

QUICKSTRUCTURE 10

TUTORIAL | PART 7

SLAB DETAILING SETTINGS



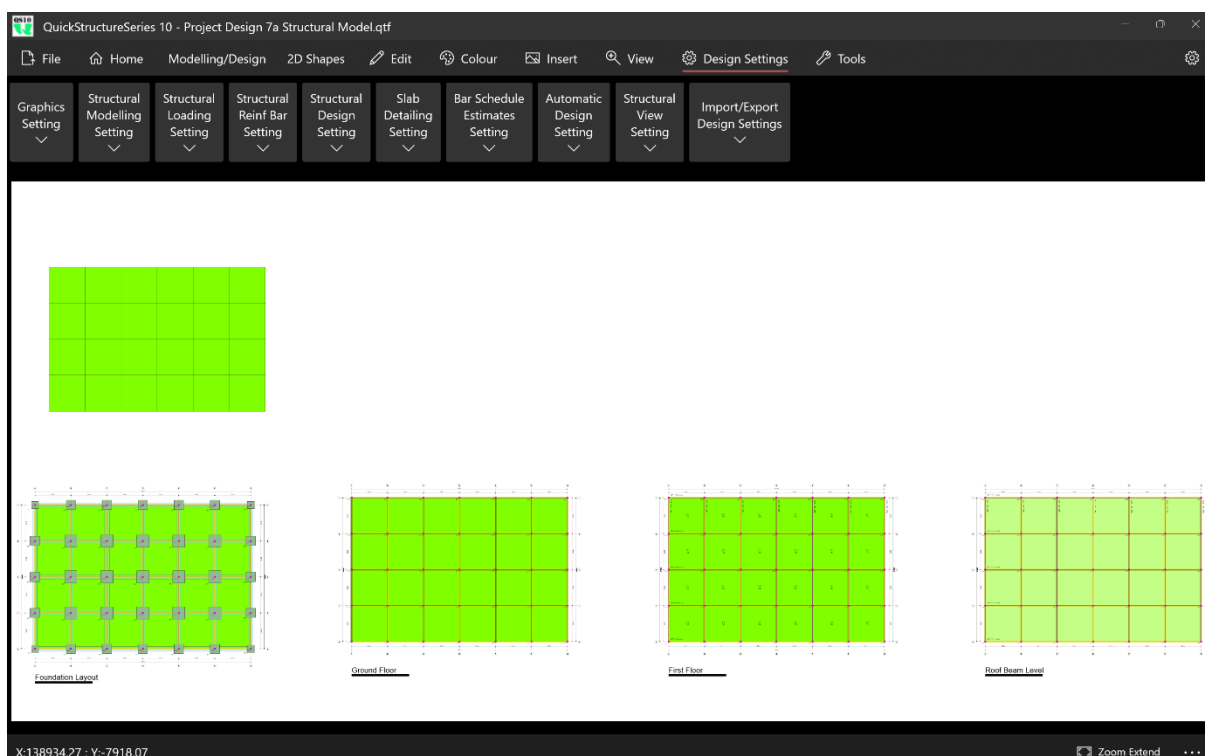
Slab Detailing Settings

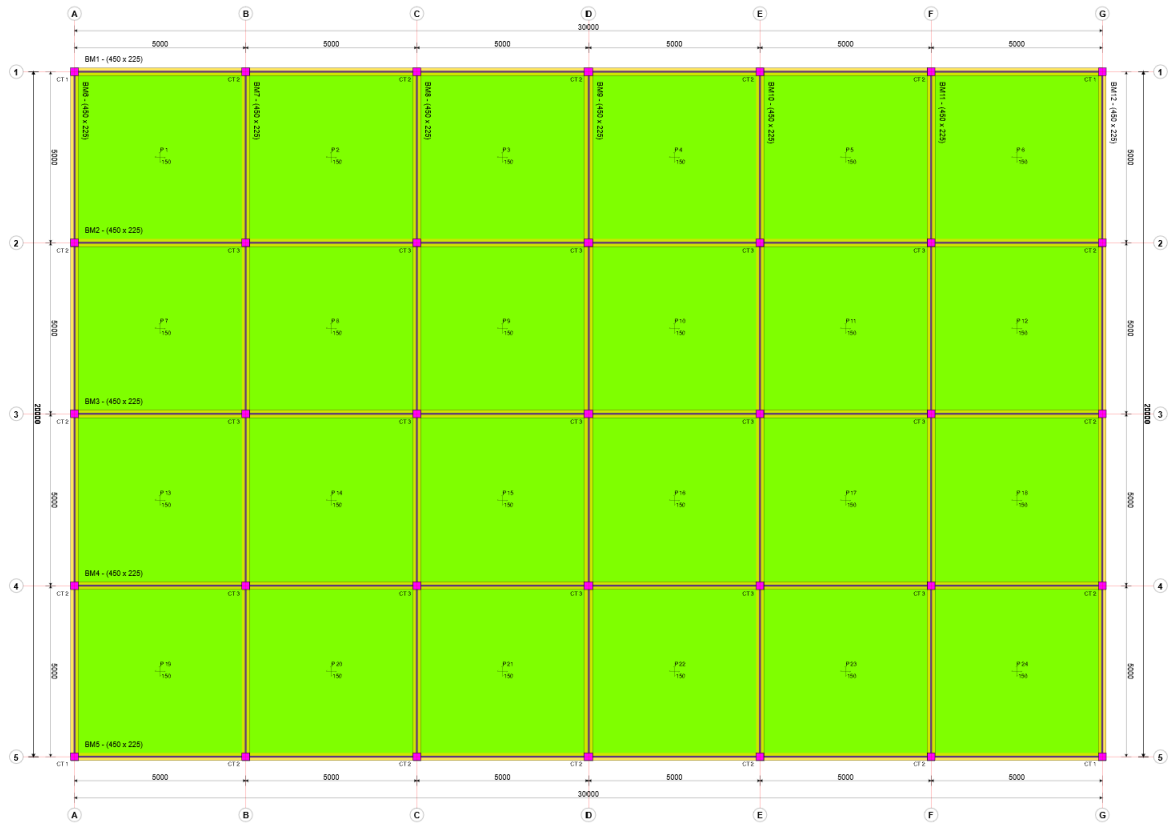
This manual deals with various ways you can control the slab detailing. It is assumed that you are already familiar with QS10, if not please go through part 1-6 of the QS10 user manual. Slab detailing is very complex, but we have tried to an extent to make it a little easier and faster. We will also look at how you can further edit the detailing generated by QS10 within QS10.

