

# TopSolid'Wood Creation of filters

Wood guardrall o=50mm gh=800mm ca=45° gu=80mm	- mm0E+ft	-	-		4				
Wheel 100KG	-	-	Dronken		5				
Tap	-	-	W1000_579		7				
Support	Supp	rt -	steel		4				
Strilated piln 8x80	23100	1 Mission Sc	affware Scotch-pline		152				
Stair	-	-	Hambeam ex	urupean	10				
Shelves		-	W1000_579		2				
20d1	-		W1000_579		4				
Separation		-	W1000_579		1				
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Rid fistation	-		w1000 579		57				
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PN beam 100	-	-	steel		24				
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Drawer profiles LEDRABOX N 450	770N	5025 -	sted		6				
Cabinet drawers LEGRABOX 40kg Blumotion 450	750.4	018 -	-		6				
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2145 L=1300mm h=1050mm sz=5 w=1200mm sth=30			20			20030	nemun	steel	114
8141	Hettich rast	ex 15 TH	29			79485	Hettich	steel	78
e126						33453			74
@1211 L=1300mm h=1050mm sc=5 w=1200mm sth=3	Hettich rast	ex 15 TH	19			13457	Heffich	steel	30
P120			LECDAROV	/ M Lo	canta	7E7N70E2	Blum	steel	12
eriisi=isuumm h=1050mm scp5 w=1200mm sfh=30	Front fixing	Dracket	LEGRABUX	NI	ISENIA	LITHIULZ	U.G.III		
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	Diawei più	neo ceo			mation (FA	750 / 501B	-	-	6
	Cabinet dra	wers LEG	RABOX 40	kg Bl	UMOTION 450	Bac	-	steel	4
	Bar					DEFERENCE	SUPPLIER	MATERIAL	COUN
	DESIGNATIO	N		-		REFERENCE			
	DESIGNATIN								

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

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# Introduction

TopSolid'Wood: Creation of filters

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

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.

- 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.

	Hardware	
Modules		
Defined modules:	> TopSolid'Design	~
Function		
Defined function	s> PART TYPE	~
	designation	
	designation	~
Other parameters	s> reference	
	processing	~
Type >	CHARACTER STRING	~
Operator >	contains	~
Value :		
All elements e	except	

Multi criteria filter

Name

Double click here to add a filter

• 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.



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

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

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

<u>Note</u>: 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 <u>only</u> 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.

Ξ M	lodules						
De	Defined modules > TopSolid'Design						
F	Function						
D	Defined functions> SUPPLIER 🗸 🗸						
		designation					
		designation		~			
0	ther parameters >	reference					
		supplier processing		~			
		,					
	Type > CH	ARACTER STRING	~				
			~	1			
	Value · BI	IM					
	Value . IBL	JM					
		ср					
Use	Use right button to create filter						
, i i i i i i i i i i i i i i i i i i i	Haroware						
	PART 1	YPE contains Hardware					
	🚺 SUPPL	ER = BLUM					
		В	r	п			
	A	D	c	D			
			1				
Туре	Hardwa	re Hardware	Hardware	-			
non <b>e</b> us <b>e</b> se núziona		naratvare	Thataware				
c li		100000					
Supplier	BLUM	LMC	3. <del>-</del>	-			

#### Add

#### 💿 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**).

Modu	les							
Define	d modules> TopSolid	l'Design		~				
Func	tion							
Define	Defined functions > SUPPLIER							
	designa	ation						
	design	ation		~				
Other	parameters > rereren supplie	ce r						
	proces	sing		×				
Typ	De > CHARACI	ER STRING		-				
Ope	erator > =			~				
Val	lue : LMC			-				
	elements except							
Use righ	nt button to create filte	ar						
	Add Comparison of the second s	ntains Hardware = BLUM = LMC						
	A	В	С	D				
Туре	Hardware	Hardware	Hardware	-				
Supplier	BLUM	LMC	-	-				

### Сору

🐔 Сору

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

Multi criteria filter					
Double click here to add a filter					
Name					
Hardware					
Hardware - Copy					

