

RHINO.INSIDE.REVIT MADE SIMPLE • BONUS
WORKFLOW

Create Dimensions

Dimension Revit walls straight from
Rhino.Inside.Revit, centerline to centerline.

YOU WANT TO...

place a dimension between two walls
that stays correct and updates when the
walls move, without drawing it by hand in
Revit.

Beginner

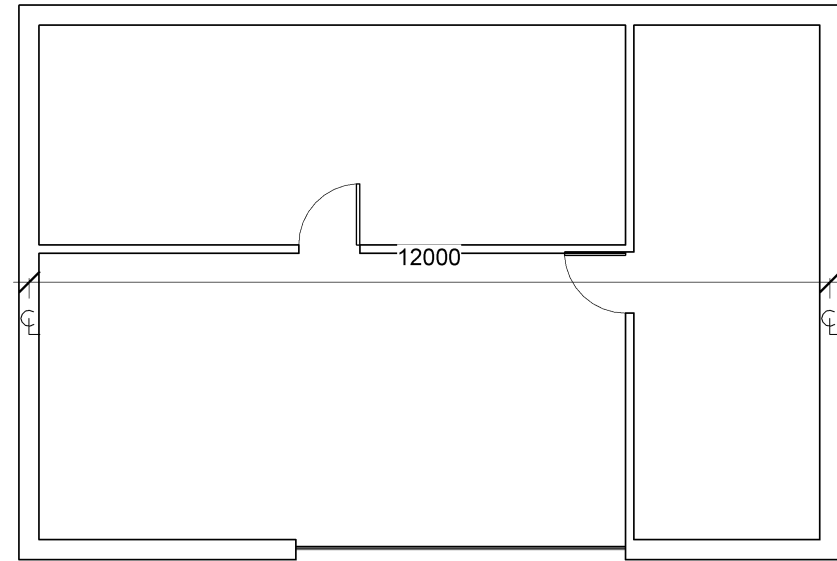
About 10 minutes

7 components

Why it trips people up

Add Aligned Dimension  asks for three things, hides a fourth, and never warns you when the line you give it measures the wrong distance. Once you know the three ingredients and the one rule about the line, dimensions become routine.

THE RESULT



12000

mm, centerline to centerline

A real Revit dimension in the L1 floor plan between the two outer walls. The centerline marks show it measures wall centerlines, and the dimension style comes from Rhino.Inside.Revit too.

Linear or Aligned?

Rhino.Inside.Revit has two components for straight dimensions. They take the same inputs; the difference is the direction they measure.

Component	Measures	Use it for
Add Aligned Dimension 	Along the line you give it, at any angle	Walls, grids, anything not aligned to the view axes
Add Linear Dimension 	Horizontal or vertical in the view	Overall sizes along X or Y

The three ingredients

- 1 View:** the view the dimension is drawn in, here the L1 floor plan.
- 2 References:** at least two things to measure between. Walls work directly and give you their centerlines.
- 3 Line:** where the dimension line sits. It must be **perpendicular** to the references.

Components in this workflow

Every name is the full component name, so you can find each one by double-clicking the canvas and typing it.



Wall

Holds the walls you pick in Revit.

[Docs 2.0](#) →



Curve Middle

Finds the midpoint of a curve or wall.

[Grasshopper docs](#) →



Dispatch

Splits a list into two lists.

[Grasshopper docs](#) →



Line

Draws a line between two points.

[Grasshopper docs](#) →



View

Holds the Revit view to draw in.

[Docs 2.0](#) →



Dimension Type

Holds a dimension style.

[Docs 2.0](#) →



Add Aligned Dimension

Creates the dimension in Revit.

[Docs 2.0](#) →



Add Linear Dimension

Same inputs, measures along X or Y.

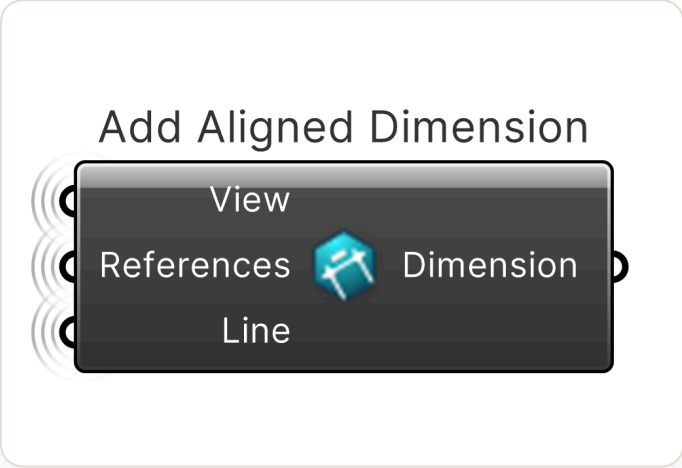
[Docs 2.0](#) →

 Docs 2.0 links open the full component page. Log in with your Premium membership email.

