

TopSolid'Wood

Creation of filters

Wood guardrail c=50mm g=600mm c=45° p=60mm h=30mm	-	-	-	4
Wheel 100KG	-	-	Chromum	5
Top	-	-	W1000_579	7
Support	Support	-	steel	4
Striated pin 8x30	Z31021	Missler Software	Scotch-pine	152
Stair	-	-	Hamborn european	10
Shelves	-	-	W1000_579	2
Shelf	-	-	W1000_579	4
Separation	-	-	W1000_579	1
Round support	-	-	HPF	2
Right side	-	-	W1000_579	7
Rear fixing bracket set LEGRABOX N	ZB7N000S	Blum	steel	6
PVC feet edge	-	-	W1000_579	57
Man	-	-	man	1
Left side	-	-	W1000_579	7
Inset double doors with visible hinges	-	-	-	4
Indukohle lamp	-	-	-	2
IPN Icon 100	-	-	steel	26
Hettich twister 11,5 - 30	20058	Hettich	steel	114
Hettich rastex 15 TH29	79485	Hettich	steel	78
Hettich rastex 15 TH19	73457	Hettich	steel	36
Hand shift	-	-	-	2
Hat	-	-	Blue linen	2
Front fixing bracket LEGRABOX N Inserta	ZF7N70E2	Blum	steel	12
Facade	-	-	Dab	2
Drawer profiles LEGRABOX N 450	770N4502S	-	steel	6
Cabinet drawers LEGRABOX 40kg Blumotion 450	750.4501B	-	-	6
Bar	-	-	W1000_579	13
Back	-	-	-	-
BE80	-	-	-	-
EP96	-	-	-	-
EP96Z3	-	-	-	-
EP96Z1	-	-	-	-
EP96V19	-	-	-	-
EP96	-	-	-	-
EP145 (h=1300mm h=1050mm sq=5 u=1200mm stf=30)	-	-	-	-
EP141	-	-	-	-
EP126	-	-	-	-
EP1211 (h=1300mm h=1050mm sq=5 u=1200mm stf=30)	-	-	-	-
EP120	-	-	-	-
EP115 (h=1300mm h=1050mm sq=5 u=1200mm stf=30)	-	-	-	-
LEGRABOX N	-	-	-	-

DESIGNATION	REFERENCE	SUPPLIER	MATERIAL	COUNT
Wheel 100KG	-	-	Chromium	5
Support	-	-	steel	4
Striated pin 8x30	Z31021	Missler Software	Scotch-pine	152
Rear fixing bracket set LEGRABOX N	ZB7N000S	Blum	steel	6
Hettich twister 11,5 - 30	20058	Hettich	steel	114
Hettich rastex 15 TH29	79485	Hettich	steel	78
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Drawer profiles LEGRABOX N 450	770N4502S	-	steel	6
Cabinet drawers LEGRABOX 40kg Blumotion 450	750.4501B	-	-	6
Bar	Bar	-	steel	4

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7, Rue du Bois Sauvage
F-91055 Evry, FRANCE
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E-mail: info@topsolid.com
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Version 6.17 Rev.01

Note: If you are experiencing problems using this training guide, please feel free to send your feedback and comments at edition@topsolid.com.

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Introduction

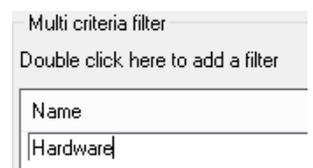
Filters allow you to select parts according to one or more criteria you defined on these parts. These filters can then be used to select the parts that fulfill the filter criteria, and apply to them a specific operation such as for example:

- Hide the parts in the configurators
- Hide the parts in a drawing
- Export the parts
- Sort the bills of material
- ...

