

# Truss4 version 10

Fine Ltd. is pleased to announce the release of the new version 10 of Truss4 software. This version fixes some errors (better division of arch trusses, improved general stability of the software) and also brings following new features:

### National annex for Austria

The support of Austrian standards ÖNORM B EN 1990-1, ÖNORM B EN 1991-1-1, ÖNORM B EN 1991-1-3, ÖNORM B EN 1991-1-4 and ÖNORM B EN 1995-1-1 was added into programs. These standards correspond to the national annexes to Eurocodes.

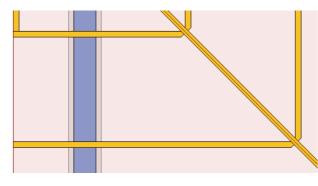
The eccentricities of anchorage areas (chapter 8.8 in ÖNORM B EN 1995-1-1) are considered as additional bending moments during nail plate design.

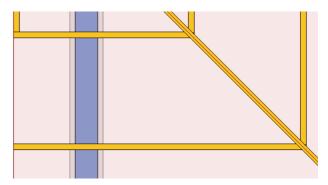
### **End cuts**

End cuts can be created in the software **"Truss 3D**". These cuts appear at the ends of extended rafters and bottom chords and the angle corresponds to the angle between connected trusses. These cuts can be processed by some saw machines (e.g. Hundegger, Weinmann) during truss manufacturing. Such production reduces assembly time on site.

End cuts can be switched on in the window "**Common settings**" in the tab "**Mounting**". The end cuts contain following settings:

The setting **"Symmetrical detail for single cut**" creates symmetrical double cut instead of single cut. These trusses can be used bot on the left and right sides of the structure. Otherwise, left and right trusses have to be manufactured.



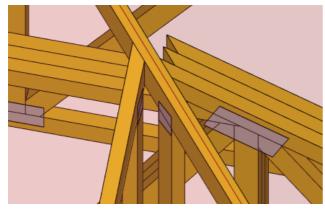


Symmetrical double cut

Different single cuts on the left and right sides

The geometry of particular plies in multi-ply girders can be affected by the setting **`All plies identical in multi-ply girders**". If the setting is switched on, all plies are identical. Otherwise, every ply has different length. This setting affects only girders with single cuts.





Identical plies in multi-ply girder



Different plies in multi-ply girder

## Extended options fir manufacturing documentation and saw exports

Significant changes were made in production documentation and saw processing. The cutting bill can be divided up to three different parts, every part can be processed using different type of saw machine. The parameters which affect this behaviour are placed in the window **"Application options**", tabs **"Saw settings**" and **"Documentation**".

The tab "**Saw settings**" contains an option to divide cutting bill according to characteristics of saw machines (blade diameter etc.) or user-defined preferences (series factor). Three saw machines can be used for timber processing:

- **Primary** The most preferred saw machine. If used, the software tries to assign maximum of timber members to this saw. Only members which don't suit given conditions (series factors, saw characteristics) are assigned to secondary saw or to saw for remaining members.
- **Secondary** If used, the software tries to assign maximum of timber members, which didn't suit conditions for primary saw. The remaining members are automatically assigned to saw machine for other members.
- **Others** All members which didn't fulfill conditions given for primary or secondary saw machine are assigned to this saw machine. This saw can not be switched off. It is used for all members if primary and secondary saws are not used.

The setting "**Optimization for format**" rotates or mirrors member geometry according to preferences of selected saw machine. The table "**Parameters of saw exports**" can be used for division of export files according to cross-section dimensions or maximum count of members.

The export files are created according to these setting, if the link **"File**" - **"Export**" - **"Saw export**" - **"Advanced saw export**" in the main menu is used. Other options in the part "**Saw export**" produce files with complete list of members.

The tab "**Documentation**" allows user to divide documentation in the same way as saw exports. The member description can be modified according to dimensioning style of corresponding saw machine.

