



USER MANUAL

PLPak Version 1.01

STRUCTURAL ANALYSIS SOFTWARE USING BOUNDARY ELEMENTS
METHOD

PLPAK basic tutorials

Tutorial 9 – More PLGen loading elements and load cases

CONTACT DETAILS:

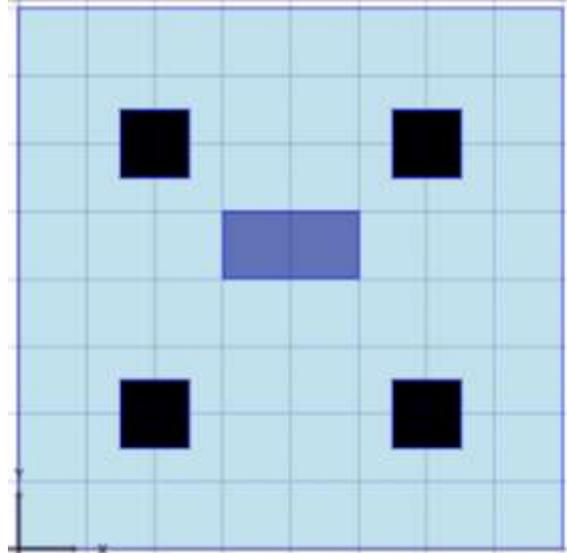
www.be4e.com

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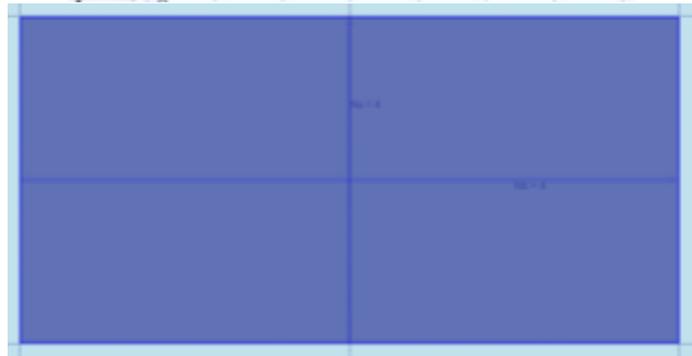
Tutorial 9

The objective of this tutorial is to tackle loading elements, column loads, load patches, wall loads and load assemblies as well as reviewing the slab's own weight and beam's own weight.

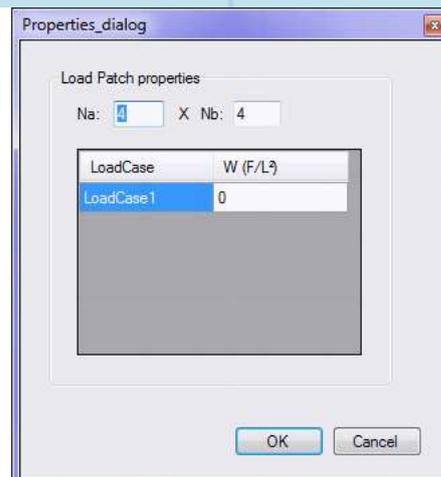
I – In PLGen ,draw a rectangle and assign it as a load patch



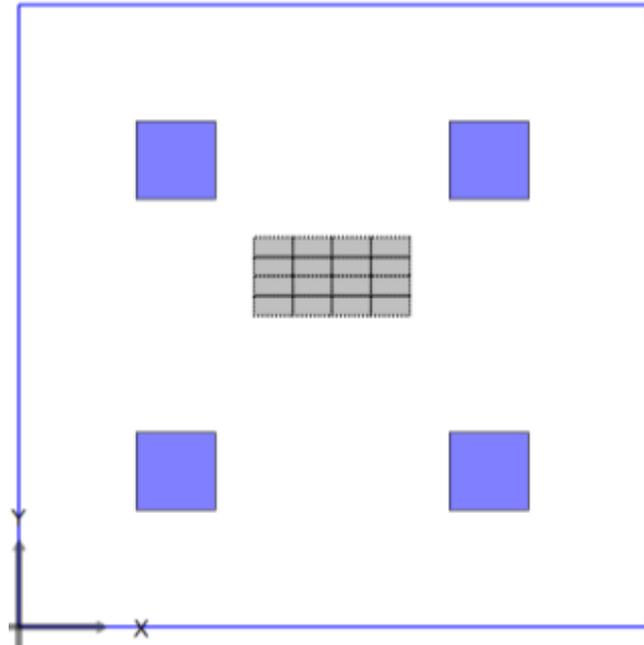
II - . The divisions are viewed by clicking on Divisions; it will show you the N_a and N_b both equalling 4, meaning there are four divisions in the load patch.



