BE4E – PLPAK

Towards more realistic structural modeling

Revision on Main Package

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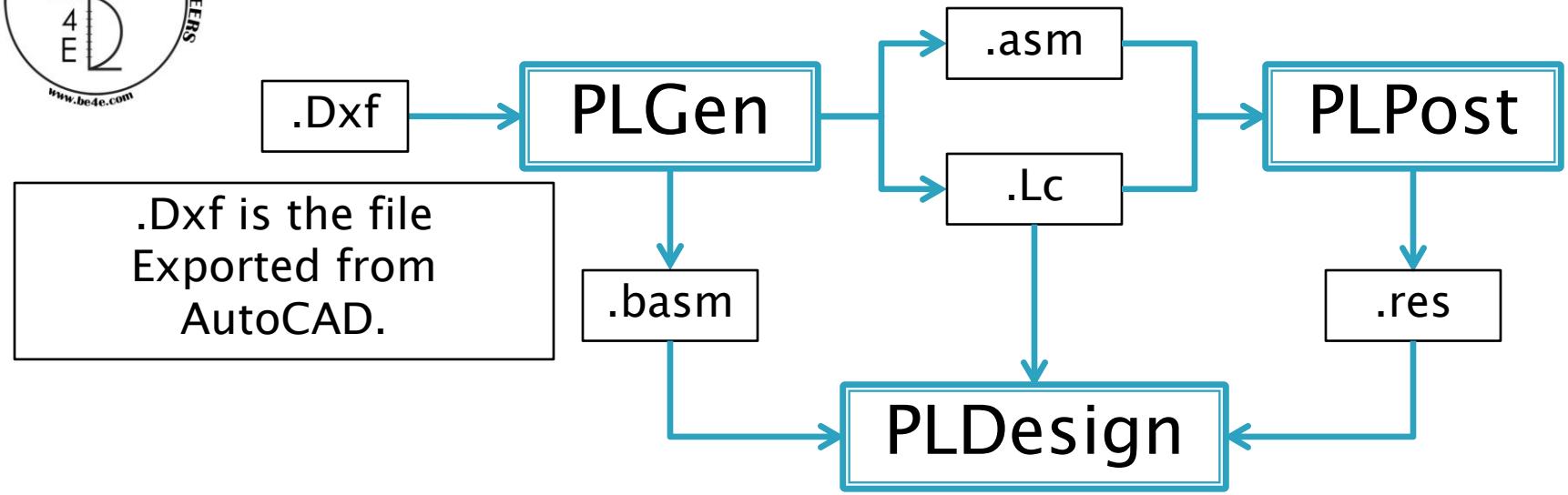
PLPAK Package Diagram



.Dxf is the file Exported from AutoCAD.

.asm is the file Export from PLGen and imported from PLPost to show the reaction of Assemblies.

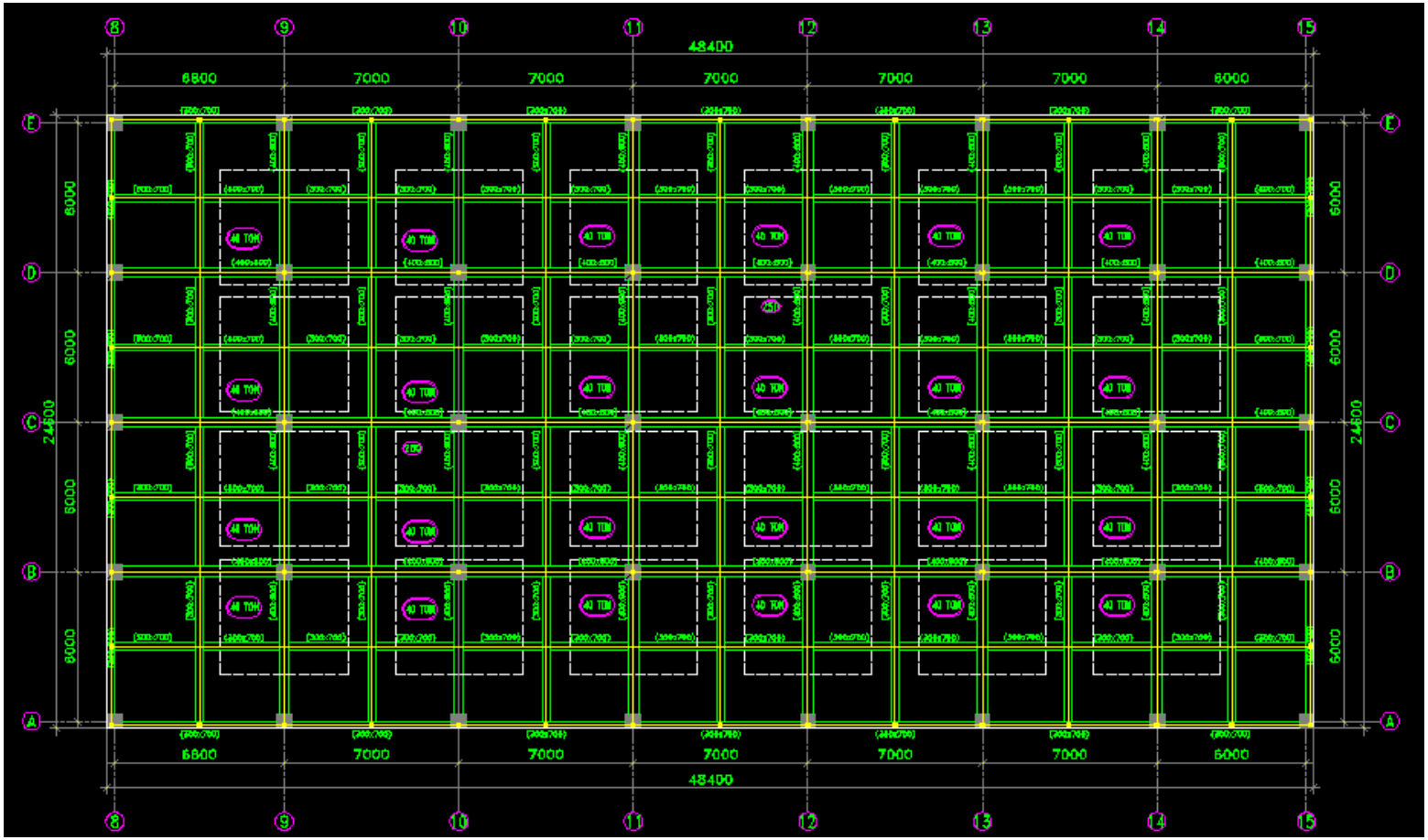
.Lc is the load case file Exported from PLGen and Imported from both PLPost to show the Straining action in Structural elements and PLDesign to Design the structural elements according to selected codes.

.basm is the file Export from PLGen and imported from PLDesign for beam designing.

.res is the file exported from PLPost and Imported from PLDesign for slab designing.

