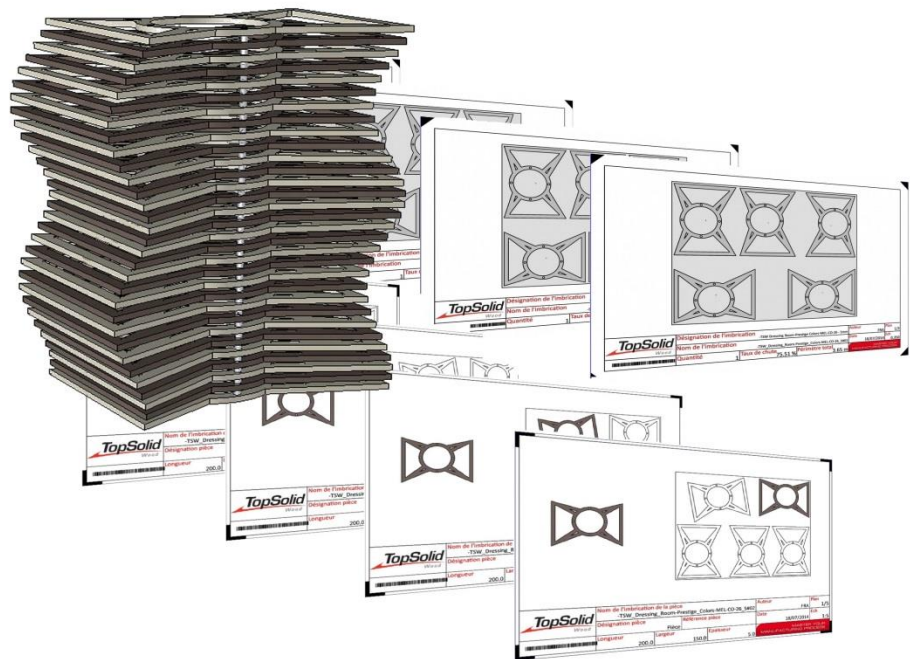


# TopSolid'Wood

## Nesting multi-draft template



© 2014, Missler Software.  
7, Rue du Bois Sauvage  
F-91055 Evry, FRANCE  
Web: [www.topsolid.com](http://www.topsolid.com)  
E-mail: [info@topsolid.com](mailto:info@topsolid.com)  
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**Note:** If you are experiencing problems using this training guide, please feel free to send your feedback and comments at [edition@topsolid.com](mailto:edition@topsolid.com).

# Contents

<b>Introduction.....</b>	<b>1</b>
<b>Creation of a nesting multi-draft template.....</b>	<b>2</b>
Creating the template file.....	2
Creating the view.....	3
Configuring the document.....	3
Creating the bill of material.....	4
Creating the title block.....	5
Nesting multi-drafting.....	7
<b>Creation of a nesting label multi-draft template.....</b>	<b>9</b>
Creating the template file.....	9
Creating the view.....	9
Configuring the document.....	10
Creating the bill of material.....	11
Creating the title block.....	12
Nesting label multi-drafting.....	13
<b>Notes.....</b>	<b>15</b>

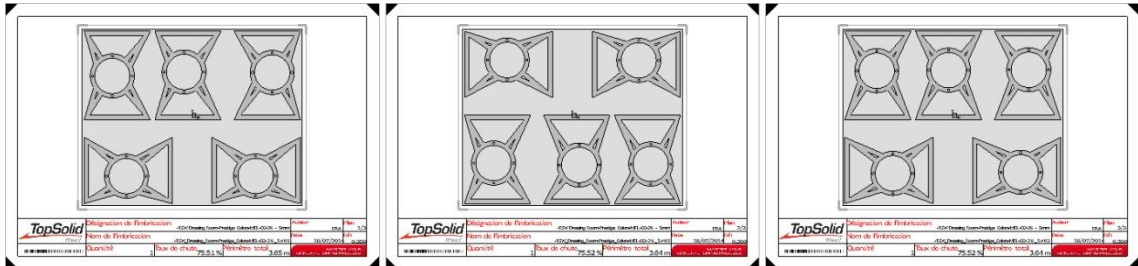


# Introduction

To draft a nesting, two types of draft files can be created:

