SKETCHUP -UR-SPACE

COVER STORY

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- **Debamoy Ghosh**

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A letter direct from the editor desk highlighting on August edition

The team of sketchup ur space is going to publish another sensational edition of its exclusive sketchup magazine.

In this current issue, our editorial team mainly focuses on the most important plugins in 2015. In this respect our editorial team has presented an in-depth cover story on top 10 plugins for sketchup in 2015. These sketchup plugins are very useful in generating naturalistic 3d models.

In interview section, the sketchup ur space team has interviewed Laurent Brixius, a French-speaking Belgian architect, CG Artist and SketchUp trainer. In this interview Laurent shares his professional and personal experiences with sketchup.

In article section there are two nice articles presented by the editorial team of our magazine. The first one is based on learning sketchup by pursuing some best methods. There exist lots of resources to improve the modeling skills and productivity with sketchup but the sketchup users have to choose the best practices. By going through this article, one will be familiar with five best practices to learn sketchup within short span of time.

The second article is presented on highlighting the processes for producing an accurate polygon building maintaining the proper dimensions through sketchup.

In tutorial section our reader will get five instructional tutorials for sketchup users. The first tutorial is presented by Simone Piccioni, a sketchup hobbyist. In this article Simone teaches us how to apply Sketchup Uv plugin and the program Roadkill UV Tools to map a texture on a model having complicated shape.

In his second article Piccioni shows how to use sketchup clean plugin to clean any model all those segments, hidden geometry, duplicate faces etc.

The third article is presented by editorial team of sketchup ur space. With this tutorial, the sketchup users can learn some easy to follow tricks through step-by-step processes for measuring the height of structure on Google Earth.

The fourth article is also presented by the editorial team of sketchup ur space that focuses on the newest skill builder video series launched by sketchup team in recent time. In this particular skill builder video series one can learn how to insert material to the sketchup components efficiently.

The last and final tutorial is based on sketchup STL export. Learn how to utilize sketchup together with some free open source programs like MeshLab and Accutrans3D to create and export .stl file format from inside sketchup.

In blog section, the first write-up is about the latest version of CL3VER alias CL3VER 3.0. This newest version facilitates the engineers, architects, and other design professionals to experience real-time photorealistic lighting effect, obtain VRay material support and secure project sharing for superior quality real-time 3D presentations.

In blog section, there is another write-up that focuses on a ground-breaking new product called substance painter. The users can create sensible textures by adding details to your model as well as paint with particles.

In news section our readers can get lots of exciting news on sketchup and various latest 3d modeling programs.

Hope, this issue will be a great resources for worldwide sketchup lovers.

If you have any queries concerning publication, subscription, troubles navigating the site, please mail us at rajib@sketchup-ur-space.com

Best wishes
Rajib Dey
Editor

Interview with Laurent Brixius, a French-speaking Belgian architect, CG Artist and SketchUp trainer

Interviewer : Rajib Dey (Editor-in-chief)

Make your brief introduction to our readers.

Since graduating as an architect, I work in the field of CGI for almost 20 years, always with great passion and pleasure. In addition to my SketchUp models and CGI production activities, I am also author and editor of several books and training videos on SketchUp in French. I am also an international SketchUp and Thea Render trainer for firms, training centers and individuals both off-line and on-line.

When and how did you become passionate about sketchup?

I began to 3D modeling with AutoCAD and 3ds Max but I was looking for a way to get fast opinions of my clients to minimize changes in later, much more time-consuming stages of production. So I wanted a quick 3D modeling software allowing me to present an easy to understand 3D sketch in a few hours to my clients ... I discovered SketchUp and never let it go since.

How sketchup streamlines the architectural visualization process?

SketchUp allows for very fast modeling of 3D models, from simple to complex. With a good mastery of the tools and especially a good organization of the model using components, it is possible to produce very quickly a 3D model of a project and modify it easily afterwards.

The current availability of many rendering plugins then allows generating photo-realistic images without leaving SketchUp, which is a huge time saver and a significant reduction of the risk of data loss or errors, especially when projects keeps changing frequently. Purchasing a license of Thea Render and its "live" plugin for SketchUp is definitely my best investment in recent years.

How do you explain your visualization style?

Working for many customers, each with their own preferencies, my images do not share a recognizable "signature". I adapt to customer requirements and its sometimes very limited budget. But I pay much attention to light and especially to the realism of shadows relative to the location and orientation of the building.

The technological advancements in various software's encourage people to put their step in architectural visualization field. Do you agree with it?

With new photorealistic rendering features available in many architectural software, I see more and more images by non-professionals. Logically enough, these images show the main defects we found among beginners CGI artists like the use of poor quality textures with visible seams (we call it "wallpaper effect" in French) and erroneous scales, extremely distorted perspectives or flat, boring views, missing background and so on.

At the same time, customers requirements are increasing, requiring still more practical experience and resources (quality 3D components, highly realistic materials, HDR images, etc.) out of reach for those who make only a few pictures a year, so there is still a future for talented CGI artists. But those who do not bring added value to these one-time users will have a hard time because competition is increasingly fierce and outsourcing is easier than ever.

What is the future prospect of architectural visualization?

