

Compass Software

REFERENCE GUIDE FOR THE CREATION OF CUSTOM INFILLS



INSTRUCTION MANUAL

Content

1. Patterns for Infills.....	3
1.1. Creating an Infill.....	3
1.2. Creating a Pattern	4
1.2.1 Transfer the Pattern to a Template.....	5
1.2.2 Manual Editing of Patterns in Templates.....	6
1.2.3 Management of Free Form Files.....	7
1.2.4 Display in 3D Plus	8
2. CAM: Patterns in Fillings Using the Compass Software Postprocessor	9

Designing Custom Infills

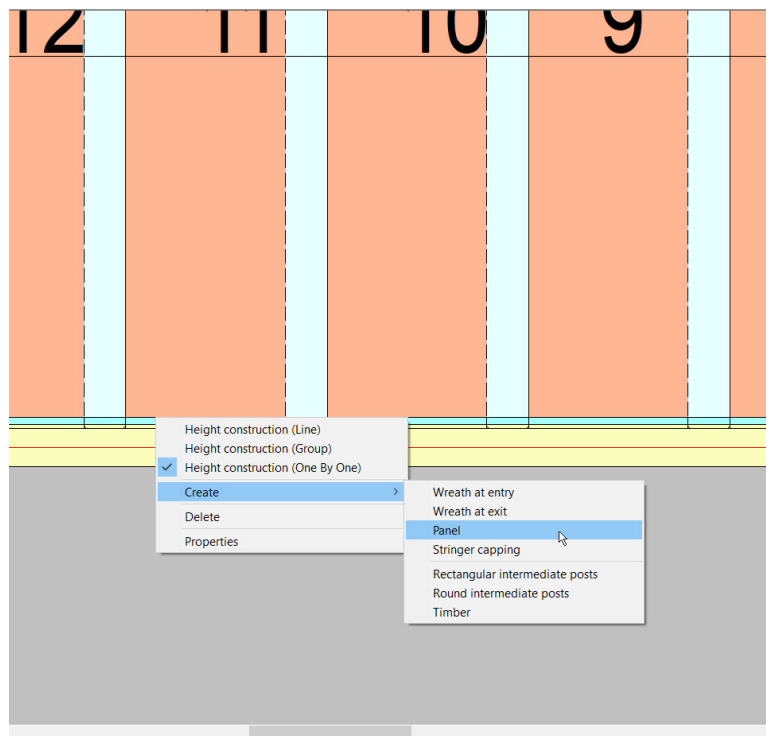
1. Patterns for Infills

Railing infills are a popular design element in stair building and are increasingly used to add custom features to a stair. They create an appealing look and elevate the staircase as a design object.

It is now possible to design special patterns for panels and glass infills in Compass Software. Users can choose from circles, squares, and rhombus shapes. Furthermore, it is possible to create custom patterns in the free from construction.

1.1. Creating an Infill

Click right on an already existing stringer or handrail in the groundplan construction and direct your cursor to the menu option **create**.



If the construction part you chose is a stringer, you now have the opportunity to create a panel that can be decorated with a pattern subsequently.

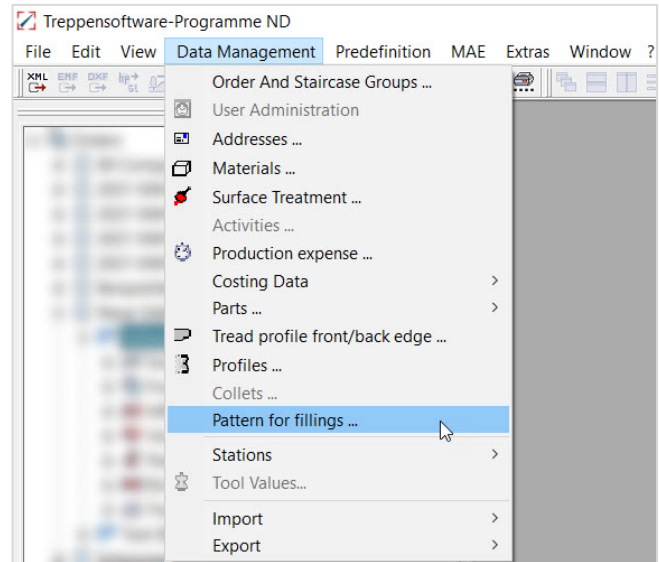
If the construction part you chose is a handrail, you can select whether to use a glass infill or a panel, both of which can also be decorated with a pattern.

After creating the infill, save your stair so that the infill template will appear with the other construction parts.