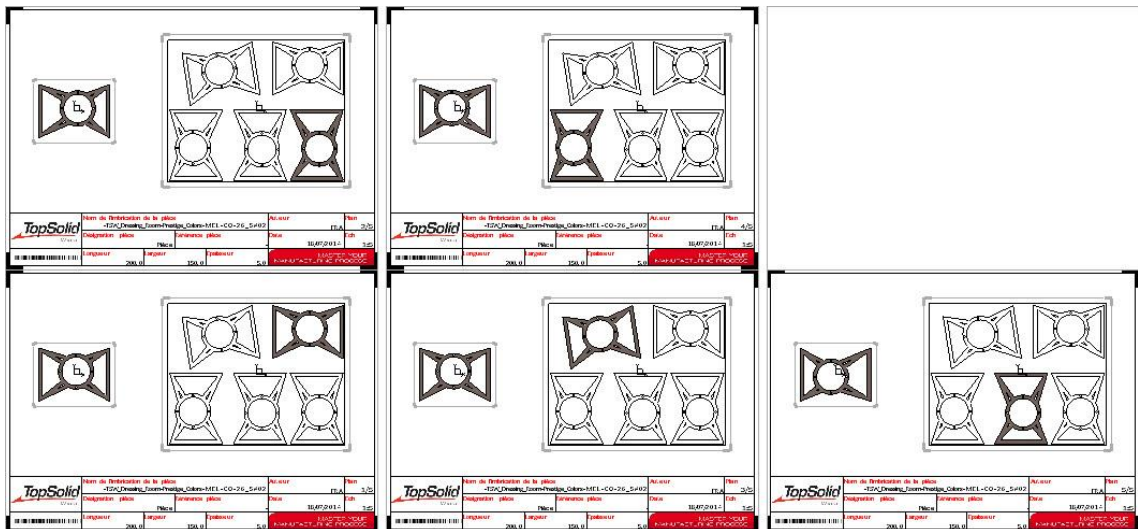
- **Multi-draft nesting** 

This allows you to automatically draft the different nesting panels with the information about this panel.



- **Multi-draft nesting labels** 

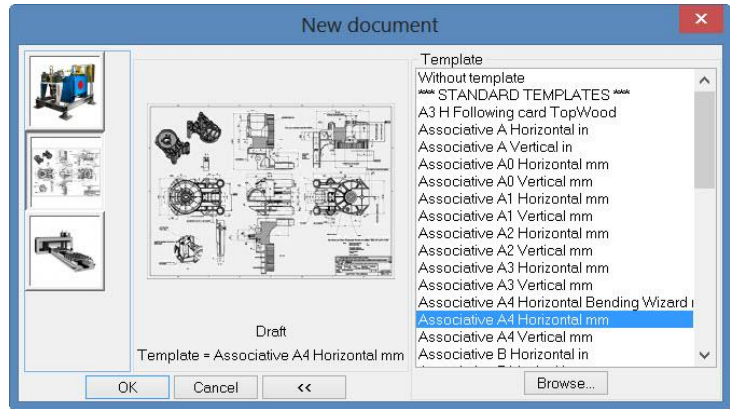
This allows you to automatically draft the different nested parts with the information about this part. It is also possible to view the position of this part in the nesting.



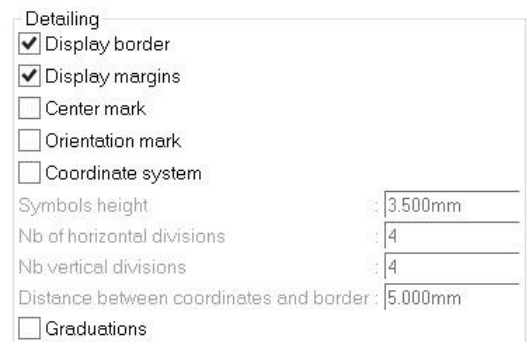
## Creation of a nesting multi-draft template

### Creating the template file

- Create a new **Draft** document using the desired format.







- Modify the drawing border to adjust its display settings.
- Delete the drawing title block.

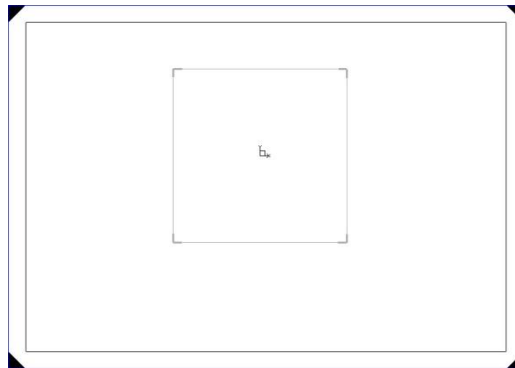


- Save this draft template in the **Group** or **Config\Template\Nesting** folder.

**Note:** When drafting the nestings or nesting labels, only the templates saved in the **Nesting** subfolder will be available.

### Creating the view


- From the draft template, start the **Wood > Multi-draft nesting** function. 
- Select **Create template**. 
- Next select **Create view**. 
- Position the view using a default **scale factor** of 1.
- Use the **Auxiliary view** option to position an auxiliary view of the nesting. 

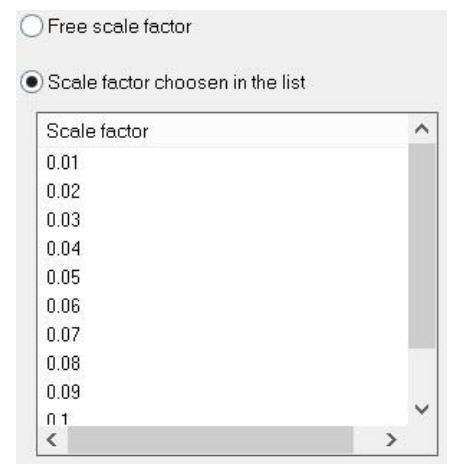


- Use the **Modify element** function and select the view to configure it.
- Set **Hidden lines > Hidden** and check **Shading view**.
- Validate the settings by clicking on **OK**.