In terms of realism, current rendering software are already able to produce CG images indistinguishable from a photograph, if it is the desired goal. So I think that the growing power of computers will allow to move the ambitions of architectural visualization to real-time and augmented reality. I remember a short film by Bruce Branit, "World Builder" that showed a man who created a world using holographic tools. THIS is the future of architectural visualization! Link to the movie:

https://player.vimeo.com/video/3365942?color=f0bc00&title=0&byline=0& portrait=0

The latest version of sketchup is sketchup 2015. Share your brief insight about it.

As usual, this new version of SketchUp is an evolution rather than a revolution. But SketchUp 2015 offers many new convenient features that really save time, as the Rotated Rectangle tool, the improvements of the 2 Points Arc tool and huge improvements in Label Auto-Text. And for those who work in a BIM environment, the new Classifier tool and the ability to export to IFC finally open SketchUp to BIM.

As for the long-awaited transition to 64-bit mode, if it won't be useful to many users of SketchUp, this is great news for those who, like me, can use plugins to use more than 3GB RAM.

And those who still wonder if they should go the Pro way, the extension of the trial period to 30 days is a huge improvement compared to the 8 hours limit of previous versions.

In conclusion, this is the first time I use a new version of SketchUp production right out.

Can you share some details about your daily workflow?

All my projects are sorted by priority order. So I'm focusing on the most important and urgent projects. When I have free time, such as when I wait for an answer form a customer, I optimizes SketchUp components and I create Thea Render new materials from a huge To-do list. These optimized components and materials comes realy handy when I have a very short dead-line, which is very likely as most of the works are "for yesterday".

Regularly, I devote a little time to evaluate my work and training methods. I ask myself the question, "Isn'it it possible to make it better / faster? "... And I try to answer!

What types of software do you utilize in your work?

Besides SketchUp for 3D modeling and Thea Render for photo-realistic rendering, I also use Photoshop and 3ds Max. With only occasional needs for DWG file processing, I use now DraftSight to fix and optimize DWG files before importing into SketchUp.

To plan my complex projects, my books and training courses, I also use the mind-mapping software Xmind. And I also use a lot of plugins for SketchUp but it would take many pages to list them all. My top 10 would be, in no particular order, FredoTools and Joint Push Pull from Fredo6, Material Replacer and Raytracer from Thomthom, Artisan and Profile Builder from Whaat, CLF_Scale Rotate Multiple and Repeat Copy from Chris Fullmer, Projection V2 from Didier Bur and the good old Make Faces from Todd Burch.

Can you share some memorable inside stories of your projects?

One of the striking features of SketchUp is the large number of plugins available (see above). I remember receiving from a client a large project full of group copies instead of components. This SketchUp model had many problems for rendering quality and, as time was running, I was initially scared by the amount of work needed to edit or replace the groups copies with copies of components. The number of copies of one group being displayed in the Entity Info dialog box, I thought that there should be a plugin that could transform groups copies to component copies. After some research, I discovered the Selection Toys plugin from ThomThom and its Convert to components tool. This plugin has saved me hours of work and allowed me to meet the deadline. Thanks a lot, Thomthom!

And I would have many more stories where a plugin has saved me a lot of time!

You are the author of many book and video training on sketchup. Please explain briefly.

Following my discovery of SketchUp, I then started to write articles about SketchUp on my blog www,arch-image.com/blog/. A publisher seeking authors about SketchUp noticed me and offered to become an author and finaly editor of the first collective book in French on SketchUp, a book which was then translated into English under the title Google SketchUp Workshop. One thing led to another and I recorded a first SketchUp video training for Elephorm and offered my services as a corporate trainer and for many training centers and now on the Internet. I then published a second book on SketchUp for beginners and next a new collective book with several authors from various areas of activity sharing their experience and tips about SketchUp. And I have released three new training modules on SketchUp 2015 Make and Pro since the beginning of the year.

What will be your advices to the people who are just entering into the architectural visualization field?

- Be creative in your visuals but also in the way you work. Look how to continually improve.
- Architectural visualization is a changing world. Never take anything for granted. Evolve !
- Master the reading plans skill and architectural vocabulary. And challenge what you see : many drawings contain errors. Ask for confirmation when needed.
- Always respect your commitments even if it means spending a few sleepless nights or seek outside help.
- Learn to fully master your tools, especially your softwares. Always look for what a new version of SketchUp (or another software) can do for you. The more you master your software the better you can develop your creativity.

Tell something about our magazine.

I think SketchUp-ur-space is a good mix of usefull tips for beginner ou advanced SketchUp users alike, fresh news about SketchUp and new plugins and refreshing points of view from power users around the world in various areas of activity. A close match to what I want to achieve in French with my own blog... I am honored to have been invited to share my previous articles and this interview. Keep on publishing great contents for the SketchUp community !

The 10 best Sketchup Plugins in 2015

Debamoy Ghosh

SketchUp is a 3D modelling program possessed by Trimble Navigation and utilized by designers in engineering and architecture. Plugins or scripts are broadly added to SketchUp for strengthening the 3D experience capability. Most of them are free of charge and can be redrafted by anybody inspired enough to fill the gap of increasing easy to use plugin.

All of these ten plugins are precious to a SketchUp user and enthusiasts in gaining photo realistic 3D model. Some of the best are Instant Roof, Purge All, Fur, 1001 Bit Tools and Curviloft SketckUp plugins. This is an excerpt of the article published by computeraideddesignguide.com with reference to Tak2hata, Goh Chun Hee, Chuck Vali, TIG, Fredo6, sdmitch, Fredo6 and Chaos Group

1. Fur Plugin: This plugin is utilized by different SketchUp enthusiasts in making grass, greenery, carpet and in various other creative lines. In fact the cleverness of SketchUp users are remarkable.

