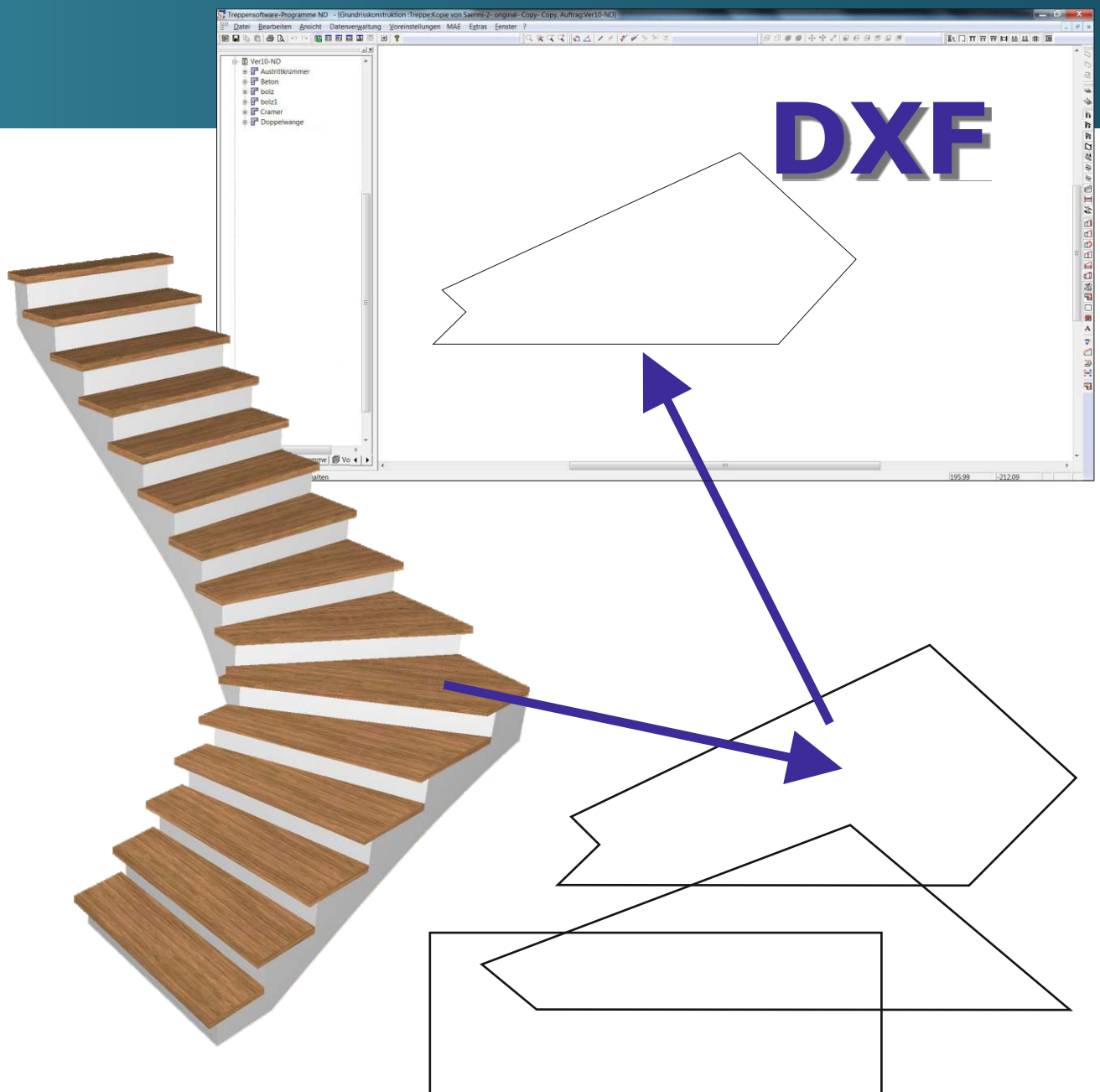


Compass Software

External Staircase



Instruction Manual



Instruction Manual

External Staircase External Staircase Plus External Staircase Plus Extension

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1. General

External staircase is a module for the import of external tread data (DXF-import). Herewith it is possible to import single DXF-tread data or to filter the tread data out of a complete DXF-ground-plan drawing. The DXF-tread data must consist of a closed polygon. Incorrect data can be processed in the free-form construction (see chapter 5). The imported tread data are integrated into the staircase software and can be used such as data of internally constructed treads.

The single steps of the proceeding are explained in detail in the following chapters.

Important!

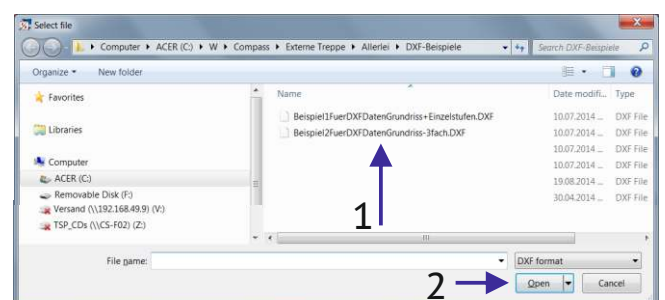
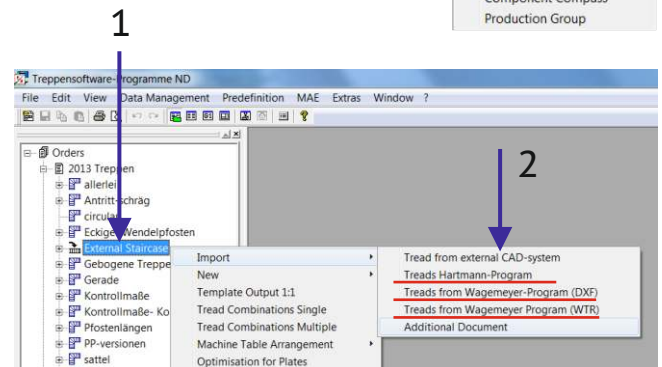
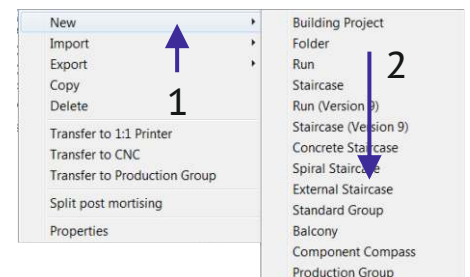
Positions which are underlined in red are not available in each version or are only possible with the corresponding option. First step – create an order.

2. Import DXF-file

Then click with the right mouse button on the created order. In the menu which then appears choose “New” (1) and then „External Staircase“ (2) and enter the name of the staircase.

Then click with the right mouse button on the created External staircase (1). In the menu which then appears choose “Import” and “Tread from external CAD-system (2).