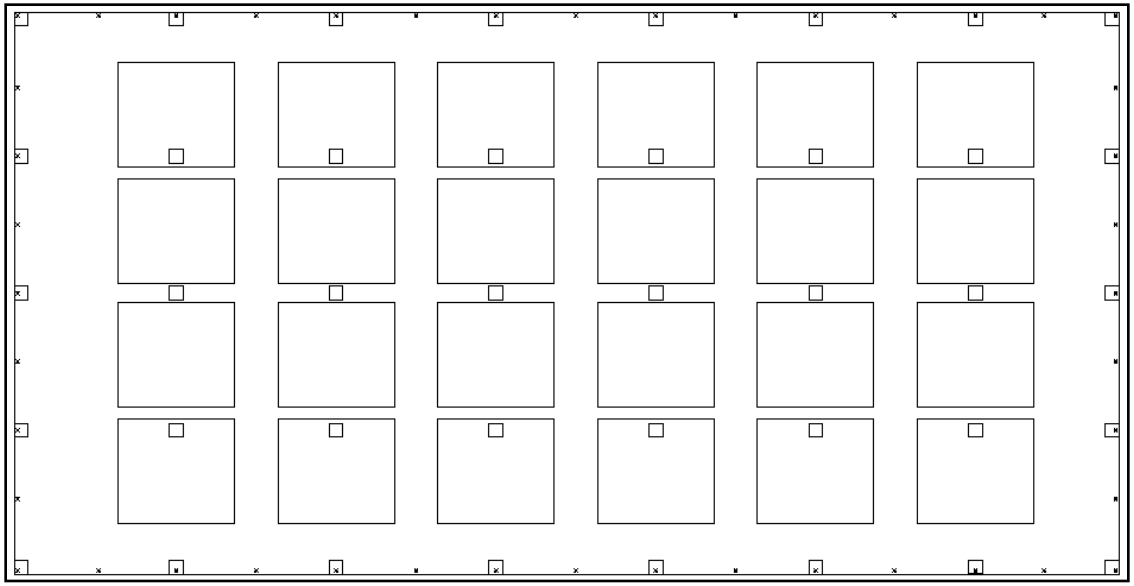
Modeling in PLPAK

We are going to review quickly how can we make a model in PLPAK through this example which contains a slab with beams and additional thickness.



Modeling in PLPAK

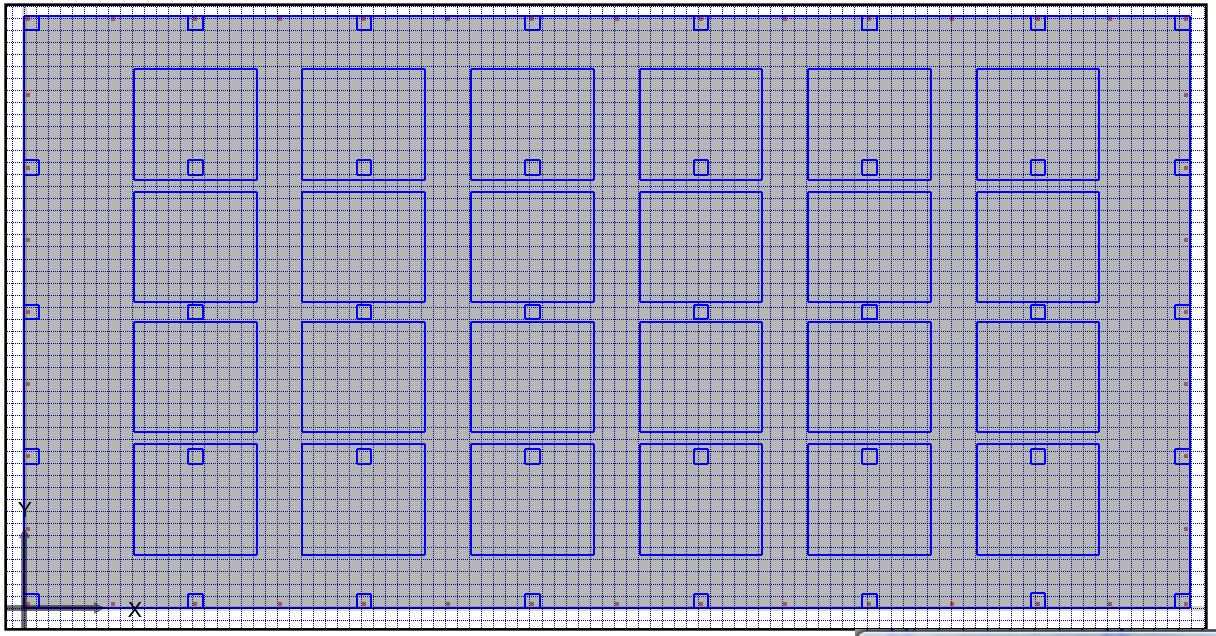
Slab Borders in AutoCAD

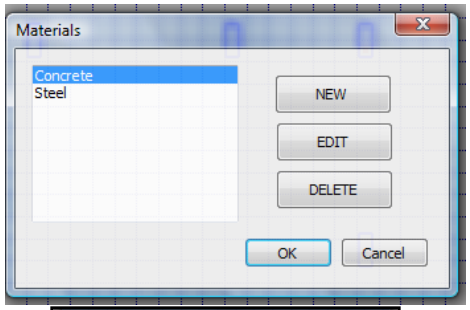


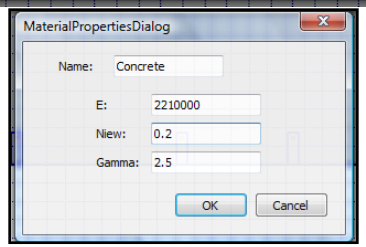
Columns & Start/End of beams & the Drop Panel.

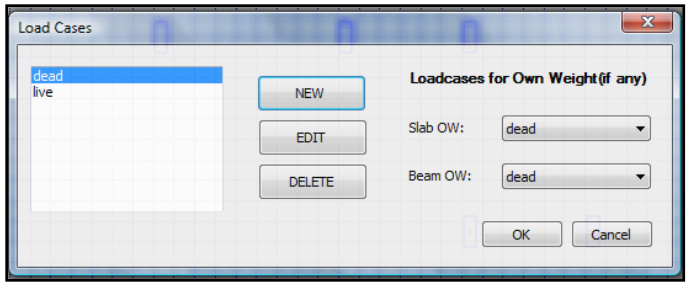
Modeling in PLPAK

Saving file as (.Dxf) then import file form PLGen.