1. Open QuickStructure 10 Software

Note: It will always open with a new project by default. You don't need to create new project.

2. Create the project below.



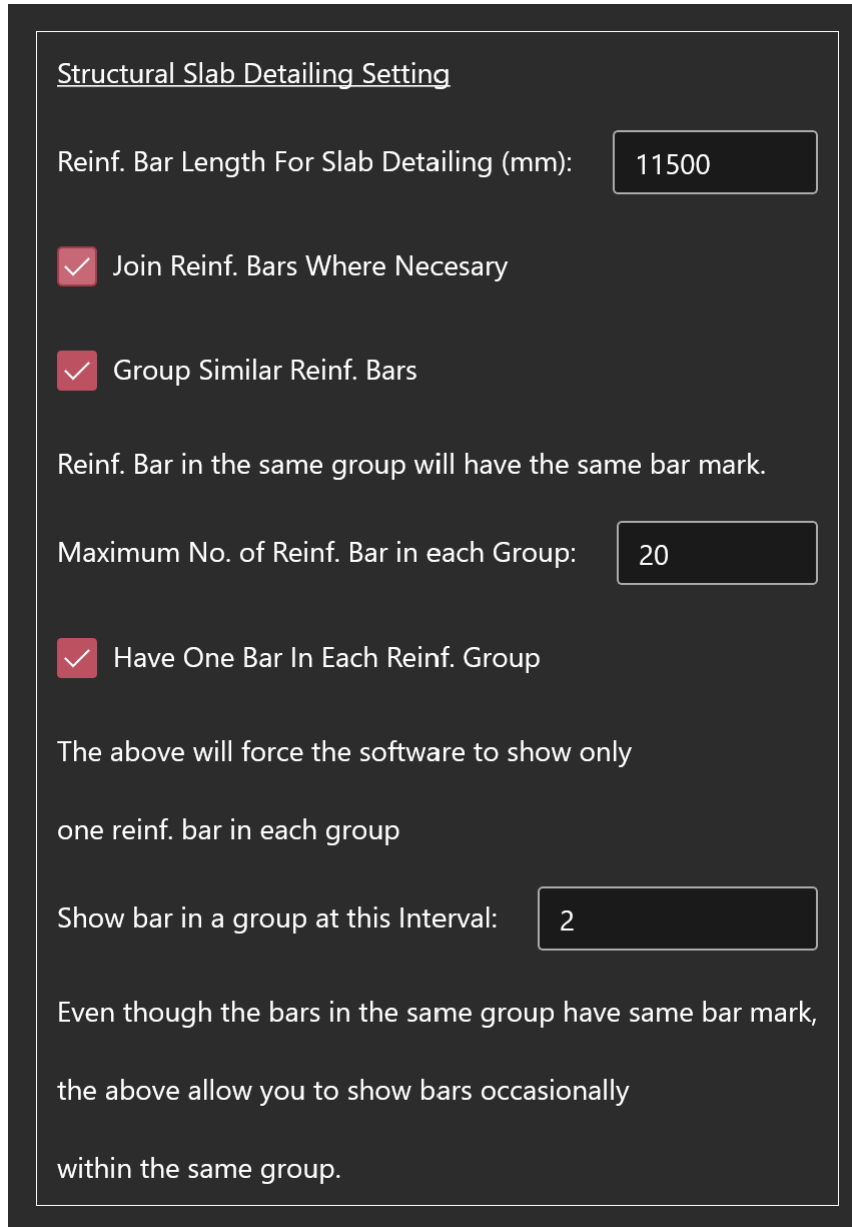


First Floor

It is expected that you are already familiar with creating projects in QS10.

- Create 6x4 rectangles grid, 5000x5000 dimensions.
- Create ground floor, first floor and roof beam level.

3. Click Design Settings Tab and click Slab Detailing Setting.



The image shows a software dialog box titled "Structural Slab Detailing Setting". It contains several configuration options for slab detailing. The first option is "Reinf. Bar Length For Slab Detailing (mm):" with a text input field containing the value "11500". Below this are two checked checkboxes: "Join Reinf. Bars Where Necessary" and "Group Similar Reinf. Bars". A descriptive text line follows: "Reinf. Bar in the same group will have the same bar mark." The next option is "Maximum No. of Reinf. Bar in each Group:" with a text input field containing the value "20". Below this is another checked checkbox: "Have One Bar In Each Reinf. Group". A paragraph of text explains: "The above will force the software to show only one reinf. bar in each group". The final option is "Show bar in a group at this Interval:" with a text input field containing the value "2". A concluding paragraph states: "Even though the bars in the same group have same bar mark, the above allow you to show bars occasionally within the same group."