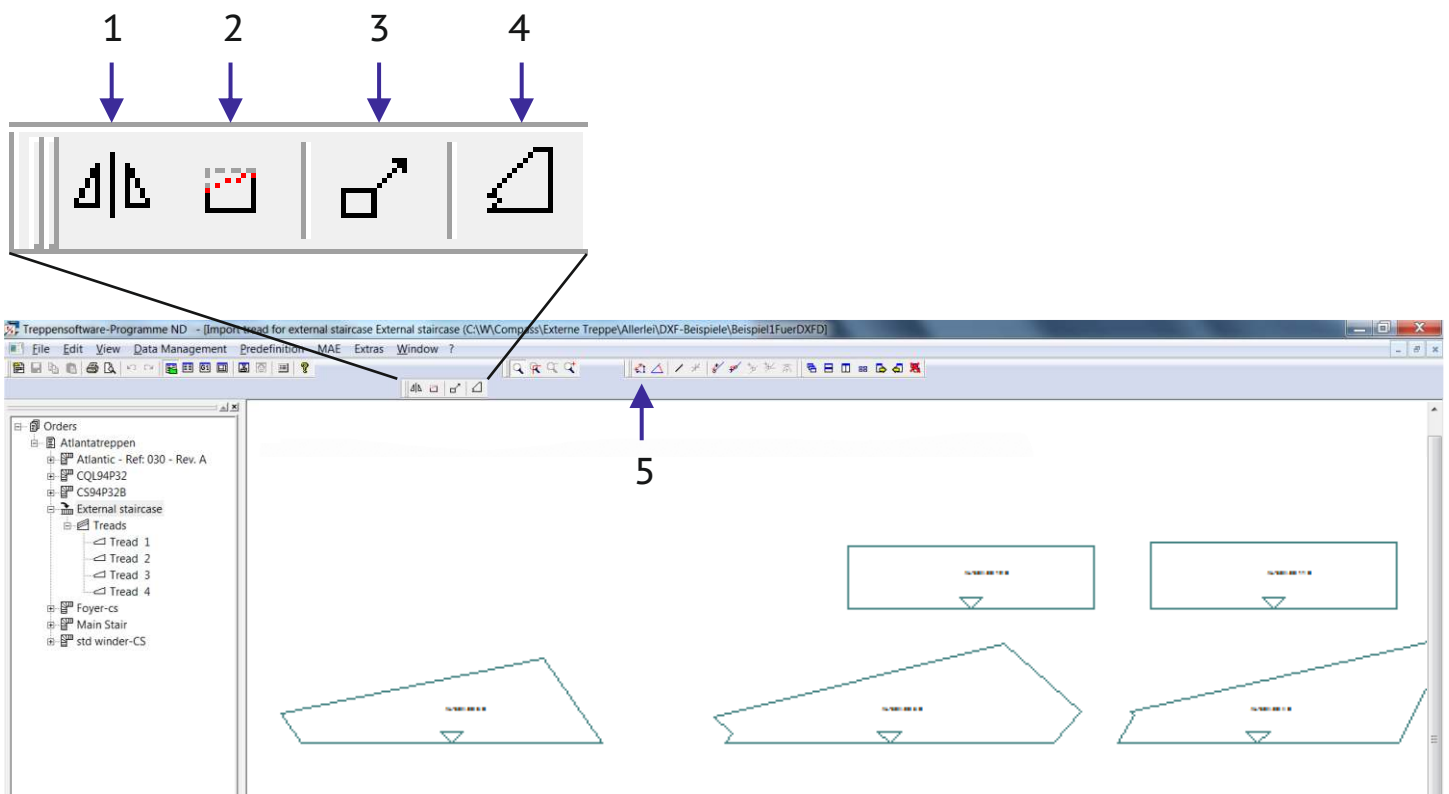
Navigate to the storage position of the DXF-file (1) and import the selected file with „Open“ (2).



3. Define DXF-tread data for transfer

This chapter describes how the imported DXF-data are corrected as necessary, then allocated and transferred into the tree of orders.

3.1 Toolbar „External tread“



- (1) With the function „Mirroring“ the imported tread data can be subsequently mirrored.
- (2) With the function „Free-form construction“ incorrect DXF-data can be subsequently edited respectively corrected. More details under “Process DXF-data in the free-form construction (see chapter 5).
- (3) With the function „Scale construction“ an incorrectly imported scale can be corrected. For checking purposes the scale should be controlled with the measuring function (5) following the import of the DXF-data (i.e. by measuring a tread front edge) and if necessary be scaled with the correct factor.
- (4) With the function „Define tread“ each tread is taken over into the tree of orders according to the allocated type of all tread edges. This, however, is also possible by using the menu or the keyboard (see chapter 3.3).

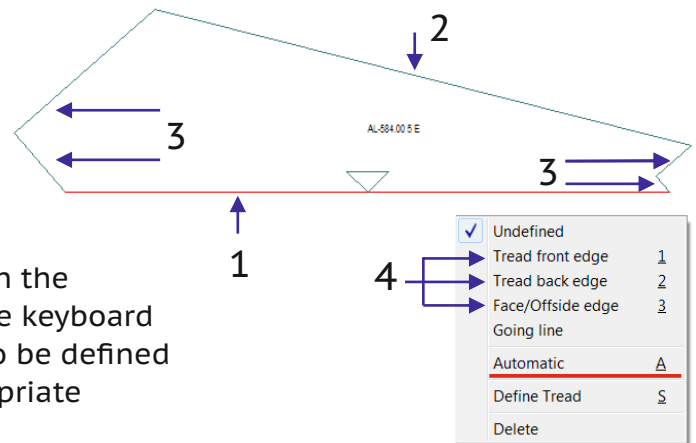


3.2 Define tread edges

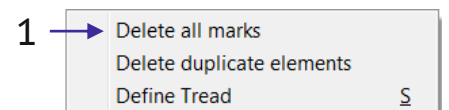
If the imported DXF-data are correct, the tread edges must first of all be allocated (see also chapters 4 and 5)
IMPORTANT! Keep the tread sequence.
 Start with tread 1.

For this, choose the tread edge which is to be defined by using the right mouse button and click on the appropriate edge type (4) in the selection menu. The keyboard can be used as well. Then mark the edge which is to be defined by using the left mouse button and enter the appropriate numerical value by using the keyboard.

1 = Tread front edge, 2 = Tread back edge, 3 = Face/Offside edge
 Repeat this proceeding for all tread edges of the currently processed tread.



If you should lose track during an allocation, you can open the popup menu (on the right) by clicking with the right mouse button on a free space outside the tread, there choose "Delete all marks" (1) and start again.