### Configuring the document

- Open the document properties. 
- Check **Projection parameters > Automatic update of views**.  
 Automatic update of views
- Open the **TopSolid'Wood properties** tab > **Draft**.
- Set the scale factor computing mode for the nesting views.



### Creating the bill of material

When drafting nestings, a bill of material can be created in order to display specific information about the nested panel.

- Start **Bill of material** > **Edit bill of material file.** 
- Select the **User** or **Group** tab, enter the **name of new bom file**: *Nesting BOM* and validate with **OK**.

What do you want to do to

Create new bom file

Modify selected bom file

Copy selected bom file in user configuration

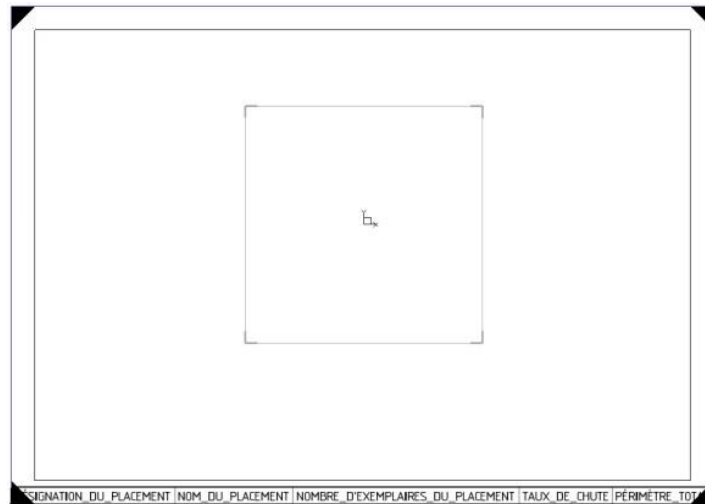
Copy selected bom file in group configuration

Name of new bom file:


- Insert in this bill of material the panel information to be displayed.
- From the **Defined modules** > **TopSolid'Design – Nesting** category:
  - **Nesting designation**: *Panel designation: Material - Thickness*
  - **Nesting name**: *Panel name: Material\_Thickness\_PanelNumber*
  - **Nesting copies number**: *Quantity of panels to produce*
  - **Nesting loss rate**: *Ratio between the area of the panel and the area of nested parts*
  - **Nesting total perimeter**: *Sum of the perimeters of all nested parts*
- From the draft template document, insert the bill of material using **Wood** > **Multi-draft nesting** > **Create template** > **Create nesting bill of material**.

**CREATE NESTING BILL OF MATERIAL**

Use bill of material of template document=  Position of bill of material or title block:





- To display the BOM details in a title block, you can hide the created bill of material and the two points selected to position it using the **Mode/Visibility** function. 

### Creating the title block

- Create the draft's title block by selecting **Wood > Multi-draft nesting > Create template > Create border**.

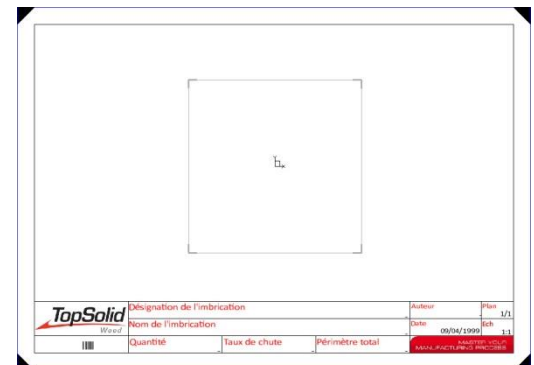
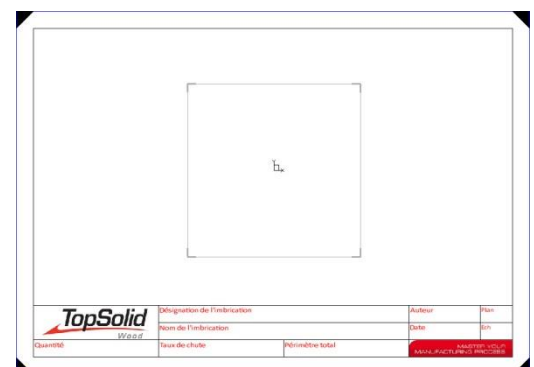
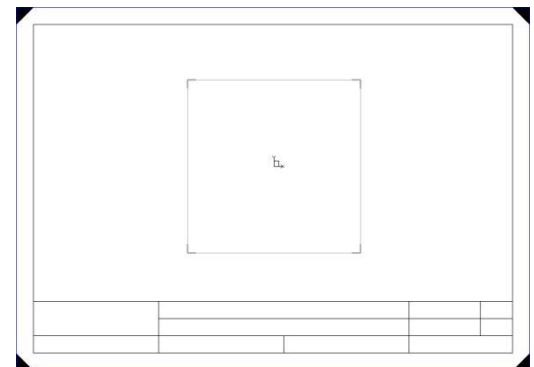
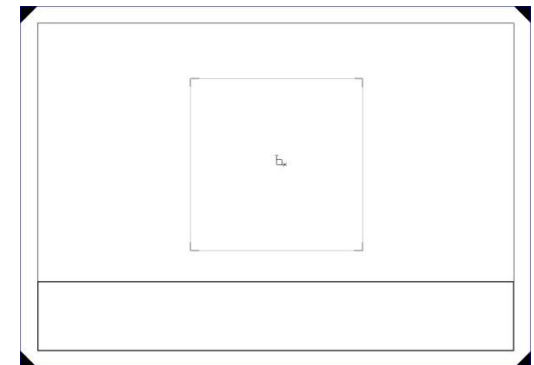
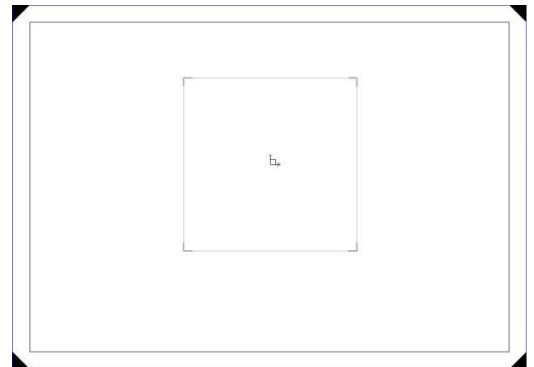
**CREATE BORDER**

