



Advantages of SOFiCAD-Design against pure AutoCAD

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1. GENERAL WORKING

1.1. **Easy editing**

In general accessing editing functions is very easy when working with SOFiCAD:

- Double click the corresponding objects
- AutoCAD-Properties dialogue including filter function
- Editing with grips

These editing functions are available for any object, independently of which module you are working with.

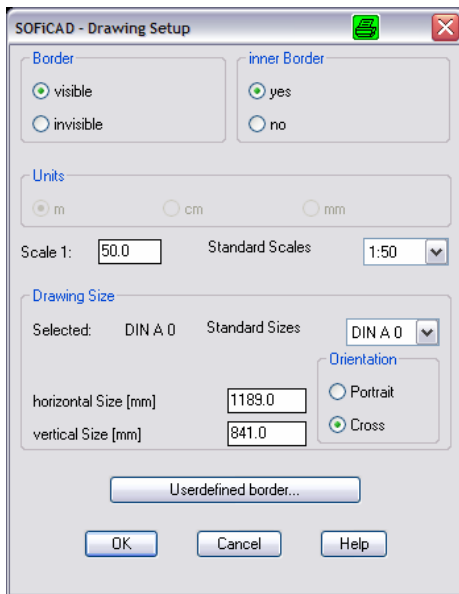
1.2. **Seamless AutoCAD integration**

Within the SOFiCAD modules we've especially stresses that the user may continue working as acquainted from AutoCAD. This fact allows a short period of vocational adjustment for experienced the AutoCAD user.

2. DRAWING SETTINGS

2.1. Drawing Setup with title block

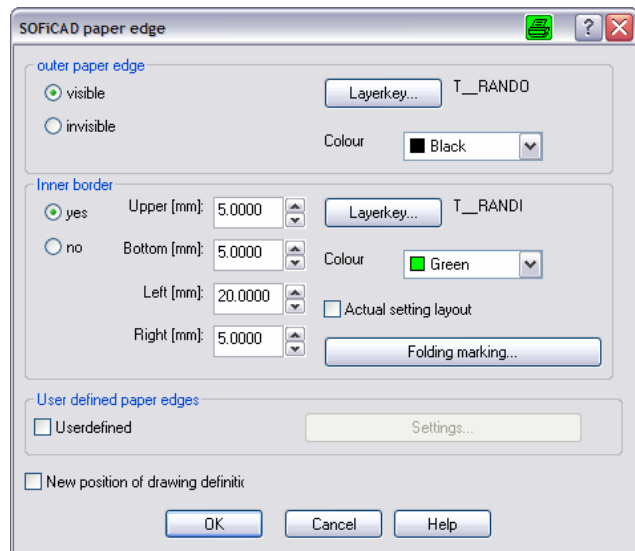
We offer different possibilities creating a drawing setup and the border:



Valid for both working modes is the automatically correct placement of the plan stamp with size adjustment.

When working in the model area a sheet size and the main scale are set. Further scale areas are possible via the so called secondary scales.

When working in the paper areas a sheet border corresponding to the selected sheet size is set for each created layout – thereby allowing an arbitrary amount of layouts.





2.2. Creating and setting view windows

When working in the paper area SOFiCAD enables to directly create a view window with pre-defined settings. These are:

- View window scale
- Detail of image
- Frame will automatically be placed onto a non-plotted layer
- The view window will be locked.

Subsequent changing and or setting of the view window are also possible of course using the right-click menu. Any properties except the layers frame can be set here just as it is the case when newly creating one.

The subsequent setting is possible for view windows created by either SOFiCAD or AutoCAD.