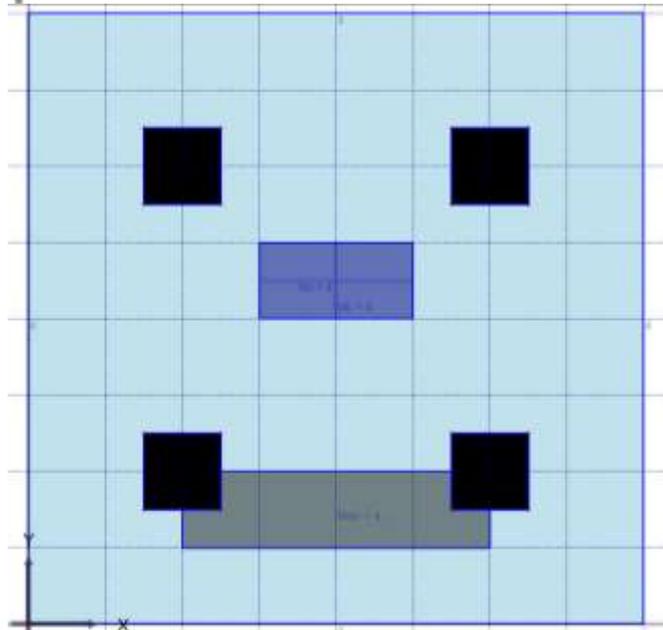
III - The N_a and N_b values can be changed by right clicking on the load patch without selecting it to get the load patch properties dialogue box.



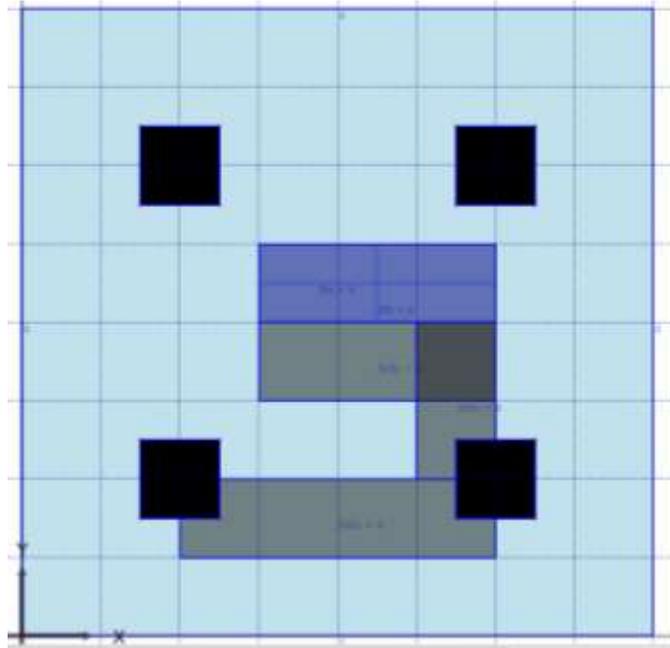
IV - The number of divisions can also be viewed in the PLView by clicking on the BE Model. The divisions should appear as shown. The number of divisions is usually taken between 4 and 8, the more divisions the more accurate the results.