- Enter the title block's **width** and **height** before selecting the alignment point at the bottom right of the title block. Use the **Hook on border** option to position the title block in the lower right corner of the drawing margin.

- Next cut the title block depending on the desired cells.

- Use **Insert element > select the title block > select a cell** to insert images, texts (cell titles for example) and variables (author for example) in the title block's cells.

- After selecting the cell in which to insert an element, select from the drop-down list the **Bom property** variable, and then the BOM property to be displayed in the cell.



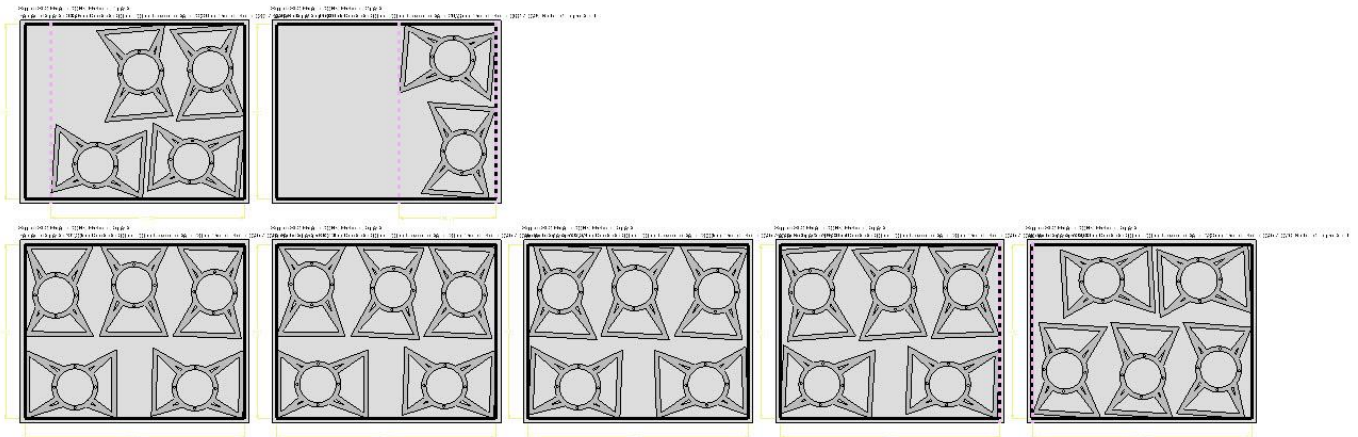
**Note:** It is possible to modify the variables that are displayed as – in order to add characters to be displayed as units, or modify the text format (bar code for example).


Quantity	-	Loss rate	- %	Total perimeter	- m
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- Save and close this nesting multi-draft template.

## Nesting multi-drafting

- Open the file that contains the nestings.



- Start the **Wood > Multi-draft nesting** function.
- If several files containing nestings are to be drafted, click the **Explore** button to select the folder that contains the nestings. 

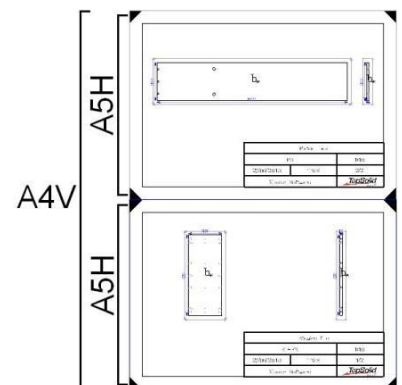
**Note:** It is possible to get several files containing nestings if, when creating the nesting, the following options were selected:

- **One nesting file by group of supports:** A .top file will be created for each group of supports (material-thickness). These files will contain all the group's nestings. The file names are as follows: **Material\_Thickness**.
- **One nesting file by support:** A .top file will be created for each nested support. The file names are as follows: **Material\_Thickness#PanelNumber**.