Designing Custom Infills

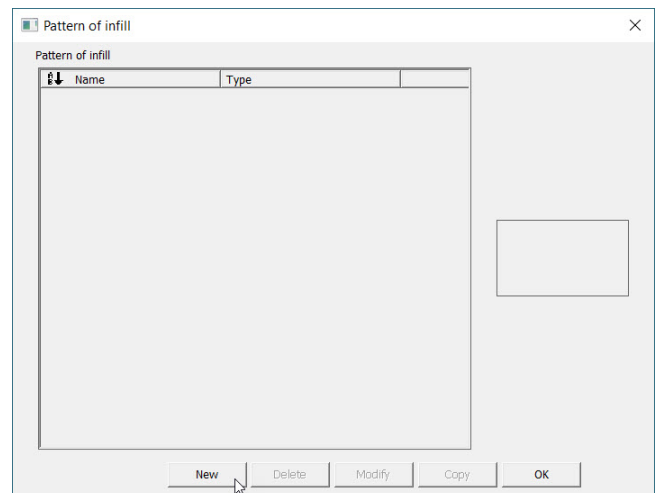
1.2. Creating a Pattern

Left click on the tab **Data Management** and select the menu option **Pattern for fillings ...**.



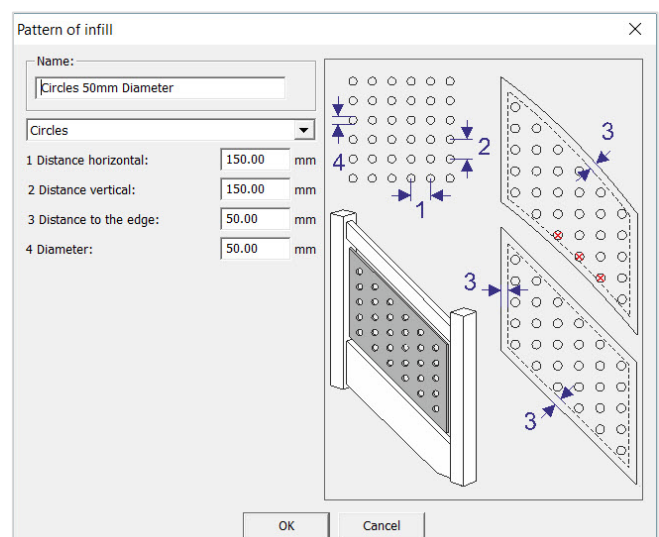
The window **Pattern of infill** will appear.

Click left on the button **New** to create a new pattern.



The window **Pattern of infill** will appear. You can define new geometrical shapes in this window. This example shows a circle with a 50mm diameter.

Click left on **Ok** to save the pattern.