Structural Slab Detailing Setting

Reinf. Bar Length For Slab Detailing (mm): 11500

☒ Join Reinf. Bars Where Necessary

☒ Group Similar Reinf. Bars

Reinf. Bar in the same group will have the same bar mark.

Maximum No. of Reinf. Bar in each Group: 20

☒ Have One Bar In Each Reinf. Group

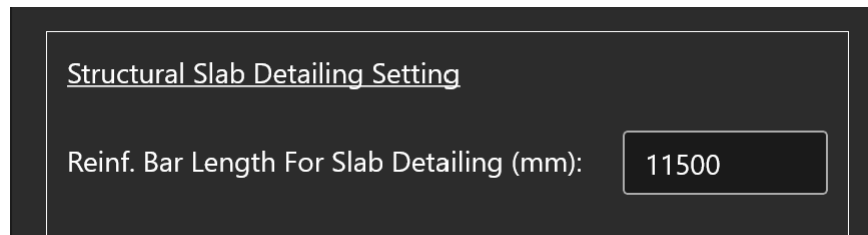
The above will force the software to show only one reinf. bar in each group

Show bar in a group at this Interval: 2

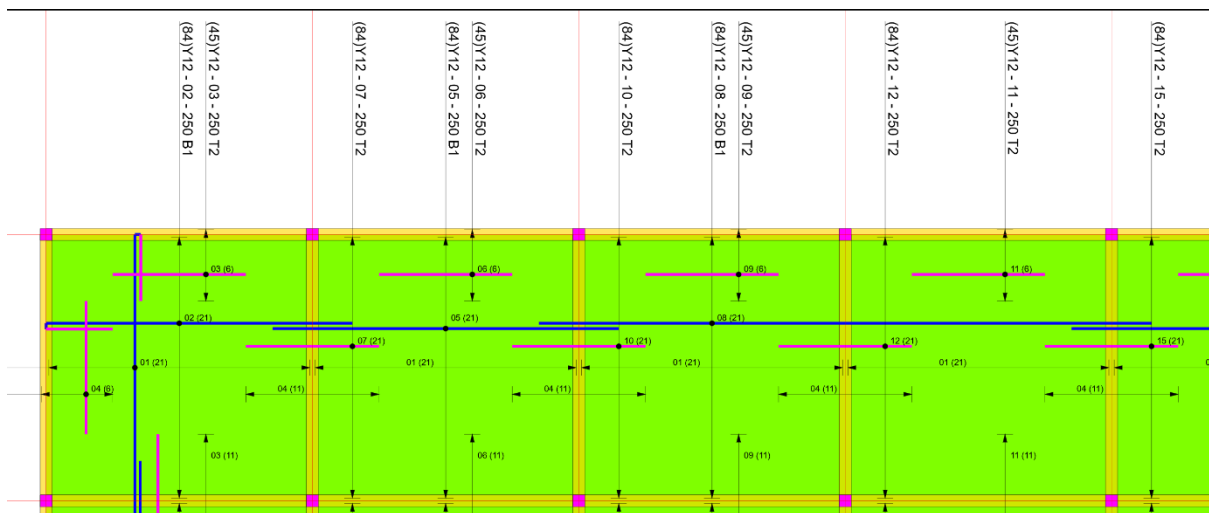
Even though the bars in the same group have same bar mark, the above allow you to show bars occasionally within the same group.

- The image above shows the default setting for the slab detailing.

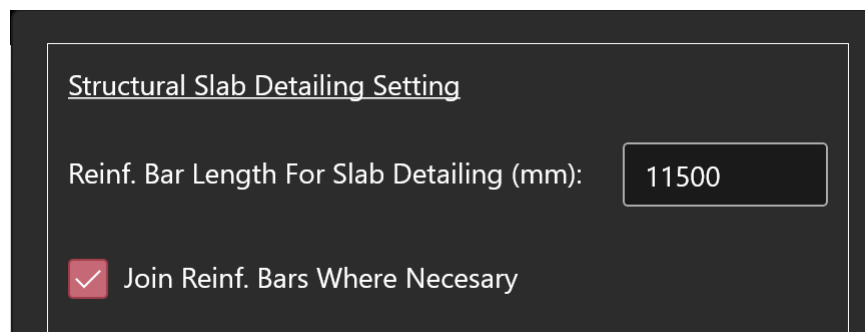
4. Reinforcement Bar Length for slab detailing