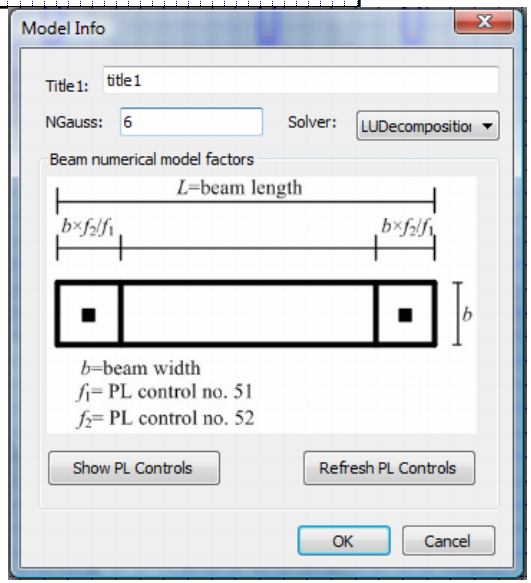






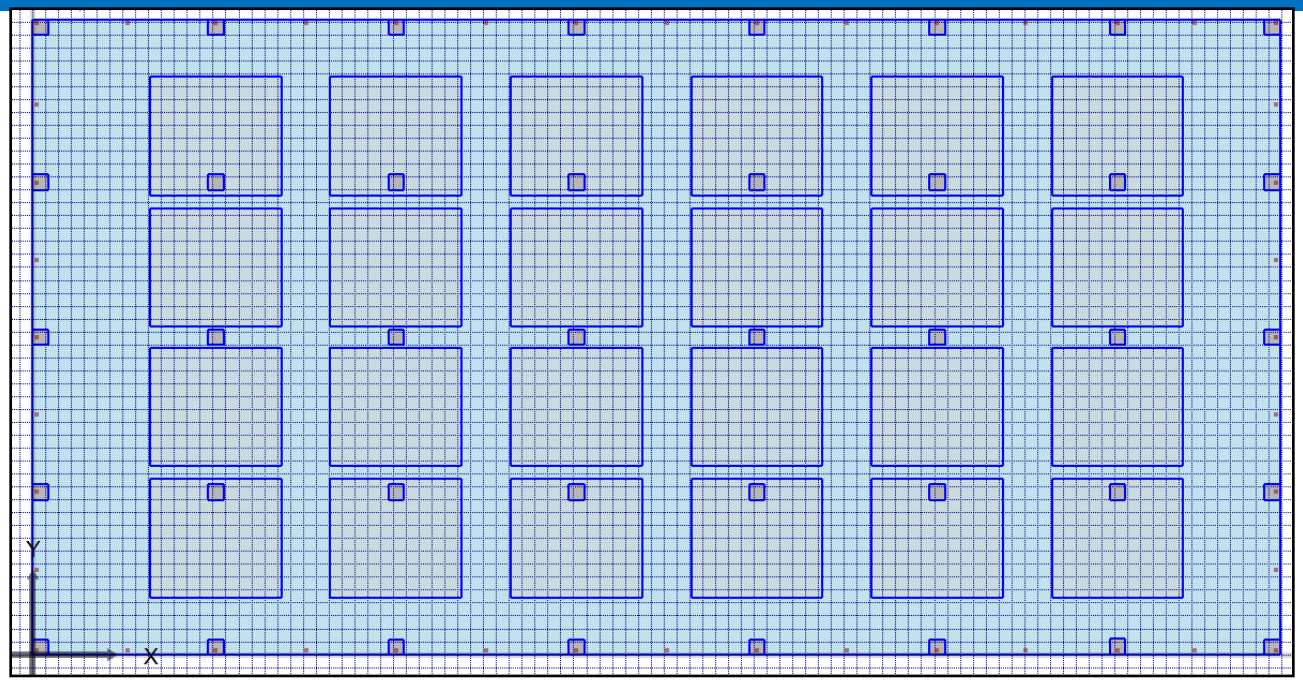


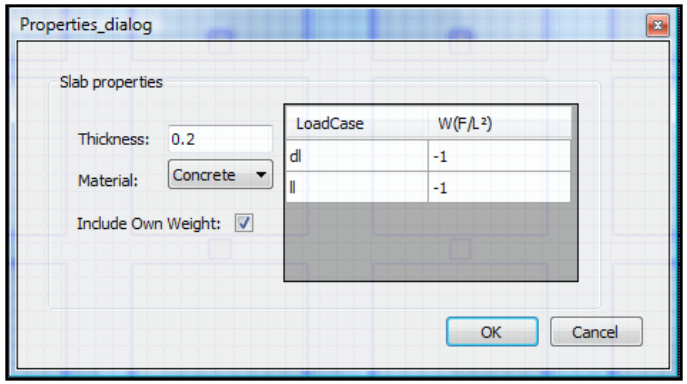
Adjusting Material properties, Load cases & Model information.



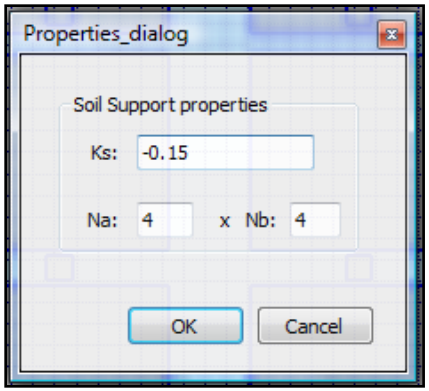
Modeling in PLPAK

Note: both Drop panel and EHS model use the stiffness of soil support as –ve value but the Drop panel thickness must not be greater than 5 times thickness while the EHS must be greater than 10 times slab thickness.





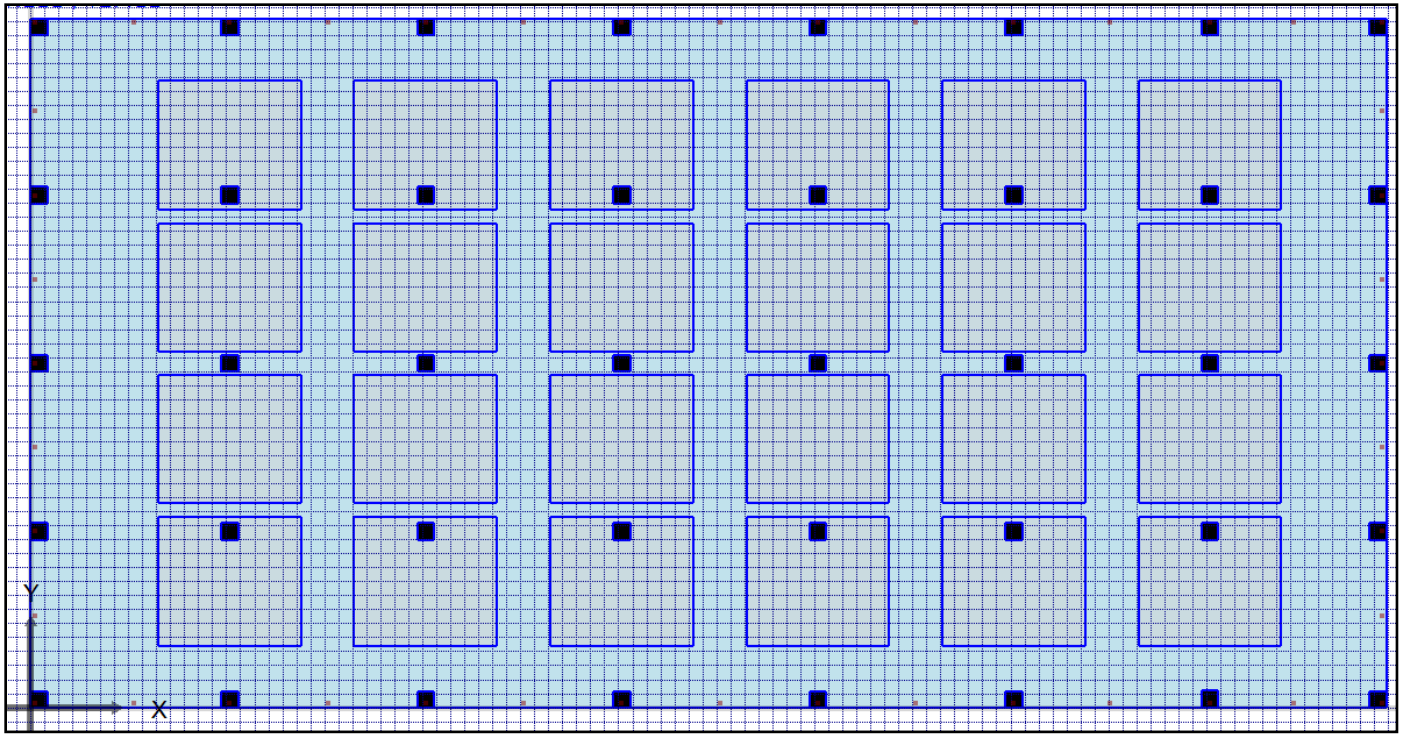
Define Slab Properties

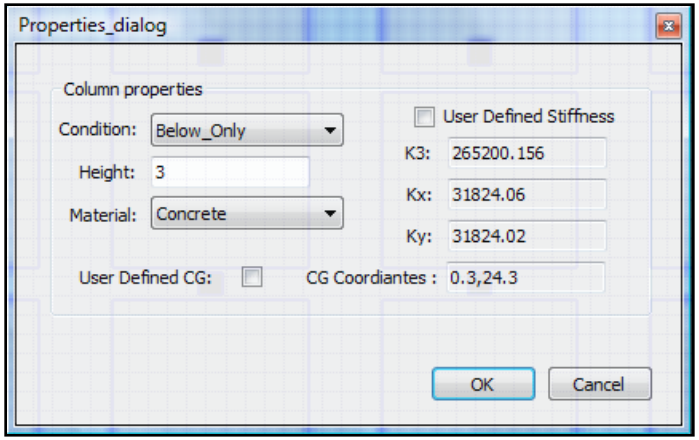


Define the additional thickness.