This is used in making "fur" on a created face by inputting certain type and figures in the fur settings. This will deliver a blade of grass and greenery in general. This would permit the designer a chance to adapt how tall and thick the greenery will be to his/her mental fulfillment.

A trouble-free, speedy and easy to use and once the surface have selected, the user can utilized the plugin, imputing the coveted setting and viola. You have added grass to your design.

2. 1001 bit Tools: This contains 39 different tools which are supportive for a budding SketchUp user. This plugin is a "one stop shop tools" for the cause that it has wide uses from drawing a line on a surface, making window frame, to setting up a hip roof. What is preferable in this plugin is the formation of a hip roof, walls, opening frames, stairs and extruding profiles along a chosen path without twisting even if the path is sloping. 1001 bit tools will build life easier for SketchUp users.
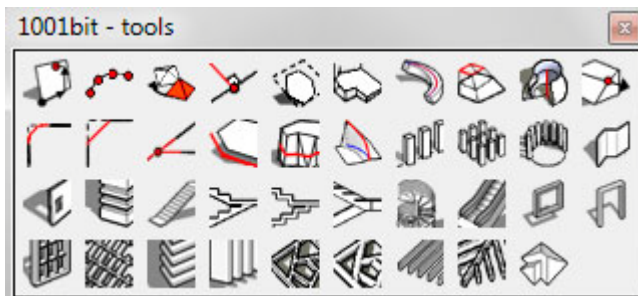
3. Instant Roof: This is used for creation of a roof quickly. Once the face is selected, you only have to decide the type of roof you want. The choices of roofs include gambrel, mansard, ranch, craftsman, Elizabethan, new roof style, plantation, prarie, santa barbara, ski lodge and trellis. Additionally, user can create your own style through having your own roof, eaves, hip, and rafter parameters. Editing the slope, eaves, fascia, hip, and rafter settings can adapt the roof style. Furthermore, the user can import or export roof styles.
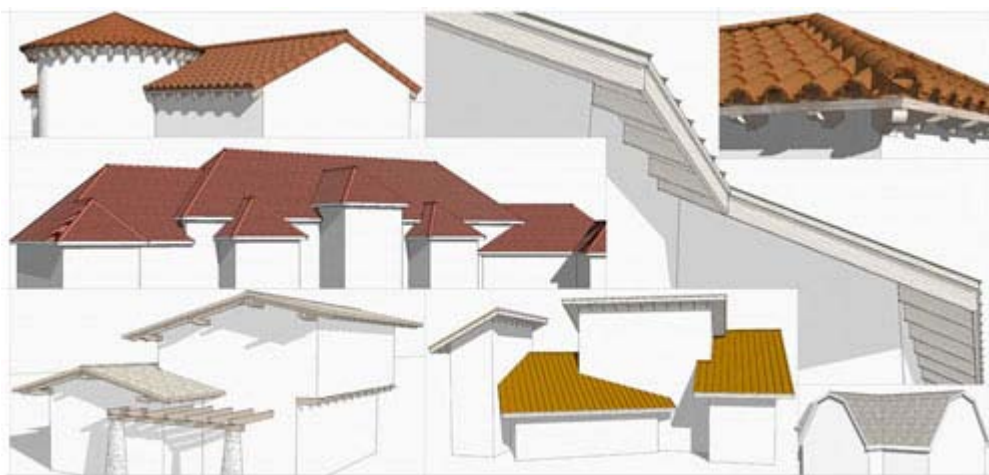
4. Mirror: At first it was discovered by Frank Wiesner and rewritten by TIG from version 3.1 up to the newest version to date. This is complete by selecting the object to be mirrored and then picking points to describe a line, points or a surface. You would then be asked to decide to delete or keep the original object. This plugin is used to mirror groups, components or raw geometry thus making it easier to manufacture multiple objects in a file without making them again from scratch.

5. Purge All: Purge all plugin for sketchupPurge, purge, purge as they always says. This important plugin helps you eliminate idle and unutilized components, layers, materials and styles. This is different from using Model Info because you have the option of what to purge on and also have a log or report made on what was removed. This will absolutely make your SketchUp file less in size thus adding speed in your drawing and rendering.