Creation of a filter

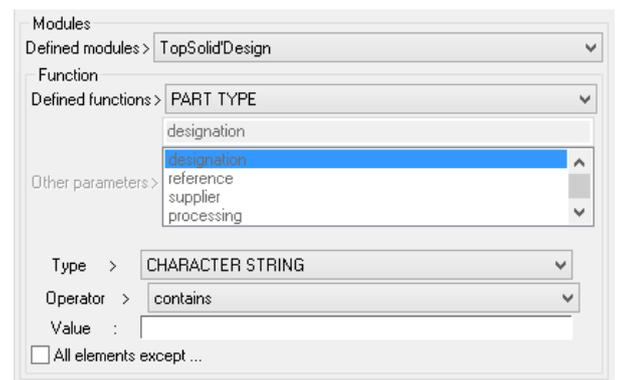
Creating the filter

- Open the multi-criteria filters in **Tools > Options > Multi criteria filter**.
 **Multi criteria filter**
- Double-click a blank line in the **Name** box and enter a name for the new filter.
- Confirm the filter name by pressing **Enter**.



The various filter criteria then need to be created.

- From the **Defined modules** drop-down list, select the module where the property is located, and then select the property from the **Defined functions** drop-down list.
- Define the property you want to use to filter the parts.

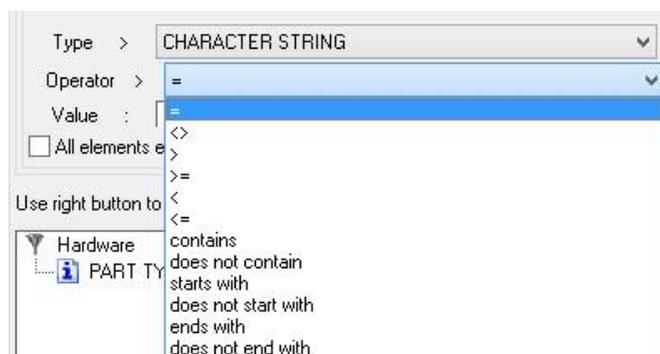


- Specify the type of value.

Three selections are available: **CHARACTER STRING**, **INTEGER** or **REAL**.

- Select **CHARACTER STRING** when the selected property is a text (for example, **Part type** or **Designation**).
- The **INTEGER** and **REAL** types are for digital properties.

- Define the operator to be used using the **Operator** drop-down list.



Note: If you select a **CHARACTER STRING** type property, only the =, <>, **contains** and **starts with** operators can be used.

If you select an **INTEGER** or **REAL** type property, all operators can be used.

Operator	Definition	Compatible type of property
=	Equal to	All
<>	Different from	All
>	Greater than	REAL / INTEGER
>=	Greater than or equal to	
<	Less than	
<=	Less than or equal to	
Contains	Contains	
Starts with	Starts with	
Does not start with	Does not start with	
Does not contain	Does not contain	
Ends with	Ends with	
Does not end with	Does not end with	

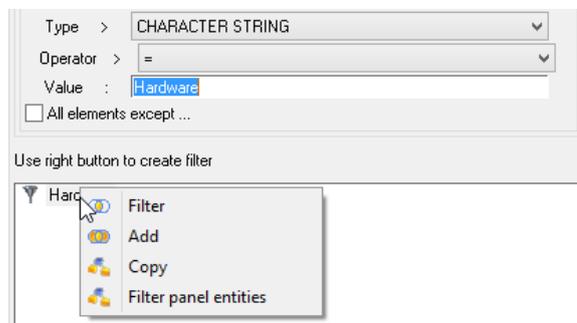
Note: If you choose a **CHARACTER STRING** property, it is recommended that you use the **contains** operator since the property can often have different values.

For example, if using a filter on a part type, the part will be selected even if it has several types. The = operator is more restrictive. It will select the part only if it has only the type specified in the **Value** field.

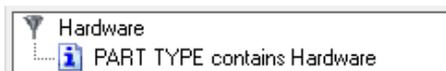
- Enter the value to be compared in the **Value** field.

Note: Remember that this value is case-sensitive.

- To finish creating the filter, right-click the line for the name and choose how you want to add the property to the filter.



The various options are detailed below.



Filtering modes

When creating the filter, four options are available to create a filter that matches your needs.

