Digital Canal Corporation

Solution Papers

Summary: ***Creating a Sloped Floor***

Overview: This Solution Paper steps you through on how to create a sloped floor in SolidBuilder™ with the help of the Cad Menu.

Solution:

In this example, we will create a slab floor, 20' wide x 30' long x 6" depth. In Plan View, the overall run of the sloped floor is going to be 30'. We have to know the Slope Angle of your floor before we move on.

1. Select Tools Calculate Slope.
2. Type in the .25 for Rise and 12 for Run and click on the Calculate button.
3. This gives you the Slope Angle (1.1934). For every foot, your floor slopes ¼".
4. Isolate just the floor before going on to the next step.
5. Now we have to go into the Cad Menu to create our slope.
6. Select File → Cad Menu.
7. Select View→ Face→ Right.
8. Right Click→ Align C-Space to View.
9. Click OK.
10. Select Geometry.
11. Select Axis and Base Point.
12. Select Set Base Point/Block and select the floor.
13. You are prompted: Mark location of base point
14. Right mouse click and select Endpoint.
15. Click on the Top Right corner.
16. Now we can rotate the floor.
17. Select Geometry Rotate/Block.
18. Select the floor using your arrow keys.
19. The Rotate About dialog box displays.
20. Select Base Point.
21. Type the Slope Angle (for this example, type 1.1934) and click on OK.
22. Now we go back into *SolidBuilder.*
23. Select Tools→Toolbars→Edit, Select Developer, Click OK.
24. Click Open in the developer toolbar; change Files of Type to EX. And open sbstart.ex
25. Click on Execute File (!). This will open Solid Builder back up.

26. Now we have to match the sloped floor to the overall run of the floor.
27. Select Front Right view.
28. Create another floor using the outline that was created with the original floor.
29. Select Floor → Slab → Outline and select the floor outline.
30. Select Shape → Project.
31. Select Distance and type in 2”.
32. Select the sloped floor, right click until the back edge is highlighted and left click.
33. Select Shape → Project.
34. Select To Another and Floor.
35. Select the second floor (last one created).
36. Right click until the back right edge is highlighted and then left click.
37. Select the sloped floor and select the back edge to project.
38. Repeat the last command, but select the front edges of both floors rather than the back edges.
39. Then you can remove the last floor created so you have only the sloped floor.
40. Now the slope floor displays in your 3-Dimensional model and 2-Dimensional drawings and when you create an estimate, *SolidBuilder* includes the extra material necessary for a sloped floor.