Modeling in PLPAK

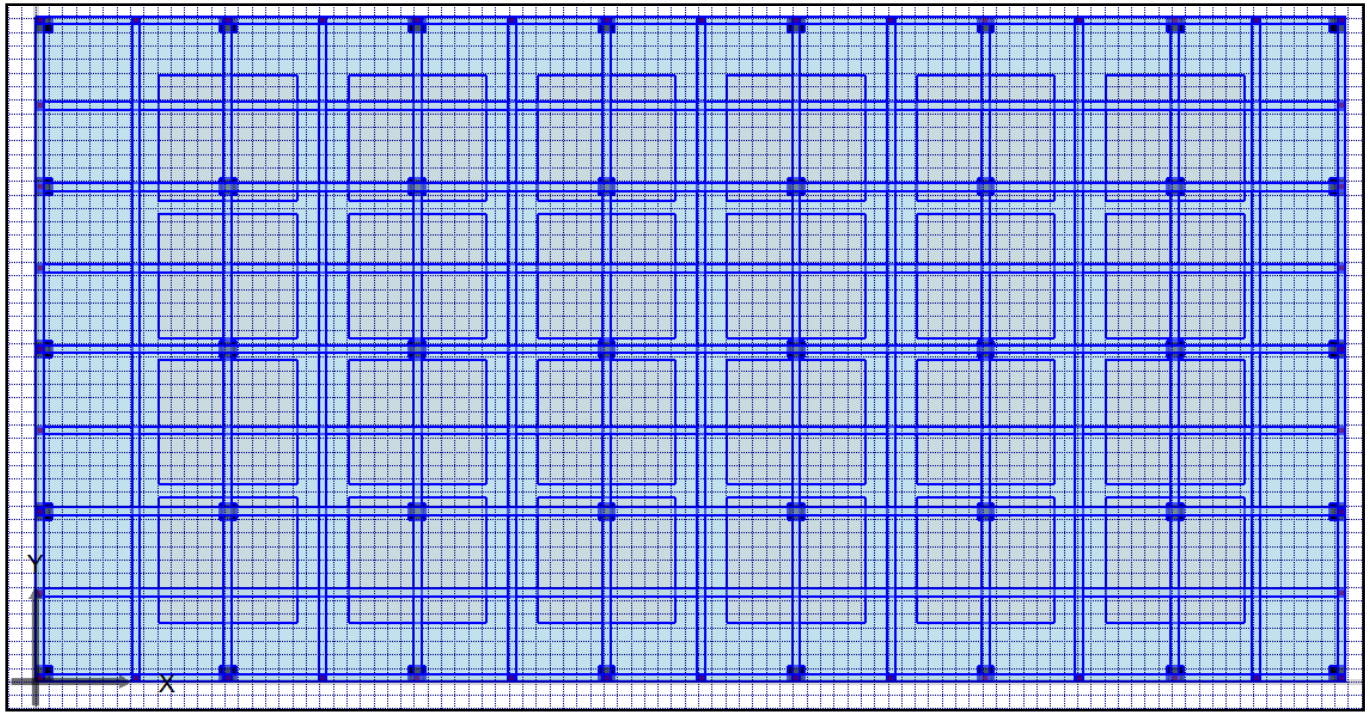
Define the supporting elements

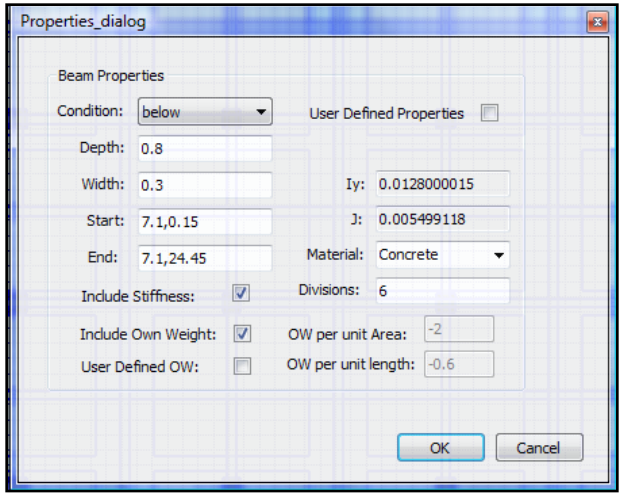




Define Columns Properties

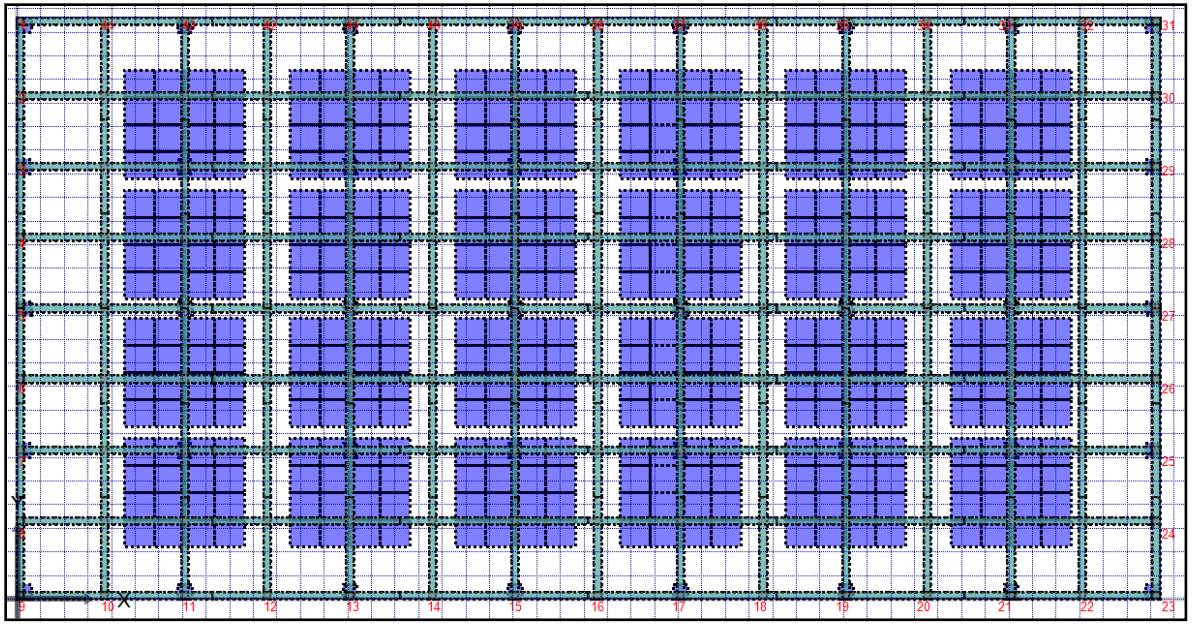
Modeling in PLPAK

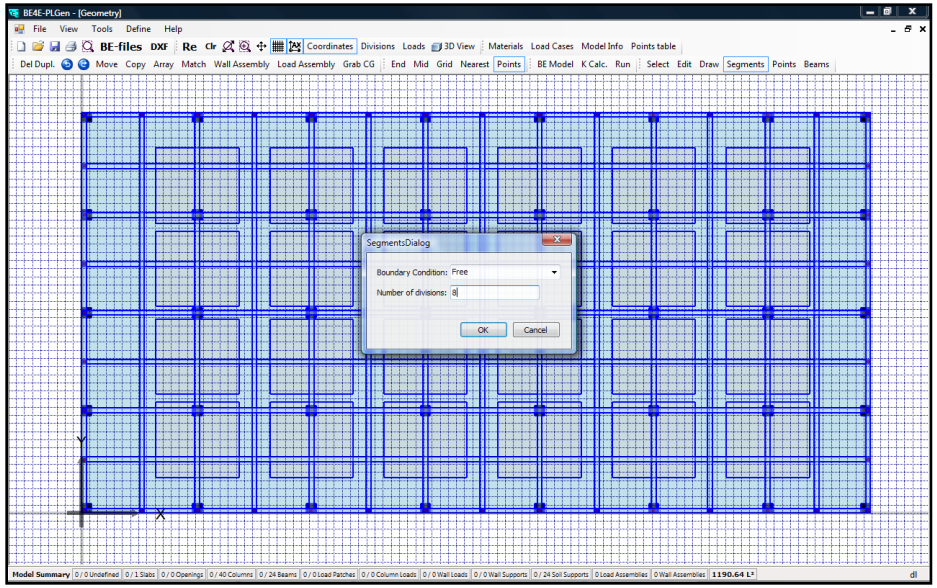




Define Beam Properties

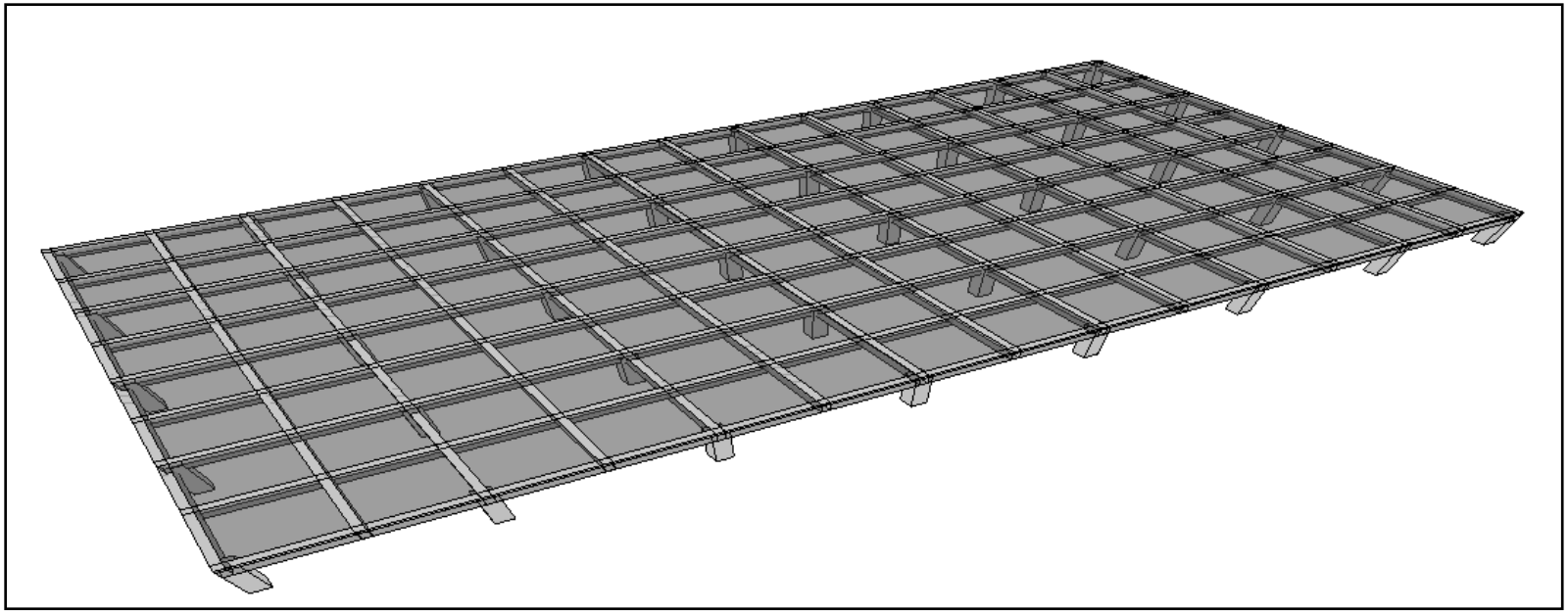
Modeling in PLPAK





Adjusting number of segments in PLGen.

Modeling in PLPAK