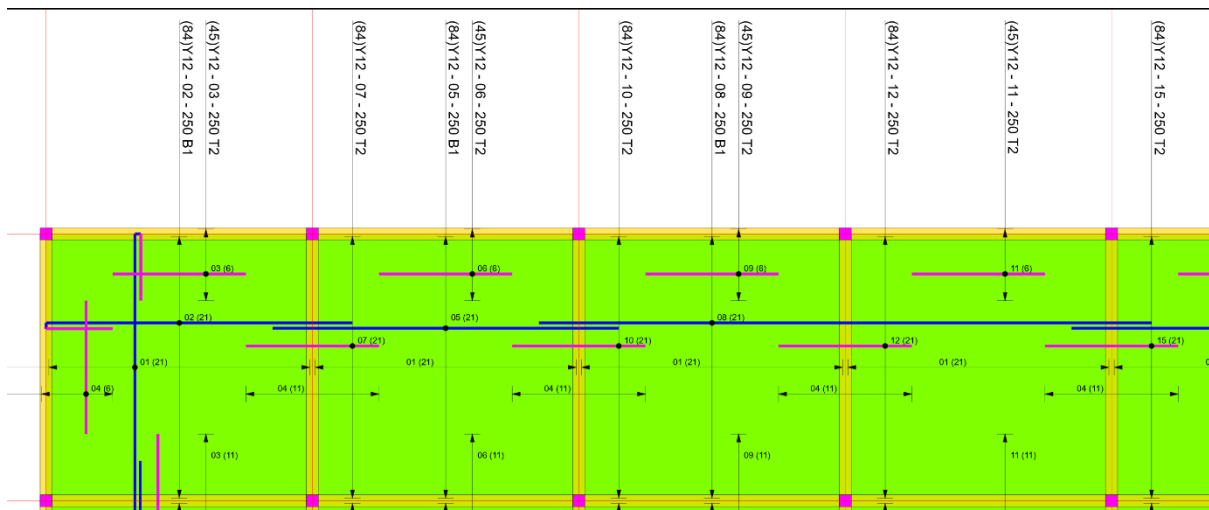
- This controls the length of bar in slab detailing.
- It is used when joining the bars together, the length of bar or joined bar is more than the value above (11500) it will not join it.
- As you can see from the image below, some of the bars in blue are not joined, but bar mark 08 is joined. The software uses the value (11500) to join or not join.



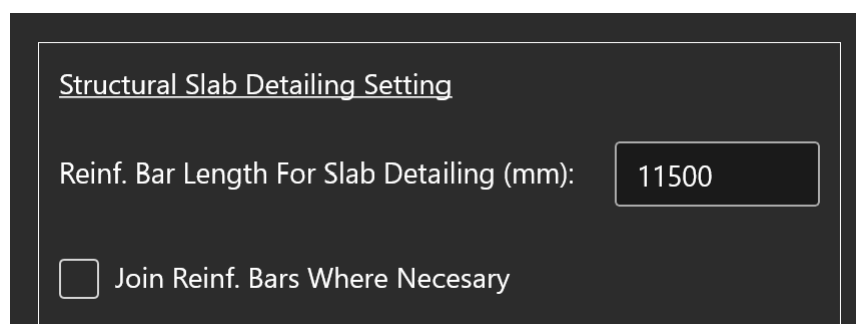
5. Check this to Join Reinforcement Bars Where Necessary



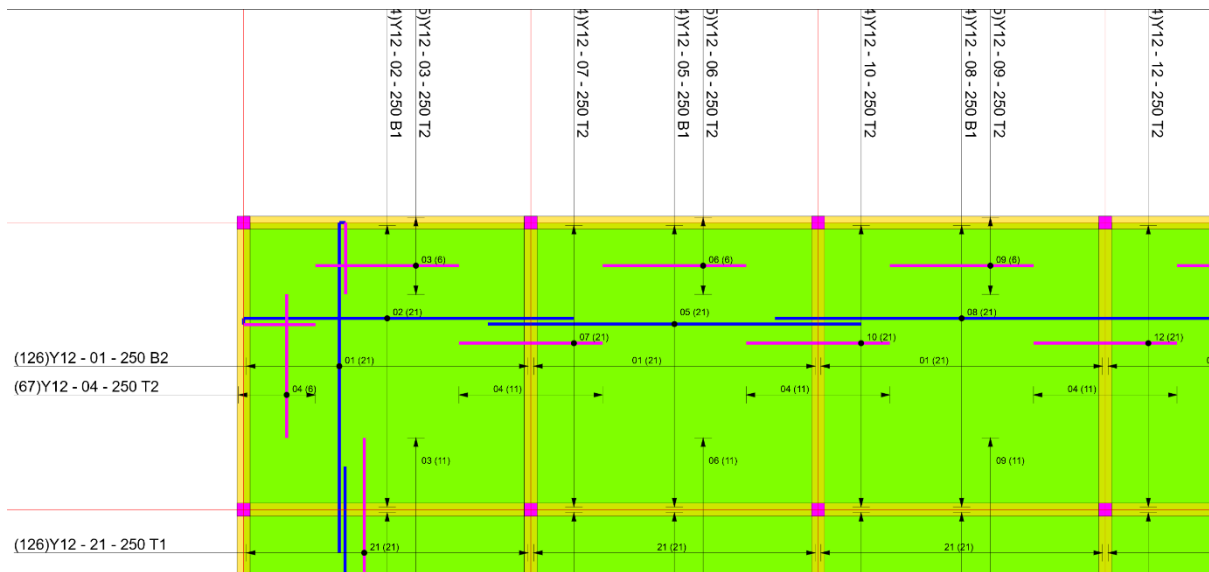
- When this checkbox is checked, it makes the software to join the bars.