6. Round Corner: Just like all the plugins made by fredo6, the sketchup enthusiasts require to download first the latest version of libfredo6 to be able to use all his other plugins. Round corner is made of 3 tools, which are for making corners round, sharp and bevel. You have to pick the corner(s), which the user wants to be round, sharp or bevel then click the corresponding tool and modify the palette according to your preferred outcome. Then, click the check mark to preview the result and strike enter to exit the plugin. This is one of the best SketchUp plugins for making 3D object with softer edges.
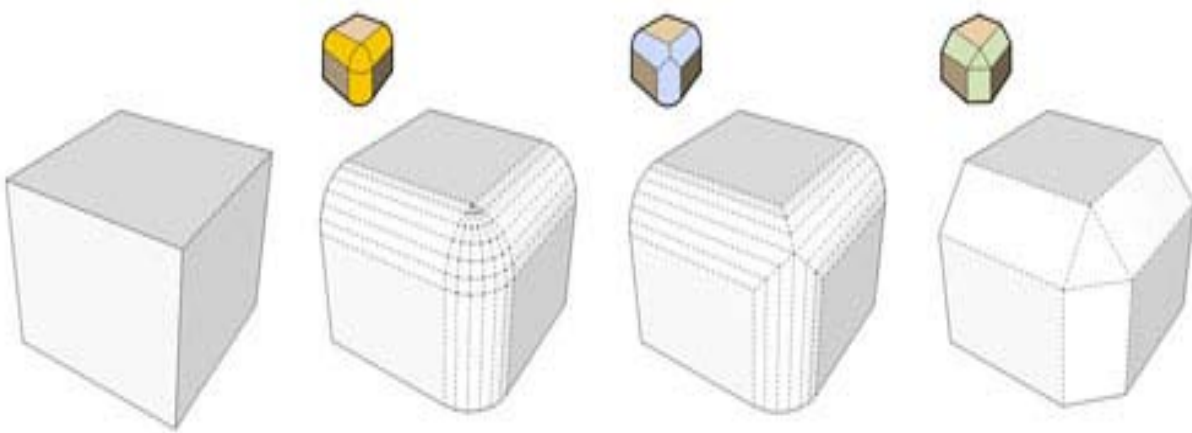
7. Component Array: This plugin though named like the collection in AutoCAD should not be flawed as such because component array is still limited in comparison to that. However, scripts are rewritten often that the opportunity of being like the other or exceeding its ability is not possible. This plugin generates array on a chosen face and the output is controlled through user input on grid spacing, angle, type and orientation. This is good to use for rectangular array just like in AutoCAD.

8. Curviloft: Curviloft included 3 tools, which are loft by spine, loft along path, and skinning. The first tool, which is loft by spline, makes contours between surfaces based on spline curves. Next is the loft along path, which works just like the follow-me-tool however this has the ability to unite two different shapes. The last tool is the skinning, which produces contours from two or more paths. This plugin is cooperative specially in making objects, which have irregular sides and faces.

9. JointPushPull: The newest version to date has a total of 6 tools, which are joint, round, vector, and normal, extrude, and follow. The joint push pull is use to push, pull or thicken a surface. The round tool can thicken a surface with the prospect of rounding sharp corners. Next, is vector, which can expand an object along a direction. The fourth tool can push or pull multiple faces independently. Extrude tool works to push or pull in an average direction while keeping faces jointed. The last is the follow push pull tool, which has the capacity to extend along the direction of their adjacent edges.
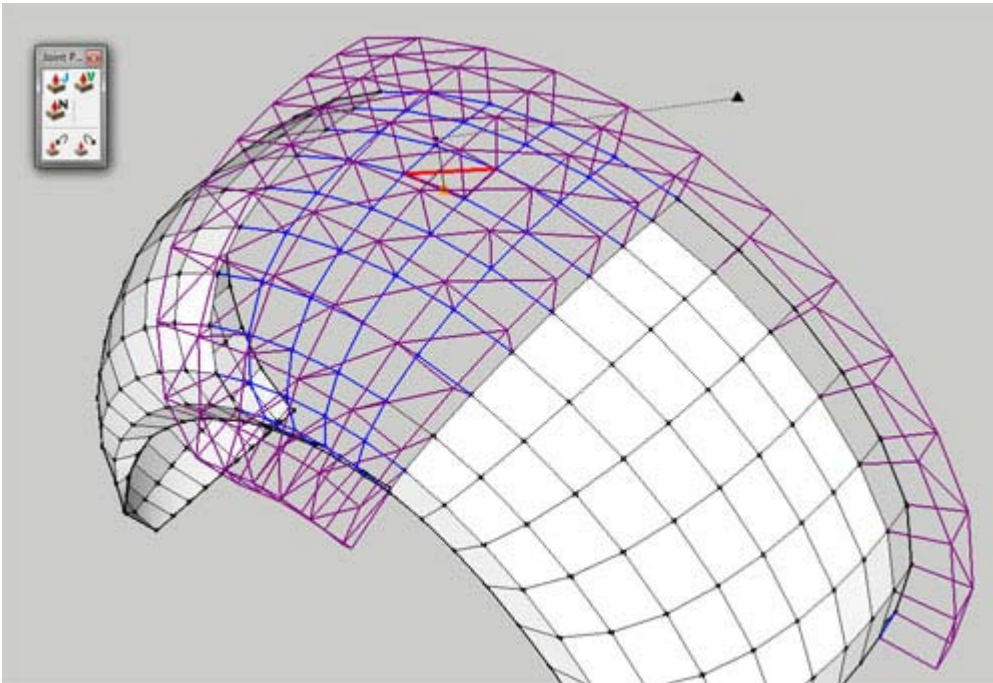
10. Vray: Vray is a rendering plugin, which works very fine with SketchUp. It has material editor, which you can employ to apply and edit martials to your drawing. The option editor of Vray is used to manage how the render output will be. It has also the ability to batch render, export and import proxies. This plugin is absolutely one of the most popular amongst SketchUp users who want to have realistic 3D model rendering.

Reference: - computeraideddesignguide.com and Tak2hata, Goh Chun Hee, Chuck Vali, TIG, Fredo6, sdmitch, Fredo6 and Chaos Group

Five Most Effective Ways to Learn Sketchup Quickly

Debamoy Ghosh

Sketchup, a 3D modeling software, aids in making interior designs, films, civil and mechanical engineering works, designing video games and for architectural applications. Sketchup is also a boon to those seeking to create dazzling 3D models for their projects.

