# Creating Custom Vertical Cabinet Shelving

Reference Number: **KB-03141** Last Modified: **September 23, 2022** 

The information in this article applies to:



### QUESTION

How can I create vertical shelves within a cabinet?



# ANSWER

You can create vertical shelves within a cabinet by creating a custom symbol and then utilizing the manual shelf settings within the Cabinet Shelf Specification dialog.

In this article, we will create vertical shelves for a base cabinet. However, these same steps will also apply for wall and full height cabinets.

#### To create a custom vertical shelf

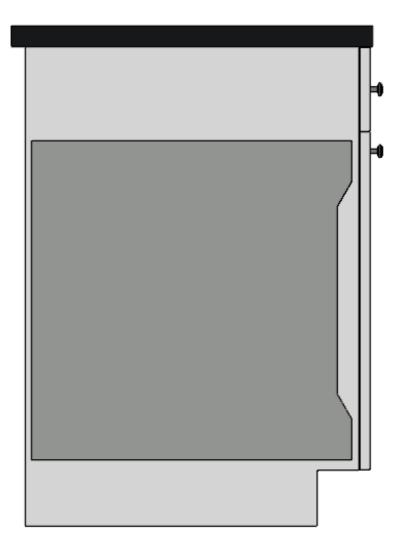
- Starting with a blank plan, from the menu click **Build> Cabinet> Base Cabinet**, then click in the plan to place a base cabinet.
- 2. Next, navigate to **3D**> **Create Orthographic View**> **Cross Section/Elevation** (here), then click and drag towards one side of the cabinet to create a side elevation view.
- 3. Select Build> Primitive> 3D Solid

In X13 and and prior versions, navigate to **Build> Primtive> Polyline Solid** instead.

4. Click and drag in the area of the cabinet where the vertical shelves will occupy.

In this article, the vertical shelves will be going within the door area under the drawer of the cabinet, so the door panel height is used as a guide.

5. Once drawn, modify the 3D/polyline solids dimensions and shape to match that of one of the desired vertical shelves.



6. Switch back to a floor plan view and locate the 3D/polyline solid. Using the **Select Objects** tool, select the 3D/polyline solid and move it away from the cabinet.

If the cabinet is selected when you attempt to click on the 3D/polyline solid, press the Tab key on the keyboard or click the Select Next Object edit tool to cycle to the 3D/polyline solid.

- 7. With the 3D/polyline solid selected, click the **Open Object** edit tool.
- On the GENERAL panel of the 3D/Polyline Solid Specification dialog, set the Depth or Thickness of the polyline solid to match the desired shelf thickness, then click OK.

In this example, 1/4" is used.

### To make copies of the shelf

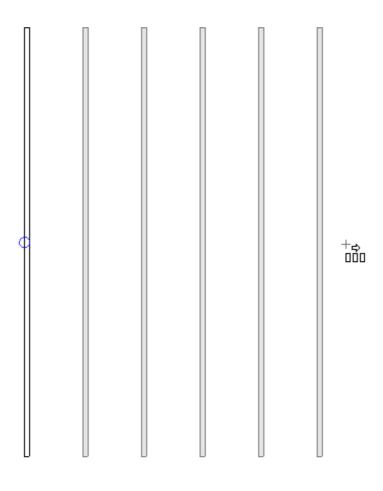
- Using the Select Objects tool, click on the 3D/polyline solid created in the section above, then select the Multiple Copy edit tool.
- 2. Next, click on the **Multiple Copy Interval** secondary edit tool, which is also located on the Edit toolbar.
- In the Multiple Copy dialog which opens, select the Offset Between Copies When Dragging radio button, specify the desired distance between the shelves using the General Objects field for the Primary Offset, then click OK.

In this example	e, 3" is used.
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Multiple Copy X						
Offset Between Copies When Dragging						
	Primary Offset	Secondary Offset (Alternate Behavior)				
General Objects:	3"	24*				
All Trusses:	24"	24*				
Rafters:	24"	24"				
Joists/Posts/Beams:	16"	16"				
Wall Studs:	16"	16"				
Rotation Of All Objects:	15.0°					
O Evenly Distribute Copies When Dragging						
	Primary Number Of Copies	Secondary Copies (Alternate Behavior)				
All Objects:	16	16				
	OK Canc	el Help				

4. Move the cursor over the **Move** ⊕ edit handle of the original polyline solid. When the cursor changes from an arrow to the **Multiple Copy**<sup>+</sup>⊕ cursor, click and drag until the desired number of copies are achieved.

In this example, we have created a total of six shelves.