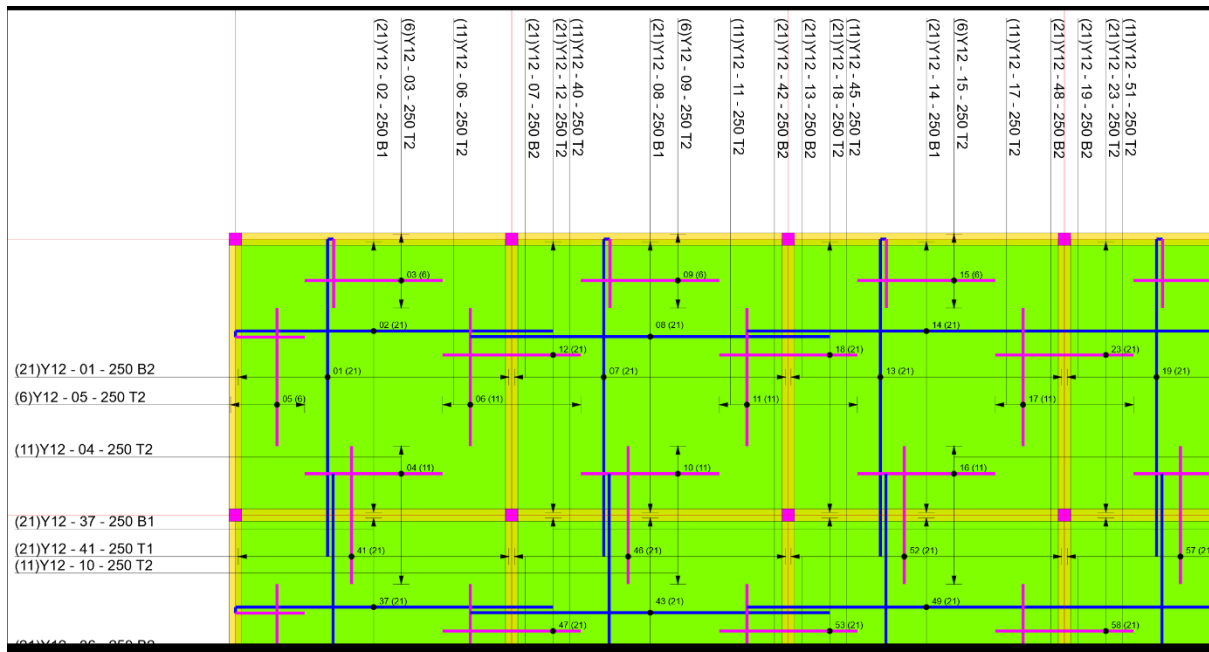
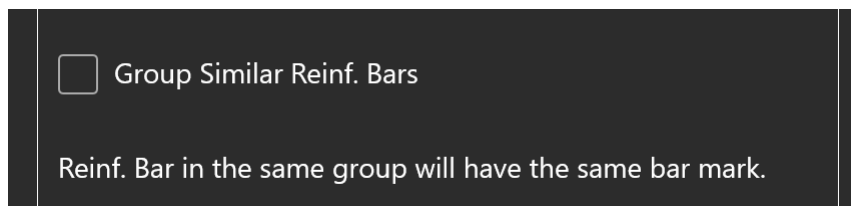
- If it is unchecked, the bars will not be joined.



For this action to take effect you need to start automatic design again.

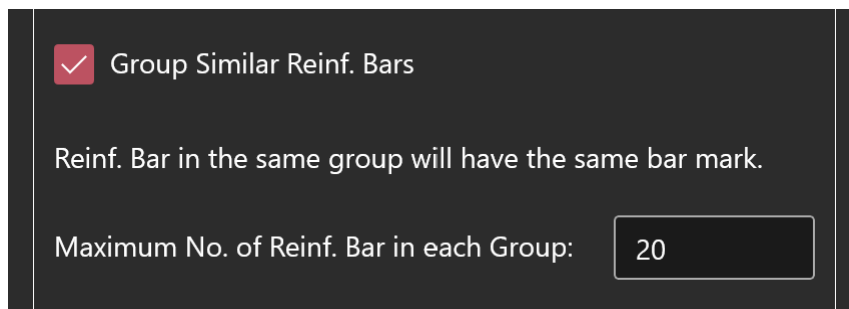


- You can uncheck the group similar reinforcement bars checkbox to make the software not to group the bars.

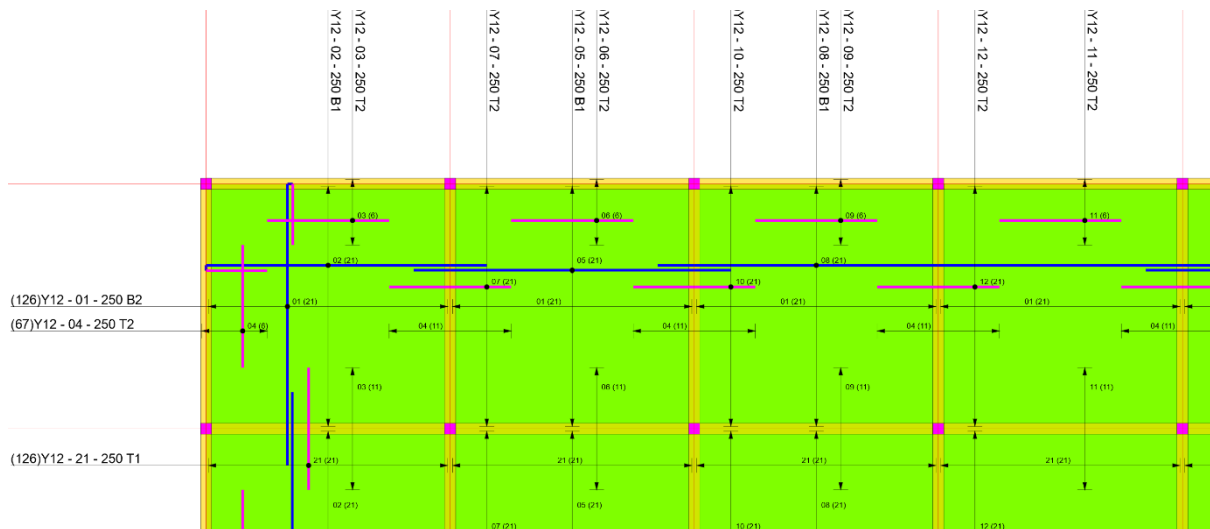


- As you can see from the drawing above, when you the bars are not grouped, you get more volumes. The drawing might be more clustered. It depends on your needs. Sometimes you might need more bar details and callout lines, some other times, you might need less.