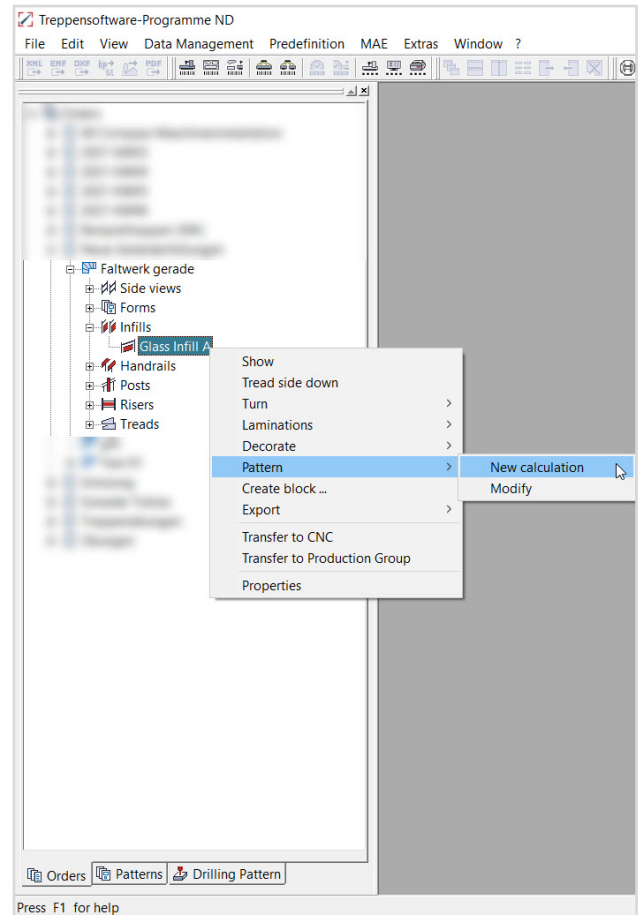


Designing Custom Infills

1.2.1 Transfer the Pattern to a Template

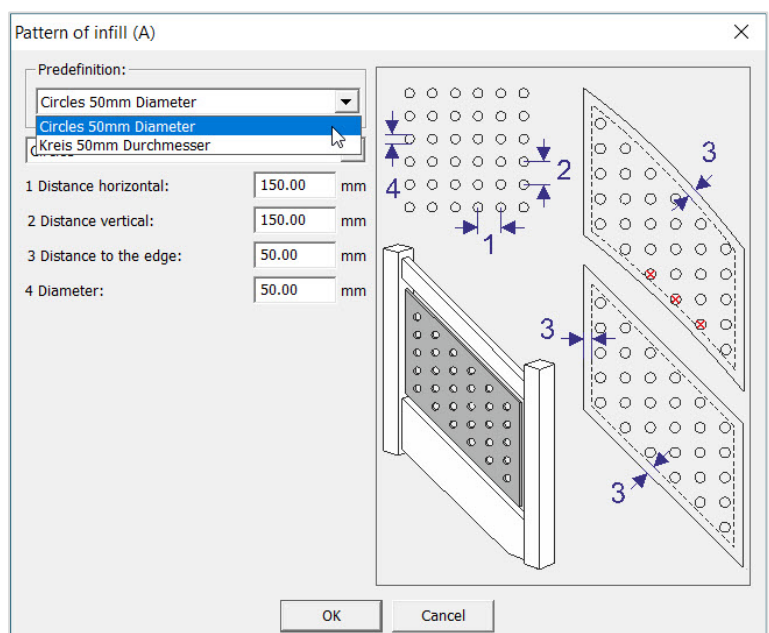
Click right onto the template under the subcategory templates (**Glass infill A** is shown in this example).

Select **Pattern >> New calculation**.



The window **Pattern of infill (A)** will open. Here you can select and use the pattern you have created as a predefinition for the selected template.

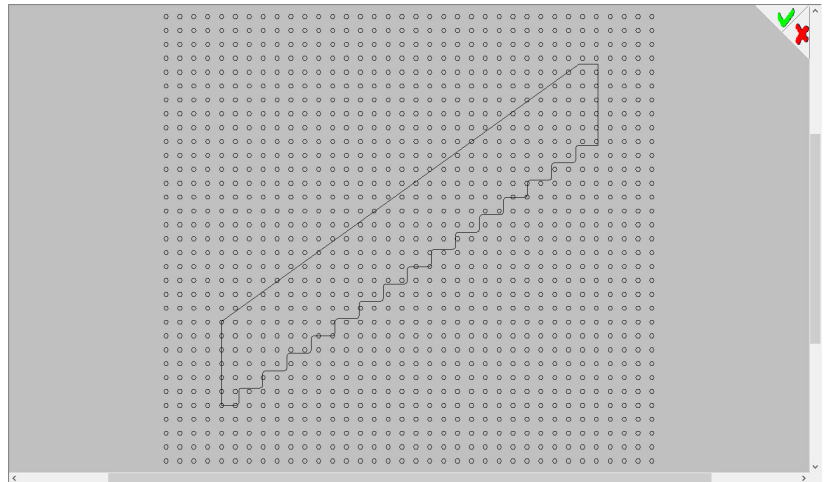
Confirm your selection with **Ok**.



Designing Custom Infills

Next, the system will lay the pattern and the template over each other (see picture).

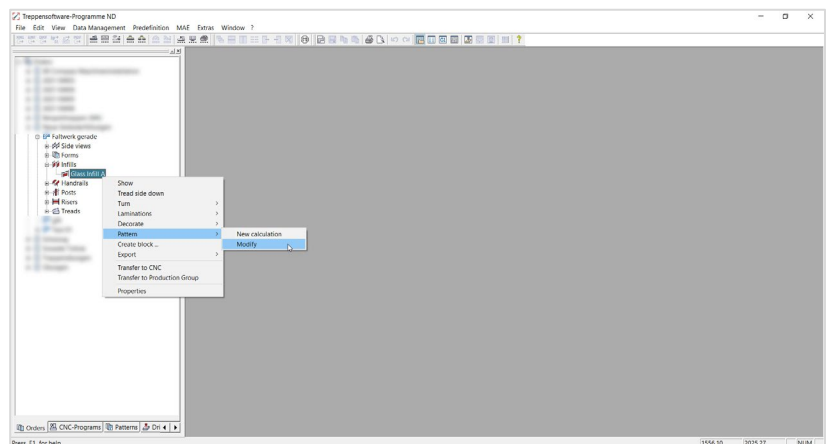
Click left on the **green check mark** to approve the template so the system can calculate the new pattern.