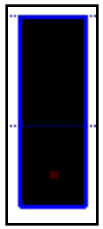


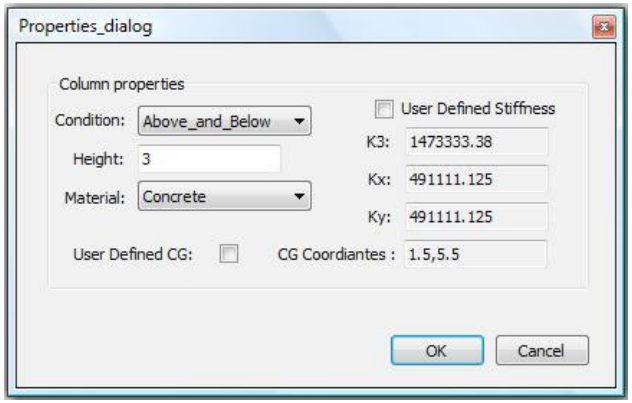
Showing 3D view

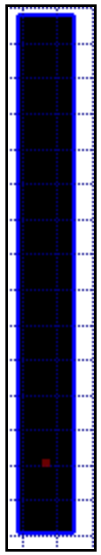
Then press on run tab to go through the PLCoreMan and the PLPost to view analysis.

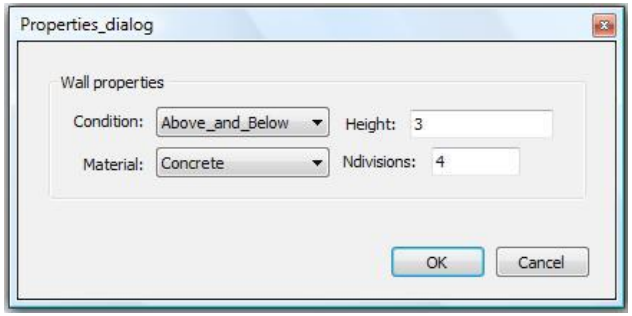
Support elements

If we clicked right on a column element to show the properties, we will see that the columns contains 3 stiffness in all directions.