BEFORE YOU START

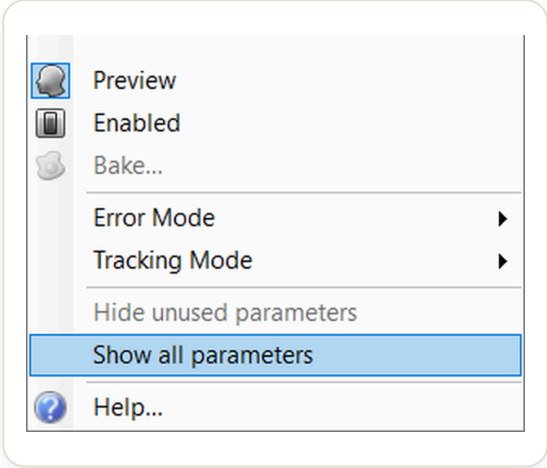
Find the hidden Type input

Add Aligned Dimension  also has a **Type** input for the dimension style, but it is hidden when you place the component. You need it if you want anything other than the default style.



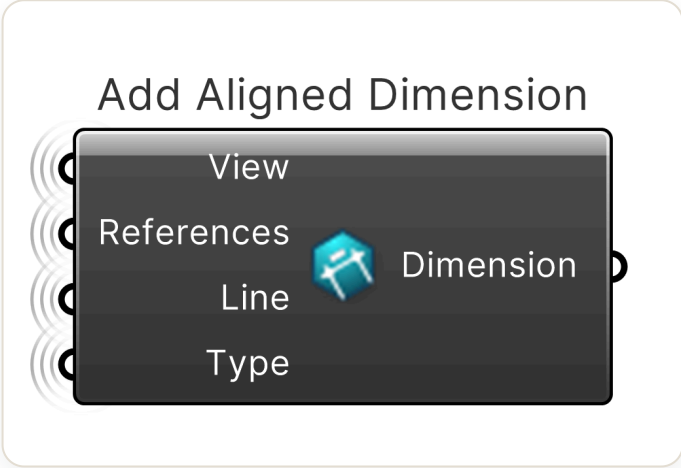
1 The default inputs

When you place the component, only View, References and Line are shown.



2 Right-click the component

Choose **Show all parameters**.



3 Type appears

Feed it a **Dimension Type**  and Revit applies that style to the dimension.

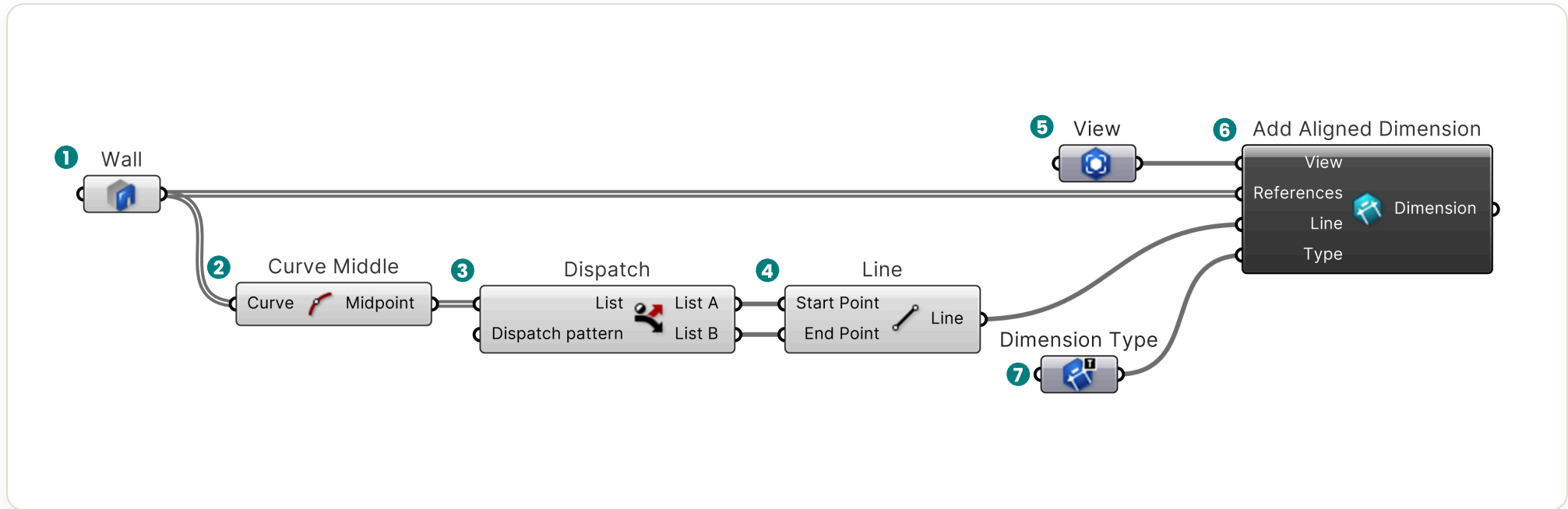
Good to know

The same right-click menu has **Tracking Mode**. By default the component keeps updating the one dimension it created, instead of adding a new one every time the definition recomputes.