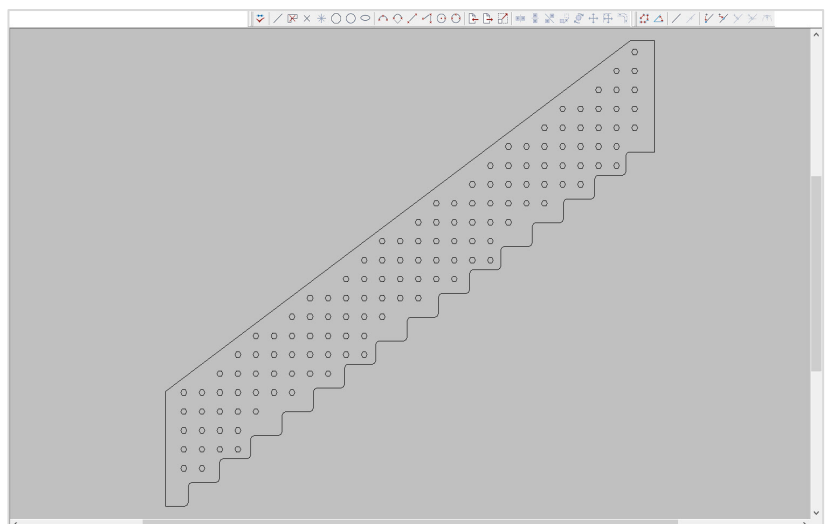
1.2.2 Manual Editing of Patterns in Templates

To edit an already existing pattern on a template click right on the template under the subcategory infills (**Glass Infill A** in this example).

Select **Pattern >> Modify**.



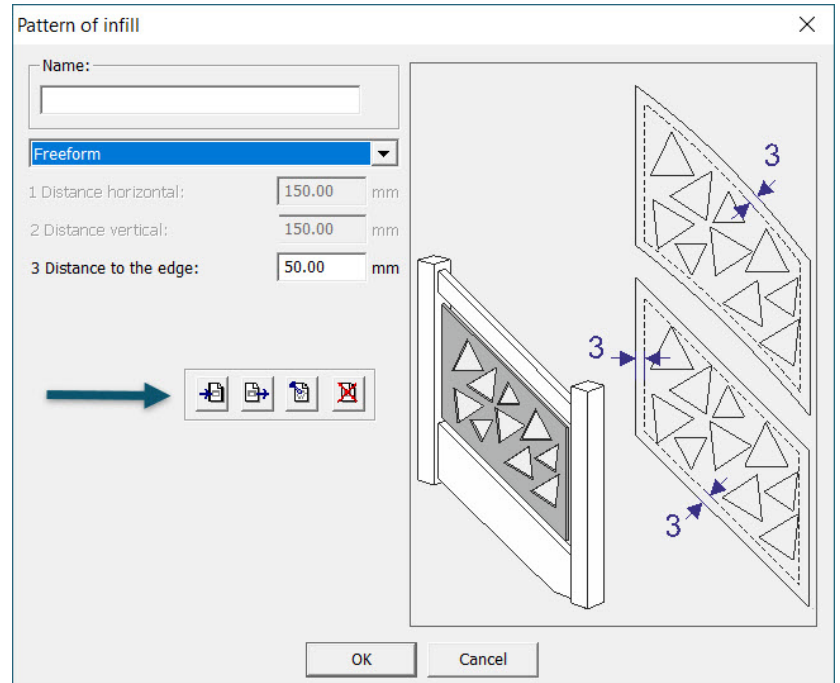
The template pattern window will open and the necessary toolbars for the configuration of the pattern will appear at the top (see example).



Designing Custom Infills

1.2.3 Management of Free Form Files

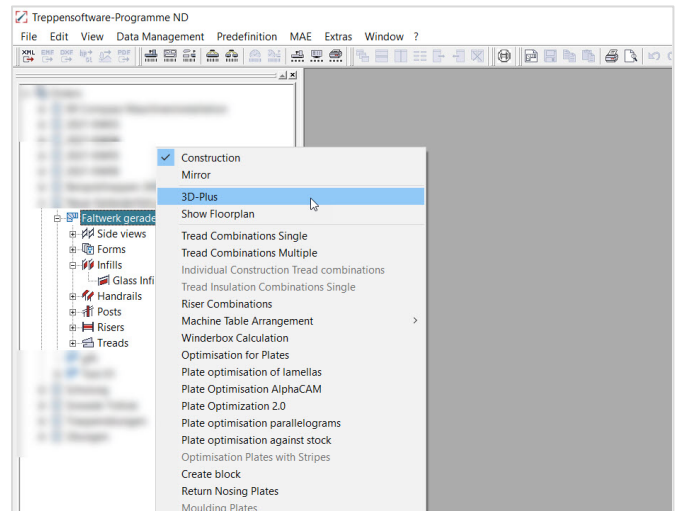
When creating a new free form design, users have the possibility to import existing files, such as DXF files.