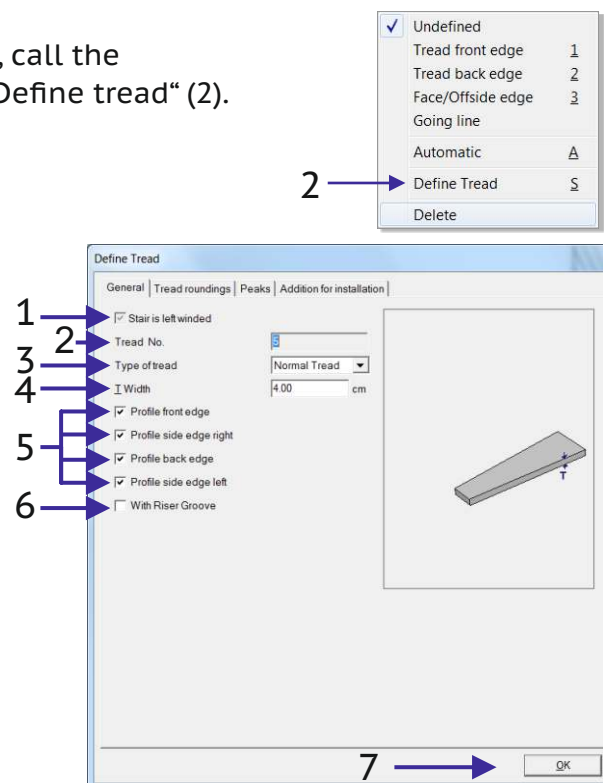
3.3 Transfer tread

After all edges have been allocated by matching the type, call the menu again by using the left mouse button and choose „Define tread“ (2). This is also possible with the keyboard: S = Define tread.

The entries in the menu „Define tread“ are normally only necessary for the first tread. After that they are taken over for all treads and must only be changed in case of deviation.

- (1) Select whether stair is left/right winded
- (2) Number is automatically counted up
- (3) Query for type of tread
- (4) Enter tread width
- (5) Enter whether to profile edges
- (6) Enter whether a riser groove exists
- (7) Finally confirm the settings with „OK“.

In the sub-menus, parameters for tread roundings, suppression of pointed inside tread corners and additions for installation can be defined.





4. Import treads from a complete ground plan

In order to be able to clearly identify tread edges, an editing of the imported DXF-data makes sense. For this, delete as many (not required) elements as necessary in order to be able to clearly see the tread edges. Examples for reasonable deletions are lines, stringers, cross supports etc. (see arrow right side).

Proceeding:

Click with the right mouse button on the wanted line and choose “Delete” in the appearing menu. Or you tag the line with the left mouse button and use the “Del”-key on the keyboard.

Elements lying on top of each other can automatically be deleted. For this, open the popup menu (on the right) by clicking with the right mouse button on a free space outside the tread and there choose “Delete duplicate elements” (1).

IMPORTANT for all deletions!

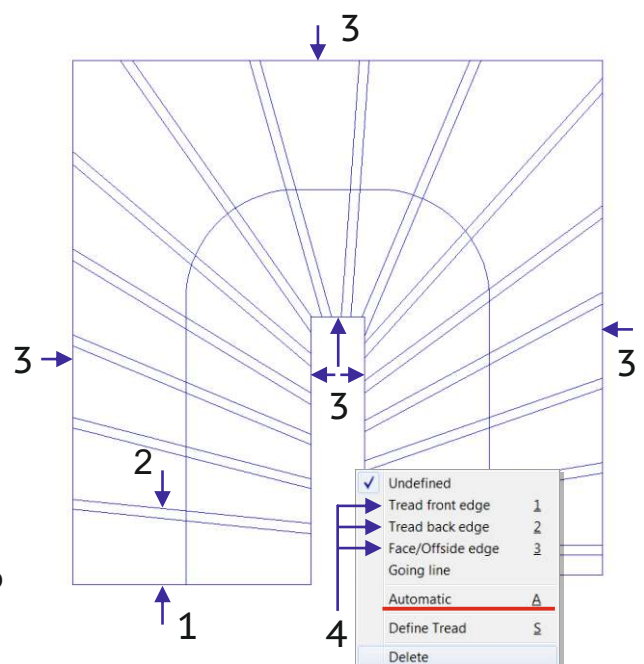
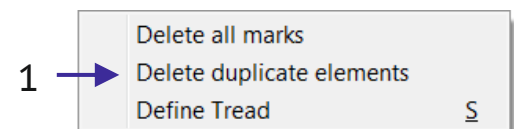
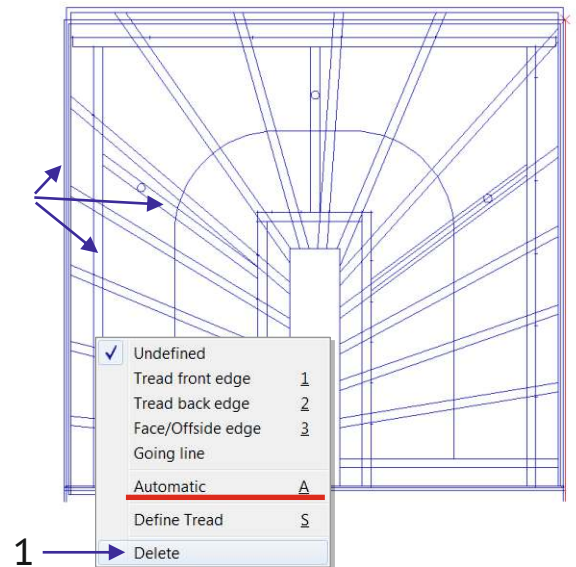
There is no UNDO-function. Deletions by mistake are irreversible. The DXF-data must then be imported once again. An UNDO-function and further changes such as lengthening/shortening of lines etc. are only possible in the free-form construction (see chapter 5).

After the treads have been filtered out, the tread edges must be allocated. For this, choose the wanted tread edge with the right mouse button and choose the suitable edge type (4) in the appearing selection menu. Hereby, the definition of the tread face/offside edge (3) is determined by the flight face/offside.

Reasonable proceeding:

First, allocate all face/offside edges. Then the front and back edge of the first tread and transfer these such as described in chapter 3.3. Then the front and back edge of the 2. tread and so on.

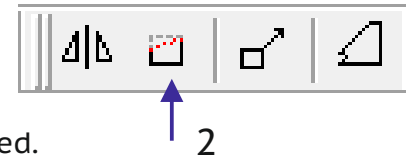
IMPORTANT! Keep the tread sequence. For this, it is also possible to use the keyboard (see chapter 3.2).



5. Process DXF-data in the free-form construction

If a lot of lines must be deleted or if the DXF-data are incorrect (overlapping lines, polygons which are not closed and so on), these can be corrected in the free-form construction.

For this, open the free-form construction (2) in the toolbar “External staircase” following the import of the DXF-data.

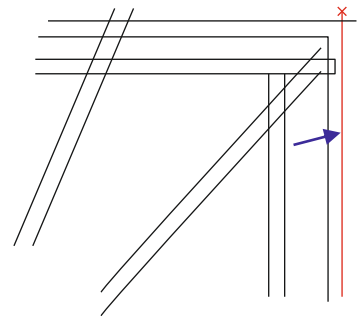


In this editing mode lines can be extended, shortened, deleted or shifted. Here, the UNDO-function is also possible.

