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1 PREAMBLE

1.1 GENERAL

The software “Fire Escape Plan”, as an extension to our existing CAD or design products or as a standalone product on the basis of our technology, allows you to create Fire Escape plans as well as fire safety plans according to DIN EN ISO 7010, DIN 4844-2 , DIN 14034-6.

Further information on these standards can be found at the German Institute for Standardization http://www.din.de and Beuth Verlag, http://www.beuth.de.

The software includes all the necessary 2D drawing functions for the creation of plans, a comprehensive and extensible catalogue with the necessary 2D symbols as well as various service functions for design and planning.

The following description provides information on the available software functions and their handling, but is not a description of the required standards and does not contain layout instructions for Fire Escape Plans according to the regulations of the respective country.

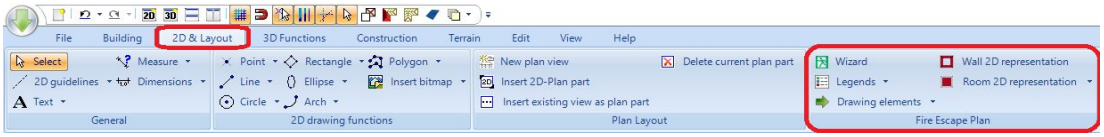
1.2 OVERVIEW

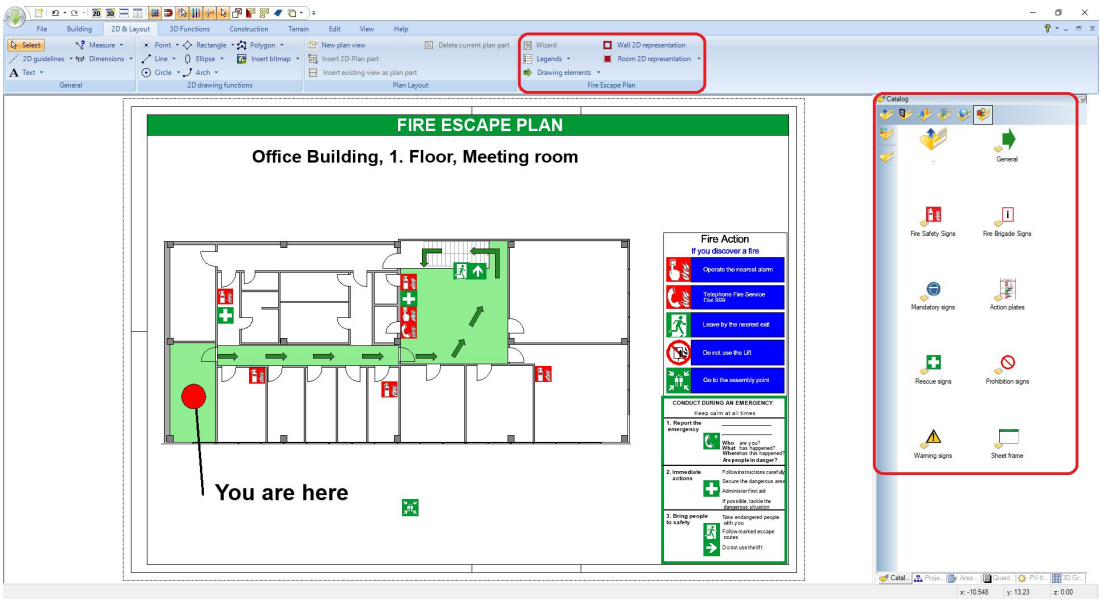
The software assumes that you are creating the basic structure of the building with our standard construction functions for the input of walls, windows and doors, columns, stairs, means of all constructional elements that need to be displayed in the Fire Escape plan, or that you already have such a project file. On the basis of your building project the Fire Escape Plans are designed with the functions described below.

Depending on which version of the basic software you have, you can also use 2D DXF / DWG plans or 2D symbols, created with our software.

In addition to our standard features, the Fire Escape Plan extension contains the following functions:

- Wizard for creating the fire escape plan view: the wizard supports you by pre-setting the right scale for your "target format", usually for printing on paper or in a PDF file. Additionally, with placing a drawing frame. With the settings made, a special 2D view is automatically generated and the building floor plan is inserted.
- Drawing functions for arrows and for marking the location
- Create legends using the placed 2D symbols or from predefined templates
- Easy coloured representation of walls and rooms
- Catalogue with all necessary 2D symbols. 280 2D symbols are available.