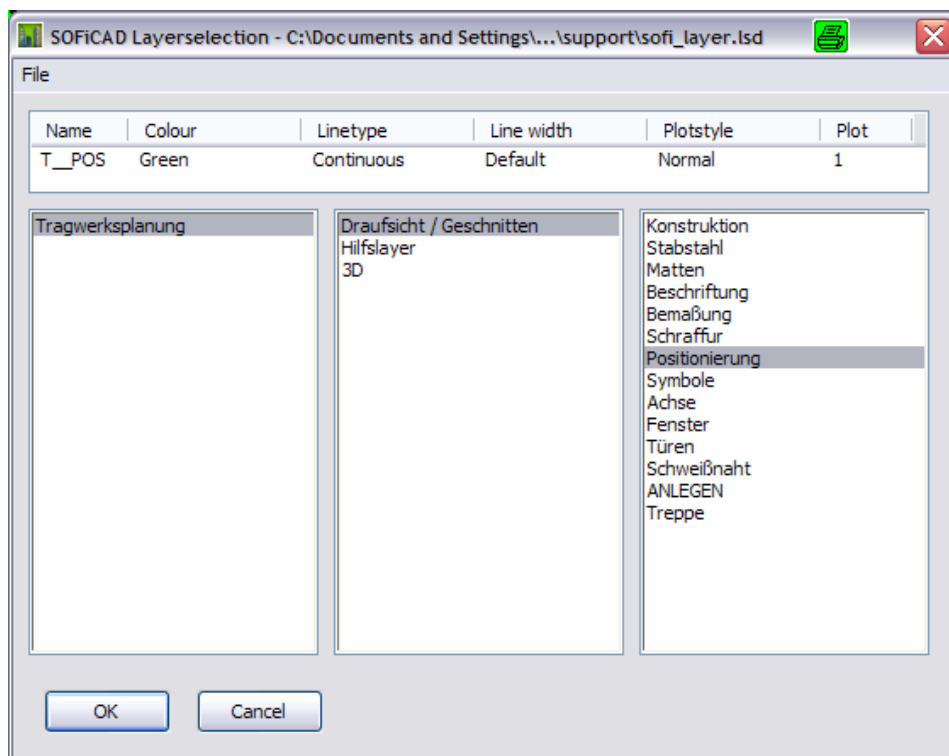
3. INTERNAL DRAWING MANAGEMENT

3.1. Layer manager

An entire and sophisticated layer structure can be defined in an external file with the help of a text editor. Here you can define the following settings:

- Layer name
- Color
- Line type
- Line stwidth
- Plot on/off
- Scalability

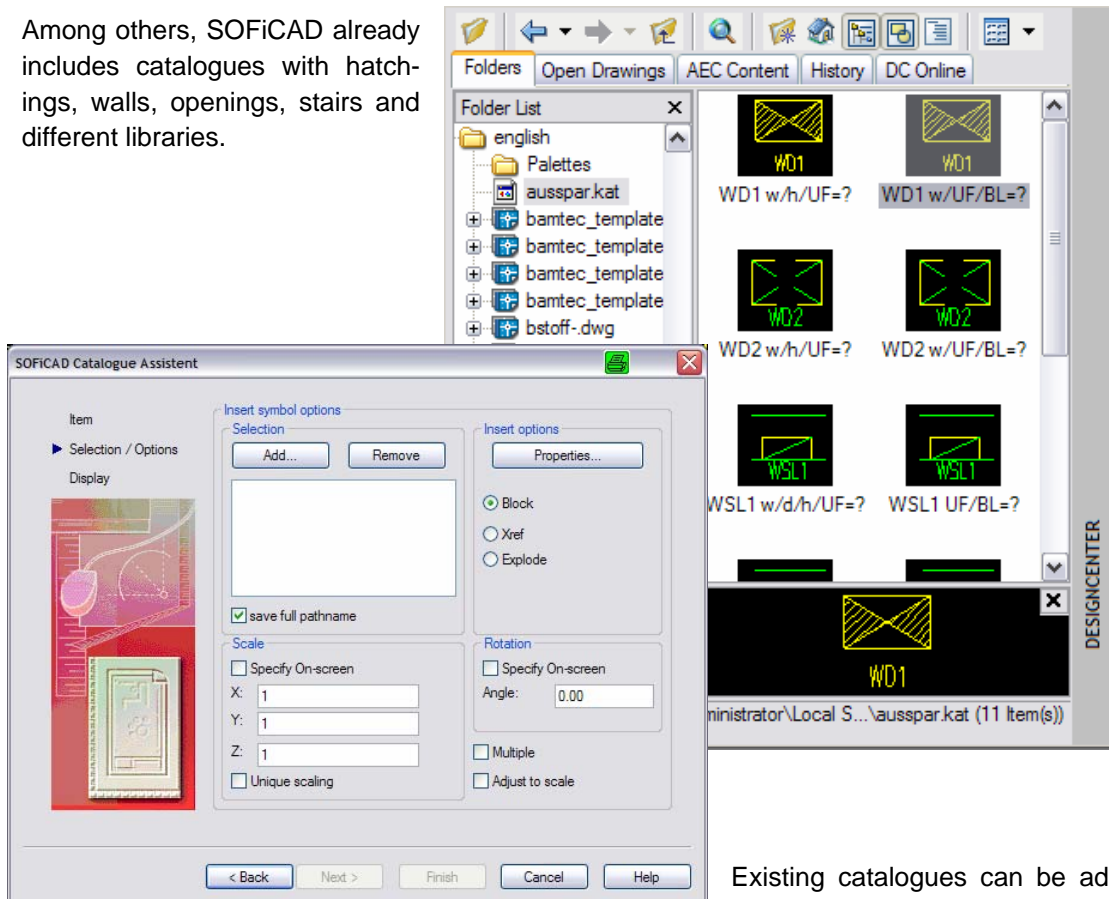
In correspondence to this layer structure, the desired layer can simply be selected with a dialogue box – allowing up to eight sub-groups.



3.2. Catalogue management

With its catalogues, SOFiCAD offers a possibility of summing up blocks or hatchings which can be accessed via the DesignCenter.

Among others, SOFiCAD already includes catalogues with hatchings, walls, openings, stairs and different libraries.



Existing catalogues can be adjusted via the copy and insert commands, new catalogues, even with self-defined blocks are summed up for the catalogue wizard. These catalogues can be provided to other users via networks or for project related matters.

3.3. Scalable working

When working in Layout with active view window, scale depending objects are automatically placed on the corresponding layer in the correct size, which are only visible in view windows holding the same scale. The user only has to set text heights and sizes in the plotted size in SOFiCAD. The conversion in AutoCAD units depending of each scale is automatically conducted by SOFiCAD with dimensioning, texts and hatchings.

A command for copying and adjusting any scale depending objects in other scale also exists. The automatical activation of scale depending layers when setting the view window also considers manually generated layers with a corresponding annex for the scale in the layer name.

4. DIMENSIONING

4.1. Linear dimensioning

SOFiCAD offers a building specific, associative dimensioning with superposed mm and cm specifications for dimensions below one meter. Scale is of course also valid for dimensioning: Scale chains which are generated in the active view window are automatically set on scale depending layers. When working in the model area with secondary scales they will be considered for the values.

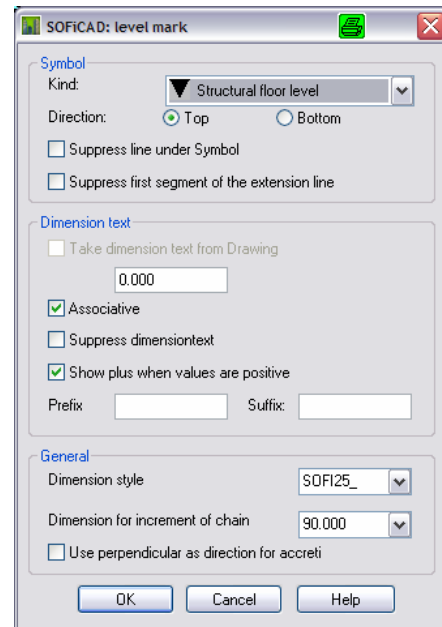
4.2. Level marks

As a further dimensioning element SOFiCAD contains associative level marks. They simply can be edited and or adjusted subsequently. The basis height value of a height chain may be adjusted to the height notation at any time. Any height notation belonging to this chain will automatically be updated.