As the range of these new settings is wide, we recommend to contact software support for finding correct settings for production.



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Project       Saw settings       Documentation         ✓       Use saw settings in outputs and exports         ✓       Saw1 - primary       Saw name       Depauw         ✓       Optimization for format       Depauw       Optimization for format         ✓       File formats       Depauw       ✓       Optimization for format       Depu         ✓       File formats       ✓       File formats       ✓       File formats         ✓       Maximum angle of saw blade positioning       85,000       [M]       Axis       PRG       BVN       SBS       BTL       DPW         ✓       Maximum member length       Grmin       Bay and the positioning       85,000       [M]       Parameters of export files         ✓       Maximum member length       Grmin       Bay and c.us opection       Bay and c.us opection       Bay and and c.us opectin and c.us opection       Bay and c.us opection	Application options	×
Saw1 - primary Saw name   Optimization for format   Optimization for format   File formats   XLS   PRG   BWN   Goto   Maximum angle of saw blade positioning   Souge of saw blade positioning   Boto   Minimum series factor   Saw2 - secondary   Saw name   Create XLS file for K2 software   Create XLS file for K2 software   Create XLS file   Subminum member length   Gotimization for format   Saw2 - secondary   Saw name   Create XLS file   Maximum member length   Gotomization for format   Stomab   File formats   XLS   PRG   BWN   SBS   BTL   DPW                  Saw2 - secondary   Saw name   Create XLS file for K2 software   Create XLS file for K2 software   Create Calculations in XLS file   Shared settings   Cut only feasible cuts otherwise skip the member   Waximum member length   Minimum member length   Minimum member length   Minimum series factor	Project Saw settings Documentation	
Image: Saw1 - primary       Saw name       DePauw       Image: Saw3 - others       Saw name       K2         Image: Optimization for format       Depauw       Image: Optimization for format       Image: Optimization	✓ Use saw settings in outputs and exports	
<ul> <li>Optimization for format</li> <li>File formats</li> <li>XLS</li> <li>PRG</li> <li>BVN</li> <li>SBS</li> <li>BTL</li> <li>DPW</li> <li>Maximum angle of saw blade positioning</li> <li>Speciální přiřezy</li> <li>Vedges</li> <li>arches</li> <li>end cuts</li> <li>Optimization for format</li> <li>Stromab</li> <li>File formats</li> <li>XLS</li> <li>PRG</li> <li>BVN</li> <li>SBS</li> <li>BTL</li> <li>DPW</li> </ul> <li>Additional settings <ul> <li>Create XLS file for K2 software</li> <li>Create XLS file for Hundegger BVN</li> <li>Complete - identical to manufacturing documentation</li> <li>Complete - identical to manufacturing documentation</li> </ul></li>		
✓       File formats         ✓       File formats         XLS       PRG       BVN         ✓       Maximum angle of saw blade positioning       85,000         Ø       Maximum nember length       600         ✓       Maximum member length       600         Ø       Maximum member length       1000         Ø       Minimum member length       1000         Ø       Saw2 - secondary       Saw name         Ø       File formats       Stromab         Ø       File formats       Stromab         Ø       Stromab       Additional settings         Ø       File formats       Create XLS file for K2 software         Ø       Create XLS file for K2 software       Create calculations in XLS file         Ø       Maximum cut length       600       fmm         Ø       Maximum member length       000       fmm         Ø       Maximum cut length       600       fmm         Ø       Maximum member length       000       fmm         Ø       Maximum member length       000       fmm         Ø       Maximum angle of saw blade positioning       80,000       fmm         Ø       Maximum member length	Saw1 - primary Saw name DePauw	Saw3 - others Saw name K2
XLS PRG BVN SBS BTL PPW   Maximum angle of saw blade positioning 85,000 [°]   Maximum cut length 600 [mm]   Maximum member length [mm]   Minimum member length [mm]   Minimum series factor 10   Saw2 - secondary Saw name   Cf 600 [mm]   Maximum angle of saw blade positioning 80,000   Optimization for format Stromab   Cite formats Stromab   XLS PRG   Maximum angle of saw blade positioning 80,000   Maximum angle of saw blade positioning 80,000   Maximum member length [mm]   Maximum member length [mm]   Maximum angle of saw blade positioning 80,000   Maximum angle of saw blade positioning 80,000   Maximum member length [mm]   Minimum series factor [mm]	✓ Optimization for format	Optimization for format
Image: Strange	File formats	▼ File formats
Maximum cut length 600   Maximum member length [mm]   Minimum member length 1000   Specialiri přířezy wedges   arches end cuts   Minimum series factor 10   Saw2 - secondary Saw name   Cf 600 PRG   Optimization for format Stromab   XLS PRG   BVN SBS   Cf file formats   XLS PRG   BVN SBS   Stromab Create XLS file for K2 software   Create XLS file for K2 software   Create calculations in XLS file     Maximum member length   Maximum member length   Maximum member length   Minimum member length   Maximum member length   Minimum member length <td>XLS PRG BVN SBS BTL VDPW</td> <td>XLS PRG BVN SBS BTL DPW</td>	XLS PRG BVN SBS BTL VDPW	XLS PRG BVN SBS BTL DPW