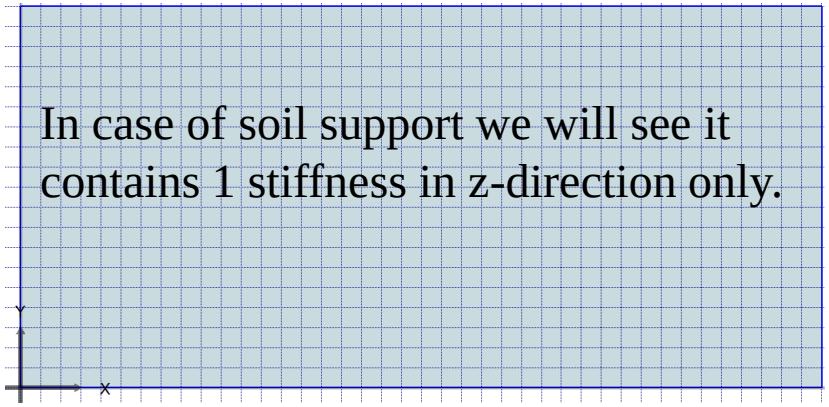


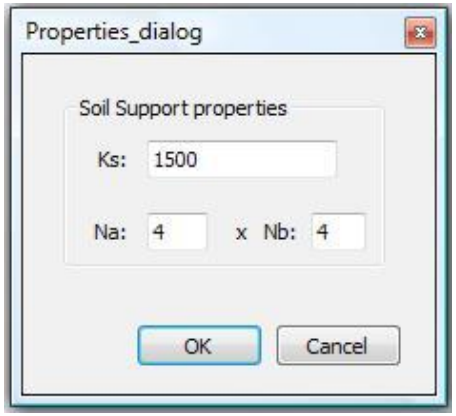






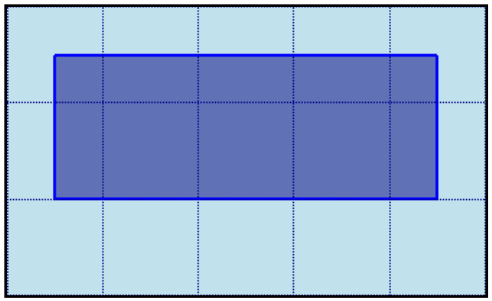
While the wall element is consisting of a group of columns combining the stiffness together to form the wall.

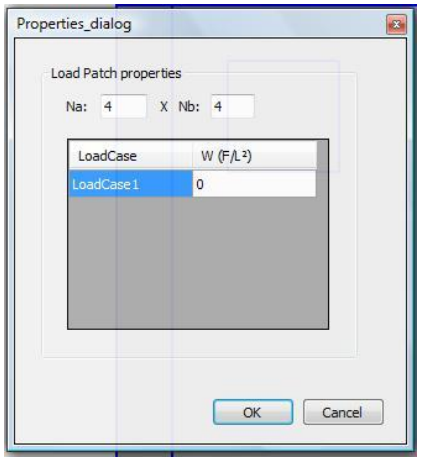


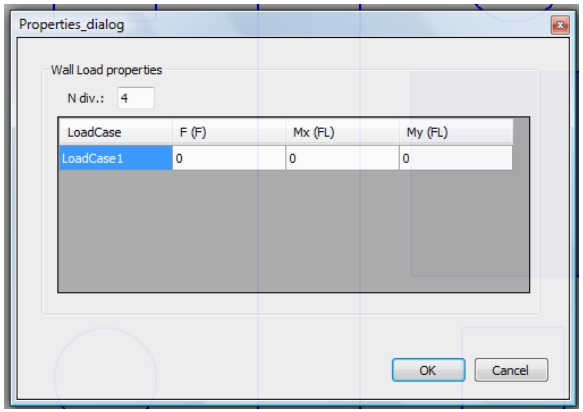


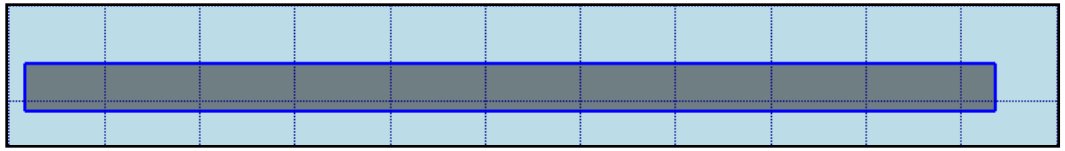
Load elements

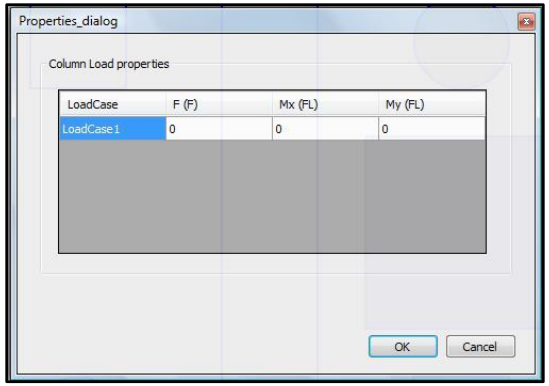
If we clicked right on load patch to show the properties, we will see that the load patch is per square length.





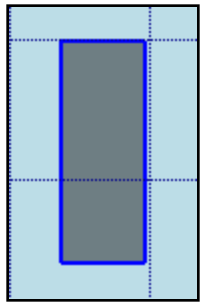




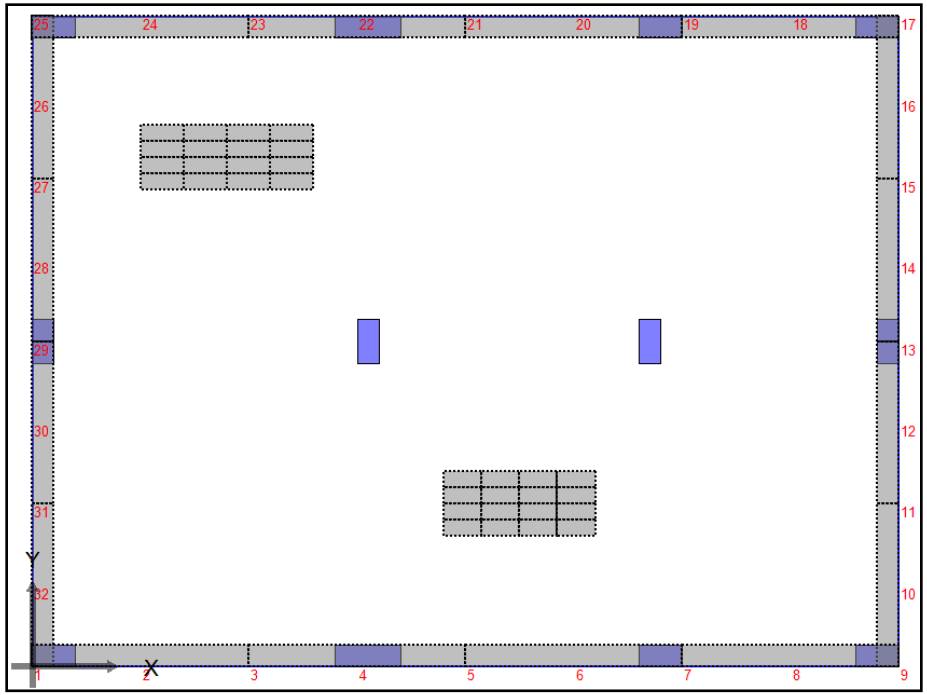


While the wall load is the load divided on a certain number of columns combined together.

In case of column load we will see it is load without any length dimensions and one unit.