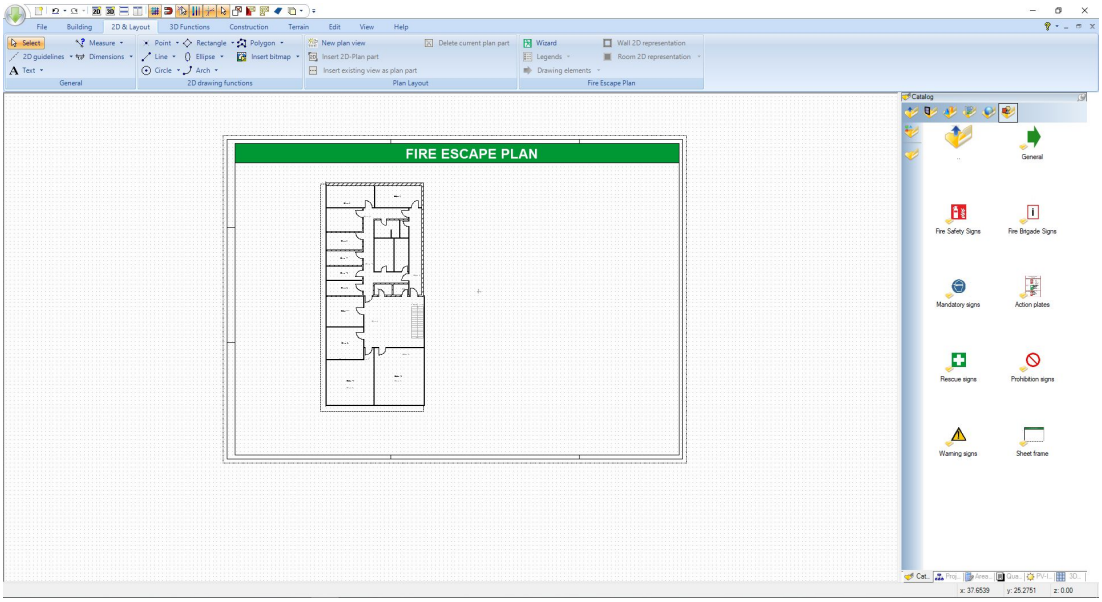

File
Building
2D & Layout
3D Functions
Construction
Terrain
Edit
View
Help
Select
Measure
2D guidelines
Dimensions
Text
General
Point
Rectangle
Polygon
Line
Ellipse
Insert bitmap
Circle
Arch
2D drawing functions
New plan view
Insert 2D-Plan part
Insert existing view as plan part
Delete current plan part
Plan Layout
Wizard
Legends
Drawing elements
Wall 2D representation
Room 2D representation
Fire Escape Plan


FIRE ESCAPE PLAN
Office Building, 1. Floor, Meeting room
You are here
Fire Action
If you discover a fire
Operate the nearest alarm
Leave by the nearest exit
Do not use the Lift
Go to the assembly point
CONDUCT DURING AN EMERGENCY
Keep calm at all times
Catalog
General
Fire Safety Signs
Fire Brigade Signs
Mandatory signs
Action plates
Rescue signs
Prohibition signs
Warning signs
Sheet frame

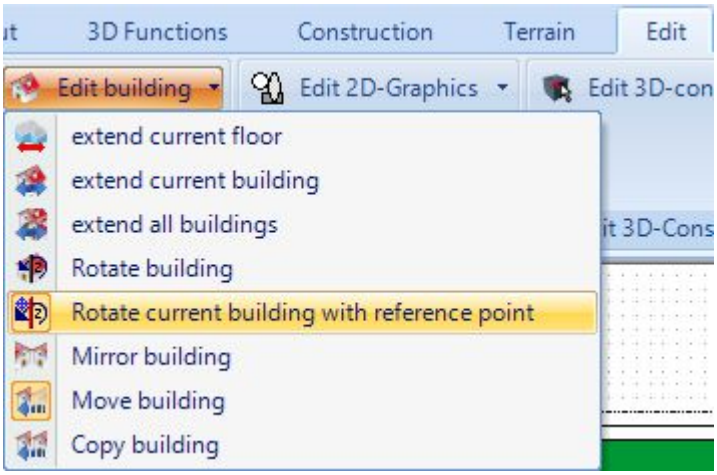
2 FIRE ESCAPE PLAN, STEP BY STEP

2.1 PREPARING YOUR PROJECT, LANDSCAPE OR PORTRAIT

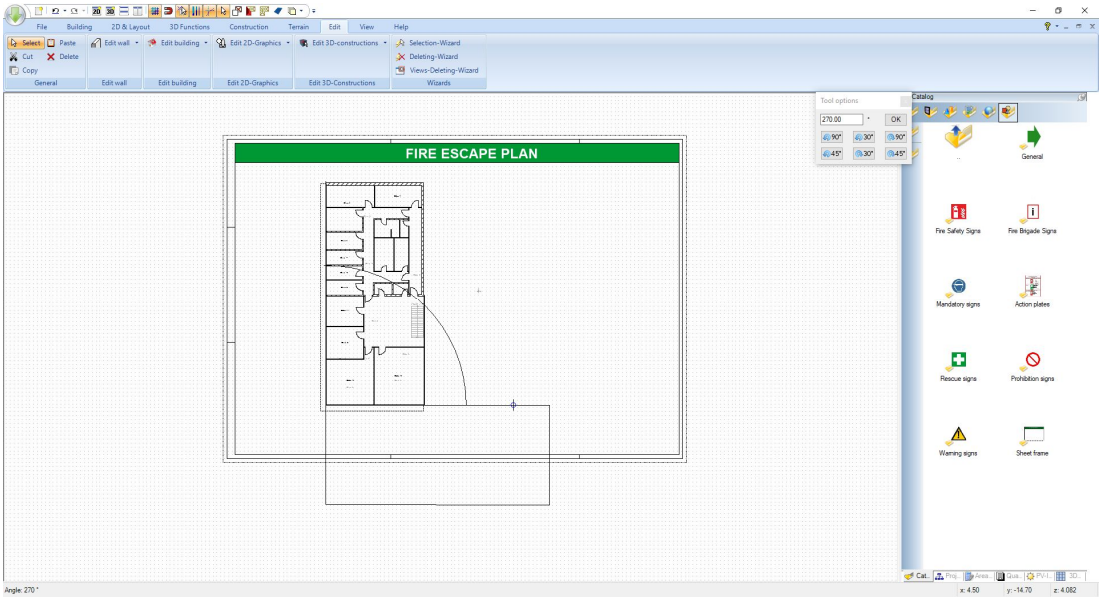
The basis for a Fire Escape Plan is your normal project with existing buildings and a 2D view. In most cases Fire Escape Plans are designed in landscape format. If your building was planned in portrait proportions that could be impractical or unsuitable for the plan, as shown in the screenshot below. In this case you can rotate your building before starting with the Fire Escape Plan.
Note: since the "Rotate Building" function does not take into account all elements and components of the architectural planning, such as dimensions for example, your architecture project could be affected. In this case you should first make a copy of your project and create your Fire Escape Plan in this copy.
Example: office building in "portrait format" proportions.