5.1 Delete lines

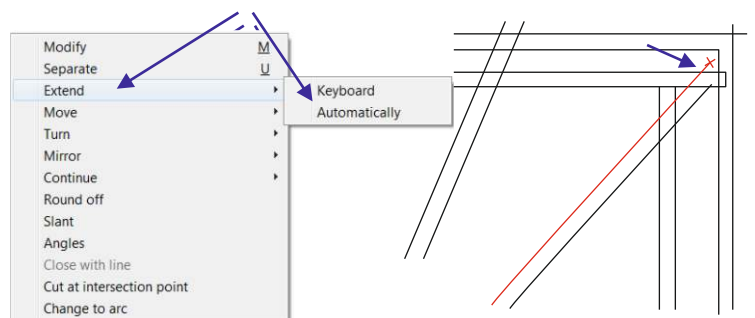
Click with the left mouse button on the line you want to delete and then delete with the „Del“-key on the keyboard.

It is also possible to delete several elements at once. For this, open a diagonal field which comprises the elements which are to be deleted by keeping the left mouse button pressed. Then, all elements which are positioned completely within the field are deleted with the “Del“-key (on the keyboard).



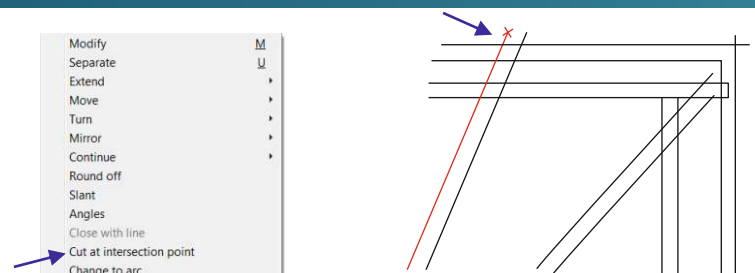
5.2 Extend lines

Click with the right mouse button on the line which is to be extended and then choose “Extend” and “Automatically” in the selection menu (eventually repeat this if the automatism did not yet find the end point due to crossing lines).



5.3 Shorten lines

Click with the right mouse button on the line which is to be shortened and then choose “Cut at intersection point” in the selection menu (eventually repeat this if the automatism did not yet find the end point due to crossing lines).



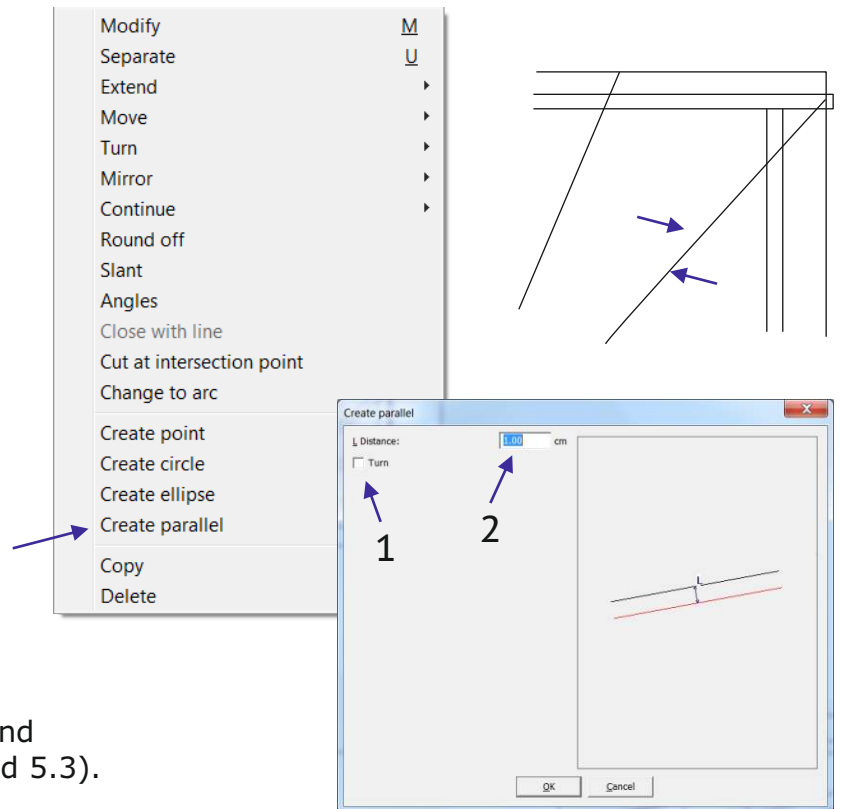


5.4 Parallel lines

If the DXF-data do not include back edges in the ground plan, these must be constructed belatedly. For this, click with the left mouse button on the tread front edge and choose "Create parallel" in the selection menu.

In this menu determine with „turn“ (1) whether the parallel line is created in front of or behind the tread front edge. Then enter the tread project (2) and terminate with "OK".

Eventually, the parallel line must then still be extended respectively shortened up to the tread side edges on the right and left side (as described in chapters 5.2 and 5.3).

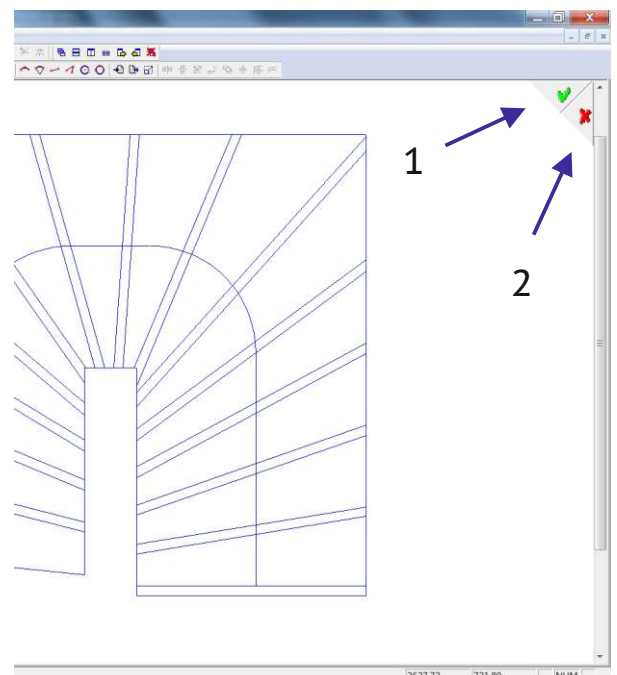


5.4 End the free-form construction

As soon as all wanted lines are deleted and all incorrect data are corrected, the free-form construction can be ended and thus stored with the position (1).

Then the treads can be transferred again to the tree of orders as described in the chapters 3 and 4.

With the position (2) the free-form construction can be terminated.





6. Extension of the option External Staircase Plus

This extension of the option „External staircase“ offers the possibility to import the DXF-data automatically. This automatic mode saves a lot of time especially in case of large quantities and it can be used for the import of single treads and for tread imports from ground-plan data.

The proceeding (importing of DXF-data, eventually preparing of the tread polygons) is identical with the option “External staircase” as described in the previous chapters.