The training for Sketchup is something that needs to get started. There are guides, online courses, tutorials, expert guidance and many more services are offered to you to learn the perception and concept of this software program.

This is the list of the five most excellent ways to study and learn details about Sketchup and making 3D models using the program.

Online courses: Those looking to accustom themselves with Sketchup can avail of a number of online courses. These courses help them to study the fundamentals of this software sharply. The faster you take hold of the knowledge, the sooner you can put it to use and make amazing 3D models.

However, you have to be careful while selecting the courses as there are many fake courses too. Select the courses that make accessible for you as a certificate confirming your knowledge about the software program.

Image Courtesy: 3w.dokisoft.com

Expert guidance: It is ways best to learn from the experts as it would never go waste.

For Sketchup too, you can look for an expert guide who could teach you about the software and share his/her own knowledge and experience.

Technical skills are such that cannot be gain only through reading about them. An expert who knows precisely about the software is the best source to learn as only an expert can give you the tips to make optimum use of the software in the easiest possible way. An expert guide is the one you should seek if you are keen on learning Sketchup Pro quickly and with ease.
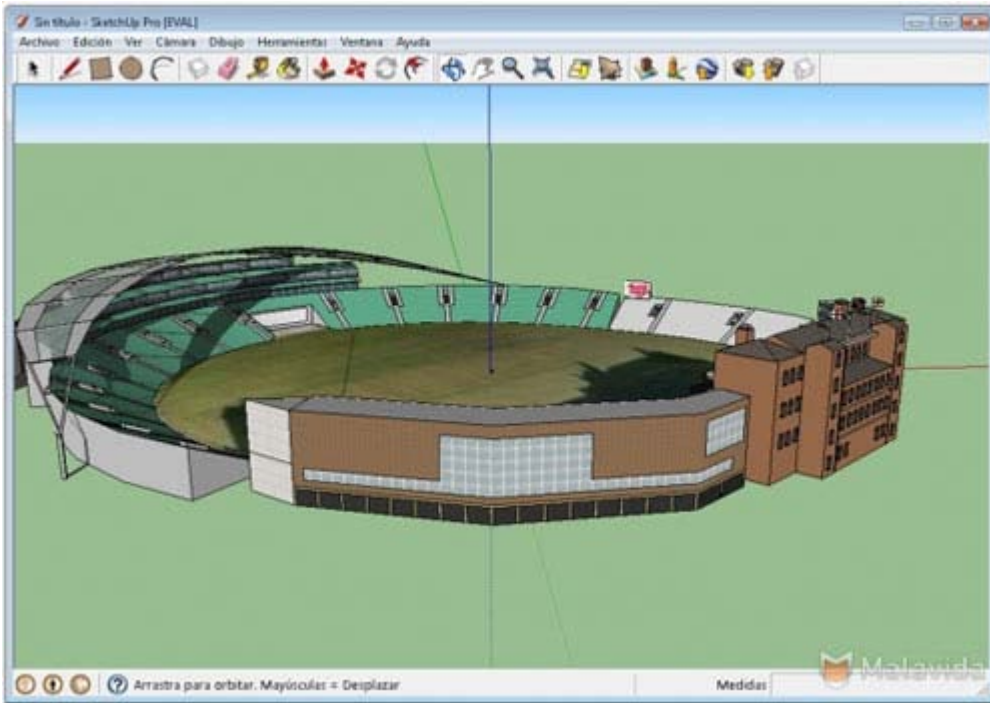
Image Courtesy: 3w.dokisoft.com

Proper practice: Using a tool to prepare creative models would require practice as only practice would lead you to perfection. Those aspiring to become a professional in using the Sketchup software will require an in-depth study of the software, its functioning and its processes. You have to learn properly and then practice as much as possible to attain perfection in handling the tool.

Tutorials/Guides: When nothing works, tutorials and guides are available for you both online and in stores, which can help you learn Sketchup quickly. The only thing you need to do is look for a genuine guide or video tutorial. An easy task, isn't it? Go online, surf the internet and learn all about Sketchup pro in no time.

Image Courtesy: 3w.dokisoft.com

Training center: If interested, you could also join a training center which offers proper training of the technical skills of using this 3D software. Just get enrolled in one of the many renowned training institutes and enlighten yourself about this amazing tool that helps you create 3D models easily. Look up for a training center that offers training in every minute concept relating to the software and present you a certificate for the training as well.

Ref: 3w.dokisoft.com

How to create a Polygon Building using Sketchup

Debamoy Ghosh

A polygon is conventionally a plane figure that is bounded by a closed path or circuit, composed of a finite sequence of straight line segments.

What is the procedure to make a polygon building using SketchUp?