Filter



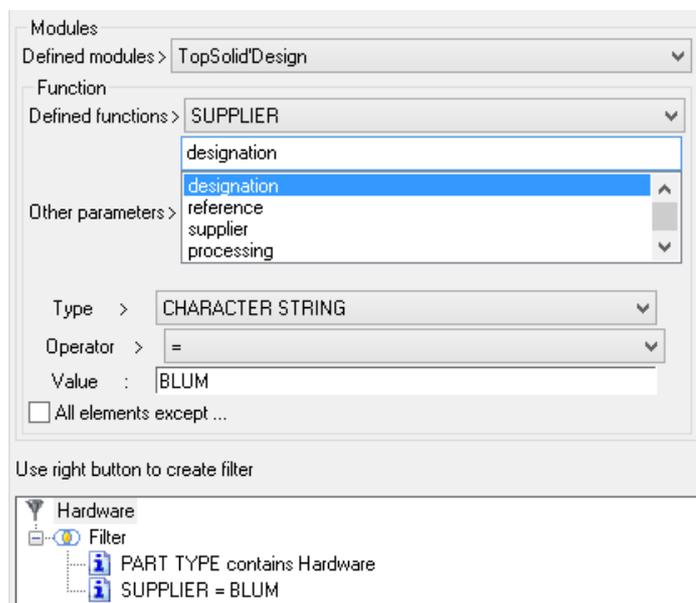
Used to further refine the filter.

Example: Filter the parts with the **Hardware** type **AND** the **BLUM** supplier.

A part **A** with the **BLUM** supplier and the **Hardware** type, a part **B** with the **LMC** supplier and the **Hardware** type, a part **C** with the **Hardware** type only, and a panel entity **D**.

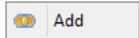
Filter creation

- The **Supplier** property which is equal to the **BLUM** value is inserted with the **Filter** function.
- The **Part type** property containing the **Hardware** value is inserted with the **Filter** function.



	A	B	C	D
Type	Hardware	Hardware	Hardware	-
Supplier	BLUM	LMC	-	-

Add

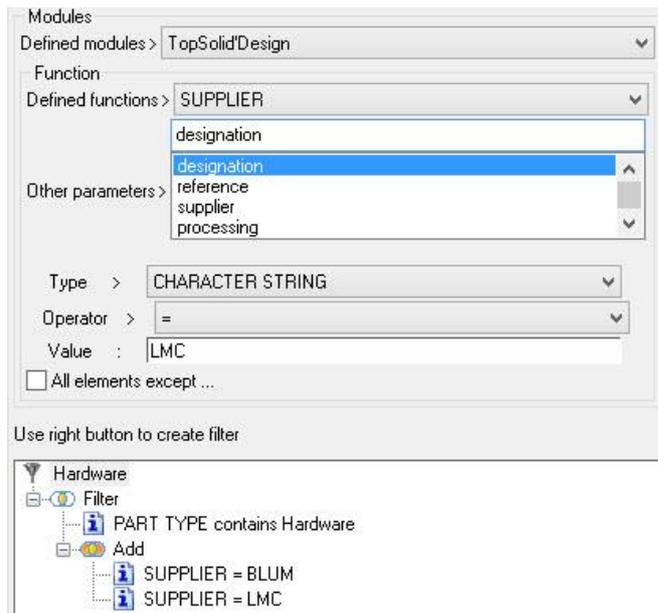


Expands the filter options.

Example: Using the same example of the **A, B, C** and **D** parts, filter the parts with the **Hardware** type **AND** with the **BLUM OR LMC** supplier.

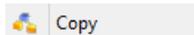
Filter creation

- The **Part type** property containing the **Hardware** value is inserted with the **Filter** function.
- The **Supplier** property which is equal to the **BLUM** value is inserted with the **Filter** function.
- The **Supplier** property which is equal to the **LMC** value is inserted with the **Add** function to the previous property (**Supplier = BLUM**).