The tread edges can now be allocated with the automatism and the treads can now be imported.

6.1 Automatism single tread

Tag the tread front edge (1) with the right mouse button and choose “Automatic” (2) in the menu. Herewith, all tread edges are automatically allocated.

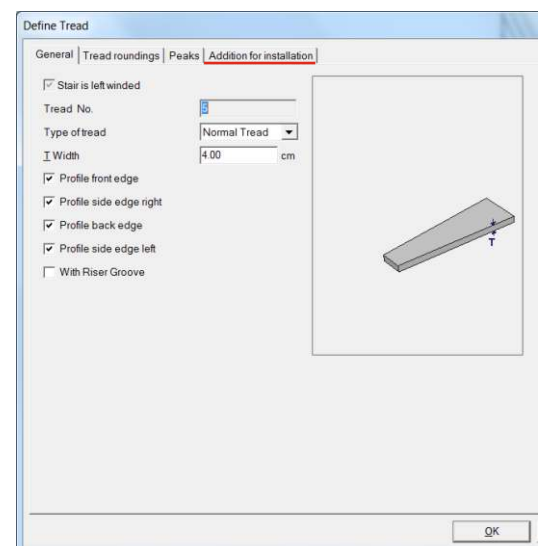
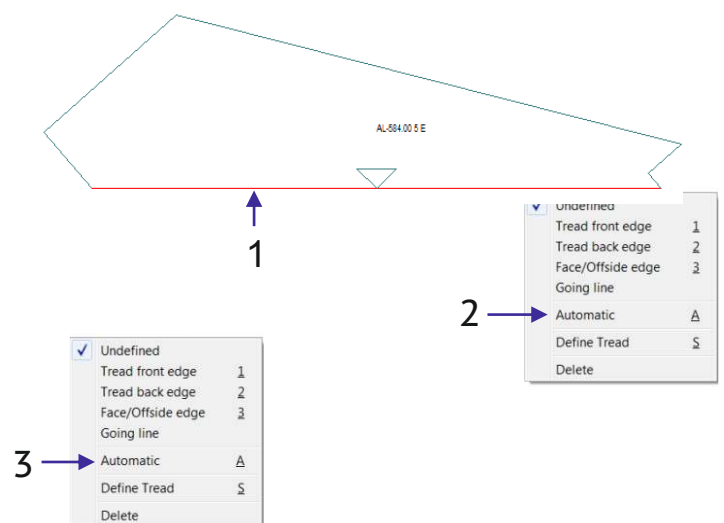
IMPORTANT! Keep the sequence of the treads and start with tread 1.

Then click again with the right mouse button on the tread and confirm “Define tread” (3) in the appearing menu.

This is also possible with the keyboard. For this, tag the tread front edge with the right mouse button and open the import menu with the keys “A” (Automatic) and “S” (define tread).

The menu which appears on the right side is filled in such as described in chapter 3.3. The tread is imported with “OK”.

Repeat these steps for the following treads (also see chapter 6.3).





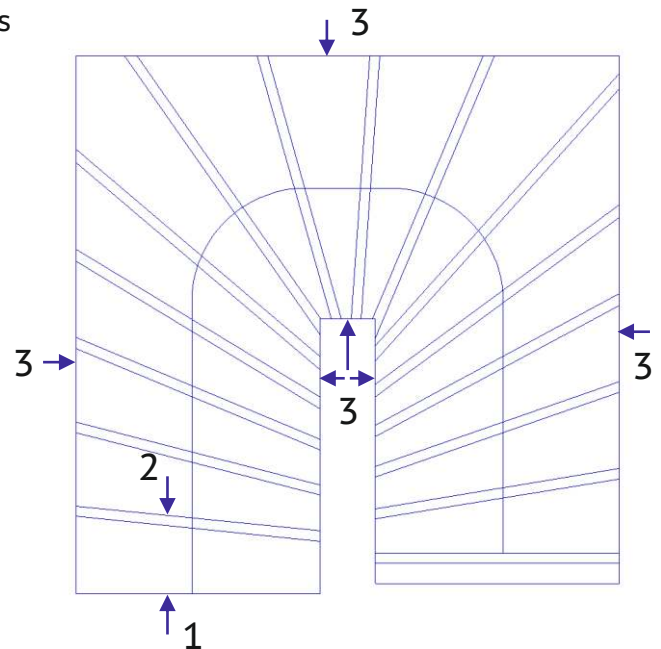
6.2 Automatism treads from a ground plan

In case of a complete ground plan, all tread side-edges are first of all allocated.

For this, tag the side edges (3) of the single flights of stairs one after the other with the right mouse button and define them as side-edge type with the "3" on the keyboard.

Then tag the front edge (1) of the first tread and confirm it as front edge with the "1" on the keyboard. Then tag the back edge and confirm it as back edge with the "2" on the keyboard.

The import of the tread is made with the key „S“ on the keyboard. In this menu proceed in the same way as in chapter 3.3 and import the first tread with "OK".



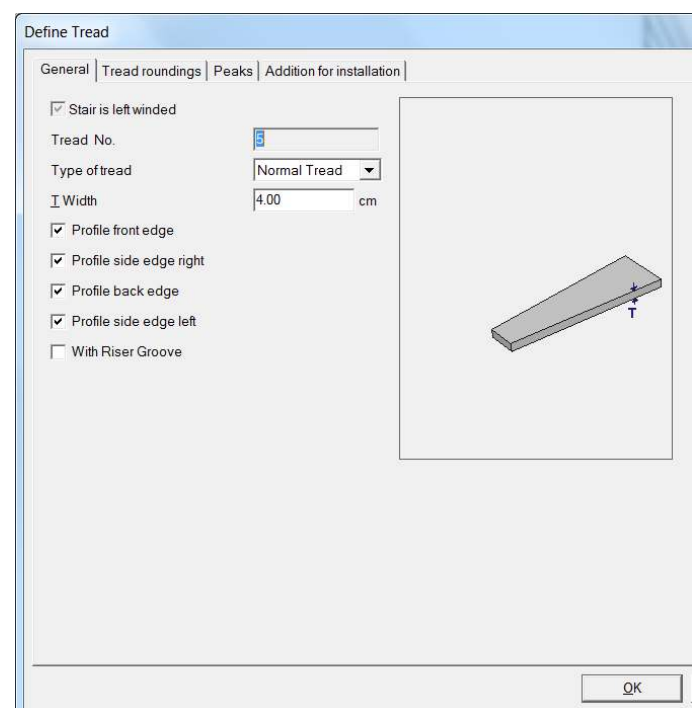
After the import, the next tread is called up with the automatic allocation of edge types.

Use again the key „S“ to open the import menu and import the tread. This procedure is repeated up to the last but one tread.

For the last tread (exit tread) the back edge must still be defined.

For this, tag the back edge with the left mouse key and define it with the „2“ on the keyboard. Then import the tread again with the key „S“.

