3D MODELS FROM VERSACAD FILES USING SKETCHUP

INTRODUCTION

3D models from VersaCAD files have never been easier. VersaCAD 2004 for Windows 2D files can be brought into SketchUp and converted to 3D models by one of three different methods:

1. Automatically, if Z coordinates entered in VersaCAD
2. Extruded manually
3. Profile swept

Follow these instructions and you can have a model made of your VersaCAD drawing in less than 10 minutes! (assuming you have already installed the SketchUp 3D software.)

AUTOMATIC MODEL CREATION

In order to automatically get a 3D model from your 2D files you need to add Z bottom and Z top coordinates to your 2D geometry. This will make a line into a vertical plane and a circle into a cylinder when brought into SketchUp 3D.

Here is how to enter Z coordinates to an existing VersaCAD 2D file:

1. In VersaCAD, open a 2D file
2. You can either add the Z coordinates one at a time via Modify Properties or to a series of objects via Group Properties. The easiest way is via Group. For example, group all your outside walls and assign Z bottom 0'-0" and Z top 9'-0" to the group as an example.
3. Other examples: Assign countertop Z bottom at 0'-0" and Z top 3'-6", assign to each step of a stairway in 6" increments.
4. When you have finished assigning Z coordinates to your geometry, use the DXF-DWG Translator to translate your saved 2D file to the DWG format. You can read how to do this in the VersaCAD Help (at top of screen) and click on Help>Topics>Utilities>Translator>DXF-DWG Translator
5. Next launch SketchUp 3D.
6. Within SketchUp, File>Open.
7. Navigate through directories at top of Open dialog box to where you put the DWG file (usually VCADWIN\V2D\DRAW). Set "Files of type" to DWG. Highlight the correct DWG file and then click Open

You will see 4 views of your 3D model. Now, you can render it or print the perspective or add more details in 3D. Show it to your clients and impress them with what your design will look like when constructed.

Here is a brief example:

Open the VersaCAD 2D file called FLRPLAN.2D:

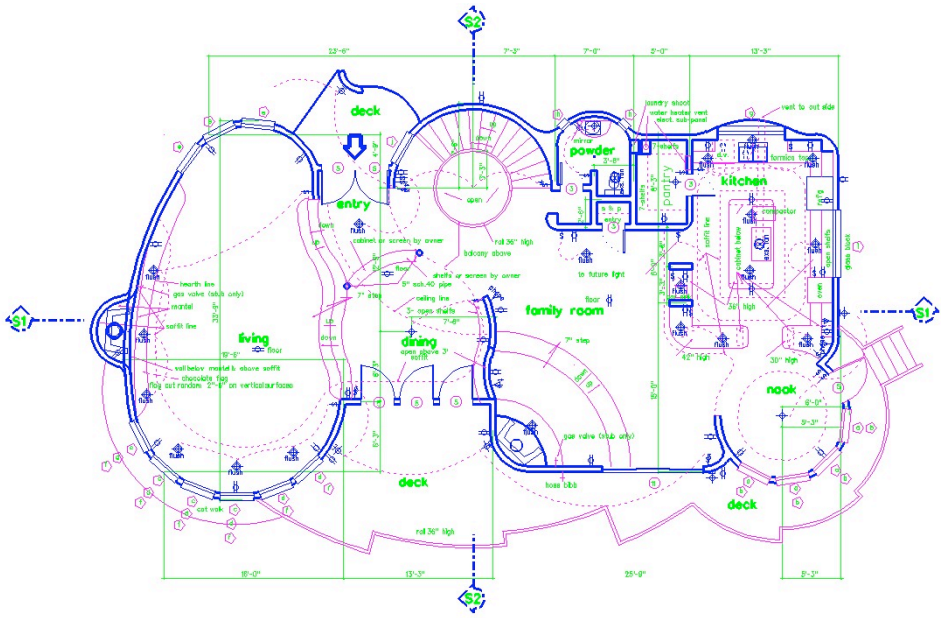


Figure 1. FLRPLAN.2D

Assign Z bottom and Z top to some of the vertical walls and assign the spiral staircase step heights. Save the file out of VersaCAD and then translate to DWG format using the VersaCAD translator found in: File>Translator
Use these steps:

1. Change "Select Type of Conversion" to VCAD➔DWG
2. In "Translate From" Navigate to FLRPLAN.2D
3. Highlight FLRPLAN.2D
4. Click Translate button
5. Note where the translated file was saved Flrplan.dwg

Now, launch SketchUp 3D, then File>Import>3D Model. Change Files of Type to DWG. Then, navigate to FLRPLAN.DWG and click Open. Here is what you will see:

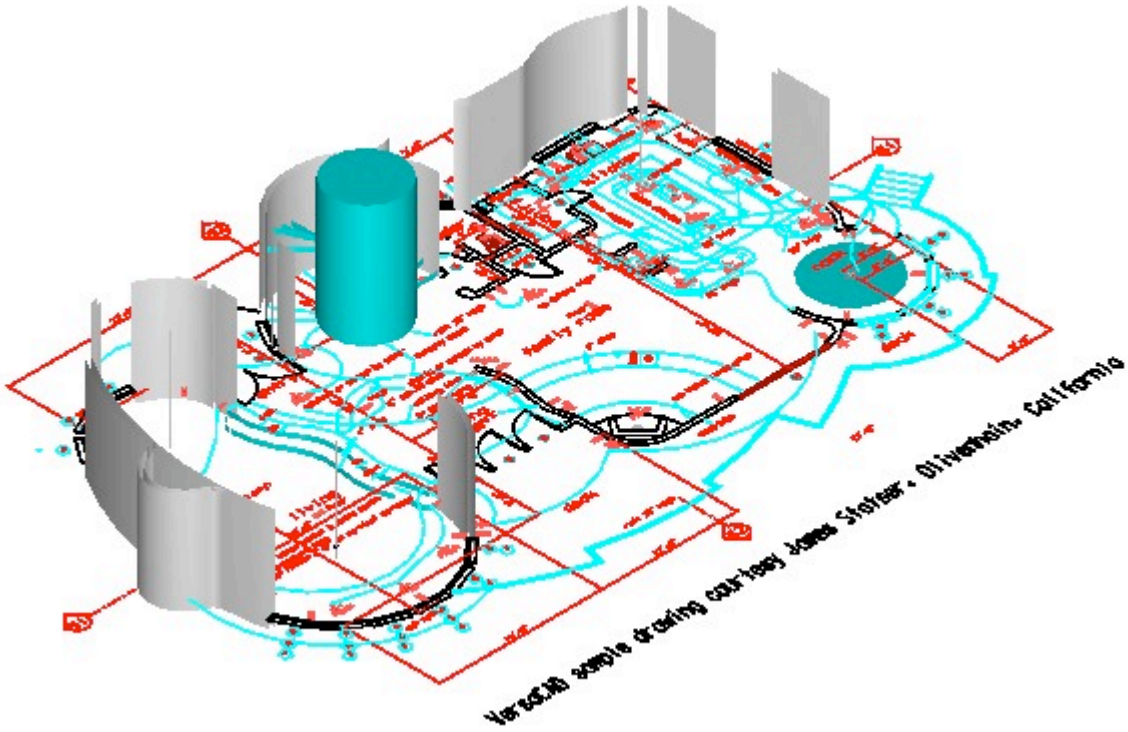


Figure 2. FLRPLAN.DWG After opening in SketchUp 3D

You can see that we only assigned Z coordinates to some of the elements. But, you can use the same method to assign Z coordinates to all of the elements.

EXTRUDED MANUALLY

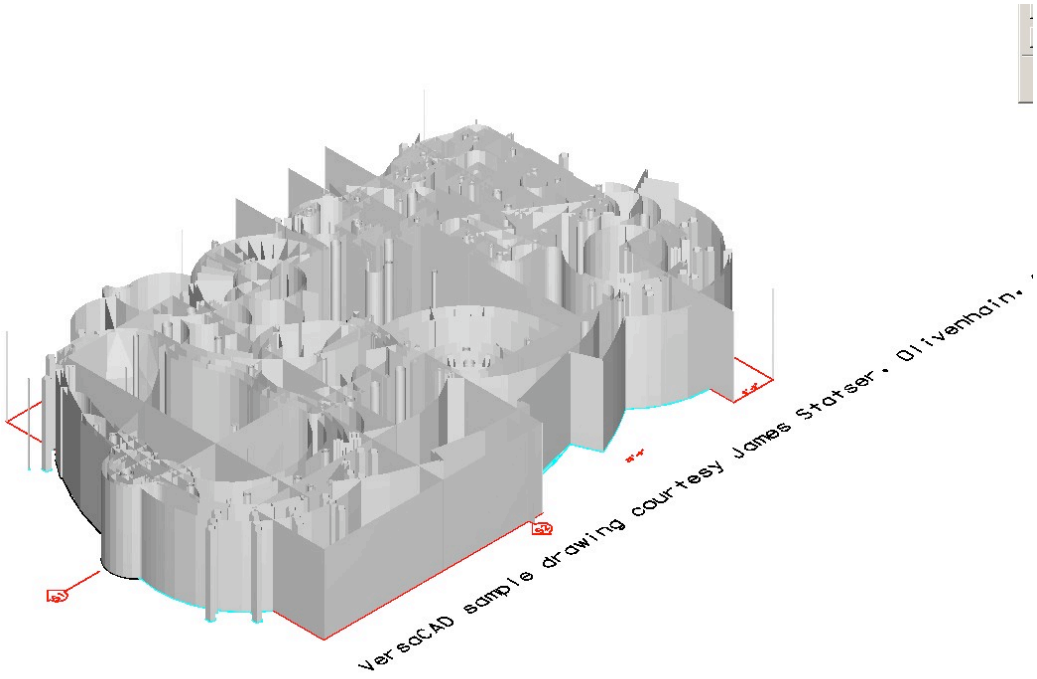
The second method of creating a 3D model from your VersaCAD drawings is to bring the flat file into SketchUp 3D and use the SketchUp tools to extrude the geometry. This is really quite easy if you don't mind extruding all of the geometry to the same height.

Using the same VersaCAD file, here is how that works:

1. This time don't add any Z coordinates to the file FLRPLAN.2D (see the file above, Figure 1.)
2. In VersaCAD, File>Translator
3. Change "Select Type of Conversion" to VCAD➔DWG
4. In "Translate From" Navigate to FLRPLAN.2D
5. Highlight FLRPLAN.2D
6. Click Translate button
7. Note where the translated file was saved Flrplan.dwg,
8. Now, launch SketchUp 3D, then File>Import>3D Model. Change Files of Type to DWG. Then, navigate to FLRPLAN.DWG and click Open..

To Extrude manually, while in SketchUp, follow the Help instructions for extruding.

Here is the way the extrusion will look



Now, you have all sorts of options inside SketchUp. For example, you can print the shaded image out of SketchUp and add to a report, or you can "Orbit" around your model using the orbit tool.

If you want to learn more about SketchUp, you can model the roof of your structure and then cut it into your model to complete your 3D design.