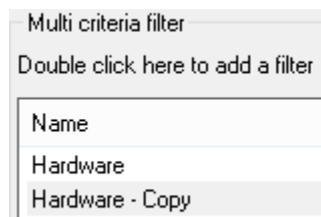


	A	B	C	D
Type	Hardware	Hardware	Hardware	-
Supplier	BLUM	LMC	-	-

Copy



Creates a copy of the filter by adding - *Copy* after the filter name. You can then modify it.



Filter panel entities

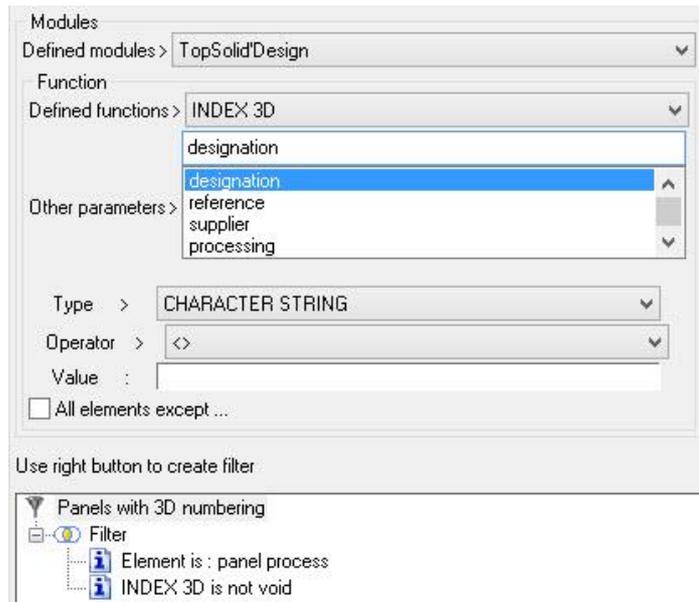


Filters the panel entities automatically.

Example: Filter the parts that are **numbered** (3D index) and are also **panel entities**.
 A panel **A** with an index **1**, a part **B** with an index **2** and a panel **C** with no index value.

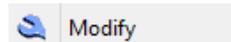
Filter creation

- The **Index 3D** property that is different from "void" is inserted with the **Filter** function.
- The panel entities are filtered with the **Filter panel entities** function.



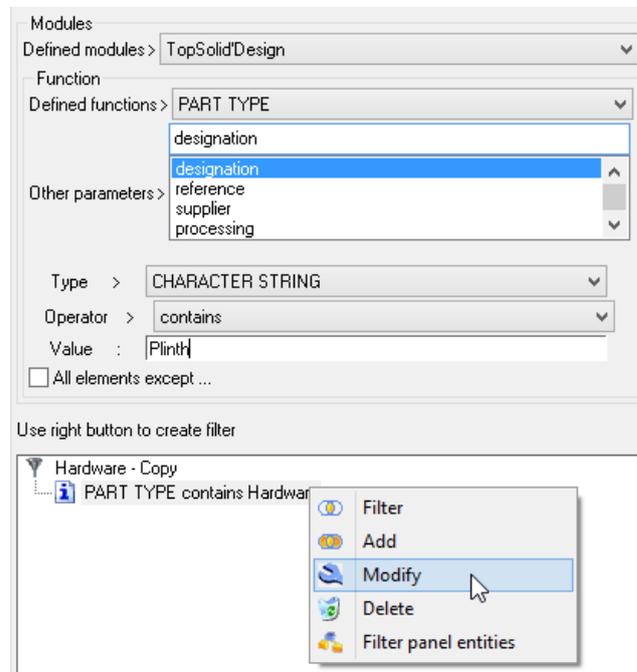
	A	B	C
	Panel entity	-	Panel entity
Numbering	1	2	-

Modify



Allows you to make changes to the filter after its creation.

- To do this, you first need to define a new property to be filtered, and then right-click on a property and select **Modify**.



Delete



Deletes a property of the filter.

Availability of filters in the Group

By default, the filters defined in the options are created in the **Configuration** folder on your computer. But they can be made available for all **Group**-configured computers.

