Chief Architect[®] Architectural Home Design Software

Specifying the Depth of Floor and Ceiling Joists

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The information in this article applies to:



QUESTION

How do I set the joist depth for one particular room in my design?



ANSWER

The joist depth can specified for an entire plan, on a floor-by-floor basis, on a room-byroom basis, or for an individual joist. However, resizing an individual joist in this manner will not affect the space allotted for it in the floor or ceiling platform that it is located within.

Note: It is recommended that you specify all structural information, including floor and ceiling heights and platform thicknesses, before you build a roof or generate framing. It's also important to generate a foundation prior to generating floor framing for your first floor.

- <u>Specifying the joist depth for an entire plan</u>
- Specifying the joist depth for a single floor
- Specifying the joist depth for an individual room
- <u>Specifying the depth of an individual joist</u>

To specify joist depth for an entire plan

- 1. Select **Edit> Default Settings** ^[1] from the menu, expand the **Floors and Rooms** category, select **Floor/Ceiling Platform**, then click **Edit**.
- 2. In the **Floor/Ceiling Platform Defaults** dialog that opens, click **Edit** next to Floor Structure or Ceiling Structure.

→ Floor/Ceiling Platform Defaults ×				
Ceilin	g			
	Ceiling Structure:	5 1/2"	Edit	
	Ceiling Finish:	5/8"	Edit	
Floor				
	Floor Finish:	7/8"	Edit	
	Floor Structure:	12 5/8"	Edit	
Number Style OK			Cancel	Help

3. In the **Floor/Ceiling Structure Definition** dialog that displays, change the **Thickness** of the framing layer to your desired value, then click **OK**.

In most cases, Layer #2 is the framing layer. Framing layers typically have a framing material applied, and will have the Framing box checked under the Structure section at bottom of the dialog.

├ Floor	↓ Floor Structure Definition ×						
Material	Material Layers 👘 🔂 👔 👔					🚓 - 🖂 🔒 🖪	
Layer #	Material	Pattern	Texture	Fill	Thickness	Insert Above	
1	OSB-Hrz				3/4"	Insert Below	
2	Fir Framing 1				11 7/8"	Move Up	
						Move Down	
Delete							
Total Thickness:							
	12 5/8"						
Energy Va	alues						
Cavity R-Value:		[0.0				
C	Continuous R-Value	: [0.0				
Structure							
✓ Framing							
Type: Visit V							
	Auto Detail as Insulation						
Air Gap							
Number Style OK Cancel Help					Cancel Help		

- 4. Click **OK** and **Done** to close the remaining dialogs.
- 5. Now, when you generate floor and/or ceiling framing, the joists will have the depth specified.

To specify joist depth for a single floor

1. Select **Edit> Default Settings** ^[] from the menu, expand the **Floors and Rooms** category, expand the **Floor Levels** category, select the floor level that you want to adjust, then click **Edit**.

In this example, the 1st Floor is selected for editing.

Navigate to Build> Floor> Build New Floor to create a additional floor levels in your design. When creating new floors, a Floor Defaults dialog will display where the Floor Structure can be edited to your liking before the floor is established.

2. On the **S**TRUCTURE panel of the **Floor Defaults** dialog that displays, click **Edit** next to Floor Structure or Ceiling Structure.

1st Floor Defaults			×
Structure	Absolute Elevations		I 🏦 👍
Moldings	Floor Above:		
Materials	Ceiling:	109 1/8"	
Object Information	Floor:	0"	
	Floor Below:		
	Relative Heights		
	Rough Ceiling:	109 1/8"	
	Finished Ceiling:	107.5/8"	
	SWT To Ceiling:	109 1/8"	
	Ceiling Below:		
	Stem Wall:	37.1/2"	
	SWT = Stem Wall	Тор	
	Ceiling		
+	cennig	☑ Roof Over This Room	
		✓ Flat Ceiling Over This Room	
		Shelf Ceiling	
		Use Soffit Surface for Ceiling	
	Ceiling Structure:	5 1/2" Edit 🗹 Default	
	Ceiling Finish:	5/8" Edit 🗹 Default	
	Floor		
	1001	✓ Floor Under This Room	
		Floor Supplied by the Foundation Room Below	
		Monolithic Slab Foundation	
		Raised Floor For Bump Out	
	Floor Finish:	7/8" Edit 🗹 Default	
	Floor Structure:	12 5/8" Edit 🔽 🗹 Default	
Number Style		ليع OK Cancel	Help

3. In the **Floor/Ceiling Structure Definition** dialog that displays, change the **Thickness** of the framing layer to your desired value, then click **OK**.