### To convert the shelves into a symbol

1. Using the **Select Objects**  $\searrow$  tool, click and drag a selection marque encompassing the 3D/polyline solids to group select them.

For more information on selecting multiple objects at once, please see the "Group Selecting Objects" resource in the <u>Related Articles</u> section below.

- 2. Click the **Convert Selected to Symbol** 👬 edit tool located on the Edit toolbar.
- 3. In the **Convert To Symbol** dialog that opens:

│ Convert To Symbol ×						
Symbol Name:	Vertical Shelve	es				
Symbol Category: Fixture (Interior) $\checkmark$						
Add To Library						
Show Advanced Options						
ок	Cancel	Help				

• Specify the **Symbol Name**.

In this example, "Vertical Shelves" is used.

• Set the **Symbol Category**.

In this example, the "Fixture (Interior)" category is used.

- Check **Add to Library**.
- Check Show Advanced Options.
- Click **OK**.
- 4. In the **Symbol Specification** dialog that opens next:

Symbol Sp	ecification							×
Symbol Sp 2D Block Options Materials Sizing	Name Sy In Origin Off X F Z F Rotation Ax Faces Nu	Position: Position: Position: kis: ngle: umber Of Faces: noothing Angle:	Vertical Shelves None    Vertical Shelves   None					_
			Draw Self Intersection Lines Cull Layered Transparent Surfaces Use Imported UV Map					
Number Style					ОК	Cancel	Help	

- On the GENERAL panel, use the **Rotate +** and **Rotate -** buttons to rotate the symbol so it faces forward, as shown above.
- On the MATERIALS panel, select the Vertical Shelves component, click the Select
   Material button, then browse the library for an appropriate material. Once a material has been selected, click OK.

In this example, the Baltic Birch material is used.

On the SIZING panel, adjust the Width (X) field under the Bounding Box
 Dimensions section to create buffer space between the cabinet box, and the first and last shelves.

In this example, the value is changed from 15 1/4" to 21 1/4" to create a 3" buffer on each side of the shelf symbol.

- Click **OK**.
- 5. View the new symbol in the User Catalog section of the **Library Browser**

#### To add the symbol to a cabinet shelf

- 1. Using the **Select Objects**  $\geqslant$  tool, select the cabinet that you want to specify vertical shelves for.
- 2. Click the **Open Object** edit tool to open the **Cabinet Specification** dialog.
- 3. On the right side of the dialog where the 3D preview is located, select the face item behind which the vertical shelves will be placed.

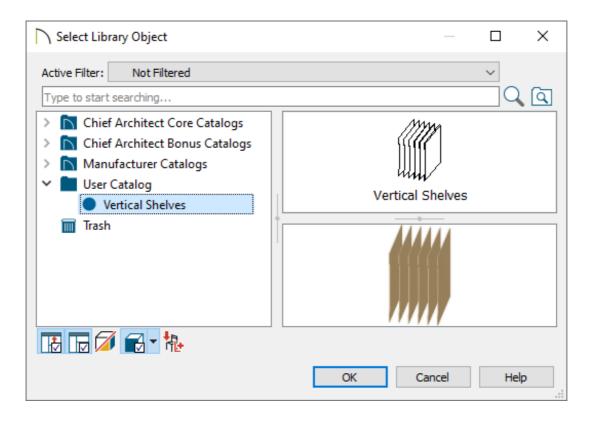
In this example, we have selected the door face item, which then takes us to the FRONT/SIDES/BACK panel.

Base Cabinet Specifi	ication			×
General Box Construction Front/Sides/Back Door/Drawer Accessories	Cabinet Side Side: Side Type: Face Items	Front V Custom Face V		
Opening Indicators Moldings Layer Fill Style Materials Label Components Object Information Schedule	<ul> <li>Vertical Layout Parent</li> <li>1 Separation - H</li> <li>2 Drawer</li> <li>3 Separation - H</li> <li>4 Door - Auto Ri</li> <li>5 Separation - H</li> </ul>	orizontal ght	Add New Celete Move Up Move Down Split Vertical Split Horizontal Equalize	
	Selected Item Properties			
	• Item Type:	Door - Auto Right 🗸 🗸		
	Item Height:	23 1/4" Front Height: 24 9/32"		
	Item Width:	22 1/2" Front Width: 23 7/8"		
	Item Reveal:	o- (j)		
		Lock from Auto-Resize		
	Shelves:	Specify		
	Appliance/Door/Drawer:	Specify Edit Clear Reverse Appliance		
	Percent Open:	100%		
	Side Properties			
	Left Stile:	3/4"		
	Right Stile:	3/4"		
	Left Reveal:	1/16"		
	Right Reveal:	1/16"		
	Options			
	Show Open:	Doors and Rollout Shelves Drawers		
Number Style				OK Cancel Help

- 4. With this component selected, locate the "Shelves" setting towards the bottom of the dialog, then click the **Specify** button.
- 5. In the **Cabinet Shelf Specification** dialog that displays next, select the **Manual** radio button, then click the **Library** button next to the "Shelf" setting.