Rotate your building if necessary with the „Rotate current building with reference point“ function on the Edit ribbon.



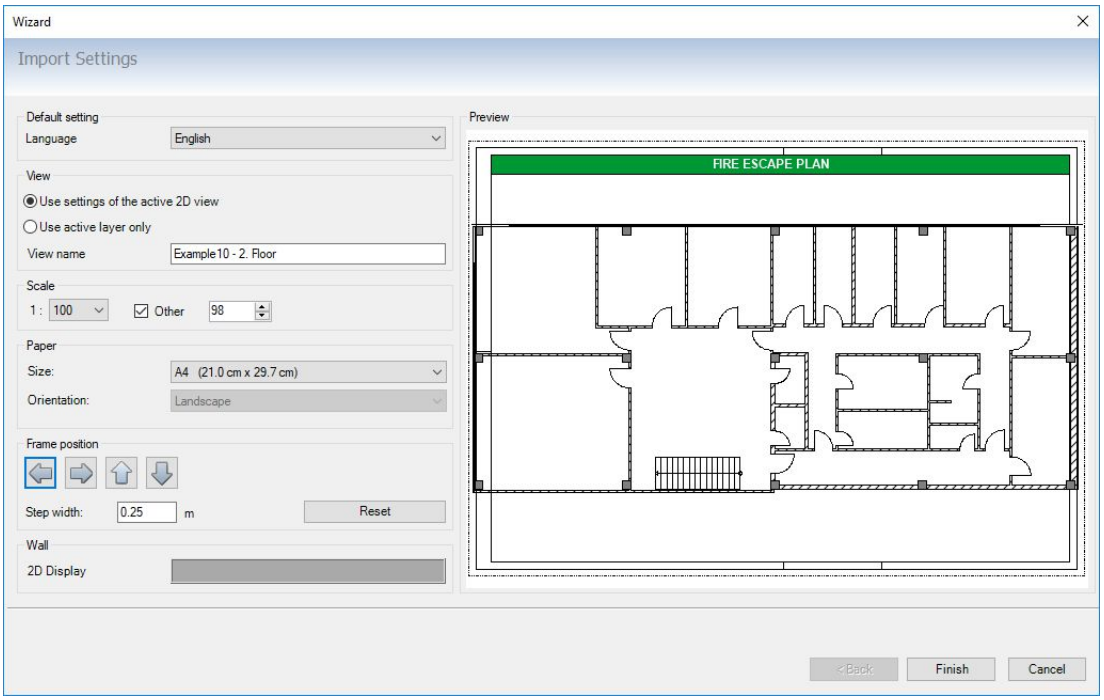
Rotating the building should be made in the standard 2D view, not in a Fire Escape Plan view, and before you start the wizard.



After rotating the building, it may be necessary to reposition it with the "Move building" function.
If there are several buildings in the project and these buildings should remain visible in the plan, the rotate and move steps should be repeated.
For more information about the standard functions, see our basic software manual.

2.2 THE WIZARD

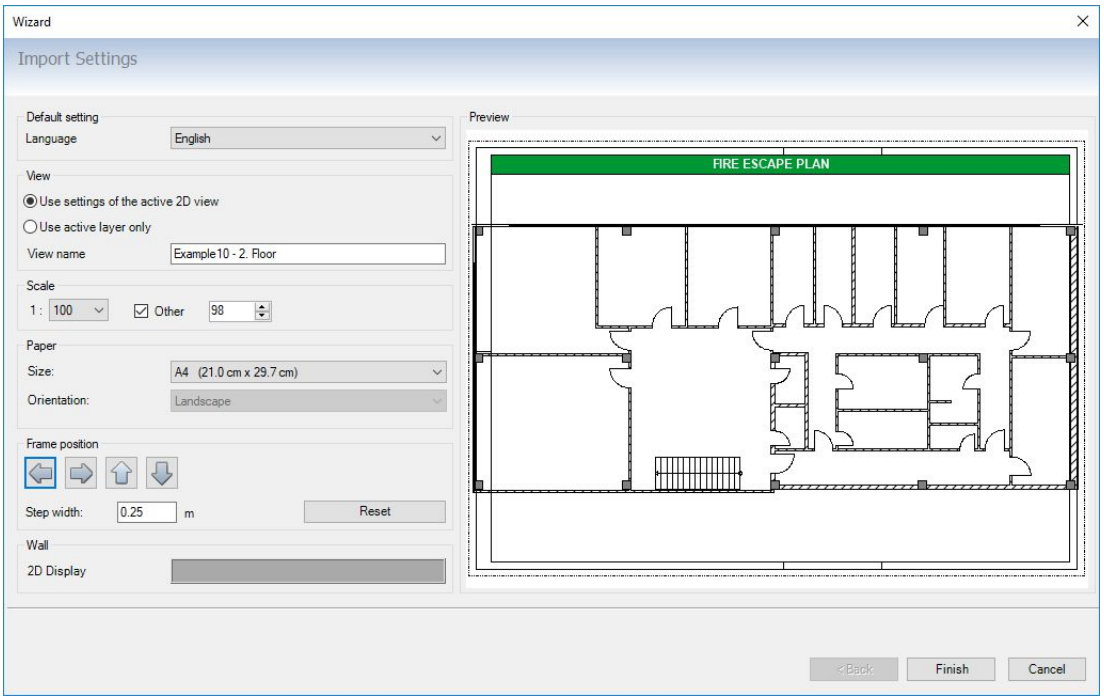
Once you have your 2D view prepared, start the wizard.