- Select the **paper format** to be used.

**Note:** During multi-drafting, it is possible to place on a paper format two smaller-drafts.

For example, as the created draft template is a horizontal A5 format, it will be possible to place two drafts on a vertical A4 paper format.



- Click in the opened document to draft the document's nestings.

- From the **User templates** drop-down menu, select the nesting multi-draft template you created before.

**Note:** Templates are sorted into three categories: **User templates**, **Group templates** and **Standard templates**.

The **Nestings** list displays a tree structure with the nestings to be drafted as follows: **Files > Nesting groups > Panels**.

- Select the element(s) to be drafted using the **Ctrl** key.

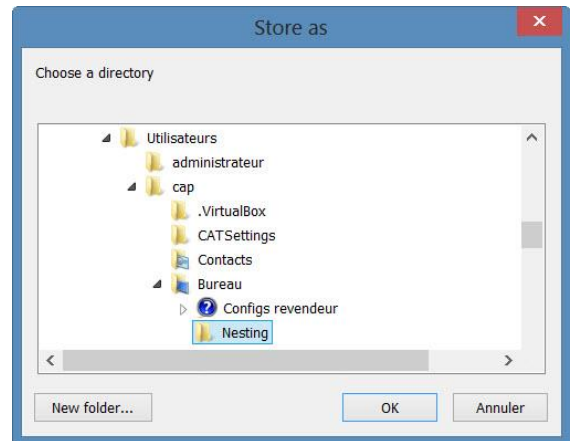
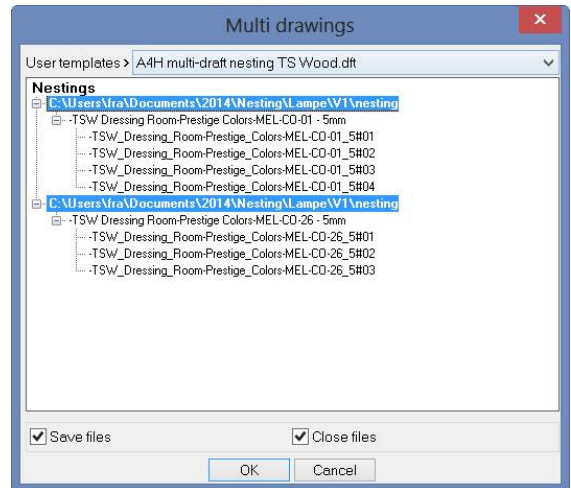
**Note:** The **Save files** option automatically saves the generated draft files.

The **Close files** option automatically closes the generated files.

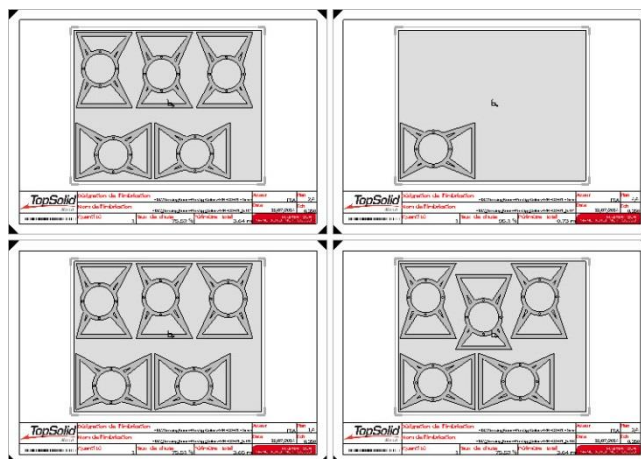
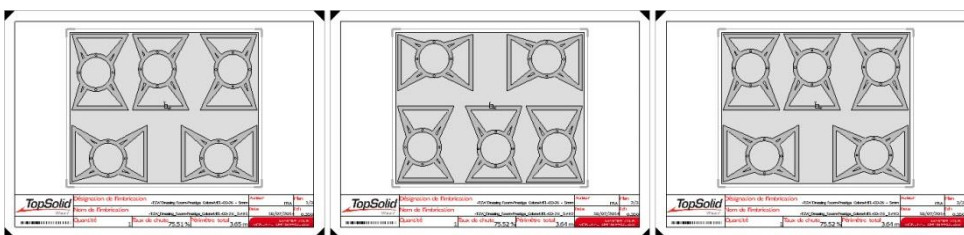
- Validate the window with **OK**.
- If the **Save files** option is checked, you are asked to select a folder in which to save the draft files.
- Validate the directory with **OK**.

The draft files are then generated.

**Note:** A draft file is created for each .top file that contains nestings.



- If you left the **Close files** box unchecked, two options are then available:
  - STOP** to quit the draft function.
  - Close all** to close all the generated draft files. If these files have not been saved, you are asked whether you want to save them.