Cabinet Shelf Specification	on	×
Shelf Management		
Automatic		
Manual		
Automatic Settings		
Number of Shelves:	1	Front→
Thickness:	3/4"	
Spacing From Previous:	11 1/4"	
Depth:	22 1/2"	11.1/0
Manual Shelf Specification		11 1/4
Number of Shelves:	1	
Shelf:	All Shelves $\sim$	1
	Library Clear	
	Rollout 100%	11 1/4
Thickness/Height:	3/4*	
Spacing From Previous:	11 1/4"	
	Equal Spacing	
Depth:	Full	
	⊖ Half	
	O Specify 22 1/2"	
Number Style		OK Cancel Help

6. In the **Select Library Object** dialog that opens, browse into the User Catalog, select the Vertical Shelves symbol, then click **OK**.

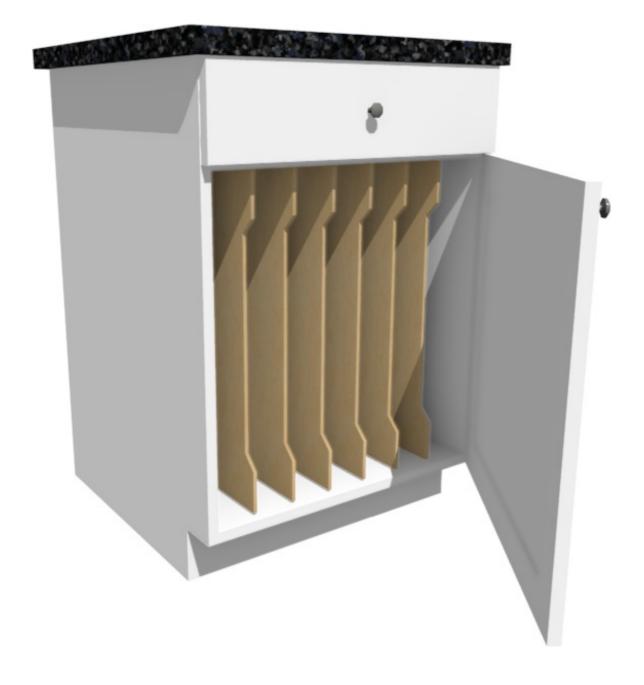


7. Specify the **Thickness/Height**, **Spacing from Previous**, and **Depth** settings to your liking, then click **OK**.

In this example, the Thickness/Height is set to 23 1/4", the Spacing From Previous is set to 0", and the Depth is set to Full.

Cabinet Shelf Specificati	on	×
Shelf Management		
<ul> <li>Automatic</li> </ul>		
Manual		
Automatic Settings		
Number of Shelves:	1	Front→
Thickness:	3/4"	
Spacing From Previous:		
Depth:	22 1/2"	
Manual Shelf Specification		
Number of Shelves:	1	
Shelf:	All Shelves $\sim$	1 Vertical Shelves
	Library Clear	
	Rollout 100%	
Thickness/Height:	23 1/4"	
Spacing From Previous:	0"	
	Equal Spacing	
Depth:	Full	
	◯ Half	
	O Specify 22 1/2"	
Number Style		OK Cancel Help

- To view the shelves inside of the cabinet, place a check in the Doors and Rollout Shelves box located in the "Show Open" section on the FRONT/SIDES/BACK panel. How wide the door is open can be controlled with the Swing Angle/Percent Open setting.
- 9. Click **OK** to confirm the changes and close the dialog, then take a **Camera** is view to see the results.



**Related Articles** 

- Converting an Object into a Symbol (/support/article/KB-00809/converting-an-objectinto-a-symbol.html)
- Creating a Custom Cabinet and Adding it to the Library (/support/article/KB-00446/creating-a-custom-cabinet-and-adding-it-to-the-library.html)
- Designing Cabinet Fronts (/support/article/KB-02945/designing-cabinet-fronts.html)
- Modeling Custom 3D Objects (/support/article/KB-00761/modeling-custom-3dobjects.html)

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