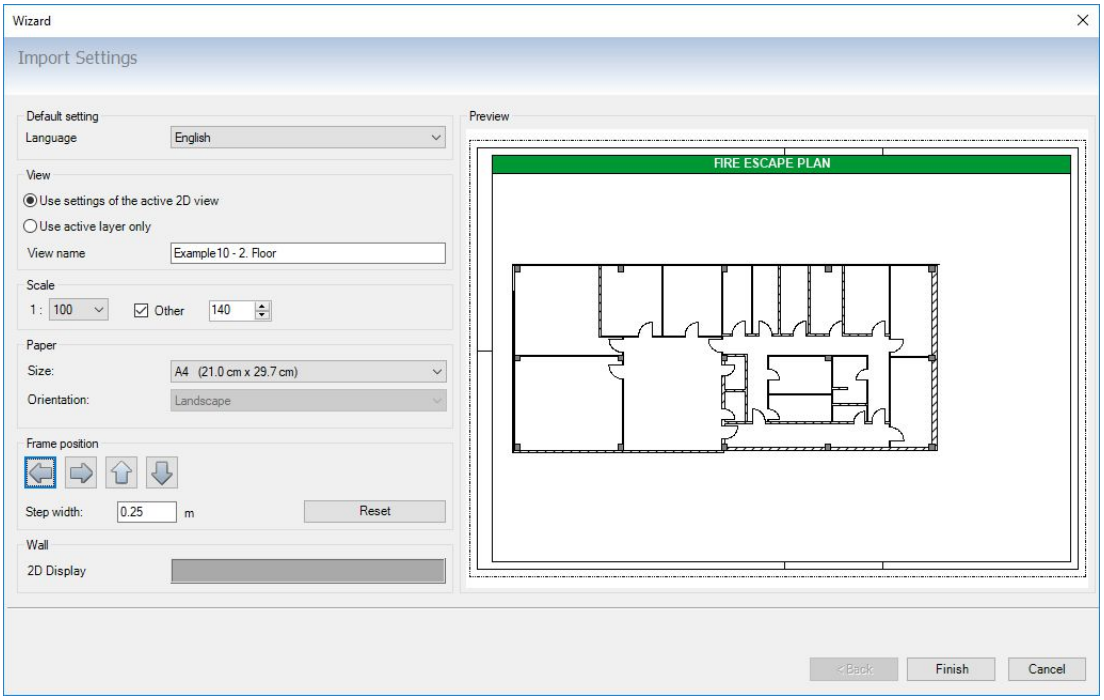
The **language selection** only controls access to the used frames. You can switch between German and English independently of the language settings of the software. You could run a "German version", but still create an English Fire Escape Plan. The wizard would use an English text "Fire Escape Plan" instead of the frame with the German text "Flucht- und Rettungswegeplan".
If you want to draw your own frames and use them instead of our examples, this is possible at any time in the finished 2D view.

View: here you define the displayed contents, ie which buildings, which floors, etc. should be visible in your plan. The options use the visibility of the project viewer on the right side of the basic software. You can also change these settings at any time later.

Scale: by default all elements are drawn to scale in a 2D view. However, this is not necessarily desired for the a Fire Escape Plan because the printed drawings are more oriented to the paper format. The wizard allows you to easily determine the scale that best suits your needs on the basis of a suggested scale and preview. The resulting scale can also be "unusual".
Example:
When you open the wizard, it automatically calculates the dimensions of the visible floors and determines the scale required for the paper size so that the entire view will fit onto the paper.



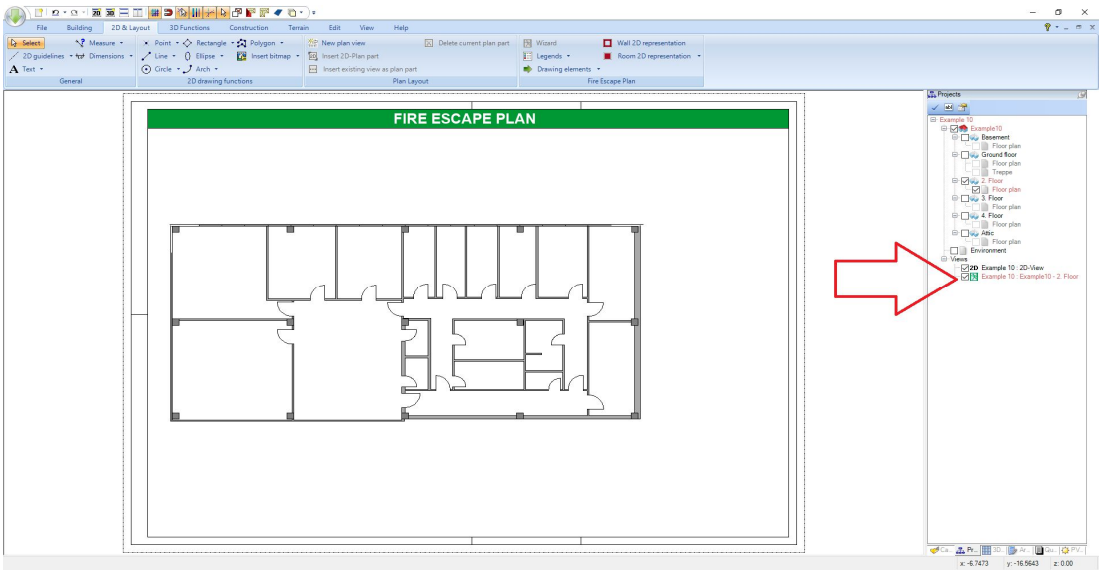
As you can see, this results in a scale of 1:98 to print the plan in its maximum dimensions on an A4 sheet. For your plan, however, you still need space for legends, and so on. You can now scale the view down and check the preview. In addition, you can position the frame in adjustable steps using the arrow buttons.
Your settings might look as follows, the scale was changed to 1: 140, and the frame moved slightly to the right, leaving space for legends.