Herewith, all treads are imported (also see next chapter).





6.3 Control of imported tread data

After all tread data have been imported, the treads can be individually displayed in the tree of orders (double click with the left mouse button of the respective tread).

Similarly, all treads can be selected with a double click on the tread node (1). Herewith, all treads are displayed in the right sequence.

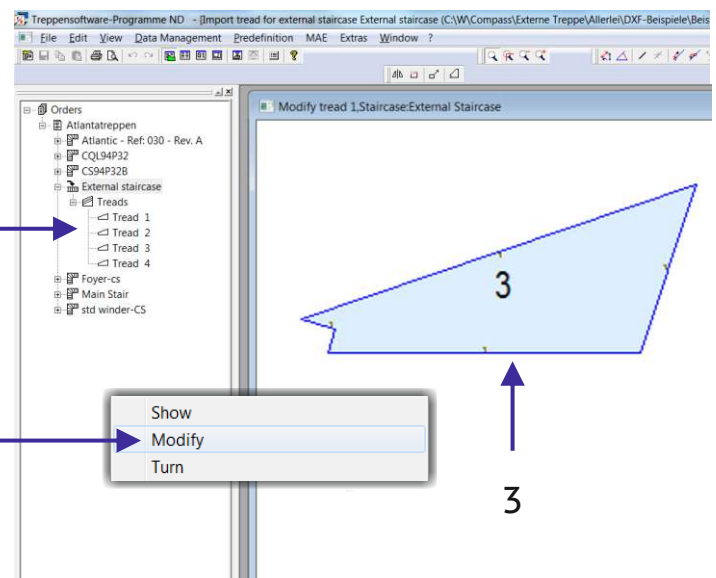
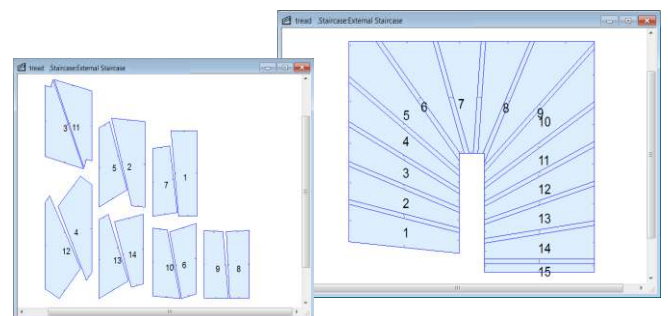
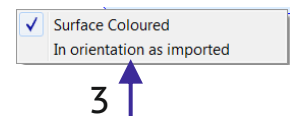
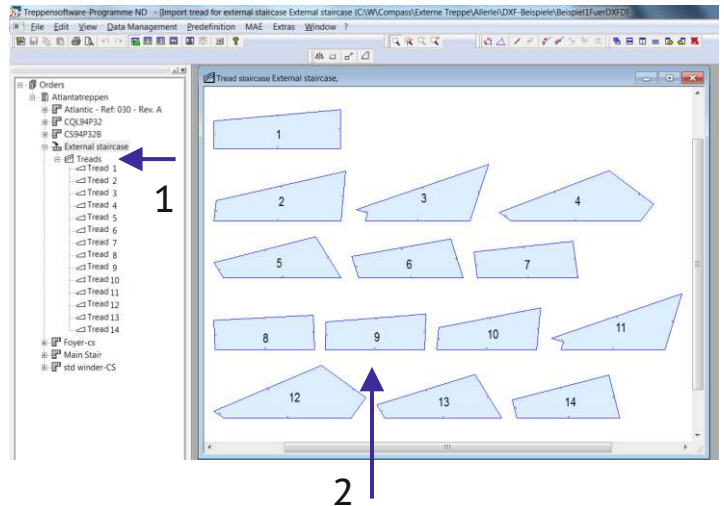
Here, you now have a reasonable control possibility.

For this, click with the right mouse button on the displayed window (2). In the appearing menu choose "In orientation as imported" (3).

Herewith, all imported treads are displayed again in the position in which they were imported (example on the right side). This is an optimal control before the tread data are further processed.

A subsequent editing of the imported treads is also possible. Important! If some parameters must be corrected subsequently.

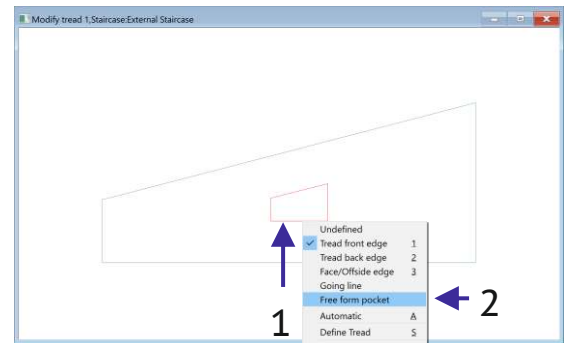
For this, choose the wanted "Tread" (1) and then "Modify" (2) in the appearing menu. In the editing window you can then click with the left mouse button on a tread edge (3), repeat the proceeding described in chapters 6.1 and 6.2 and make the wanted changes.



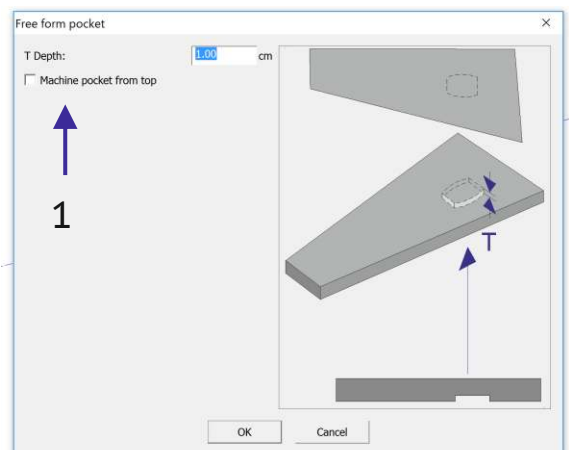
6.4 New (from Version 10.8.8.0) Free Form Pockets

This extension serves to import existing free form pockets in treads. Furthermore, it is possible to add your own pockets via the free form construction.

The pockets is defined first, after import of DXF tread data with the free form pockets. In order to do this click right on the line of the pocket polygon (1) and select free form pocket (2).



The menu that follows gives the opportunity to decide whether the pockets are to processed from above or below (1). Then, put in the depth of the pocket. Save your input by clicking OK. (Display with dotted line = pocket from below).



Continue as described in chapter 3.2 “define tread edge” And 3.3 “transfer tread”.

Changes can be made later via “Modify” (as described in chapter 6.3 last image).

Construct free form pocket.