Steps
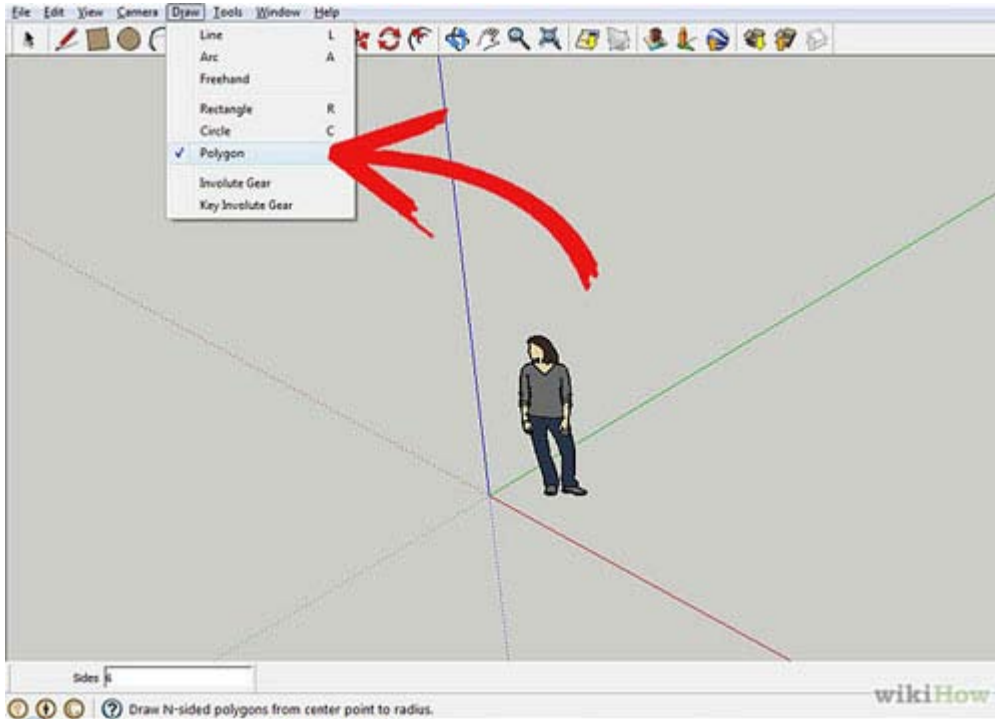
Image Courtesy: wikihow.com

1. It is how to make a six sided polygon, click on Draw >> Polygon and then put in the number 6.
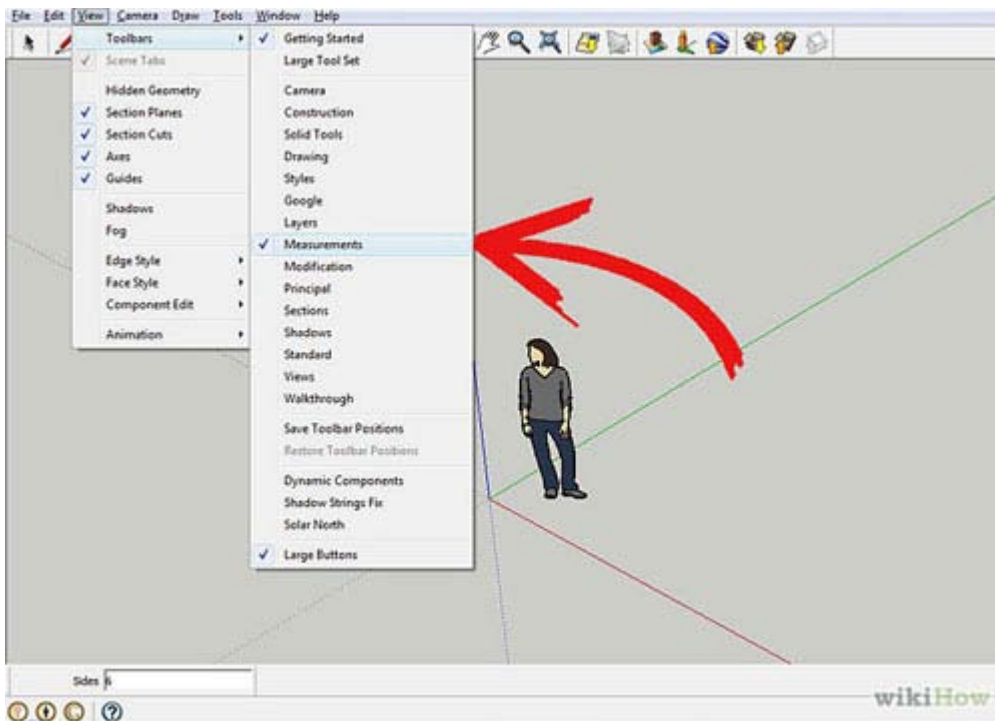
Image Courtesy: wikihow.com

2. Be sure the capability to put in the number 6 is showing. If not, click on View >> Toolbars >> Measurements. Look to the lower left of your screen and alter the number.
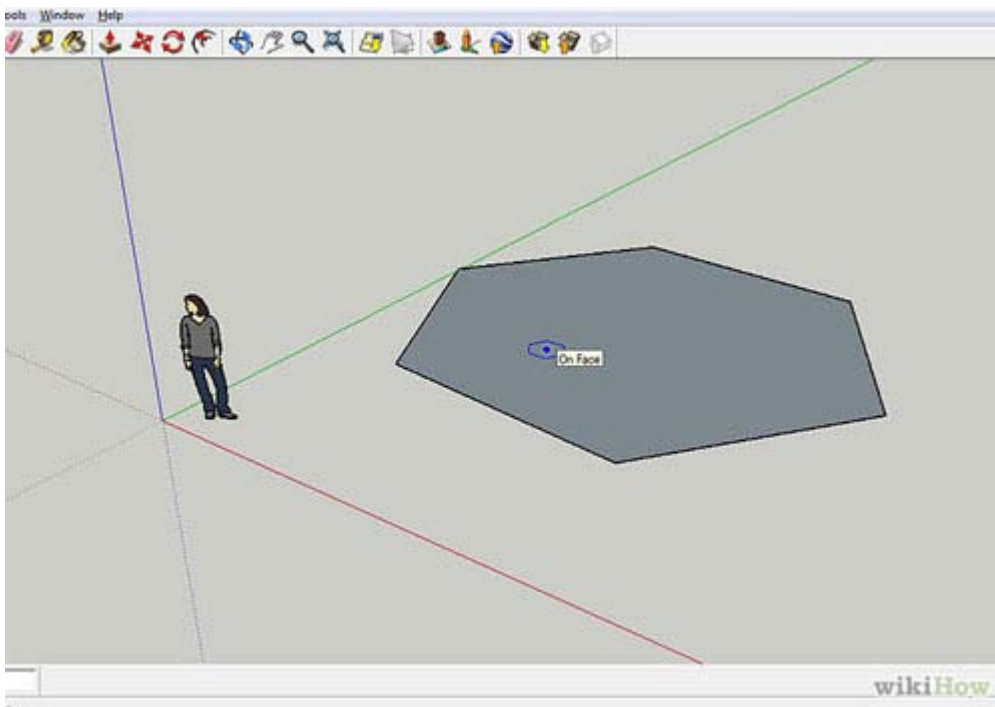
Image Courtesy: wikihow.com