An arbitrary amount of height notation chains may exist parallel in one drawing.

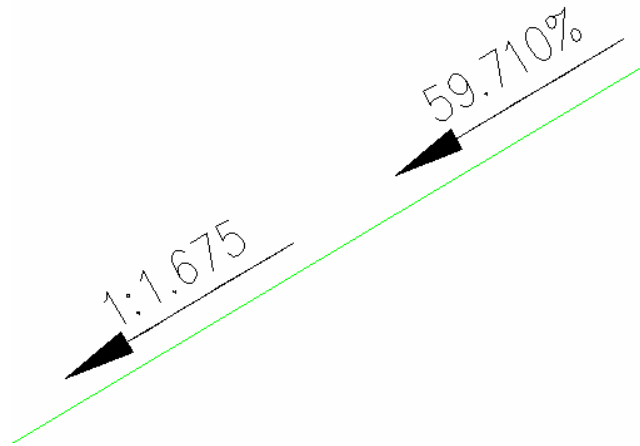
4.3. Coordinate dimensioning

Coordinate dimensioning allows defining any coordinate with proper UCS. These values are associative – additionally present Z-coordinates can be taken over from the drawing.



4.4. Gradient dimensioning

Along any inclination, inclination dimensioning may be specified as percentage value or as inclination ratio – with regard to the basic direction which have to be defined.



4.5. Area, volume, center of gravity

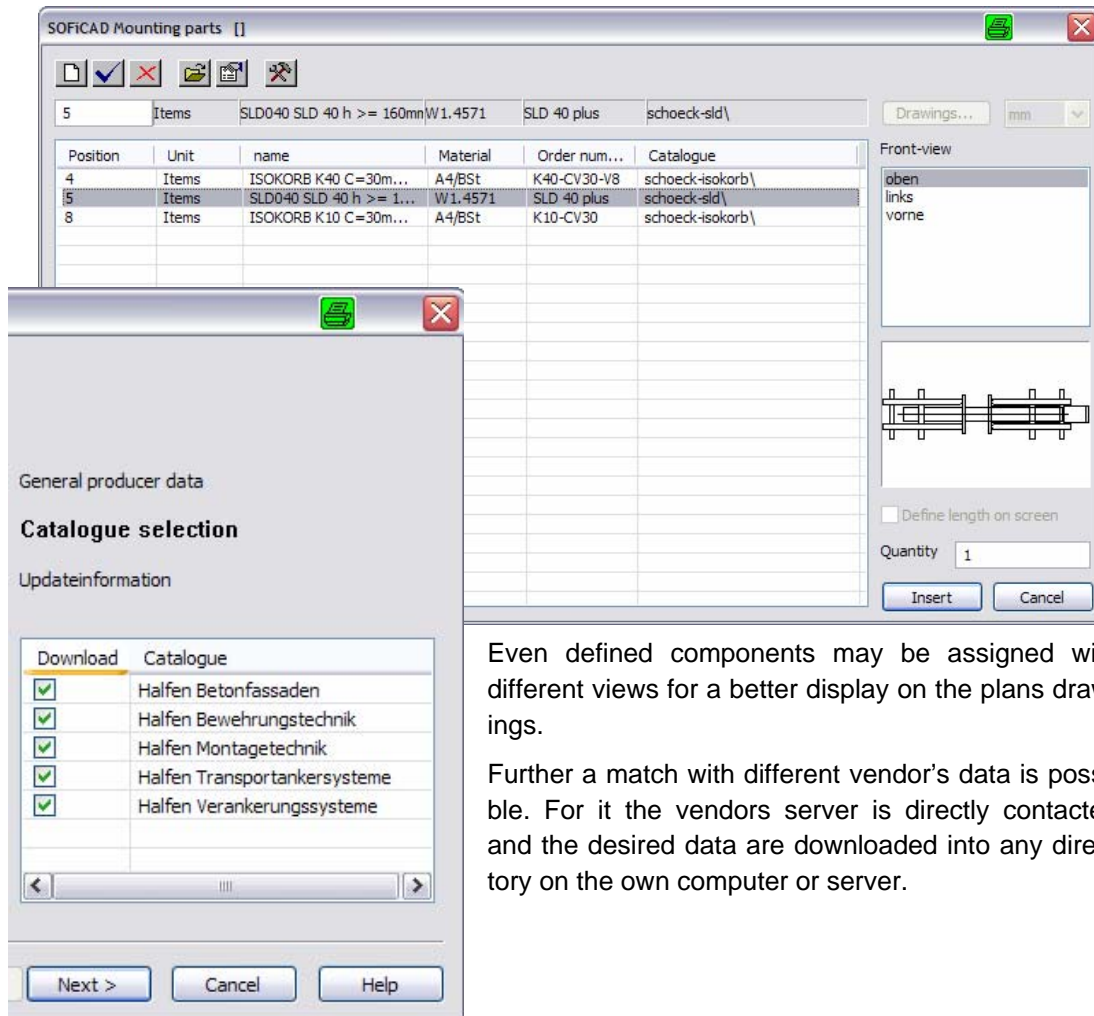
The command for generating a label according to area and circumference specifying a thickness as well as volume and weight is especially used in the case of prefabricated components. Further more the center of gravity for the shown area may optionally be determined.