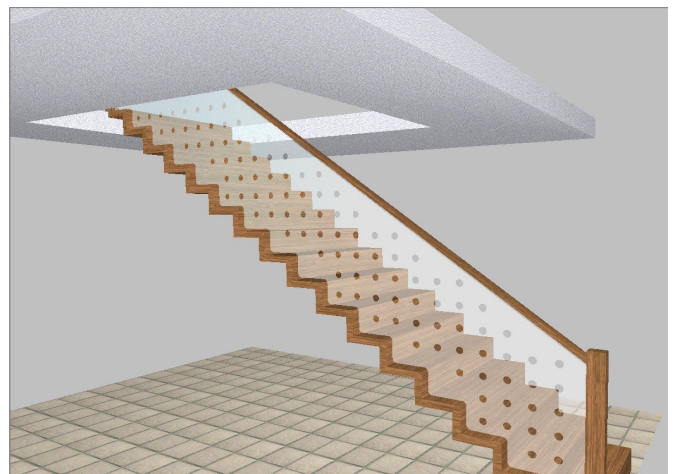
Designing Custom Infills

1.2.4 Display in 3D Plus

Click right on the stair and select **3D-Plus**.

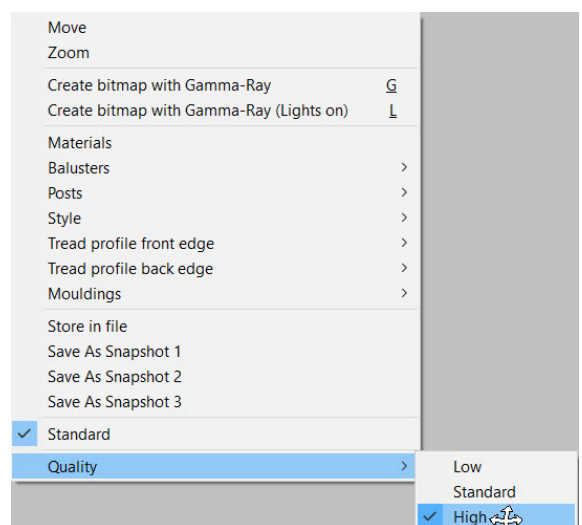


You can now view the stair design with the respective railing infill.



Attention: for the pattern to show properly in 3D Plus, the quality has to be changed to high.

Click right anywhere in the 3D Plus empty space to change the quality.

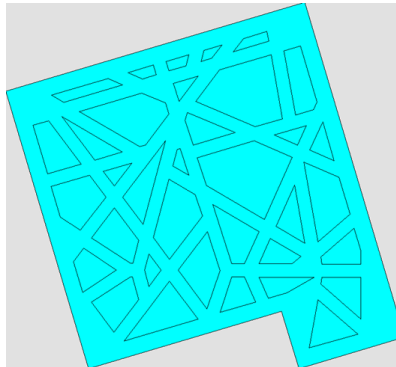


The patterns can be printed as 1:1 templates or be cut through on the CNC machine directly.

Designing Custom Infills

2. CAM: Patterns in Fillings Using the Compass Software Postprocessor

In versions 10.11.29.0 or higher, it is possible to insert so called 'patterns in fillings' in the templates for glass infills or panels. You can also mill and manufactured the fillings on your CNC machine using the Compass Software postprocessor (article no.: 00133403 - CAD/CAM railing filling option).



To insert the fillings, please go to **Railing parts -> Drilling -> Wall / ceiling -> Railing part penetration (Laufteildurchbrüche)**.

There you can enter the 3-axis **aggregate** and select a suitable **tool**. The value **advance distance** indicates the approach distance of the tool. The **safety distance** is the distance of the tool above the raw material. The **work depth** is the maximum depth of the individual milling paths. **Offset depth** makes it possible to mill the breakthroughs slightly deeper.

Note: When selecting the tool, please keep in mind that the cutter radius is included in the calculation of the penetrations for the CNC code. It can therefore happen that if the cutter radius is too large, small filling openings cannot be made and they will not appear in the CNC program! The operation moves the tool center paths, so the tool radii must be entered correctly in the tool table to get the desired results.