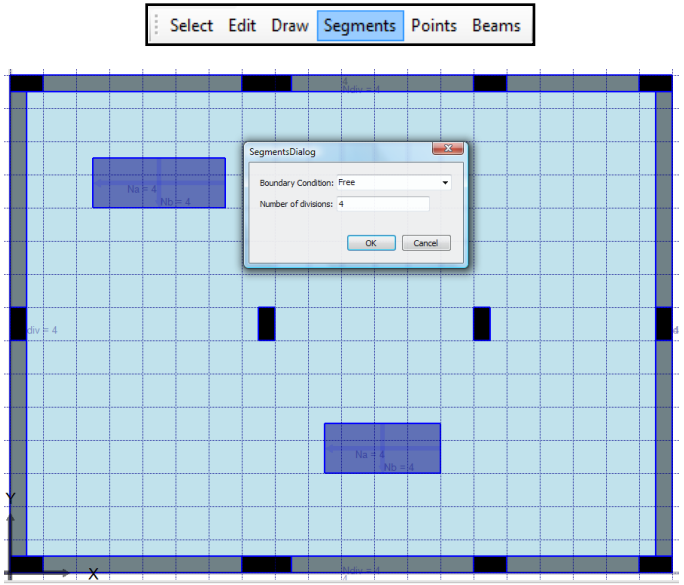


Choice of boundary element nodes

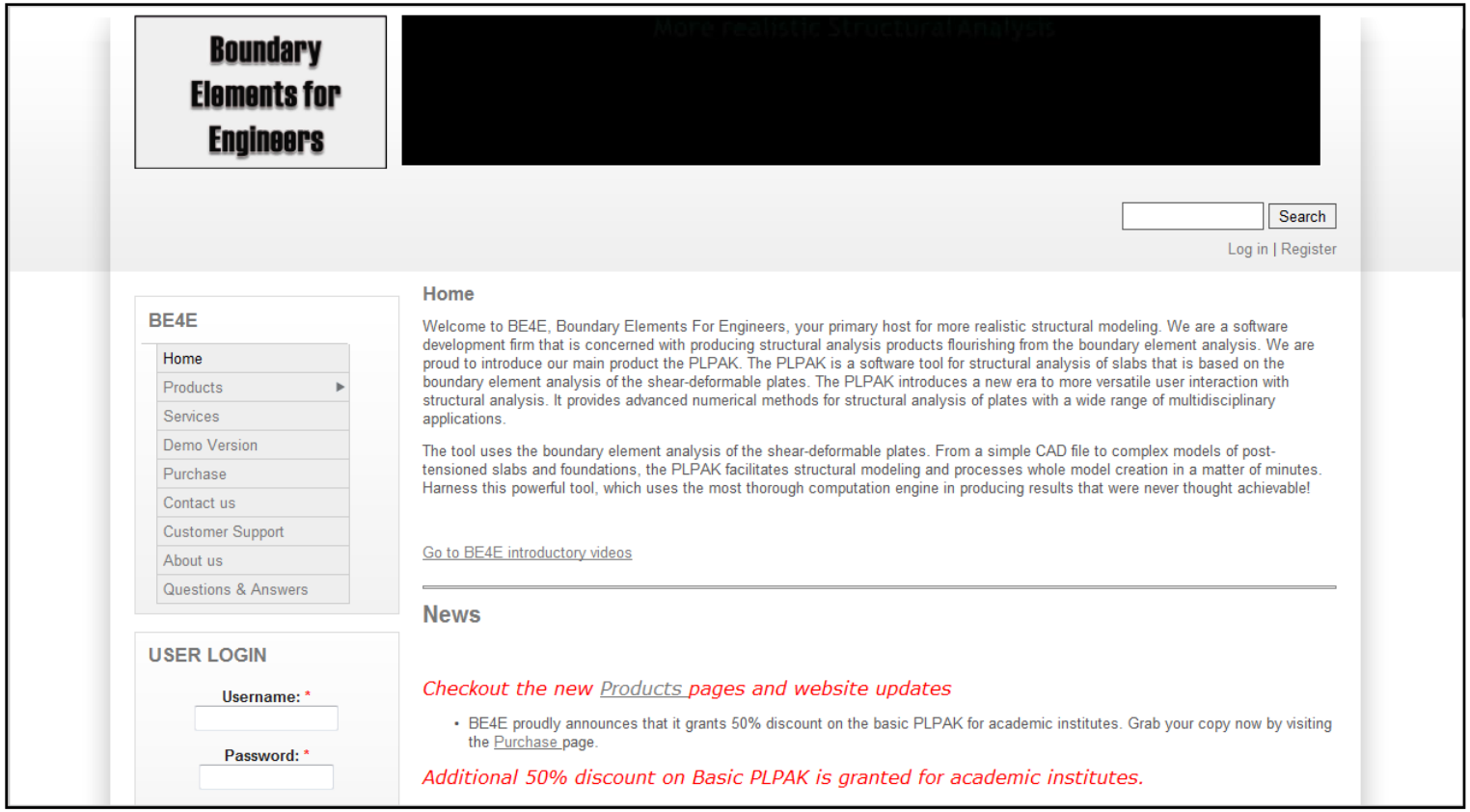


The default number of nodes is 4,
The user can determine the suitable number of nodes which is the number of inflection of BMD curve.

If two node numbers above each other the model will be unable to run.

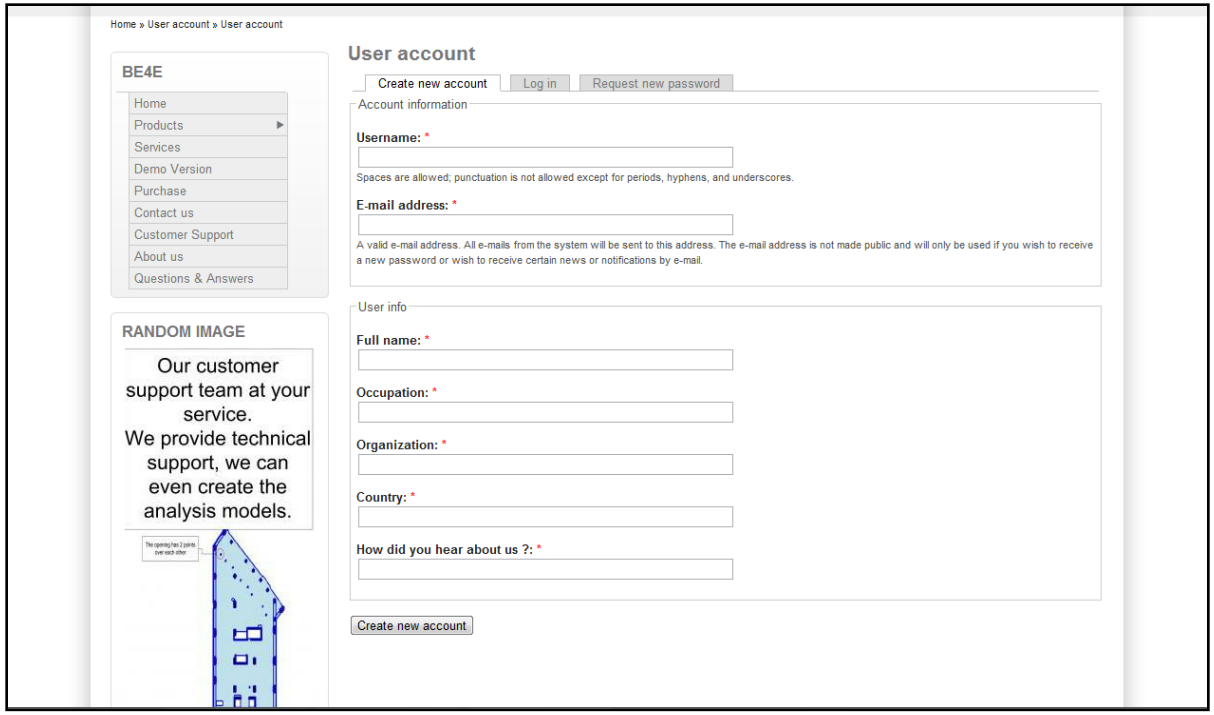


BE4E WebSite



- www.be4e.com is the website that link between the PLPAK users and the customer support.
- From the website, the users can see the video tutorials for the PLPAK and can ask any questions about the boundary element or about the PLPAK Package.
- In the website, the users see the latest newsletters and the latest products and can join us on face book, Wikipedia and LinkedIn.

How can the user link with the customer support?

