

Creating a Wall Schedule with a Formula

In this exercise, you create a wall schedule that provides a total cost of all of the walls in the project based on the total square meters of each wall type.

Open and use the file student – industrial – complete.rvt from the student share drive

Create a new wall schedule

1. On the View menu, click New - Schedule/Quantities.
2. In the New Schedule dialog box, do the following:
 - Under Category, select Walls.
 - Verify Schedule building components is selected.
 - Verify New Construction is selected under Phase.
3. Click OK.
4. In the Schedule Properties dialog box, click the Fields tab.
5. Under Available fields, select the following fields and click Add to add them to the schedule in order:
 - Count
 - Family and Type
 - Cost
 - Area
6. Click the Sorting/Grouping tab.
7. Select Family and Type for Sort by.
8. Clear Itemize every instance to group the like wall types into one row.
9. Click the Formatting tab.
10. Under Field, select Cost.
11. Under Heading, enter Cost/Sq. m to more accurately represent the data.
12. Under Fields, select Area, and then under Field Formatting, select Calculate totals so that the total area of the each type is calculated.

13. Click OK.

The schedule is displayed.

Wall Schedule			
Count	Family and Type	Cost/Sq. mm	Area
4	Basic Wall: CW 102-85-215p with Soldier Cour		669 m ²
39	Basic Wall: Interior - 79mm Partition (1-hr)		584 m ²
9	Basic Wall: Interior - 135mm Partition (2-hr)		411 m ²

14. Since no cost has been assigned to these wall types, enter a cost value for each type in the schedule. The wall type information for each wall is updated when you enter this data. Use the cost values in the following illustration.

Wall Schedule			
Count	Family and Type	Cost/Sq. mm	Area
4	Basic Wall: CW 102-85-215p with Soldier Cour	12.50	669 m ²
39	Basic Wall: Interior - 79mm Partition (1-hr)	10.00	584 m ²
9	Basic Wall: Interior - 135mm Partition (2-hr)	8.00	411 m ²

Determine the total cost for each wall type by multiplying the total area of the wall by the cost per square metre

15. Right-click the schedule, and click View Properties.

16. In the Element Properties dialog box, click Edit for the Fields parameter value.

17. In the Schedule Properties dialog box, click the Calculated Value button.

18. In the Calculated Value dialog box, do the following:

- Enter **Total Cost** for Name.
- Verify that Number is selected for Type.
- Enter **(Area / 1000.0 mm ^ 2) * Cost** for Formula.

Note: The /(1000.0 mm ^2) in the formula is required to make the resulting value unitless; without the value it would have a unit of area.

19. Click OK.

20. Click the Formatting tab.

21. Under Fields, select Total Cost.

22. Under Field formatting, select Calculate Totals to ensure that a total of all the walls is returned.

23. Click Format.

24. In the Format dialog box, set the following:
 - Select Fixed for Units.
 - Select 2 decimal places for Rounding.
25. Click OK.
26. Click the Sorting and Grouping tab.
27. Select Grand totals to have the schedule display the sum of the rows for Count, Area, and Total Cost, and click OK twice.

The schedule is displayed.

Wall Schedule				
Count	Family and Type	Cost/Sq. mm	Area	Total Cost
4	Basic Wall: CW 102-85-215p with Soldier Cour	12.50	669 m ²	8362.43
39	Basic Wall: Interior - 79mm Partition (1-hr)	10.00	584 m ²	5841.81
9	Basic Wall: Interior - 135mm Partition (2-hr)	8.00	411 m ²	3289.23
Grand total: 52			1664 m ²	17493.47

If you want to save your changes.