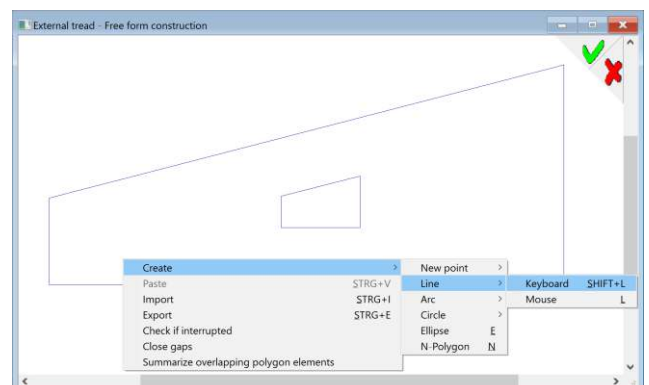
Defining your own pocket when importing is possible via the many tools available in the free form construction.

To do this (after reading in the tread data) call up the free form construction for “external tread” in the task bar.



The desired polygon can be constructed using lines and arches.

After saving repeat the steps outlined above (starting from the first picture in this chapter).

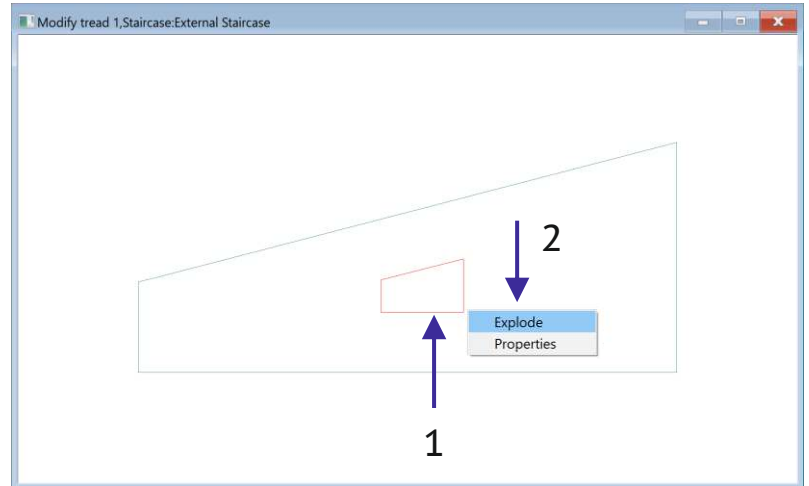




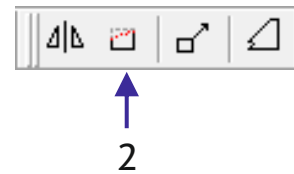
Changing already existing free form pockets

Changing already assigned free form pockets later is also possible. To do this, the existing pocket has to be exploded.

To do this click on the first line of the pocket polygon (1) and choose explode (2).



The existing pocket polygon will be taken over when calling up the free form construction (2) and can be altered.



After saving the free form construction the steps can be repeated as outlined from the beginning of this chapter.

Tread edges have to be assigned again. Only after assigning the treads it will be possible to define and save the tread data.



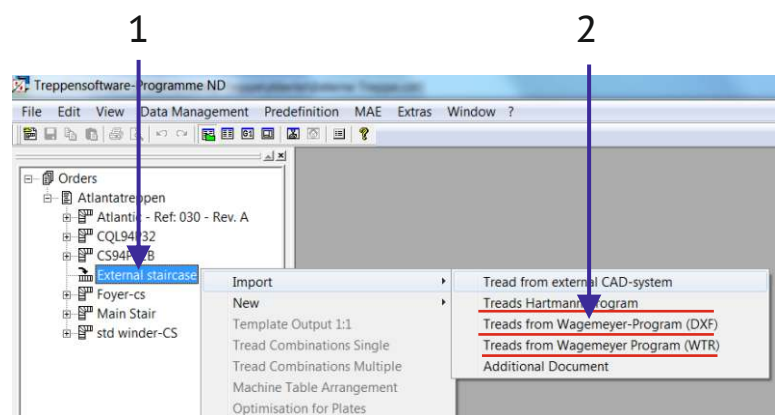
7. Additional extension of the option External Staircase Plus

7.1 Tread import from the Wagemeyer-Program (DXF)

With this extension of the option it is possible to automatically import DXF-tread data from the Wagemeyer-program and to import them directly into the tree of orders. The allocation of edges or the editing of data is omitted.

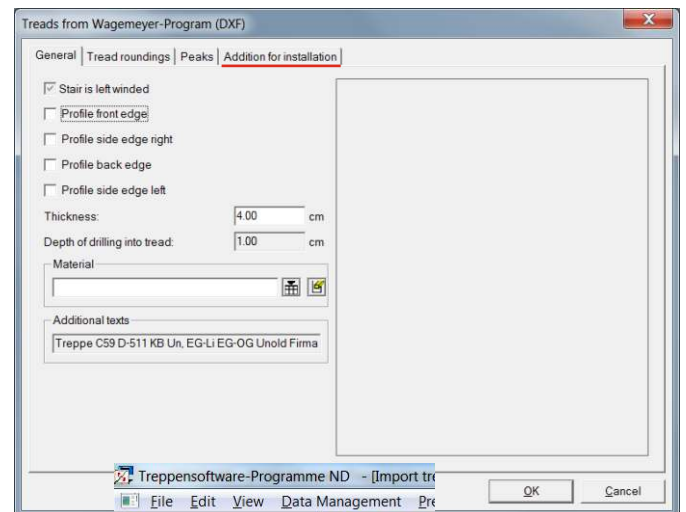
After the creation of the staircase (1) choose “Treads from Wagemeyer-Program (DXF)” (2).

The navigation to the storage position and the selection of the file follow (see chapter 2).

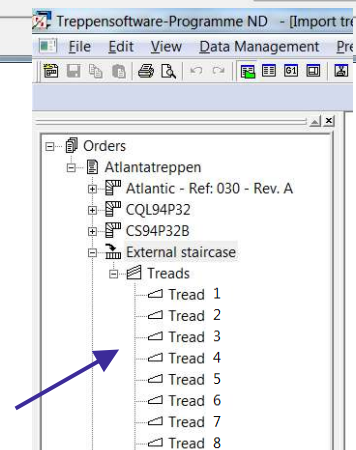


On the appearing menu pages further settings can be made according to the requirements of the order:

- enter the tread thickness and eventually the drilling depth
- whether or which tread edges are profiled
- whether tread roundings are wanted
- whether small tread peaks are cut off
- whether additions for installation at the tread sides are wanted.



