

# Frilo Update News

## Release 2018-1

A summary of the most important updates

As of 21/11/2017



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## General update information

### New PLUS Applications

The software applications

- B7+ Flight of Stairs
- ST12+ Steel Bracing (Eurocode for Germany, Austria and Great Britain)
- BEB+ Beam on Elastic Foundation
- MWX+; MWK+; MWP+; MWM+ Masonry

have been redesigned completely and are included in the new release.

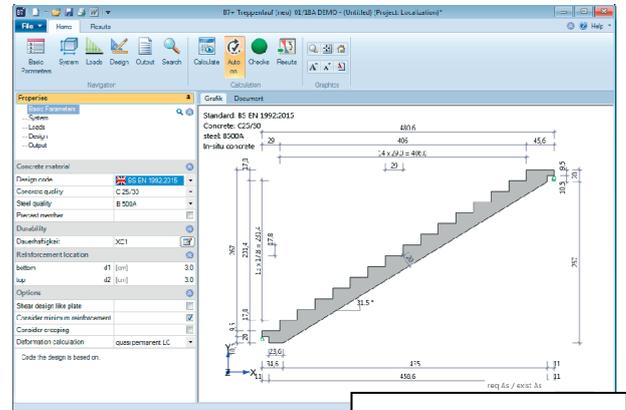


Fig.: B7+

### New HSC+ Application

#### HSC+ Dovetail Joint

The software allows the design of dovetail joints of timber beams in accordance with the general approval by the construction authorities. The connected secondary beam is skewed or inclined. Joints can be defined on one or two sides.

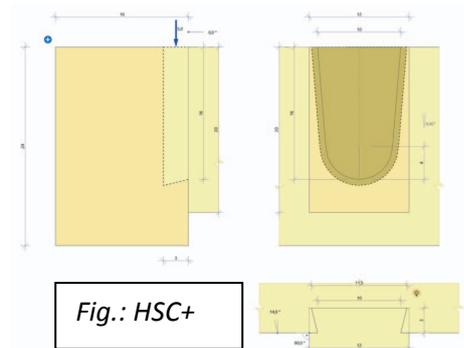
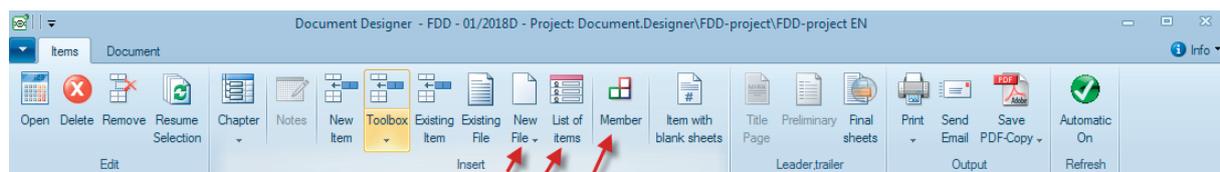


Fig.: HSC+

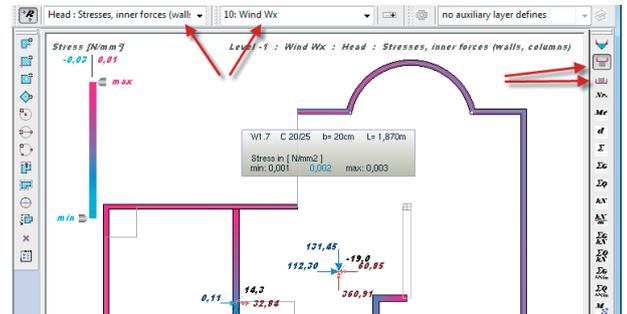
### FDD Frilo.Document.Designer



- New 'Item List' function:  
You can generate a list of all subsequent items. In addition to the existing indications of the 'Item name' and the 'Description', you can enter additional information about the material and the geometry.
- Pasting of existing files:  
In the updated version, you can select and paste multiple files at a time (press the shift key or the ctrl key when selecting the files).
- New 'Component' function:  
You can summarize multiple items to a component. In contrast to a subchapter, the component is treated as an item. You can move a component and number it like an item. If there is an item with the number 3.1, for instance, the associated component receives the number 3.2, not 3.1.1 as when being a subchapter.