3. Sketch the polygon on the green part of your screen.
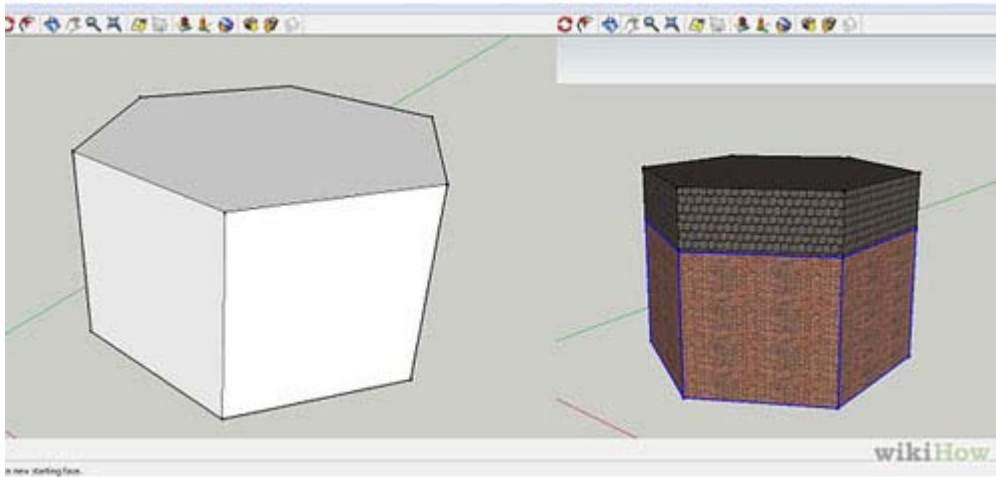
Image Courtesy: wikihow.com

4. Click on the Push/Pull icon. After you have made the initial shapes, use the Paint Toolbox to paint your creation. Make sure that the roof is a diversified color.
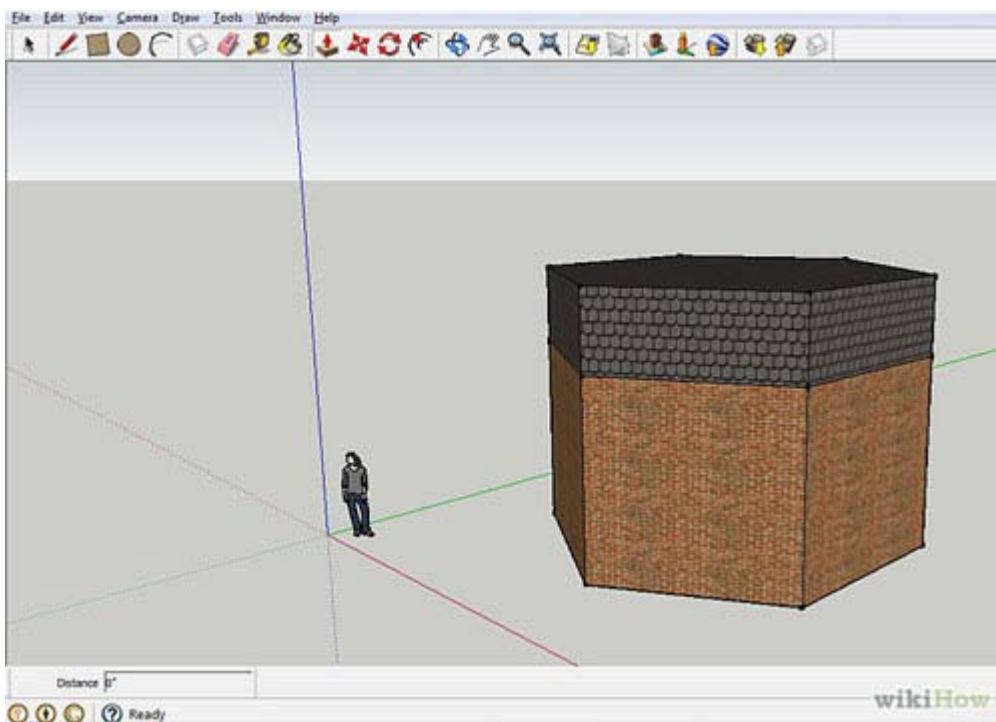
Image Courtesy: wikihow.com