THE COMPLETE DEFINITION

Two walls, one line, one dimension

The walls go in twice: once as references, once to build the dimension line.



1 **Wall** : the two walls to measure

2 **Curve Middle** : the midpoint of each wall

3 **Dispatch** : splits the two points

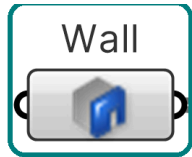
4 **Line** : the dimension line between them

5 **View** : the L1 floor plan

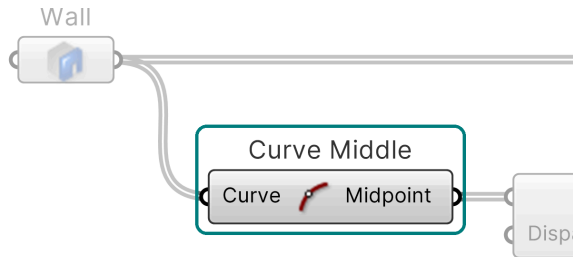
6 **Add Aligned Dimension** : creates the dimension

7 **Dimension Type** : the style, through the hidden Type input

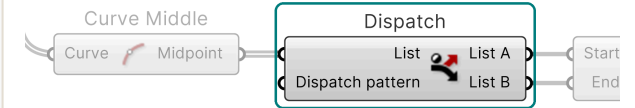
STEP BY STEP

**1 Pick the two walls**

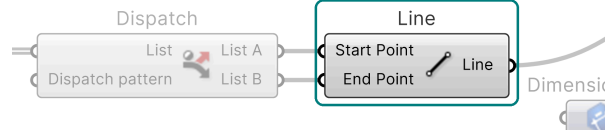
Place a **Wall** param, right-click it and choose **Set Multiple Walls**, then pick the two parallel walls in Revit and press Finish.

**2 Find the midpoints**

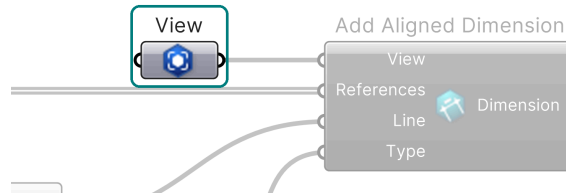
Connect **Wall** param to **Curve Middle**. A wall passes its location line, so you get one midpoint per wall, on its centerline.

**3 Split the points**

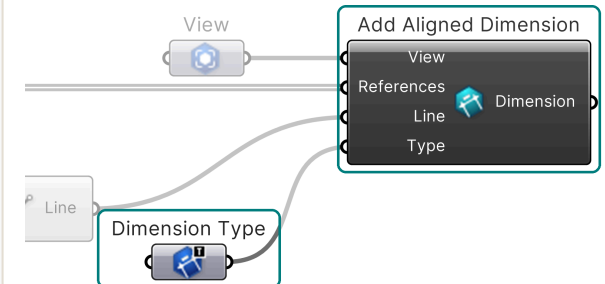
Dispatch sends the first point to **List A** and the second to **List B**. Leave the pattern at its default.

**4 Draw the dimension line**

Connect List A to Start Point and List B to End Point of **Line**. The line runs from one wall midpoint to the other, so it is perpendicular to both walls.

**5 Choose the view**

Place a **View** param and pick the L1 floor plan from its right-click menu. The dimension is drawn in this view only.

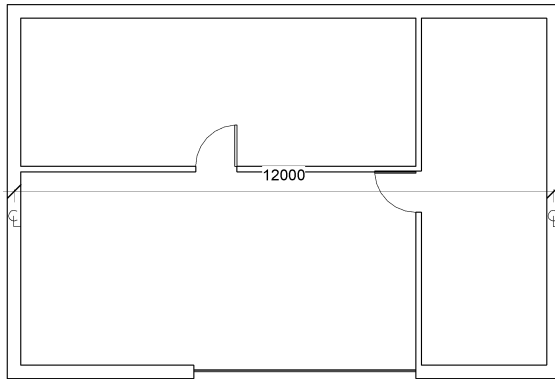
**6 Create the dimension**

Connect View, the walls (as **References**) and the Line to **Add Aligned Dimension**, plus a **Dimension Type** for the style.