7. Maximum No. of Reinforcement Bar in each Group



- You use this value to control the size of the reinforcement bars group. You can use this to add more volume to the details.
- The aim of grouping is to have less volume (less details) but sometimes you might need a little bit more volume.
- The default is 20, that means each group will have 20 bars in it, after that it will create a new group.
- This still keep the volume less but gently increases it.



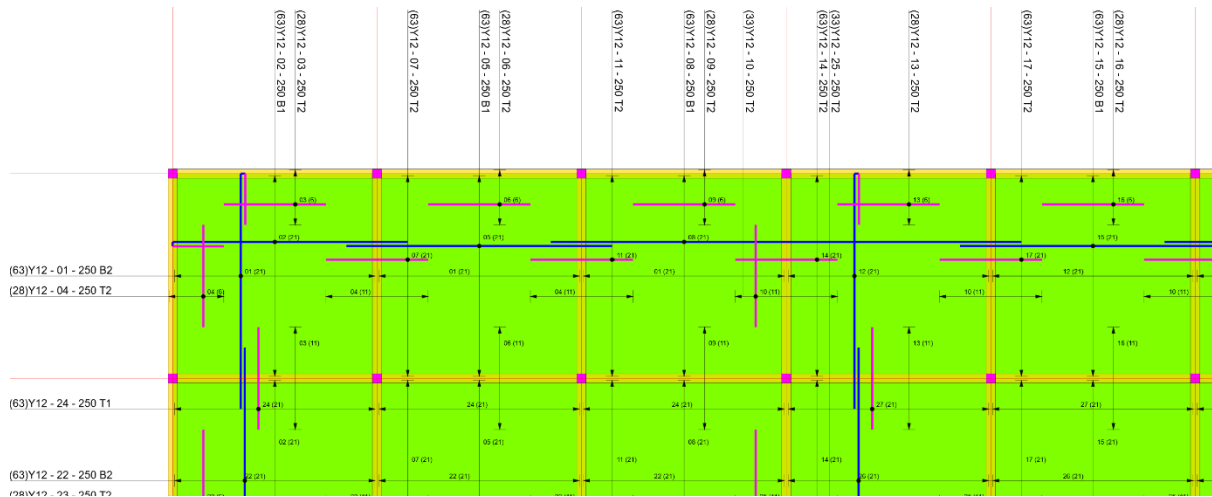
- By changing this value, you can add more groups. Change it to 3

☒ Group Similar Reinf. Bars

Reinf. Bar in the same group will have the same bar mark.

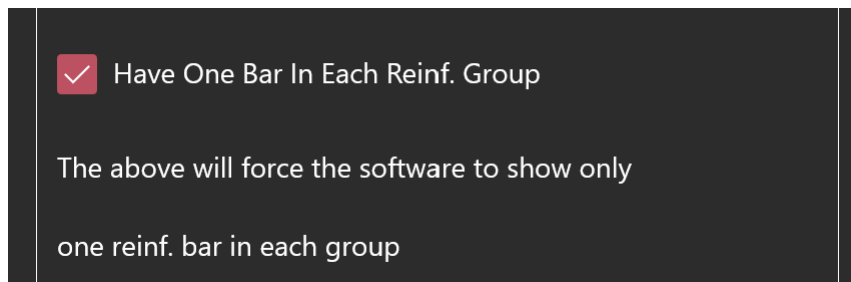
Maximum No. of Reinf. Bar in each Group:

Start Automatic Design for this change to take effect.

