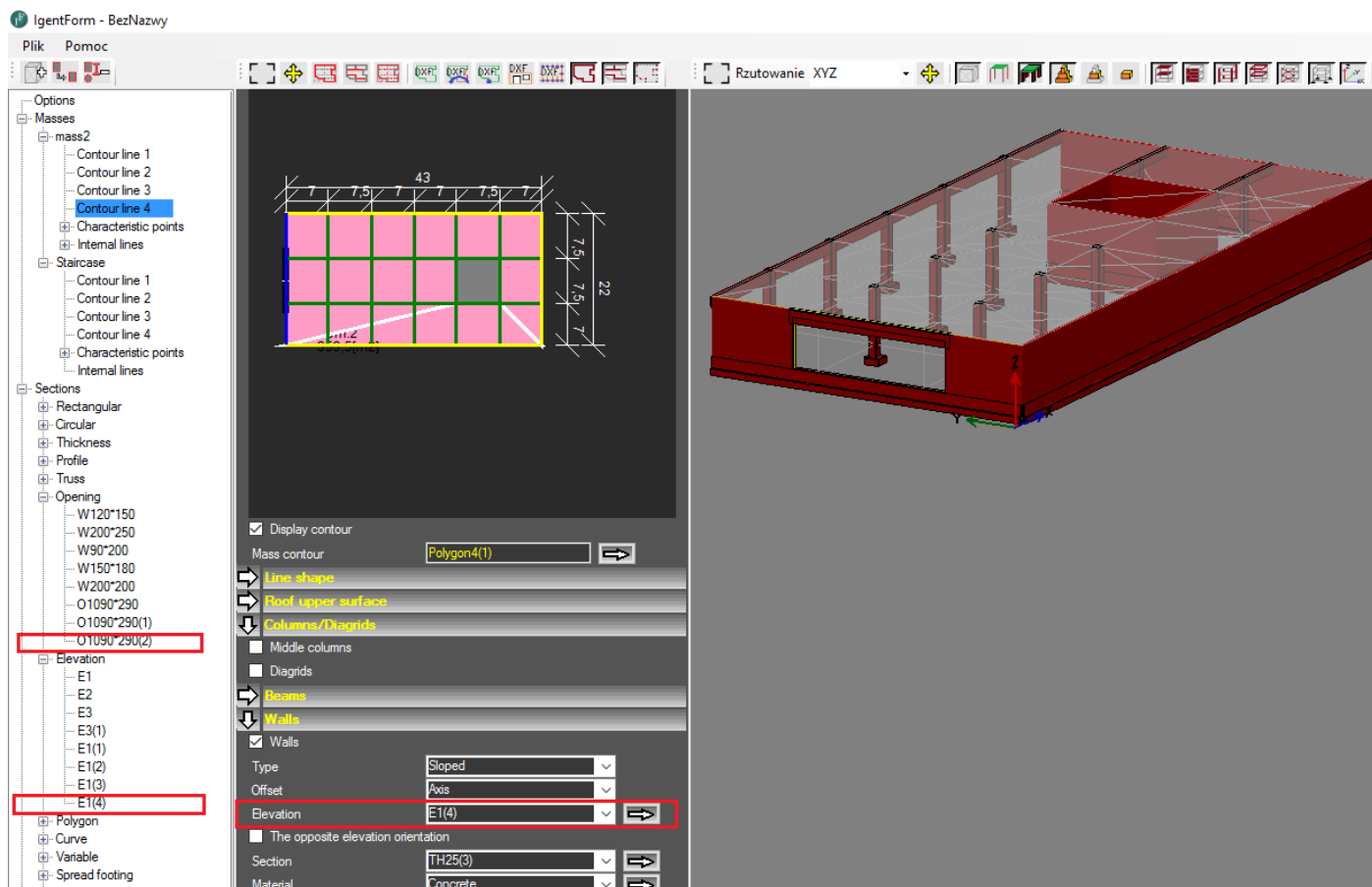
- The screenshot shows the 'Columns/Slabs' dialog box in the software interface. The 'Columns/Slabs' section is active, displaying a 3D model of a rectangular slab with a grid of columns. The 'Columns section' is set to 'R50*50', 'Material' is 'Concrete', and 'Gamma angle' is '0'. The 'Columns coordinates' table shows 'X[0-1]' and 'Y[0-1]' with values '0' and '1' respectively. The 'Columns/Slabs' section is highlighted with a red box.

- The screenshot displays the software's mass creation interface. On the left, a tree view shows the hierarchy: Options > Masses > mass2 > Staircase. The main panel is divided into sections: Basic shape, Advanced shape, Floors, Location, Clip, Corner Columns, Roof, Extents, and Summary. The 'Basic shape' section is active, showing settings for 'mass2'. The 'Clip' section is highlighted with a red box, indicating the current operation. The 3D model on the right shows a rectangular mass with a central rectangular cutout, representing the result of the clipping operation.

- 13) To model openings in the wall, on view 2D one should switch of the visibility of layers, where points connected with openings positions are available, choose one line in the mass, and next click on „Add elevation on the base of DWG/DXF file”. Program automatically goes into Add elevation mode (cursor is changed into )
- Elevation is defined by clicking on subsequent points. It is essential, that start and end point are points lying on wall axis. Middle points should be points of openings beginnings and ends. They needn't lie on axis (so line connecting start and end point) – program will automatically make projection on axis. When point is chosen incorrectly, one should click an icon “Delete last point of section created on the DWG/DXF background”. Once the editing has been completed (again clicking on the last point), the opening parameters (lower and upper levels, lintel existence and possibly its parameters (cross-section, material, support length)) should be defined. If you select the "Change elevation into columns system" option, the program automatically finds the most common wall width between the openings and generates columns (on one line all columns must have the same cross-section).



Program automatically adds to section database all new openings and elevation (or column section). Such defined elevation (or system of columns) is automatically assigned to selected line of mass.. If elevation is defined in the opposite direction as wall, in wall parameters an option „Opposite elevation orientation” will be checked.



14) The above operations should be performed on all structure masses. In the case, when in one file there are a few storeys projections mutually shifted, then after mass generation it is possible to align it to one of already existing masses using options Position/Vertical alignment and Horizontal alignment.