Of course, you can also change the scale in the properties of the resulting 2D view and also manually position the frame later.

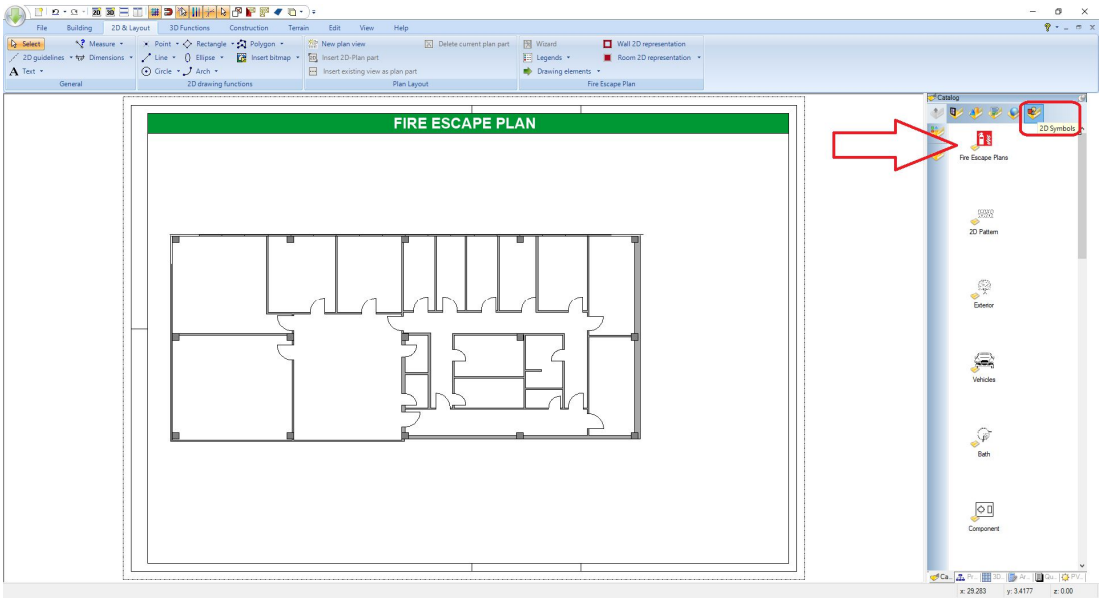
Wall - 2D display: in architectural drawings, components are usually displayed with hatching, which also provides information on the materials. However, this is not essential for Fire Escape Plans and does not look particularly attractive. By selecting a corresponding wall colour you can change the 2D display of all walls. The architectural model is not affected by this, only the walls in the resulting view are "painted over".

When you finish the wizard, it automatically creates a special 2D view with floors, frame, and the chosen scale in which you can continue to work.