Imaximum member length   Maximum member length   Minimum member length   Imaximum member length   Imaximum member length   Specialini přířezy   wedges   arches   Imaximum member length   Imaximum	✓ Maximum angle of saw blade positioning 85,000 [°]	
Maximum member length     Minimum member length     Image: Secondary     Saw2 - secondary     Saw name     CT 600     PRG     BVN   SBS   BTL   DPW     Additional settings   Create XLS file for K2 software   Maximum angle of saw blade positioning   80,000   Maximum member length   Minimum series factor	✓         Maximum cut length         600 [mm]	Parameters of export files
Minimum member length 1000 [mm]   Speciální přířezy wedges   arches end cuts   Minimum series factor 10 •     Minimum series factor 10 •     Saw2 - secondary Saw name   CT 600 BTL   Optimization for format Stromab   XLS PRG   BVN BS   DPW Image: Create XLS file for K2 software   Create XLS file for K2 software   XLS PRG   BVN SBS   SBS   Create calculations in XLS file   Maximum angle of saw blade positioning   80,000   Maximum member length   Minimum member length   Minimum member length   Minimum series factor     Speciální přířezy   wedges   arches   end cuts	Maximum member length [mm]	
Speciální přířezy wedges arches end cuts   PRG	Minimum member length 1000 [mm]	
Image: Saw2 - secondary   Saw   Saw2 - secondary   Saw   Saw2 - secondary   Maximum angle of saw blade positioning   80,000   Saved settings   Cut only feasible cuts otherwise skip the member   Waximum member length   Minimum member length   Minimum series factor     Secialní přířezy   Wedges   arches   end cuts   complete - identical to manufacturing documentation	Speciální přířezy 🗌 wedges 🔲 arches 🗌 end cuts	
Saw2 - secondary Saw name   Saw2 - secondary Saw name   Optimization for format Stromab   File formats Image: Stromab   Image: Stromats Image: Stromats   Image: Stromats Image: Stromats </td <td>✓ Minimum series factor 10 🛋</td> <td></td>	✓ Minimum series factor 10 🛋	
Saw2 - secondary Saw name CT 600   Optimization for format Stromab   File formats   XLS PRG   BVN SBS   BTL DPW   Maximum angle of saw blade positioning   80,000   Maximum cut length   600   Maximum member length   Minimum member length   Minimum member length   Imminimum series factor		
✓ File formats       □ Create XLS file for K2 software         △ XLS       ✓ PRG       BVN       SBS       BTL       DPW         ✓ Maximum angle of saw blade positioning       80,000       [°]       Shared settings         ✓ Maximum member length       600       [mm]       Cut only feasible cuts otherwise skip the member         ✓ Maximum member length       [mm]       Cut only feasible cuts otherwise skip the member         ✓ Use member length       [mm]         Minimum member length       [mm]         Speciální přířezy       wedges       arches         Minimum series factor       [minimum series factor       [minimum series factor	Saw name CT 600	
XLS PRG BVN SBS BTL DPW   Maximum angle of saw blade positioning 80,000 [°]   Maximum cut length 600 [mm]   Maximum member length [mm]   Minimum member length [mm]   Speciální přířezy wedges arches   Minimum series factor Immi	✓ Optimization for format Stromab ▼	Additional settings
✓ Maximum angle of saw blade positioning       80,000       [°]         ✓ Maximum cut length       600       [mm]         Maximum member length       [mm]       Cut only feasible cuts otherwise skip the member         ✓ Minimum member length       [mm]       Description         Speciální přířezy       wedges       arches       end cuts         Minimum series factor       [*]	▼ File formats	Create XLS file for K2 software
✓ Maximum cut length       600 [mm]         Maximum member length       [mm]         Minimum member length       [mm]         Specialní přířezy       wedges       arches         Minimum series factor       [mm]	XLS 🔽 PRG 🗌 BVN 🗌 SBS 🗌 BTL 🗌 DPW	Create calculations in XLS file
Image: Maximum cut length       600 [mm]         Maximum member length       [mm]         Minimum member length       [mm]         Speciální přířezy       wedges       arches         Minimum series factor       [mm]	✓         Maximum angle of saw blade positioning         80,000         [°]	
Maximum member length       [mm]       Use member description         Minimum member length       [mm]       Description style for Hundegger BVN         Specialní přířezy       wedges       arches       end cuts         Minimum series factor       Imi       Imi	✓ Maximum cut length 600 [mm]	
Minimum member length       [mm]       Description style for Hundegger BVN         Specialní přířezy       wedges       arches       end cuts         Minimum series factor       Immi       Complete - identical to manufacturing documentation	Maximum member length [mm]	
Minimum series factor	Minimum member length [mm]	- ·
	Speciální přířezy 🗌 wedges 🔲 arches 📃 end cuts	complete - identical to manufacturing documentation
Cancel	Minimum series factor	
Cancel		
		Cancel