5. BUILDING COMPONENTS

SOFiCAD offers vast possibilities for working with and managing of building components.

5.1. Inserting and managing

With the help of a building component manager, the components are inserted and managed in the plan data base.



Even defined components may be assigned with different views for a better display on the plans drawings.

Further a match with different vendor's data is possible. For it the vendors server is directly contacted and the desired data are downloaded into any directory on the own computer or server.

5.2. Inserting a table

The components inserted into a drawing are compiled in an AutoCAD table with the command "insert table".

Mounting and add. parts list					
Pos.	Quantity	Unit	name	Material	Order number
1	1	Items	HBT 80 10/15-6 1250	BSt 500 S	0054.030-00004
3	1	Items	HTA 28/15 150 VF	A4	0001.010-01002
4	1	Items	SLD050 SLD 50 h \geq 160mm \emptyset = 22 mm	W1.4571	SLD 50 plus

6. BUILDING SPECIFIC DRAWING SUPPORT

6.1. Axes

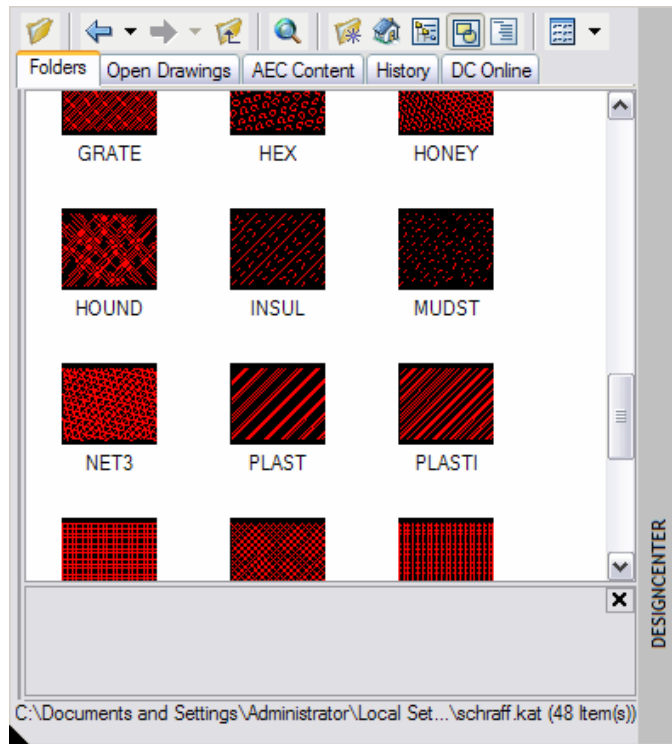
Axes are simply defined via grid distances. These are objects and they therefore can be adjusted subsequently via the property dialogue.