In most cases, Layer #2 is the framing layer. Framing layers typically have a framing material applied, and will have the Framing box checked under the Structure section at bottom of the dialog.

4. Click **OK** and **Done** to close the remaining dialogs.

will have the depth that you specified.

To specify joist depth for an individual room

- 1. Using the **Select Objects** tool, click in an empty space in a room to select it, then click the **Open Object** edit button.
- 2. On the **STRUCTURE** panel of the **Room Specification** dialog that displays, click **Edit** next to Floor Structure or Ceiling Structure.

Room Specification				×
General	Absolute Elevations —			🖂 🏦 👍
Structure	Floor Above:			
Deck	Ceiling	109 1/8" 山	1	
Deck Support Moldings	cening.]	
Wall Covering	Floor:	0"		
Fill Style	Floor Below:			
Materials	Relative Heights			
Object Information	Rough Ceiling:	109 1/8" 也,	1	
Schedule	Finished Ceiling	: 107 5/8"]	
	SWT To Ceiling:	109 1/8"		
	Ceiling Below:			
	Stem Wall:	37 1/2"		
	SWT = Stem Wa	II Тор		
	Ceiling			
	centry		Roof Over This Room	
				2
	+			+ ****] []
			Use Soffit Surface for Ceiling	┈╕╟┷╤═╸
	Ceiling Structur	e:	5 1/2" Edit 🗹 Default	p
	Ceiling Finish:		5/8" Edit 🗹 Default	
	Floor			
			🗹 Floor Under This Room	
			Floor Supplied by the Foundation Room Below	
			Monolithic Slab Foundation	
			Build Foundation Below	
			Raised Floor For Bump Out	
			Retain Floor/Ceiling Framing	
	Slab Pour Num	per / Framing Group	: 1	
	Floor Finish:		7/8" Edit 🗹 Default	
	On Structure Re	size:	● Lock Floor Top ○ Lock Floor Bottom	
	Floor Structure:		12 5/8" Edit 🗹 Default	
Number Style			OK Cancel	Help

3. In the **Floor/Ceiling Structure Definition** dialog that displays, change the **Thickness** of the framing layer to your desired value, then click **OK**.

In most cases, Layer #2 is the framing layer. Framing layers typically have a framing material applied, and will have the Framing box checked under the Structure section at bottom of the dialog.

- 4. Click **OK**.
- 5. Now, when you build or rebuild framing for the current floor, the joists in this room will have the depth that you specified rather than the default depth.

To specify the depth of an individual joist

When a joist is generated automatically or drawn manually, it's initial depth will be based on the default joist depth for the current floor, or the depth specified for an individual room on that floor. Once a joist is created, you can edit its depth in the Framing Specification (Floor/Ceiling Joist) dialog. Bear in mind, though, that it may not fit within the platform that it was placed in.

- Using the Select Objects tool, click on a joist to select it, then dick the Open Object edit button.
- 2. On the GENERAL panel of the Framing Specification (Floor/Ceiling Joist) dialog:

→ Framing Specification (Floor Joist) ×			
General End Profile Line Style Fill Style Materials Label	Depth and Height Raise/Lower: Lock Top Height: Lock Bottom Height:	0" Apply -3/4" -12 5/8"	
Components Object Information Schedule	O Lock Depth: Options Width: Role: Type:	11 7/8" 2 1/2" Match Depth Use Automatic (Floor Joist) ~ I-Joist ~ Treated	
	Length and Angle Length: Angle: Lock:	192 3/4" -90.0° ○ Start ● Center ○ End	

- Ensure that the **Raise/Lower** box is unchecked.
- Move the Lock radio button to either **Lock Top Height** or **Lock Bottom Height**, depending on which end of the joist you want to lock.
- Specify the desired depth value in the **Lock Depth** field.
- Click **OK**.

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