- From TopSolid, open the configuration by selecting **Help > Configuration**.
- Note the locations of the **Configuration** and **Group** folders.



- Open the location of the **Configuration** folder.
- Cut the **filter.flt** file and paste it to the **Group** folder.
- Restart TopSolid on the **Group**-configured computers.

Filters will be searched for in the **Group** folder.

Note: If you make subsequent changes to the filters, they will be modified in the **filter.flt** file of the **Configuration** folder.

To apply these modifications to all the **Group**'s computers, you need to copy the **filter.flt** file once the changes have been made.

If both the **Configuration** and the **Group** folders contain a **filter.flt** file and filters with the same name, then the filter located in the **Group** folder will be used.

Using the filters

Using the filters in bills of material

Filtering a bill of material manually in a drafting document

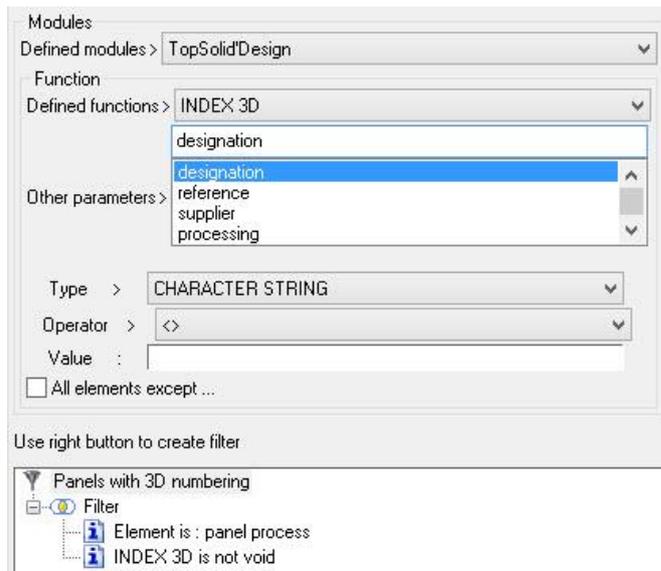
When a bill of material is displayed in a drafting document, you can filter it using a multi-criteria filter. In this case, only the parts selected by the filter will be kept in the displayed bill of material.

- From the drafting document, select **Bill of material** > **Filter bill of material.** 
- Click on **By criteria.**
- Select the bill of material you want to filter.
- From the drop-down list, select the multi-criteria filter to be used.

Example: In the bill of material, only keep the parts that are **numbered** (3D index) and are also **panel entities**. A panel **A** with an index **1**, a part **B** with an index **2** and a panel **C** with no index value.

Filter creation

- The **Index 3D** property that is different from "void" is inserted with the **Filter** option.
- The panel entities are filtered with the **Filter panel entities** option.



Filtered bill of material:

1	A	150.00	150.00	19.00	150.00	150.00	19.00
NB	DESIGNATION	FINAL_LENGTH	FINAL_WIDTH	FINAL_THICKNESS	OVERDIMENSINED_LENGTH	OVERDIMENSINED_WIDTH	OVERDIMENSINED_THICKNESS

Filtering a bill of material automatically

In a bill of material, it is possible to automatically assign a filter to be applied. This avoids starting the filtering function if it needs to be performed all the time.

- Open the bill of material file in .bom format located in the **Configuration** or **Group/template** folder using a text editor.
- At the end of the BOM file, copy the following lines.

```
FILTER {
    DIR=
    "NAME="
    ;
}
```

► Group ► Template

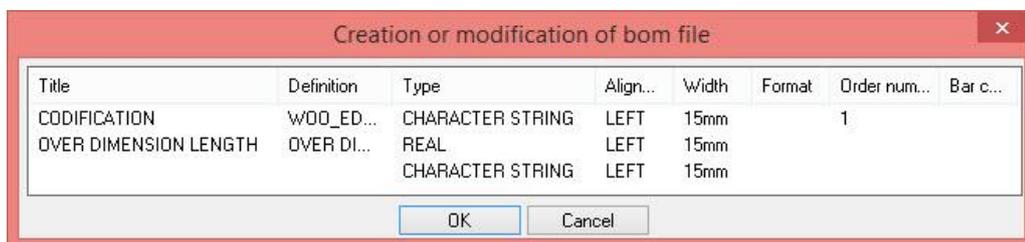
Nom

- BOM to number...
- Edges.bom
- Hardware.bom
- Labels parts.bom
- Parts list.bom

