# **Using Molding Polylines**

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The information in this article applies to:



# QUESTION

What are molding polylines and how can they be used?

# ANSWER

A molding polyline is a path that either a 2D molding profile is extruded along or a series of symbol moldings is repeated along. Molding polylines can be used to add decorative detail anywhere in your 3D model.

In X15 and prior versions, separate 2D and 3D Molding Polyline tools were available. These tools have since been combined into a single tool starting with X16.

It's important to note that in X15 and prior versions, a 2D molding polyline must be drawn in plan view, while 3D molding polylines can be drawn in elevation or section views, and create vertical moldings. 3D molding polylines also do not have to be coplanar, meaning that a given edge can go in any direction in all three dimensions. In this article, an oblong mirror will be created, and a custom frame will be generated using a molding polyline.

## To create the mirror

- 1. Navigate to **3D> Create Orthographic View> Cross Section/Elevation** from the menu, then click and drag towards the wall that will have the mirror.
- 2. Select **Build> 3D Solid/Primitive> 3D Solid** , then click and drag to create a rectangular 3D/polyline solid.

In this example the 3D/polyline solid is 2' (ft) x 4' (ft) in size.



- 3. Using the **Select Objects** tool, click on the 3D/polyline solid to select it, then click the **Open Object** edit tool.
- 4. In the **3D Solid Specification** dialog that displays next:

☐ 3D Solid Specification	n	
3D Solid Polyline Selected Line Line Style Fill Style Materials Label Components Object Information Schedule	Size Width: Depth: Height:	24"   1/4"   48"   Retain Aspect Ratio   Recalculate Bounding Box

• On the **3D** or **G**ENERAL panel, set the **Depth/Thickness** 

In this example, a value of 1/4" is specified.

 On the MATERIALS panel, select the **3D/Polyline Solid** component and click the Select Material button. Browse to or search for your desired material, then click OK.

In this example a "Mirror" material is used.

- Click **OK** again to close the dialog and confirm the changes.
- 5. With the 3D/polyline solid still selected, click on the upper edge to make this the active edge.

The edge of a polyline-based object that has the largest edit handle and is typically a different color is the active side. All other sides will have smaller edit handles with a different color.

- 6. Select the **Change Line/Arc**  $\widehat{\phantom{aa}}$  edit tool to convert the upper edge to an arc.
- 7. Click the **Make Arc Tangent 7** edit tool. In the **Radius of Tangent Arc** dialog that appears, click **OK**.

Radius of Tangent Arc				
Arc Radius: 26 13/16"				
OK	Cancel	Help		

8. Repeat steps 6-7 for the lower edge



To create the frame using a molding polyline

- Using the Select Objects tool, select the 3D/polyline solid, then navigate to Edit>
   Copy and Paste in Place
- 2. With the new, copied 3D/polyline solid selected, click the **Convert Polyline** Address edit tool.

In X15 and prior versions, select the **Convert to Plain Polyline** A edit tool, then click the **Convert Polyline** A edit tool.

3. In the **Convert Polyline** dialog that displays, choose the **Molding Polyline** option and click **OK**.

In X15 and prior versions, select the **3D Molding Polyline** option instead.

CAD O Plain Polyline			
Plain Polyline			^
Construction Line			
Revision Cloud			
Architectural			
🔵 3D Solid			
3D Solid Hole			
🔵 Backsplash			
Countertop			
🔵 Face			
Hole in Ceiling Platfo	orm		
Hole in Floor Platfor	n		
Hole in Roof / Custo	m Ceiling		
🔵 Landing			
🔵 Skylight			
🔵 Slab			
Slab with Footing			
Tray Ceiling			
Molding Polyline		 	
Terrain			
Elevation Line/Regio	n		
🔵 Terrain Break			
🔵 Garden Bed			
Grass Region			
Flat Region			
○ Hill/Valley			
Raised/Lowered Reg	on		
🔵 Terrain Wall			
Terrain Curb			
🔵 Sprinkler Line			
Terrain Feature			
Terrain Perimeter			~

4. In the **Molding Polyline Specification** or **3D Molding Polyline Specification** dialog that opens next, click on the MOLDINGS panel.

Molding Polyl	ine Specification							×
General	Molding Profiles							
Polyline Selected Arc				Repeat	Horiz.	Vertical	То	Add New
Moldings	Name	Width	Height	Distance	Offset	Offset	Тор	Make Copy
Line Style	AMU3 - Astragal Mol	aing 3/8	3	N/A	U	U		Edit
Fill Style Materials								Editiii
Label								Replace
Components								Delete
								Make Stack
								Explode Stack
								Move Up
								Move Down
								Add to Library
	🗌 Retain Aspect Rati	o 🗌 Auto (	Offset					
	Selected Profile Optio	ns						
		Profile Rota	ation:	90.0°				
	+	Reflect Ho	rizontal	Reflect	Vertical			
		🗹 Extrude	Inside P	olyline				
		Count C	Compone	ents in Mat	erials Lis	t	$\frown$	、
							AM03 - Astragal N	Aolding

• Notice that a square molding profile is already chosen. Click **Replace** and browse to a more appropriate molding.

In this example, the AM03 - Astragal Molding profile is used. In prior versions, this may have been named CA-24.

• Set the **Width** and **Height** of the molding to be the thickness and depth of the frame desired for the mirror.

In this example, the Width is set to 5/8" and the Height is set to 3".

• Specify any other properties such as the **Profile Rotation**.

In this example, this is set to 90°, though this may not be needed in X15 and prior versions.

- 5. Select the MATERIALS panel to choose an appropriate material for the molding profile, then click **OK** to close the dialog.
- 6. Take a **Camera (o)** view to see the results.



Consider blocking the 3D/polyline solid and the molding polyline together so the mirror is treated as a single entity. To learn more, please see the "Creating an Architectural Block" resource in the <u>Related Articles</u> section below.

**Related Articles** 

 Creating a Custom In-ground Swimming Pool (/support/article/KB-00773/creating-acustom-in-ground-swimming-pool.html)
 Creating an Architectural Block
 (https://www.bom.edesigners.eftware.com/support/article/KB-00101/creating.ap.

(https://www.homedesignersoftware.com/support/article/KB-00191/creating-anarchitectural-block.html)

- <u>Creating and Editing Molding Profiles (/support/article/KB-00166/creating-and-editing-molding-profiles.html</u>)
- d Generating 3D Ductwork (/support/article/KB-02840/generating-3d-ductwork.html)
- Modeling Custom 3D Objects (/support/article/KB-00761/modeling-custom-3dobjects.html)
- Using 3D/Polyline Solids (/support/article/KB-02925/using-3d-polyline-solids.html)
- Using Molding Polylines to Create a Custom Column (/support/article/KB-
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