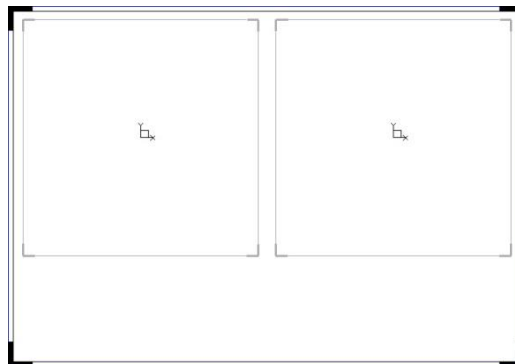
## Creation of a nesting label multi-draft template

### Creating the template file

The method for creating a nesting label multi-draft template is the same as that for creating the **nesting multi-draft template**.

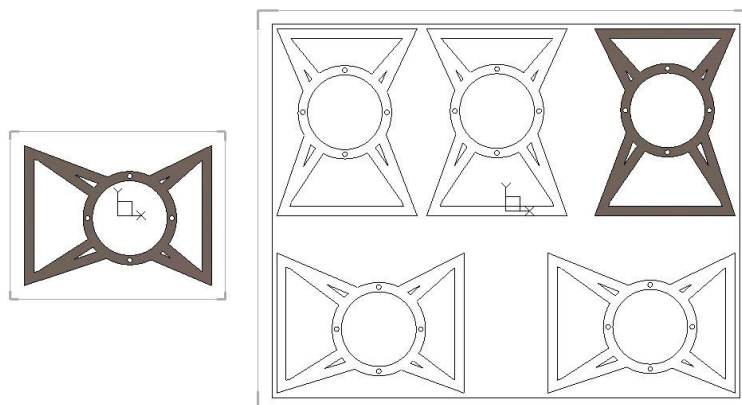
### Creating the view

- From the draft template, start **Wood > Multi-draft nesting labels**. 
- Select **Create template**.
- Next select **Create label view**.
- Position the view using a default **scale factor** of 1.
- Select **Create label view** again to place a second view next to the first view.



**Note:** When drafting nesting labels, the two following views can be created:

- The view of the nested part.
- The view of the panel where the part is nested, on which the part is shaded.



- Open the symbolic tree.
- Open the **Entities** tab, and then the **View** section.

The two previously created label views can be found here.


- On the part where you want to display the nesting panel, **right-click > Visualize part on support = YES**.

Visualize part on support=

## Creation of a nesting label multi-draft template

- Use the **Modify element** function and select the view to configure it.
- Set **Hidden lines** > **Hidden** and check **Shading view**.
- Validate the settings by clicking on **OK**.

## Configuring the document

- Open the document properties. 
- Check **Projection parameters** > **Automatic update of views**.  
 Automatic update of views
- Open the **TopSolid'Wood properties** tab > **Draft**.
- Set the scale factor computing mode for the nesting label views.

## TopSolid'Wood: Nesting multi-draft template

Smooth edges > HIDDEN ▾  
Hidden lines > HIDDEN ▾  
 Shading view

Free scale factor  
 Scale factor chosen in the list

Scale factor

0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
<
>

## Creating the bill of material

When drafting nesting labels, a bill of material can be created in order to display specific information about the nested part.



- Start **Bill of material > Edit bill of material file.**
- Select the **User** or **Group** tab, enter the **name of new bom file: BOM labels** and validate with **OK**.
- Insert in this bill of material the panel information to be displayed.
- From the **Defined modules > TopSolid'Design – Nesting** category:
  - **Nesting designation:** *Designation of the panel where the part is nested.*
  - **Nesting name:** *Name of the panel where the part is nested.*
  - **Nesting copies number:** *Quantity of panels to produce.*
  - **Perimeter:** *External parameter of the part to be cut.*
  - **Internal parameter:** *Internal parameter of the part to be cut (apertures).*

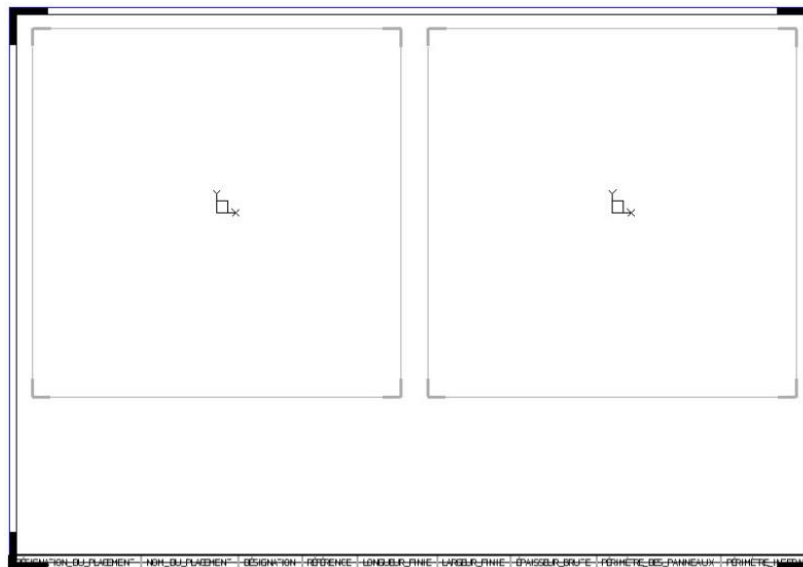
All the other part-specific BOM functions can then be used here, such as the **designation**, the **reference** or the **finished length, width** and **thickness**.