- Enter the following after **DIR=**:
 - **TOPCONFIG** if the filter is located in the **filter.flt** file of the **Configuration**.
 - **TOPGROUP** if the filter is located in the **filter.flt** file of the **Group**.
- After **NAME=** enter the name of the filter that will be used automatically.

Example:

- An **Edges** bill of material is created to automatically add up the lengths of edges with the same codification:
 - A **Codification** column
 - An **Over dimension length** column with the **Make sum on this column** option



- The following **Edges** filter is created in the options.



- Once the filter has been created, the **filter.flt** file is copied to the **Group** folder.
- The **Edges.bom** bill of material is modified to add the following text at the end of the file:

```
FILTER {
    DIR=TOPGROUP
    "NAME=Edges"
    ;
}
```

- When the bill of material is displayed in a drafting project, the result looks like below.

W1000ST9-2-38	1.35
W1000ST9-2-22	1.36
W1000ST9-2-19	0.6
CODIFICATION	OVER_DIMENSION_LENGTH

Using the filters in drafting views

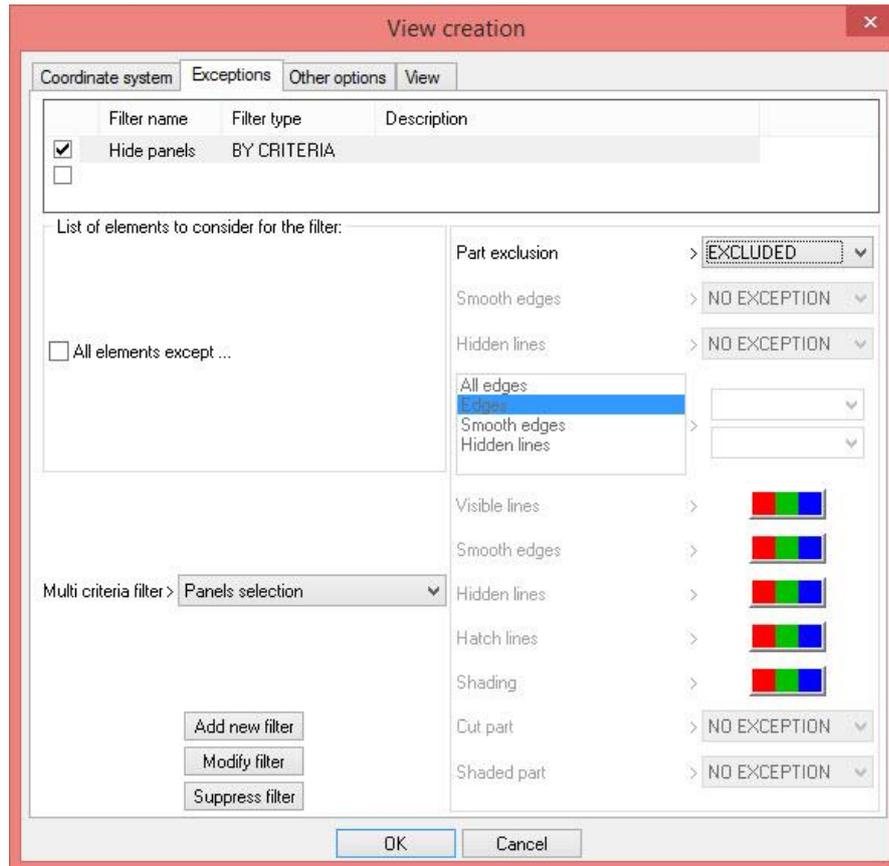
When a view is displayed in a drafting document, you can create an exception using a multi-criteria filter in order to then apply an operation to these parts (hiding the parts, displaying parts in a different color...). In this case, the changes defined by the exception will be applied to the parts selected by the filter.