With their dynamical display, the axes labeling is always visible independently of the zoom area.

6.2. Hatching

SOFiCAD provides different building specific hatchings as well as hatchings for floor types according to DIN 4022 with its catalogue function.

The hatchings may also be generated at a shown line in a defined width.



6.3. Embankment / soil / insulation

In order to display embankments, grown soil and insulations along any poly lines, SOFiCAD provides the corresponding options. The generated displays are associative and may subsequently be adjusted with a double click.

6.4. Stairs

A SOFiCAD catalogue offers divers stair types. They can optionally be generated as 2D or in 3D as timber or reinforced concrete design. For 3D designs the options of sections and windings are available of course. Any stair designs are possible.

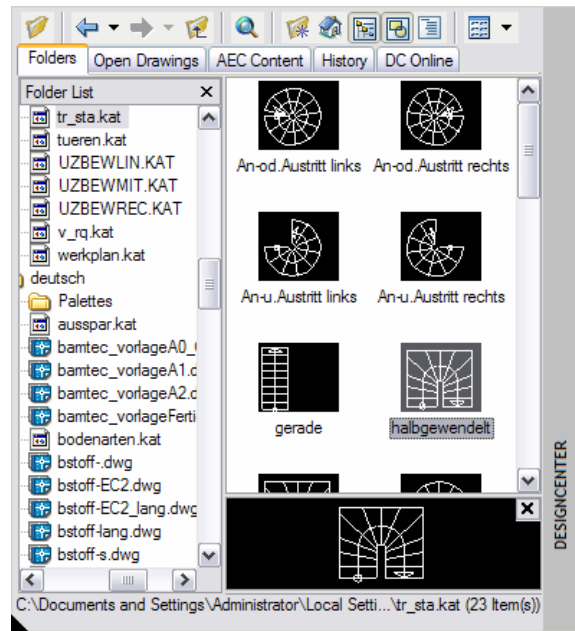
6.5. Lines

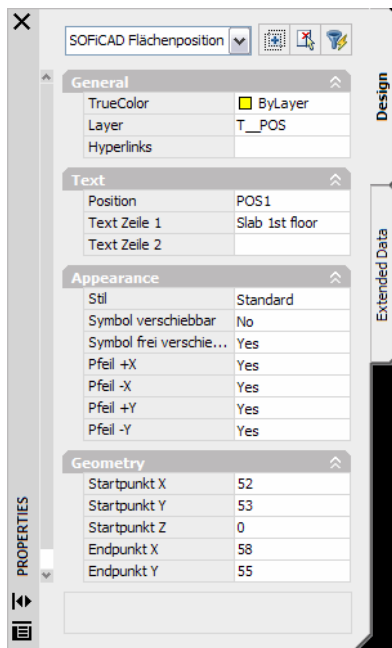
Further commands for drawing lines between end points, aiding lines, middle lines and others are available as design aids.

Further more SOFiCAD contains line types to generate working and elongation joints.

6.6. Section symbols

SOFiCAD contains a command which allows labeling the section course with direction arrows and the ground view as well as generating the corresponding headline with only one command.