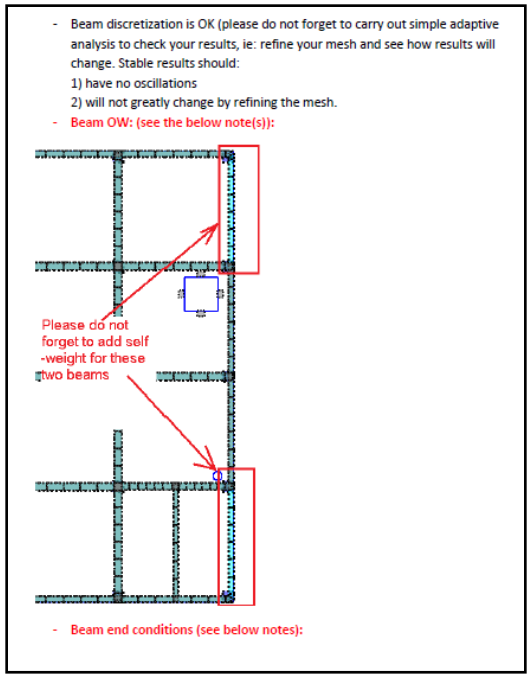


- All PLPAK users should register in the website to be able to contact with us.
- It's vey important to answer the question clearly to be able to confirm your account.

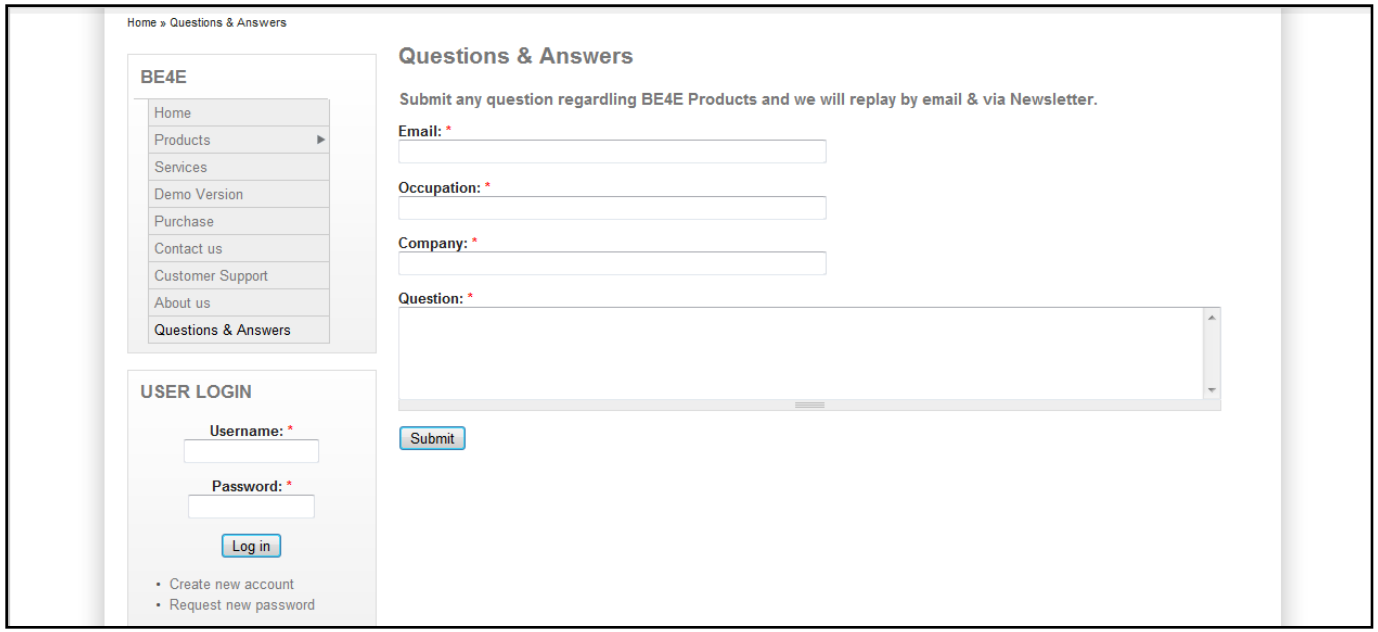
What happen if there is a problem in PLPAK?

The user should send email to support@be4e.com, this email should contain the Gen file and description of the problem and it will be better to send a print screen for the problem.

Once the user send the email, the PLPAK group will see the problem and solve it then the user will receive an email showing the solve of the problem.



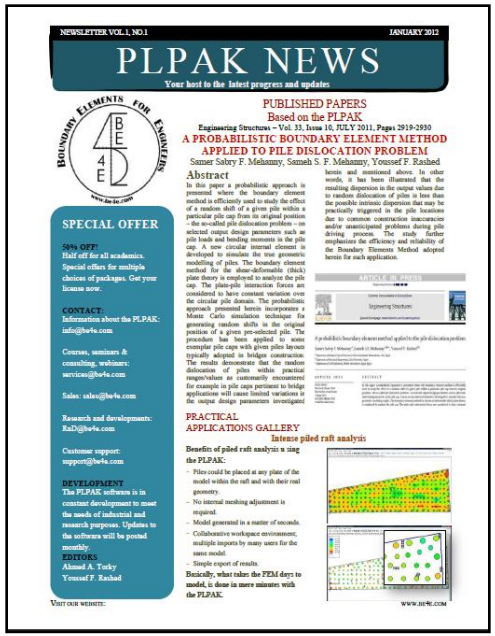
If the user have any question about the Boundary elements methodology.

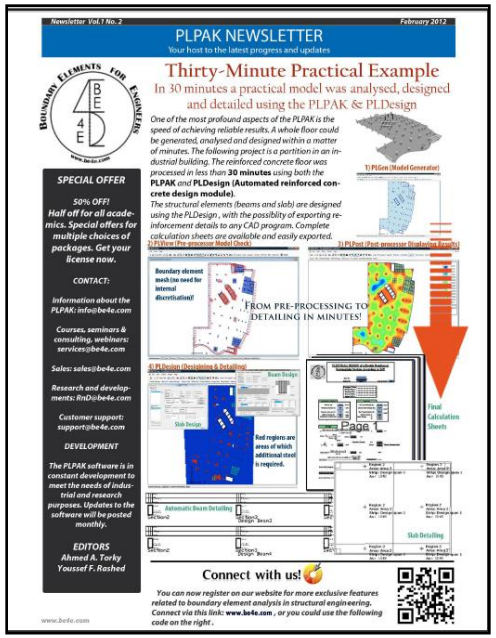


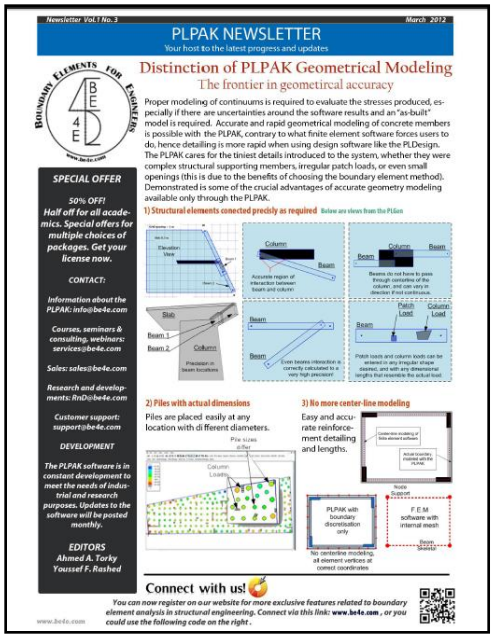
After registration the user can send any question about the methodology of the boundary elements and it will be answered and send to the user by email .

News letters

Once the registration is confirmed, the user will be able to receive every month a news letter from the PLPAK this news letter containing information about PLPAK Packages.







PLPAK Package & BE4E

Towards more realistic structures

Professor Dr. Youssef F. Rashed
Principal of BE4E