- From the draft template document, insert the bill of material using **Wood > Multi-draft nesting labels > Create template > Create bill of material.**

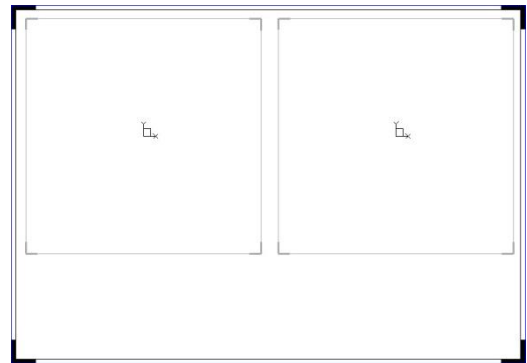
CREATE BILL OF MATERIAL

- Select the previously created bill of material template, and then validate with **OK**.
- Set **Use bill of material of template document = NO**, and then select two points to position the bill of material.

Use bill of material of template document=  Position of bill of material or title block:



- To display the BOM details in a title block, you can hide the created bill of material and the two points selected to position it using the **Mode/Visibility** function.

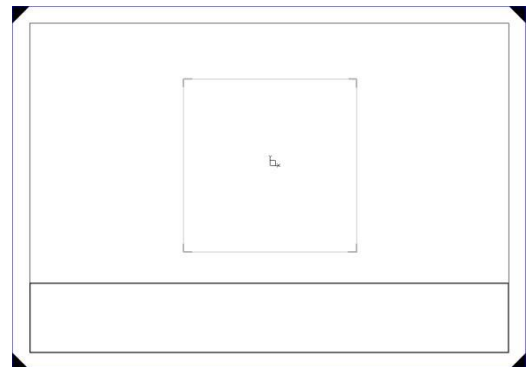


### Creating the title block

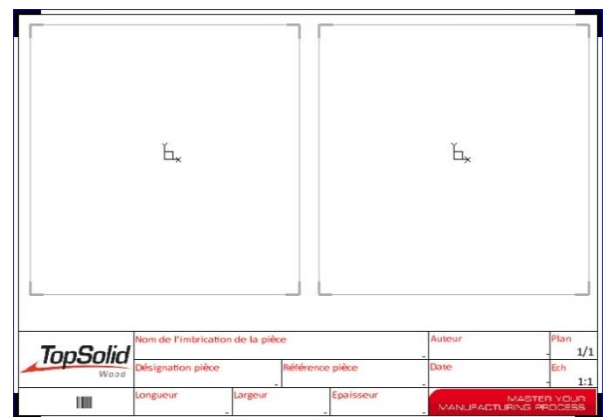
- Create the draft's title block by selecting **Wood > Multi-draft nesting labels > Create template > Create border**.



- Enter the title block's **width** and **height** before selecting the alignment point at the bottom right of the title block. Use the **Hook on border** option to position the title block in the lower right corner of the drawing margin.



The procedures to cut the title block or insert elements (texts and images), variables (author) and BOM properties are the same as for a nesting draft template.

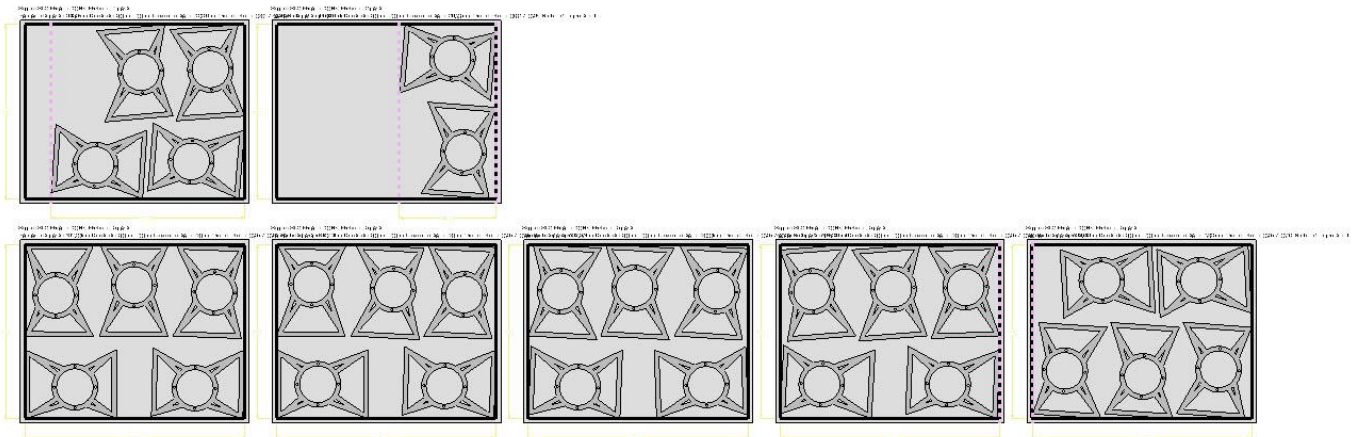



- Save and close this nesting label multi-draft template.