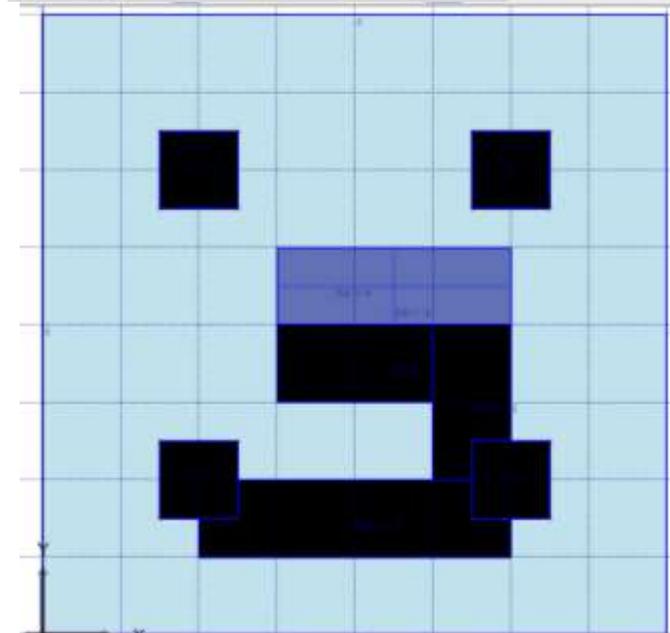
V – Another type of loading element is the wall load. Under draw mode, draw a rectangle and then under select mode choose the wall load. Here the wall load has an N_{div} equalling to 4. This is because the divisions are only in one direction. The number of divisions is changed by right clicking on the wall load itself.



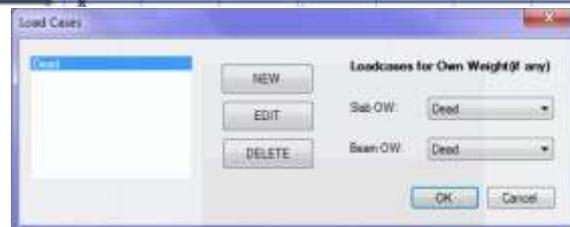
VI – Draw the walls as rectangles and assign them as wall loads.



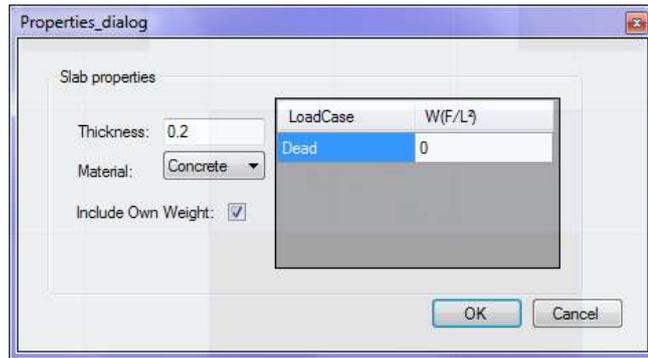
VII - Select all three walls and click on Wall Assembly. A wall is created with the same number of divisions.



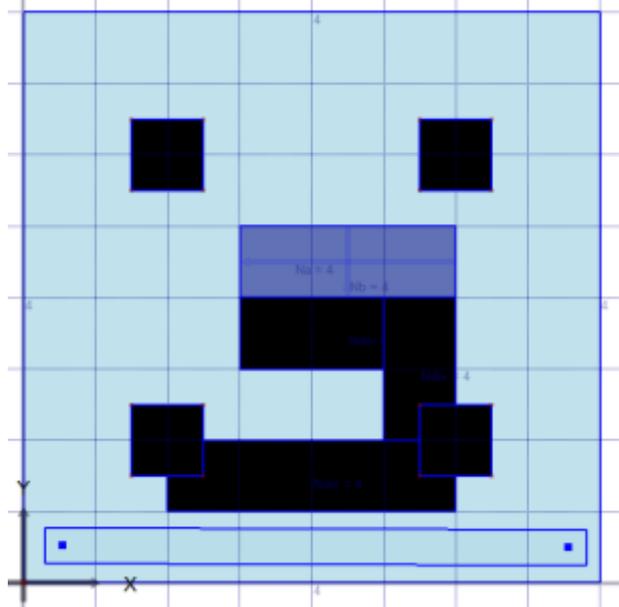
VIII - Open Load Cases the original set with one load case which was the dead loads is there with the slab's own weight and beam's own weight.



IX – Under Select mode Right-click on the slab without selecting it to include its own weight.



X – Draw a beam and include its own weight as well.



XI - Under Select mode Right-click on the beam without selecting it to include its own weight.