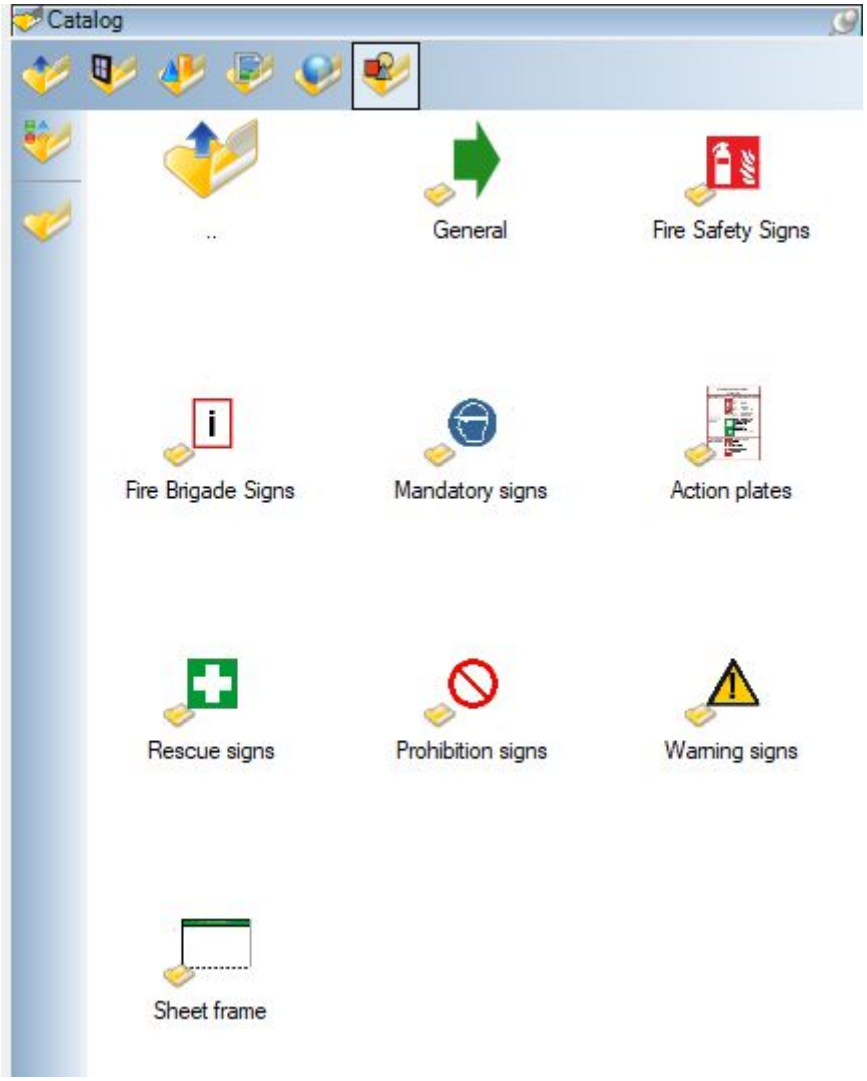


2.3 THE CATALOGUE, ADDING 2D-SYMBOLS

In the catalogue of the 2D symbols on the side of the software you find a directory structure with the required symbols. Directory structure means that you can navigate the directories in the catalogue by double clicking the icons until you find the desired element.



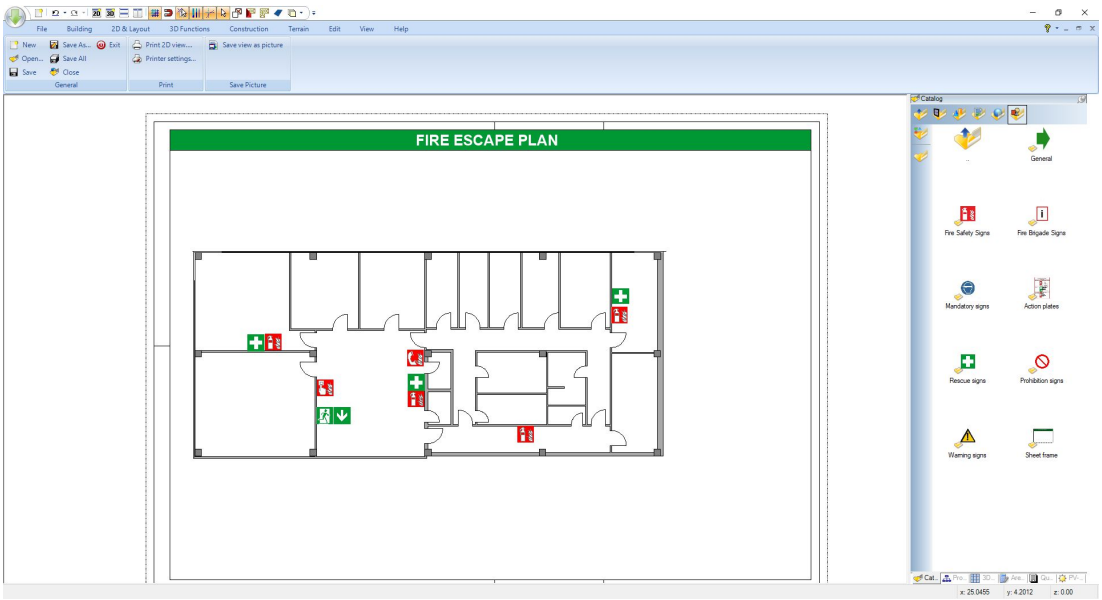
The next directory level.



Drag and drop the 2D symbols with the left mouse button from the catalogue in your Fire Escape Plan view.


Catalog
..
D-E001
E001
E002
E003
E004
E005
E006
E007
E008
E009
E010
E011
E012
E013
E016
E017
E018

Please consider our standard functions like CTRL+W „changing the reference point“, while placing the 2D symbols. That makes it easier to place symbols along a wall for example.