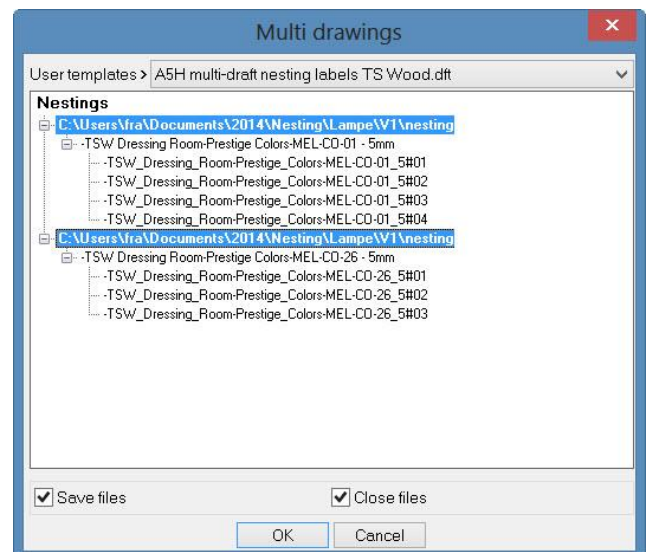


## Nesting label multi-drafting

- Open the file that contains the nestings.



- Start **Wood** > **Multi-draft nesting labels**.
- If several files containing nestings are to be drafted, click the **Explore** button to select the folder that contains the nestings. 
- Select the **paper format** to be used.
- Click in the opened document to draft the document's nestings.
- From the **User templates** drop-down menu, select the nesting label multi-draft template you created before.
- Select the element(s) to be drafted using the **Ctrl** key.
- Validate the window with **OK**.

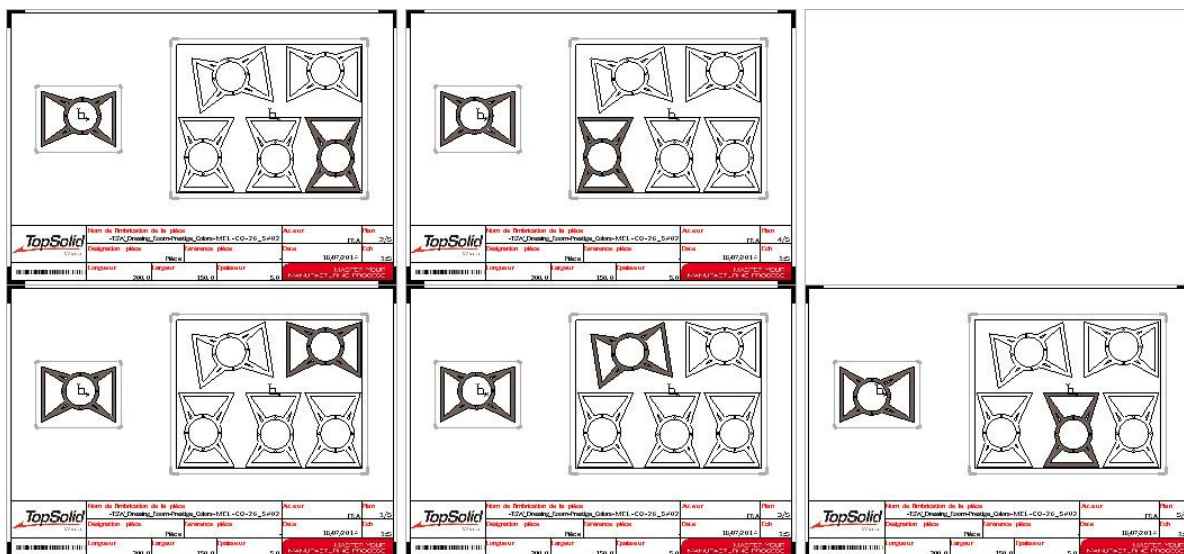


- If the **Save files** option is checked, you are asked to select a folder in which to save the draft files.
- Validate the folder with **OK**.

The draft files are then generated.

**Note:** A draft file is created for each nested panel. Each of the file's drawings corresponds to a part nested in the panel.

- If you left the **Close files** box unchecked, two options are then available:
  - **STOP** to quit the draft function.
  - **Close all** to close all the generated draft files. If these files have not been saved, you are asked whether you want to save them.



# Notes

A series of horizontal dotted lines for taking notes.

A series of horizontal dotted lines spanning the width of the page, intended for taking notes.