#### **Filter panel entities**

#### 🐔 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.

Modules			
Defined modules>	TopSolid'Design		~
Function	-		
Defined functions >	INDEX 3D		~
	designation		
	designation		^
Other parameters>	reference supplier processing		~
Type > Cł	HARACTER STRING		~
Operator > 🛛	>		~
Value :			
	cept		
Elemen	t is : panel process 3D is not void		
	А	В	С
	Panel entity		Panel entity
	Parlel entity	-	Fallerentity
lumbering	1	2	. <del></del>

# Modify

## 💐 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**.

Modules	T 0 1 10 1	
Defined modules>	l opSolid'Design	
Function		
Defined functions:	PART TYPE	~
	designation	
	designation	~
Other parameters >	, reference	
	processing	~
Type > C	HARACTER STRING	~
Operator >	contains	~
Value : Pl	linth	
All elements ex	cept	
lse right button to c	preate filter	
Hardware - Cor	DV	
- PART TYP	PE contains Hardwar	
	( Filter	
	Add	
	🔍 Modify	
	😼 Delete	
	🐔 Filter panel entities	
	-	

#### Delete

#### 😼 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.

	×			
TopSolid'Design	TopSolid'Fold	TopSolid'Wood	Top Solid'Planner	
TOPHOME : C:W TOPLANG : engl TOPCONFIG : C: TOPGROUP : C:	vlissler/V617 ishus \ConfigV617 \GroupV617			^

- 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.

<u>Note</u>: 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.

Modules		
Defined modules >	TopSolid'Design	×
Function		
Defined functions	> INDEX 3D	~
	designation	
	designation	^
Other parameters	> reference supplier	
	processing	~
Type >	CHARACTER STRING	*
Operator >	$\diamond$	~
Value :		
All elements e	xcept	
Use right button to	create filter	
V Panels with 3	D numbering	
E-O Filter	e nameeing	
Eleme	ent is : panel process	
🛄 🔝 INDE	imes 3D is not void	

#### 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

For a straight of the base of the base

BOM to number....

Z Labels parts.bom

Parts list.bom

🛃 Edges.bom 🏹 Hardware.bom

Nom

#### 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="
;
```

- 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

	Creat	ion or modifi	cation	of bom	n file			×
Title	Definition	Туре		Align	Width	Format	Order num	Bar c
CODIFICATION OVER DIMENSION LENGTH	WOO_ED OVER DI	CHARACTER S REAL CHARACTER S	tring Tring	LEFT LEFT LEFT	15mm 15mm 15mm		1	
		OK	Car	ncel				

• 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.
   Exceptions
- 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.

View	creation	×
Coordinate system Exceptions Other options View		
Filter name Filter type Descrip Hide panels BY CRITERIA	tion	
List of elements to consider for the filter:	Part exclusion	> EXCLUDED V
	Smooth edges	$>$ NO EXCEPTION $\checkmark$
All elements except	Hidden lines	> NO EXCEPTION
	All edges	
	Smooth edges Hidden lines	>
	Visible lines	> <b></b>
	Smooth edges	>
Multi criteria filter > Panels selection	Hidden lines	>
	Hatch lines	>
	Shading	>
Add new filter	Cut part	> NO EXCEPTION
Modify filter Suppress filter	Shaded part	> NO EXCEPTION 🔍
ОК	Cancel	

## 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 be 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.

MAIN ASSEMBLY Depth: FLAT BOM v Filter bom by criteria= Without Decoration & Hardware v

# 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.

Select mar	e nually ts bu material	
Matters - Thic	kness> Bricks-009 - 19mm	
Select by f	ilter	
Filters > Pane	ls selection	~
Criterio Pane	Is selection but Decoration & Hardware	
Criterio Pane Type Witho	> Bricks-009	
Criterio Pane Type Witho Material	Selection     Decoration & Hardware     Selection     Bricks-009     walnut	~
Criterio Pane Type Witho Material Coating Thickness	Selection     Decoration & Hardware     Bricks-009     walnut     2mm	~

# Notes