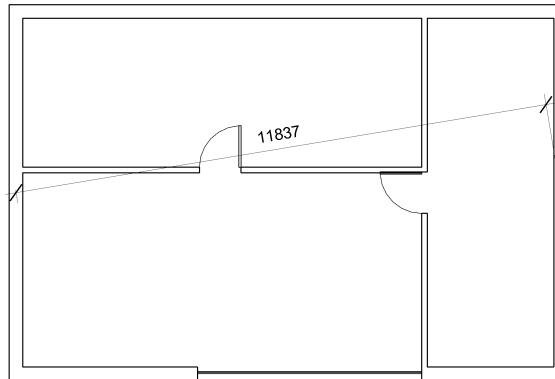
THE TRAP

The line decides what you measure

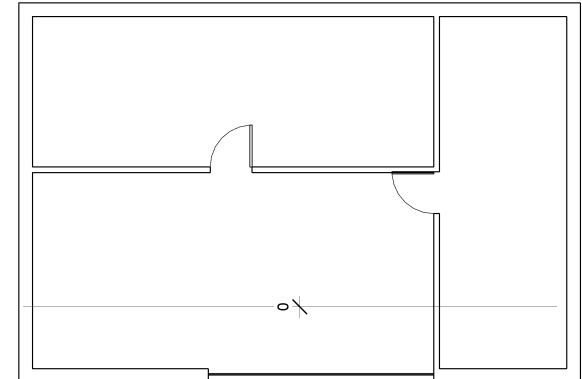
Same two walls, three different lines. All three are real dimensions in Revit, and only one of them is right.

**Perpendicular line**

12000 mm, the real centerline distance

**Slanted line**

11837 mm, wrong value

**Line parallel to the walls**

a dimension of 0

What happens

Add Aligned Dimension  measures **along the line you give it**. It does not check that the line makes sense for your references, and in all three cases it shows no warning or error.

The fix

Build the line from the walls themselves: the line between the two wall midpoints is perpendicular to both walls here. When the walls run along the view's X or Y, **Add Linear Dimension**  is a safe alternative: with the same slanted line it still measured 12000.

Common mistakes

Most dimension questions come down to one of these.

Avoid these

- **A line that is not perpendicular.** You get a dimension with the wrong value and no warning (previous page).
- **Only one reference.** A dimension needs at least two references to measure between.
- **Looking for the Type input.** It is hidden. Right-click **Add Aligned Dimension**  and choose Show all parameters.
- **Deleting the component to "finish".** The component owns the dimension it created. Delete the component and the dimension goes with it. To keep it, right-click the **Dimension** output and choose **Release Dimensions...** first.
- **A 3D view without a work plane.** Use a plan, section or elevation, as in this example.
- **Data mismatch. References** takes a list and **Line** takes one item, so every line is matched with the whole reference list in the same branch. With more than two walls in one flat list, each line gets all of them. Keep each pair of walls and its line in their own branch.

Doesn't work? Check this

Work down the list.

- ☐ **Component orange?** An input is missing. Hover the balloon to see which one.
- ☐ **Number looks wrong?** Check that the line is perpendicular to the walls.
- ☐ **Dimension in the wrong place?** The line's position is where the dimension is drawn. Move the line, not the dimension.
- ☐ **Not visible in Revit?** Open the view you connected to **View**. Dimensions are view-specific.
- ☐ **Style doesn't change?** Connect a **Dimension Type**  to the hidden **Type** input.
- ☐ **A new dimension on every recompute?** Check that Tracking Mode is set to Enabled : Update.

Pro tips

Two more ways to use it.

Detail lines do both jobs

A detail line can go into **References** and **Line** at the same time. The component then picks up the end points of the line as the references, so one line gives you a complete dimension.

Dimensioning a linked model

Get the linked elements with **Query Revit Models** , then pass their references to **References**. The dimension is placed in your host model, measured to the linked geometry.

Try it yourself

Change one thing at a time and watch the dimension in Revit.

Change	What you should see
Move one of the walls in Revit	The dimension follows and updates its value
Pick a different Dimension Type 	Same dimension, new style
Pick two other parallel walls with Set Multiple Walls	The dimension moves to the new walls
Swap in Add Linear Dimension 	Still 12000: it measures along the view's X or Y, even with a slanted line
Connect the View  param to a different plan	The dimension is drawn in that view instead

Remember in one line

A view, at least two references and one perpendicular line.
Expose Type for the style, and release the dimension before you delete the component.

GO DEEPER

Documentation 2.0

This guide gives you the path that works. Documentation 2.0 gives you the whole picture for every component on this page: every input, every hidden input, the right-click options, typical workflows and the edge cases that trip people up.

Included in the Premium membership at skool.com/rhinoinsiderevit



ALSO IN THE SERIES

Workflow 01 · Query & filter elements

Find the walls you want to dimension.