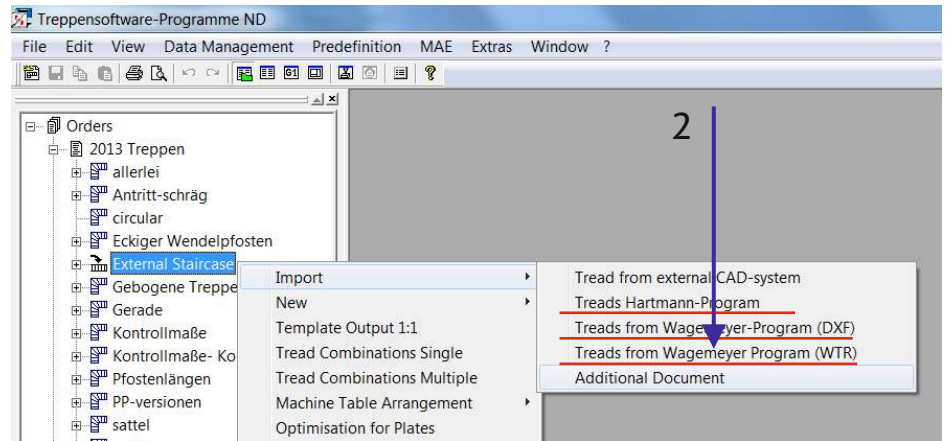
After all settings have been made and after the menu has been left with “OK”, all treads are automatically transferred into the tree of orders (also see chapter 6.3).





7.2 Tread import from the Wagemeyer-Program (WTR)

Extension of the option as before and therefore the same proceeding. The only difference is the data format (WTR-tread data) (2).



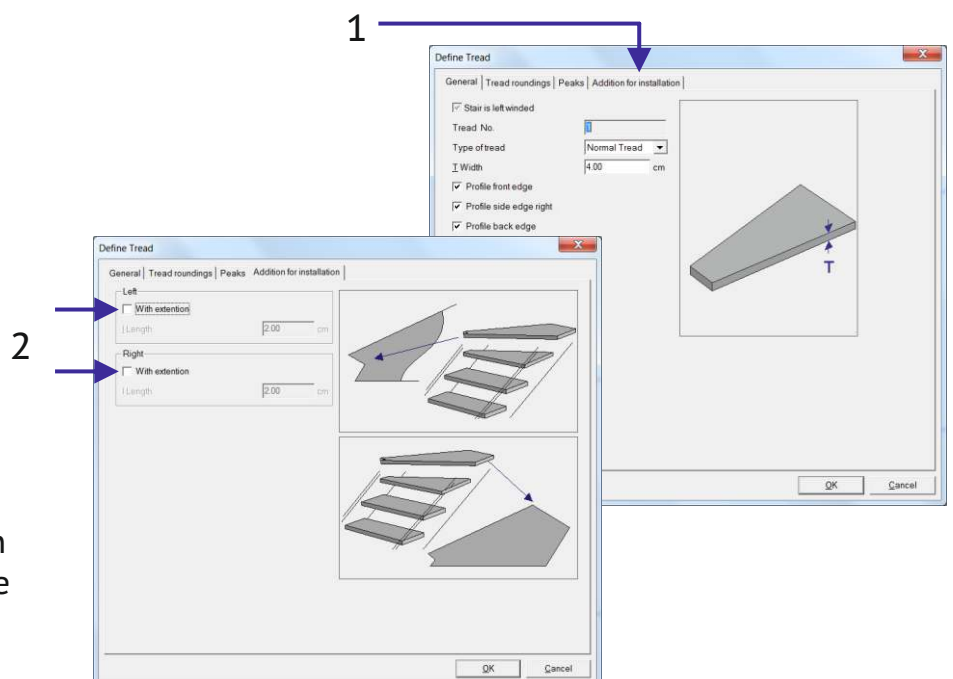
For this, choose „Treads from Wagemeyer-Program (WTR)“ (29. (Also see chapter 6.3).

8. Addition for installation

If you have the option addition for installation, it is possible to lengthen the inner and outer edges of the tread by a certain value (and to manually adapt the distance to the wall subsequently on-site).

For this, click on the index card "addition for installation" (1) when you file the tread (define tread). There, you can choose "with lengthening" (2) for the left and/or right side and put in the wanted value.

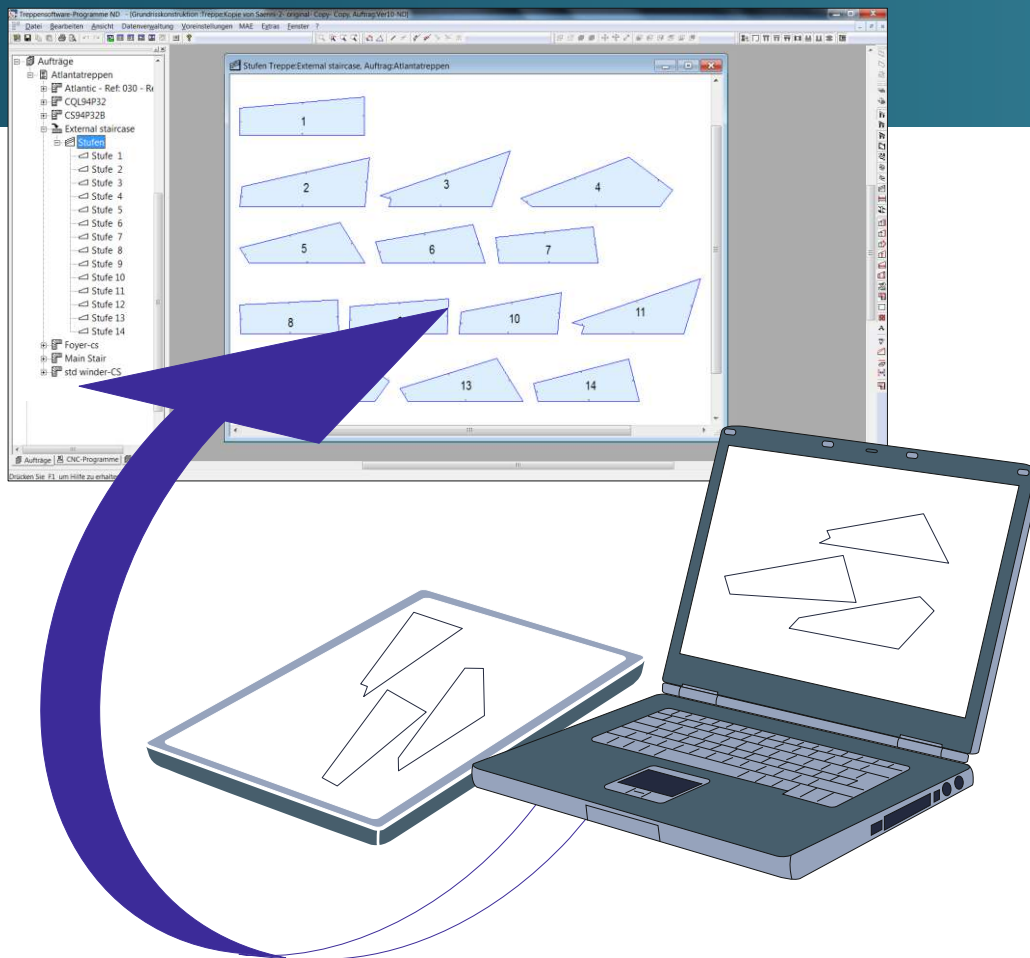
These additions for installation are also possible later on in the tree of orders under process treads/tread1, tread2, /.





**Compass
Software**

External Staircase



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