- Select **Modify element** and select the view you want to modify. 
- Click the **Exceptions** tab. 
- Set the following options:
 - Check the box that activates the exception to be configured.
 - **Filter name:** This is the name of the configured exception. The multi-criteria filter will subsequently be selected.
 - Adjust **Filter type: By criteria.**
- From the **Multi criteria filter** drop-down list, select the filter you want to use.
- In the right part of the window, make the appropriate changes to the elements selected by the filter:
 - **Part exclusion**
 - **Smooth edges**
 - **Hidden lines**
 - **Line types**
 - **Line colors**
 - **Cut part**
 - **Shaded part**
- To finish, click **OK** to confirm and to apply the exception.

Note: Three options for filters are available here:

- **Add new filter:** Allows you to create a new multi-criteria filter in the **Configuration**.
- **Modify filter:** Allows you to modify a multi-criteria filter in the **Configuration**.
- **Suppress filter:** Allows you to delete a multi-criteria filter in the **Configuration**.

In the example below, all elements selected by the **Panel selection** filter will be excluded from the view.



Using the filters in configurators

You can use multi-criteria filters in the **TopSolid'Wood** selection and export windows to reduce calculation times for elements.

For example, during a machining or cut export, hardware will not be exported. It is then possible to apply a filter that will remove hardware in order to save calculation times.

- **Define multiple parts**
 - **Matter configurator**
 - **Automatic assembly**
 - **Nesting**
 - **Multi draft**
 - **Cut and machining exports**
 - **Multi machining**
- When the function is started, select the filter from the **Filter bom by criteria** drop-down list.

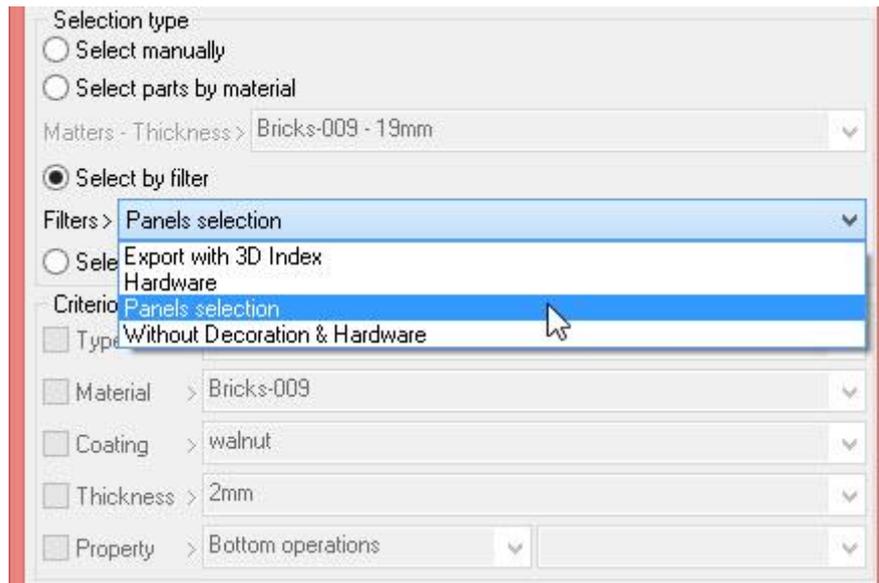
The elements selected by the filter will be hidden.



Using the filters in part selections

You can use multi-criteria filters to select the parts. The dialog boxes that include this option are the following:

- **Define multiple parts** (version 6.17)
 - **Matter, Edge, Laminate** and **Property configurators**
 - **Automatic assembly**
 - **Nesting**
 - **Multi draft**
 - **Cut and machining exports**
- In the part selection dialog box, enable the **Select by filter** option and select the filter you want to use from the drop-down list.



Notes

A series of horizontal dotted lines for taking notes.

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