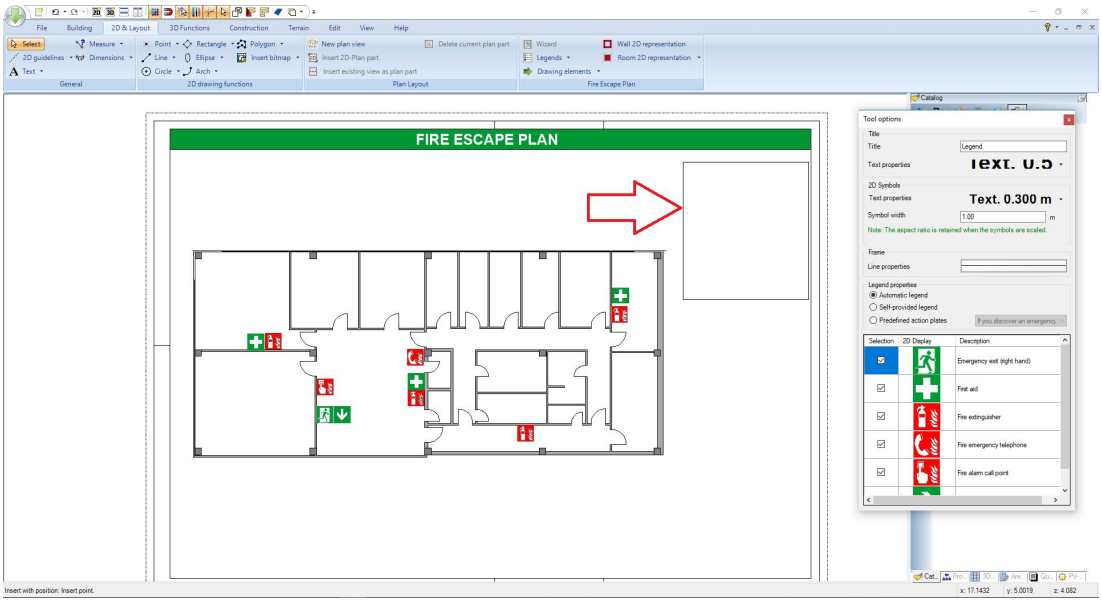


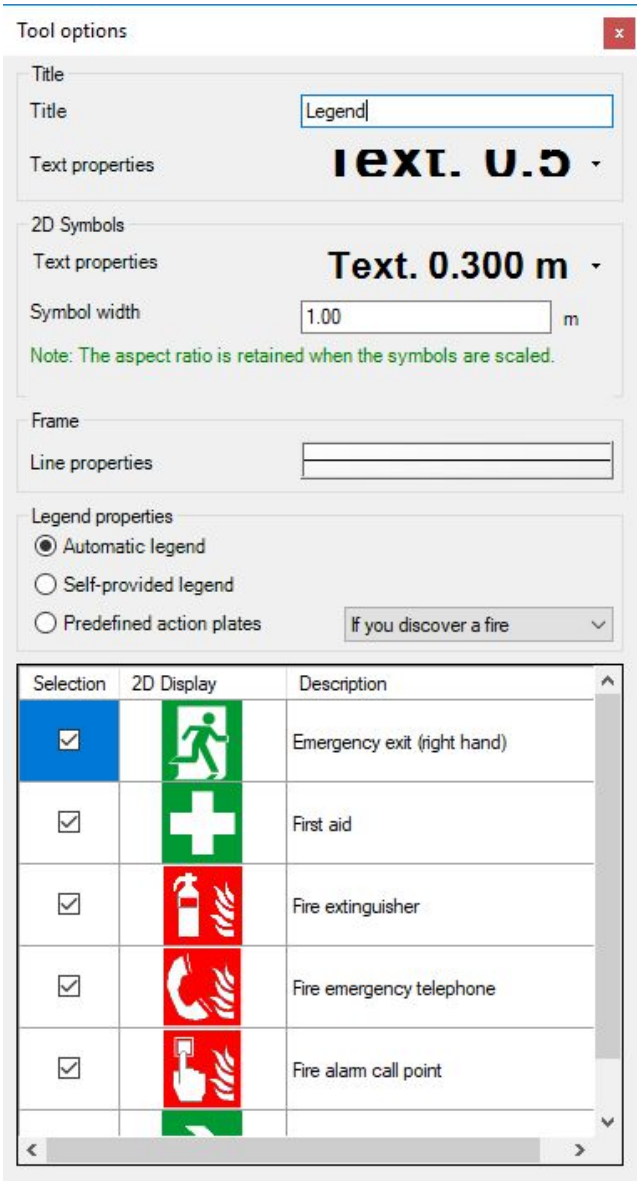
2.4 INSERTING LEGENDS

The tool parameter dialog of the legends offers three options, which you can choose from the legend properties.

- Automatic legend: examines the 2D view and lists all 2D symbols, including the description. With the checkboxes in front of the symbol, you decide whether the symbol should be included in the legend or not.
- Self-provided legend: shows all 2D symbols from the Fire Escape Plan catalogue and you can create an individual legend.
- Predefined action plates: switches to predefined legends we have designed for "If you discover a fire" and "If you discover an emergency".

The remaining settings refer to text and line properties of the automatic and self-provided legends. Predefined action plates do not change.
On the basis of the current settings, you see in the drawing a preview of the legend as a cursor, so you can estimate the dimensions and place the legend.
The following screenshot shows such a cursor marked with a red arrow.


FIRE ESCAPE PLAN
Tool options
Title
Legend
Text properties
Text. 0.5
2D Symbols
Text properties
Text. 0.300 m
Symbol width
1.00
m
Note: The aspect ratio is retained when the symbols are scaled.
Frame
Line properties
Legend properties
Automatic legend
Self-provided legend
Predefined action plates
Selection
2D Display
Description
Emergency exit (right hand)
First aid
Fire extinguisher
Fire emergency telephone
Fire alarm call point



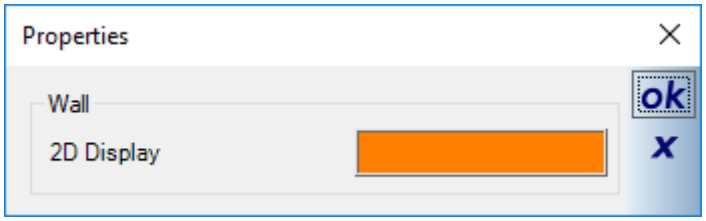
2.5 Drawing Elements, Arrows and Location

In addition to the standard drawing functions of the basic software, the PlugIn also contains special elements, which can be selected using the following buttons. After the element has been selected, it is inserted directly in the 2D view, the arrows expecting a start and end point, the angular arrow the position of the "corner".

While drawing the elements you can change their settings using the context menu of the right mouse button "Properties" in order to make the arrows smaller or wider or to change the colousr.
Note: When entering the arrows, it is often helpful to activate the angle grid by keeping the CTRL key pressed, thus forcing an exactly horizontal or vertical alignment. It can also be useful to copy an already inserted arrow with the <C> key (copy with a reference point), or by copying (CTRL+C)/ pasting (CTRL+V), so that the following arrows have the same length and the same properties.

2.6 WALL DISPLAY

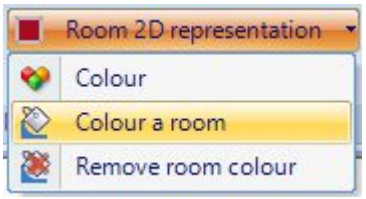
As already mentioned in the wizard chapter, you can "paint over" the 2D display of walls in a Fire Escape Plan view.