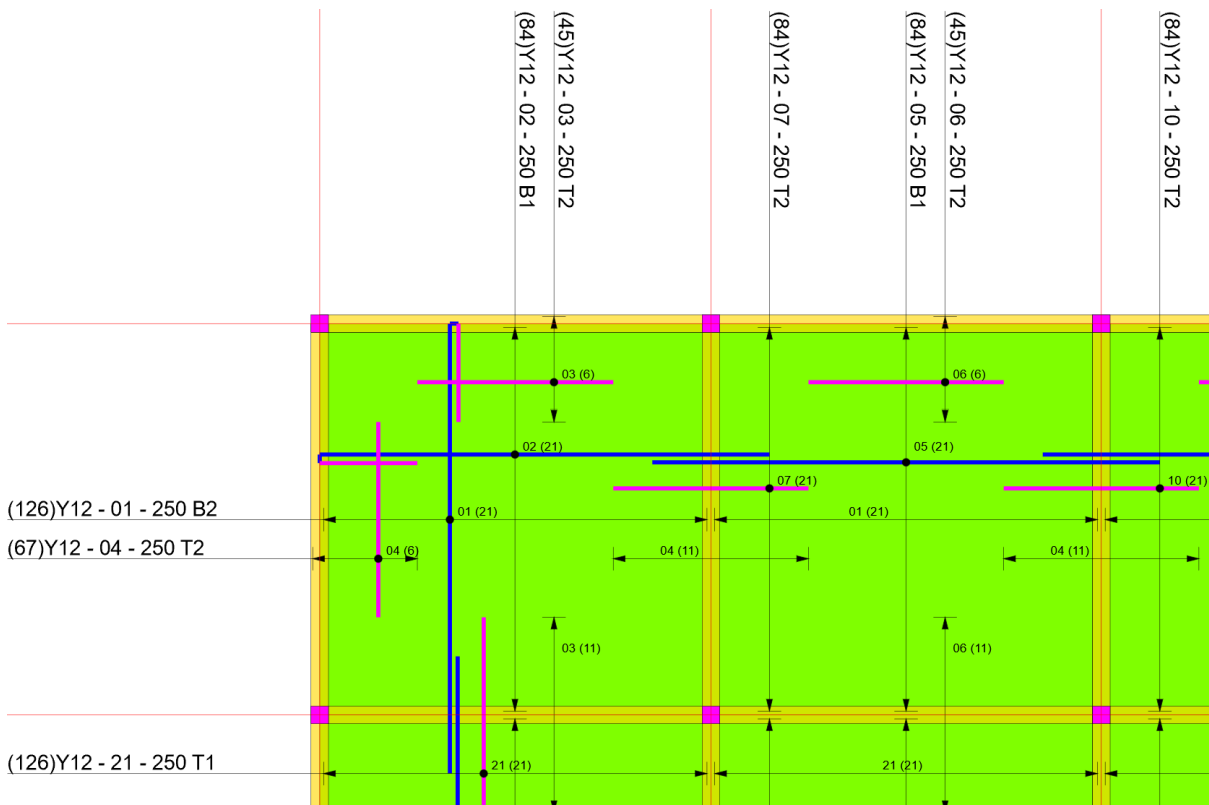


You can see an extra bar is add to the drawing.

8. Have One Bar In Each Reinforcement Group



- This checkbox will make the software to have only one bar in a reinforcement group.
- This will result in the fewest details.
- The is the default setting.
- You must check the group similar reinforcement bars checkbox in 6 above for this checkbox to have effect.
- If the maximum number in group is 20, it will produce less volume.



