DATACAD LLC

Software for Architecture

TECHNICAL BULLETIN

Converting a 2D drawing into a 3D model

1. Copy the plan of your 2D walls to a new layer called Wall-2D. You don't need to do the interior walls if you're only making an exterior model.

2. Make the Wall-2D layer the Active Only layer.

3. Erase the window and door openings and weld the walls back together or use the Remove Doors/Windows option in the Architct menu, so that you have a continuous 2-line wall that defines the exterior of your building.

4. Change to ISOMETRIC view to make it easier to see the extruded heights of your walls.

5. In the 2D Edit Menu, choose Change/Z-Hgt and enter the height of your walls. In this case use 10 feet. Pick all of the walls. If you have stairs, low walls, etc., to extrude, type a new Z-Hgt and pick these entities.

6. The walls are now extruded into 2-1/2D entities -- they are not true 3D yet, so you can not put 3D doors and windows in.

7. Go to the 3D Edit Menu and choose Explode/ToPgons. Pick the walls by area, fence or entity. Now you have TRUE 3D PLANES (not slabs or blocks) which can support the addition of voids, 3D windows and 3D doors, etc. You also have sharp corners without overlapping slab edges.

8. Go back to ORTHO view and turn on the 2D doors and windows layers so you can see where the windows and doors are to be placed.

9. Go to the 2D Edit Menu and choose Toolbox/AEC_MODL. Set the variables for the type of 3D windows and 3D doors you want to match the dimensions of the 2D windows and 2D doors.

10. Insert the 3D windows and 3D doors into your 3D walls. If you have DataCAD 7.04 or higher, voids will automatically be cut into the walls at the doors and windows if CutWall is turned on and LyrSrch is on and set to search the Wall-2D layer. (Remember: when you insert a void in a plane you must maintain at least a sliver of plane between the void and the edge of the plane -- you can not put a void at the very edge of the plane.)

11. Now you can use Roofit to put a roof on your building.

12. If you need to extend your 3D walls up to meet the point on a gable, use ClipCube to isolate one gable on the building, change to an elevation view that allows you to see the gable, then in the 3D Entity Menu use Polygon/Vertical/Add Vertices. Pick the center of the wall plane under the gable of the roof and stretch it to the underside of the gable roof.

13. When editing planes by snapping in 3D (tricky to do), try using Markers under the 3D Entity Menu.