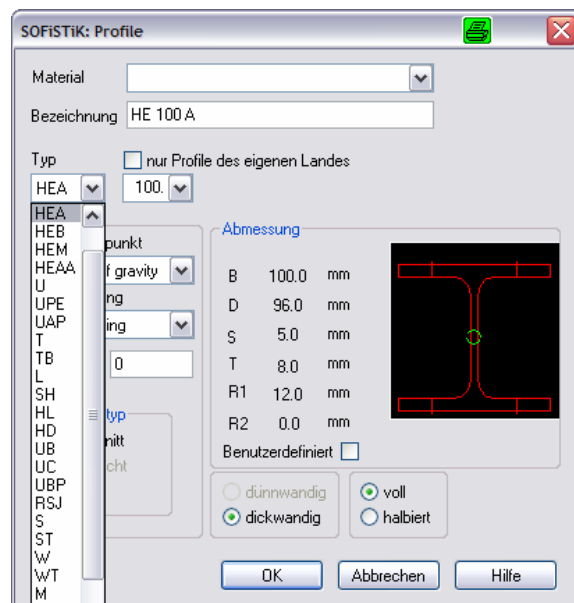


6.7. Positioning

SOFiCAD contains different commands to display statical positions in the drawings. Single, line and area positions are available. Any inserted positioning can be compiled in an AutoCAD table.

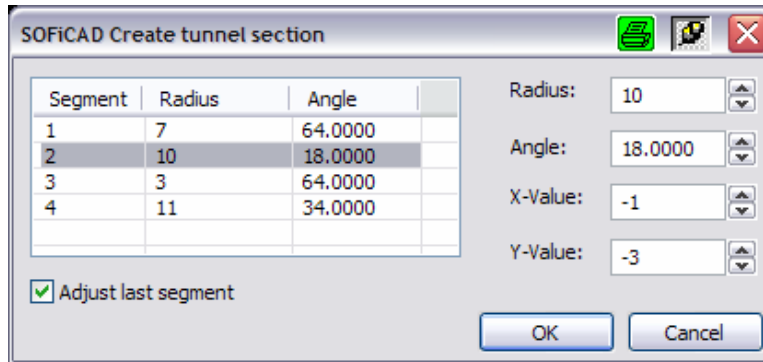
6.8. Steel design profiles

Any steel design profile can be placed in the section using the command steel design light. It generates different steel design profiles as block within the drawing – optionally with labeling the profile name.



6.9. Tunnel cross section

In order to simplify wall profiles for tunneling, SOFiCAD contains a command which allows composing single sections with assigning each radius and angle via a dialogue box.

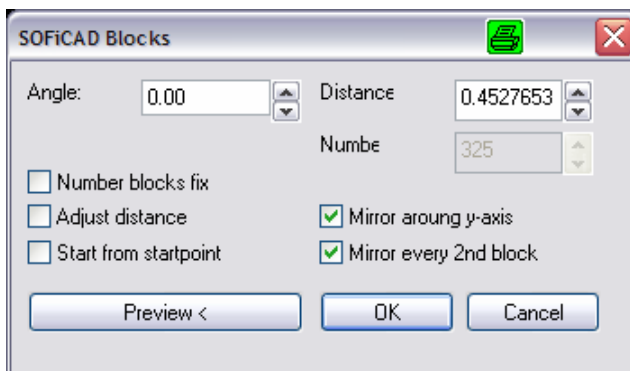


6.10. Detail

The detail command allows placing a selected detail of a drawing into a separate scale area. The selected area will be cut and copied.

6.11. Blocks along a polyline

This command allows even distribution of any internal block or sheet piling along a polyline. The distribution thereby is associative, which means in case of changes of the poly line, the distribution will automatically be adjusted. Distribution according a defined amount or a certain distance is possible. Changes of the distribution may subsequently be done via a double click on onto one of the generated blocks.



The blocks distance will thereby not be measured along the poly line but from insertion point to insertion point. This is especially required when creating sheet pilings.