## GEO Building Model

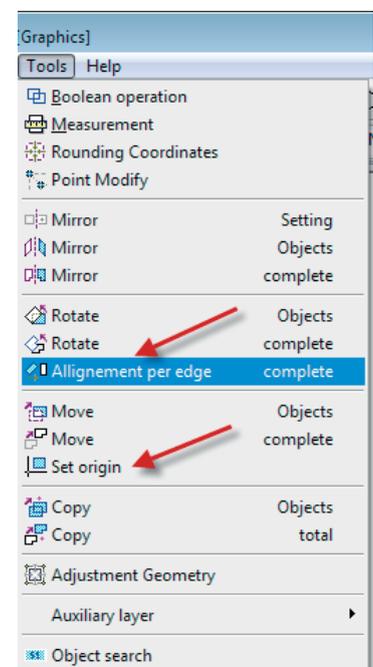
- Min./max. superposition of the wall stresses in the graphical representation of the results  $R^3$ :  
The  $R^3$  result graph has been enhanced with the representation of the min./max. superposition of the wall stresses.  
The representation of the min./max. superposition is available for the wall head as well as the wall base.  
When hovering the mouse over the wall, the information about the min./max values is displayed in a tooltip.
- Highlighting of wall-type beams in the graphic (the wall acts as a suspender beam):  
In the new version, wall-type beams (wall acts as suspender beam) are highlighted in the graphical representation with a thicker outline.
- Interfaces to MWX+ and MWM+ have been implemented:  
The old interfaces to MWX and MWM have been replaced with interfaces to the new design applications MWX+ and MWM+.
- Functionality of the GUI "Set origin to this point":  
Instead of moving the building you can use the new function of the GUI to set the origin to a specific point ('Set origin to this point', 'Additional functions' menu - 'Tools').
- Functionality of the GUI "Align to edge":  
In the 'Tools' context menu, you can also find the 'Align to edge' item. This function allows you to rotate a storey or the entire building with a mouse click in such a way that it is seen from the selected edge of the storey or building. You can align auxiliary slides in the same way. This function is also available for edges of auxiliary slides.
- Indicating dimensions of the eccentricities of the equivalent seismic forces (Fi graphic):  
The graphical representation of the equivalent seismic forces was supplemented with the dimension indication of the eccentricity of the forces. You can optionally switch the dimension indication on or off in the output profile section for seismic action.



- Graphical output of the sums of the loads:  
The graphical output of the sums of the loads was enhanced with an option to put out the sums of the G-loads and the Q-loads separately (controlled via the output profile: 'Advanced' button for the 'load sums graphic').
- Definition of a non-bearing wall:  
If you enter a non-bearing wall, the software makes sure that you cannot define the following properties of this wall:
  - Contribution to H-load transfer
  - Wall acts as suspender beam

### PLT Plates by Finite Elements

- Functionalities in the GUI 'Set origin to this point' and 'Align to edge': as described for GEO.
- Transfer of the supports of the downstand beams to the application 'Continuous beam DLT':  
If a downstand beam runs above a non-bearing wall (spring rigidity 0), no support is placed at this point when the beam is transferred to DLT.
- Lettering of rotated auxiliary grids:  
In the updated version, the lettering of the axes of a rotated auxiliary grid is rotated with the same angle of rotation as the auxiliary grid.



### Reinforced Concrete

#### B6+ Punching Shear Analysis

- For shear rails in combination with edge columns and corner columns, you can disable the consideration of the Beta-red factor as per equation (A5) of the respective shear rail approval.
- You can launch the Profi.exe application for Filigran punching shear reinforcement FDB II directly in the B6+ software and transfer the data.



#### B8 Prestressed Concrete Girder

- Completely new output in German, English and Polish.
- Documentation in English and Polish was completely revised.

## Roof + Timber Construction

### D7+ Rafter Purlins

- Interfaces to Continuous Beam DLT for the systems 'single-span purlin' and 'articulated purlin'.
- Output of the decisive load combination for the fastener design.

### D10 Glued Laminated Girder

Preparation of material and cross-section data for the item list.

### HO1+ Timber Column

- New materials:  
STEICO LVL and user-defined material.
- You can select the direction of the laminations for columns or inferior purlins of laminated timber and laminated veneer timber.
- Interfaced software applications:  
Timber compression by steel plate and Foundations FD+ and FDB+.  
Alternative design with STS+ Steel Column.

### HO3+ Tensile Splice Timber / HO13+ Truss Joint Timber

- The timber materials 'plywood' and 'OSB' were added for the timber-to-timber type of joint.
- The dialog for the selection of the cross-section was improved.
- The tabular output of the fastener verifications for shear action, pulling off and interaction was enhanced.

### HO14+ Individual Fastener for Timber Joint

For timber-to-timber joints, bracket fasteners can be used in the same way as nails.

## Foundation Engineering

### WSM+ Angular Retaining Wall

- Graphical representation of groundwater pressure:  
You can display the groundwater pressure graph and put it out with the specification of the resulting force.
- Graphical representation of the ground failure:  
You can display and put out a ground failure graph.
- Graphical representation of the gaping joint:  
Detailed representation of the utilization for the verifications of the gaping joint.
- Calculation of settlement:  
The new version performs a calculation of the settlement.