Primary saw is DePauw. Members, which does not suit conditions of primary saw (series factor, minimum length, blade angle and diameter) should be assigned to secondary saw (CT 600). The members which does not suit conditions for CT 600 (angle, cut length) are processed using K2 saw machine

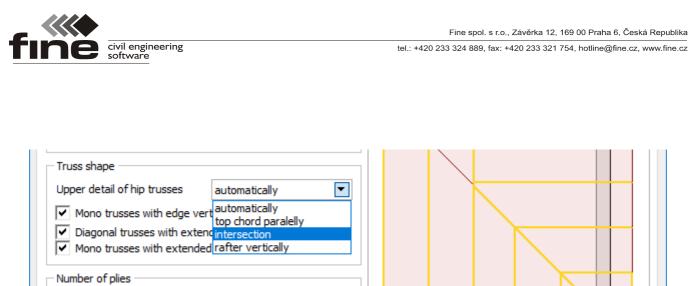
## Extended table in "Truss check"

The table of trusses in the part "**Truss check**" of "**Truss 3D**" contains new columns (truss thickness, ply, factor  $k_{sys}$ ).

#### Choice of detail in step down hip

Step down hip contains an option to define cut style in upper details of hip trusses. Following options can be selected:

Automatically	• The style defined in default settings for upper detail is used (behaviour used in previous versions).
Top chord paralelly	• Sets the cutting style "Paralelly"
Intersection	• Sets the cutting style "Intersection"
Rafter vertically	• Extends rafters to the extended rafters of corner trusses.



Choice of upper detail in step down hip

## New printing window

The printing window was redesigned. New window supports display of more pages in the same time or text selection from more pages.