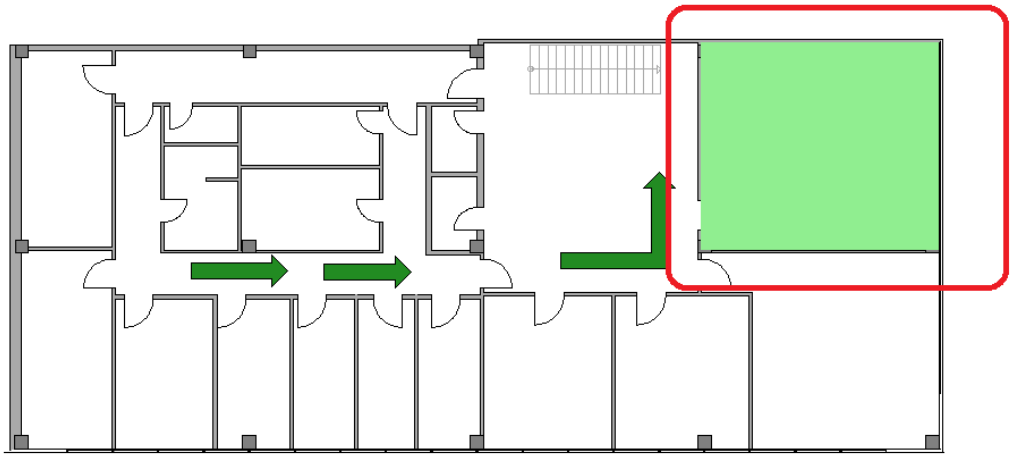
Open the dialog and select the colour. The setting is automatically transferred to all walls of the active Fire Escape Plan view, but not to the walls in other 2D views.

2.7 COLOURED ROOM REPRESENTATION

In some plans, spaces along the escape route are highlighted. In addition to our standard functions, you have the option of defining a target colour and then "colorize" the rooms.



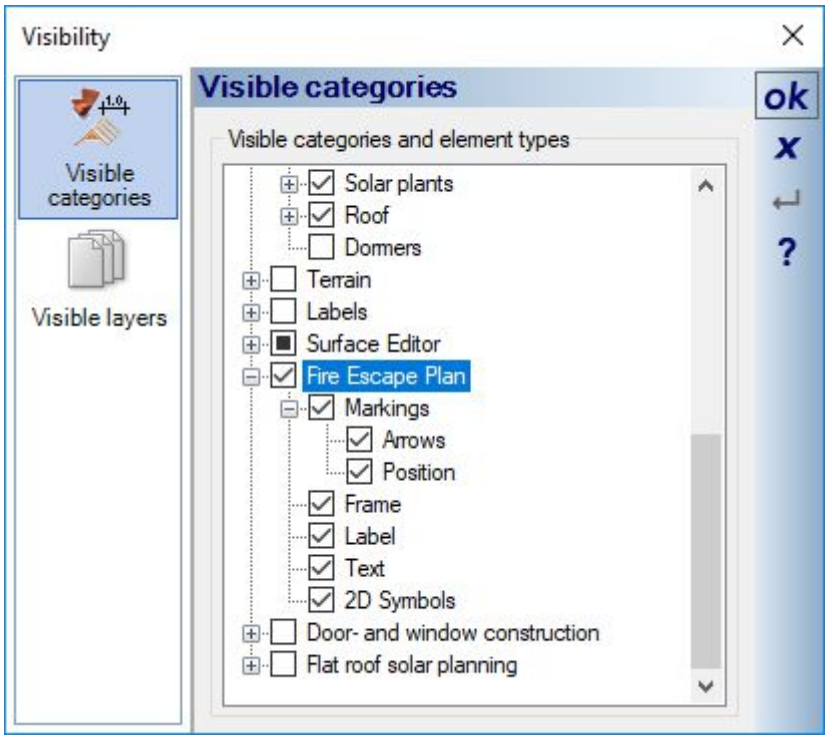
Once you have specified a colour, move your mouse cursor over the floor plan in 2D. If a room is detected, a coloured preview appears. Assign the colour to the room with a left mouse click.



The function remains active until you end it with ESC or the context menu of the right mouse button. You can therefore create colorized rooms one after another.
Removing existing colours of rooms works the same way with the “Remove room colour” tool.
If you want to colorize only parts of rooms, you can use the normal 2D functions like rectangle or filled polygon and adjust the colour in the fill properties.

2.8 VISIBILITIES OF FIRE ESCAPE PLAN ELEMENTS

A basic function of the drawing software is the ability to define detailed visibilities for each view. According to the same principle, the Fire Escape Plan view is also created by setting all unwanted elements invisible and thus producing the reduced representation.
At the same time, however, the special Fire Escape Plan symbols suddenly appear and are visible in your standard views.
One reason is that elements are automatically inserted on the active layer, e.g. Floor plan. If this layer is visible in your 2D view, you will also see the Fire Escape elements.
You can change this by simply opening the visibility dialogue via the context menu of the right mouse button to adjust the view’s visibility. The following screenshot shows the set of visibilities of Fire Escape plan elements. For a normal floor plan, you would have to switch off the Fire Escape Plan category.
On the other hand, you can also display any elements in a Fire Escape Plan view.


Visibility
Visible categories
Visible layers
Visible categories
Visible categories and element types
Solar plants
Roof
Dormers
Terrain
Labels
Surface Editor
Fire Escape Plan
Markings
Arrows
Position
Frame
Label
Text
2D Symbols
Door- and window construction
Flat roof solar planning
ok
x
?