9. Show bar in a group at this Interval

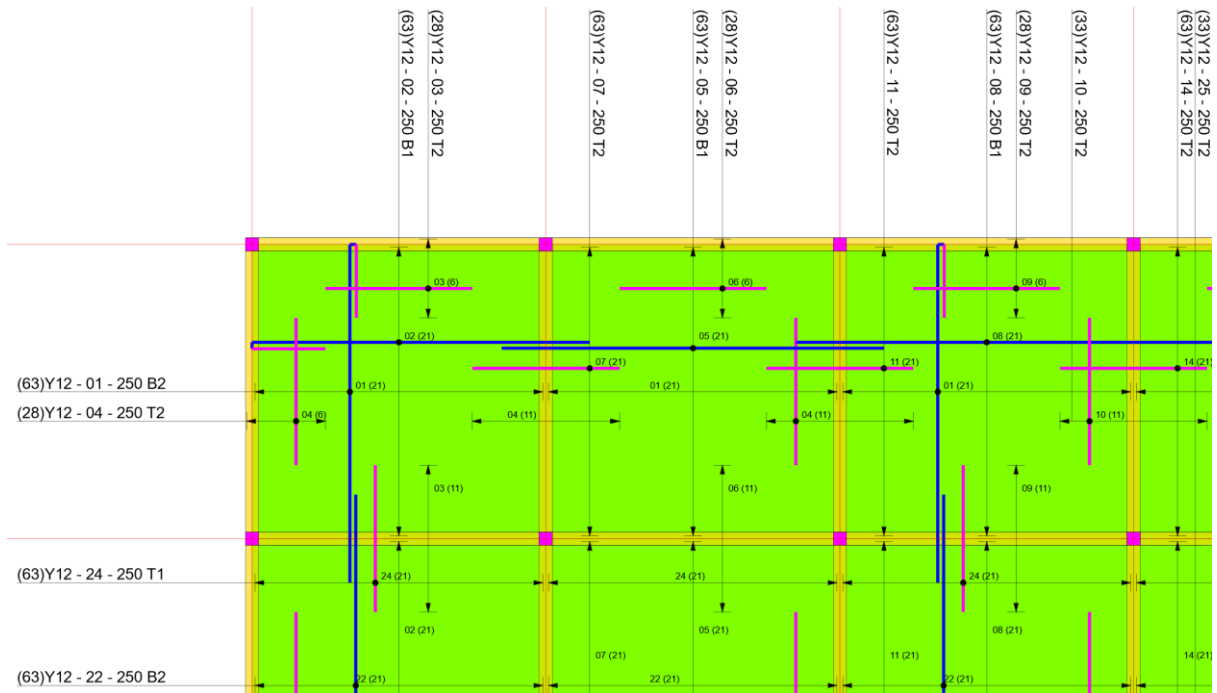
☐ Have One Bar In Each Reinf. Group

The above will force the software to show only one reinf. bar in each group

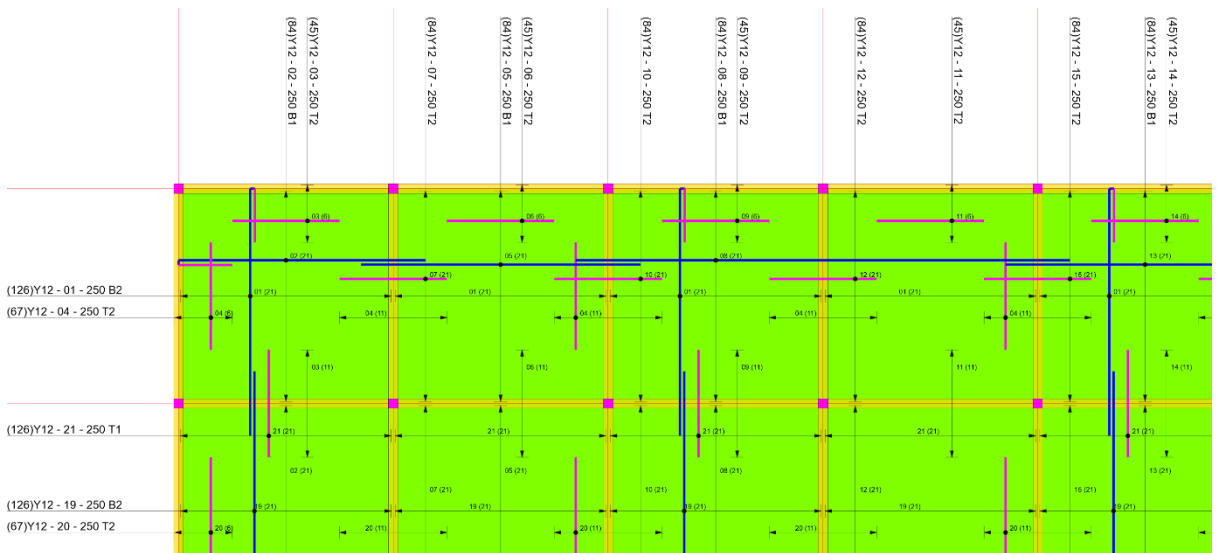
Show bar in a group at this Interval:

Even though the bars in the same group have same bar mark, the above allow you to show bars occasionally within the same group.

- To use this value, you must uncheck Have one bar in each reinforcement group as shown above.
- This is another way to gently add more volume to the details.
- The software will introduce a bar to the group at interval of 2. The barmark will be the same, the callout line will be the same but extra bar drawing is added.
- In the drawing below, the maximum number of bars in a group is 3



In the drawing below, the maximum number of bars in a group is 20



There are many combinations of the way you can generate slab detailing. You can try it and choose whichever one that is ok you. We will discuss ways can edit the detailing in QS10 next.

Editing Slab Detailing

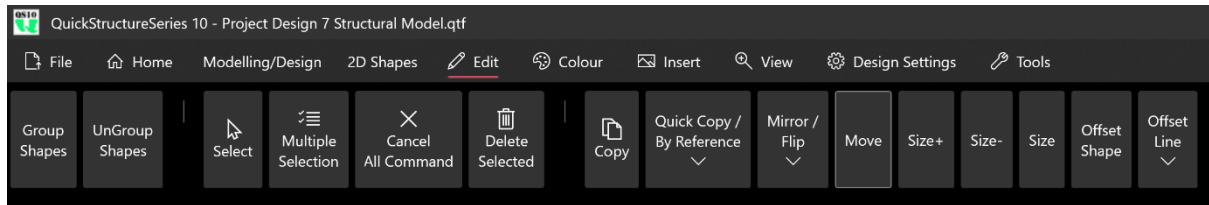
The aim of QS10 is to make editing the drawing much easier unlike QS7-9. We greatly improved the basic graphics so that you can edit the drawing easily and quickly.

Please note that it is better to edit the graphics at the end when you have gotten a working drawing. That means you have made all the changes you want in the modelling, and you have run automatic design, and you are satisfied with the results. The reason is that each time you run automatic design, it will regenerate the slab detailing again.

Every drawing on the drawing window can be edited.

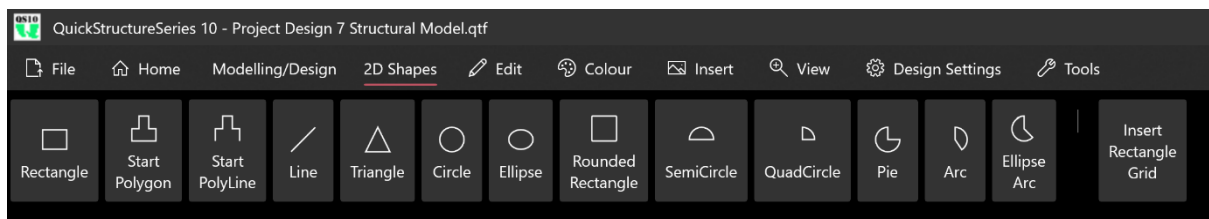
1. To Edit

- Click Edit tab and click Select
- Click the Edit command you need. Example Move command



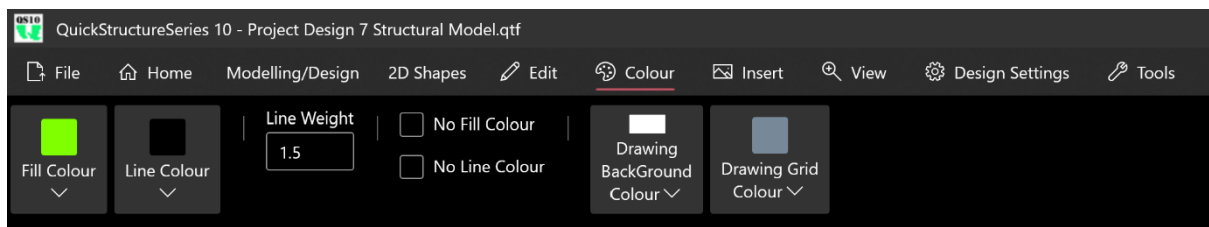
2. To Draw Shapes

- Click 2D Shapes tab



3. To Change the Fill Colour, Line Colour and Line Weight before you draw shapes

- Click Colour Tab



4. To Change the Grid Snap and Shape Snap
- Click View tab and check or uncheck Grid Snap or Shape Snap.