5. Click on the roof and hold down CTRL/Option. Select the Push/Pull icon and raise the building again. Notice that the sides are not extending, but the new part is the texture of the roof. This is due to holding down the CTRL/Option.
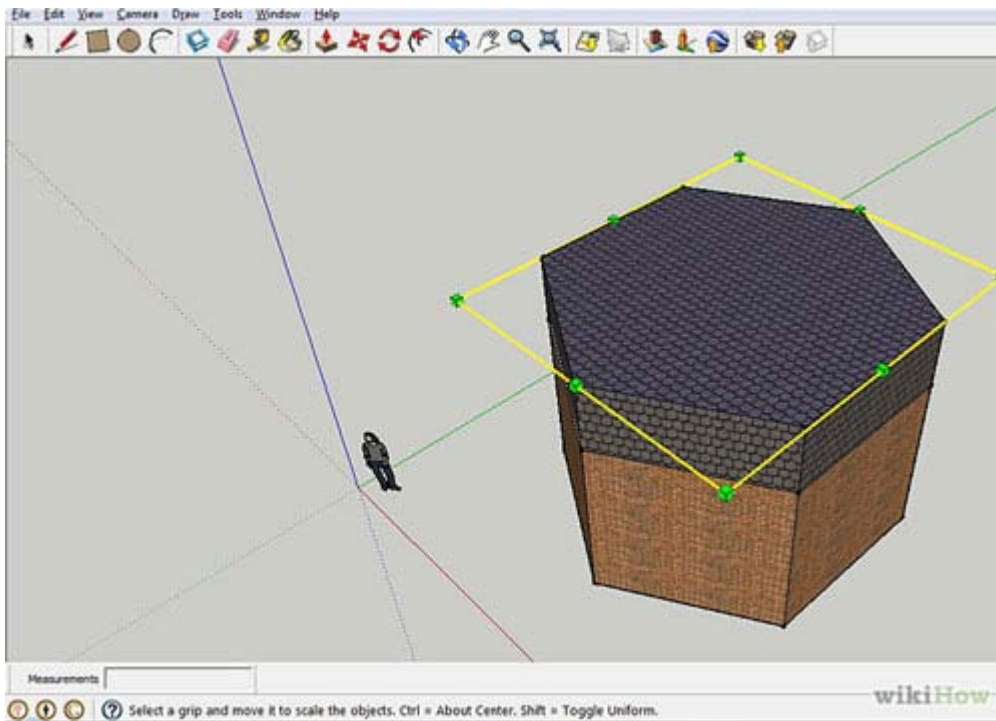
Image Courtesy: wikihow.com

6. Scale the roof. You want the roof to appear like a roof, so after you have pulled it into place, press 'S' on your keyboard. This brings a yellow square around the top of the building.
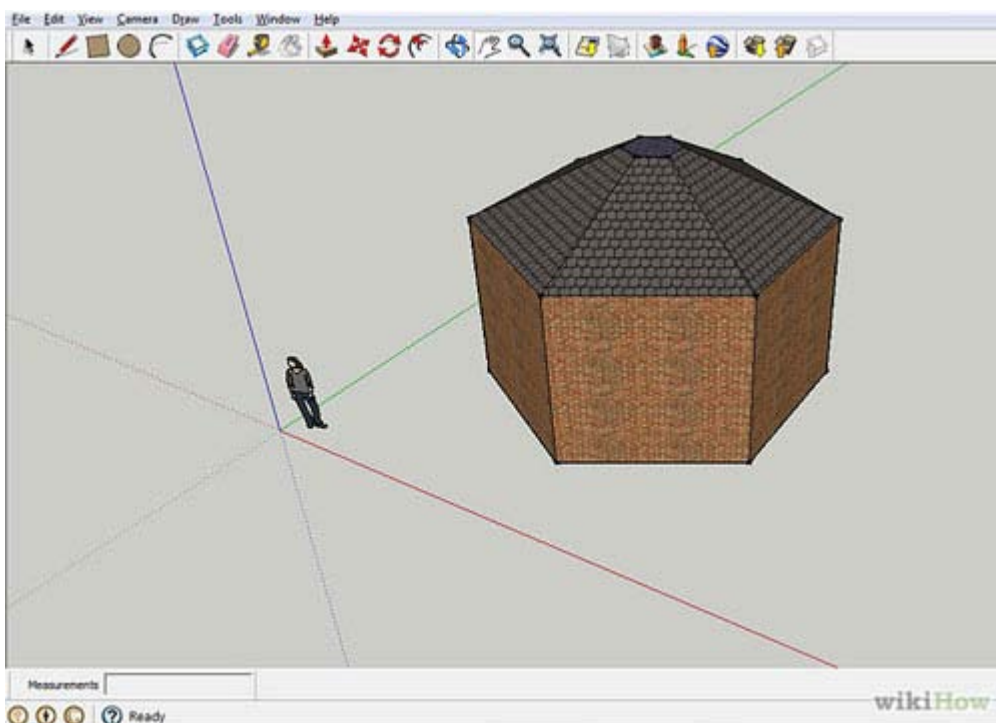
Image Courtesy: wikihow.com

7. Hold down CTRL/Option and push in. You're seeking to formulate a dome shaped building. The reason you require to hold down the CTRL/Option is so that it retains the shape of the building, uniformly.
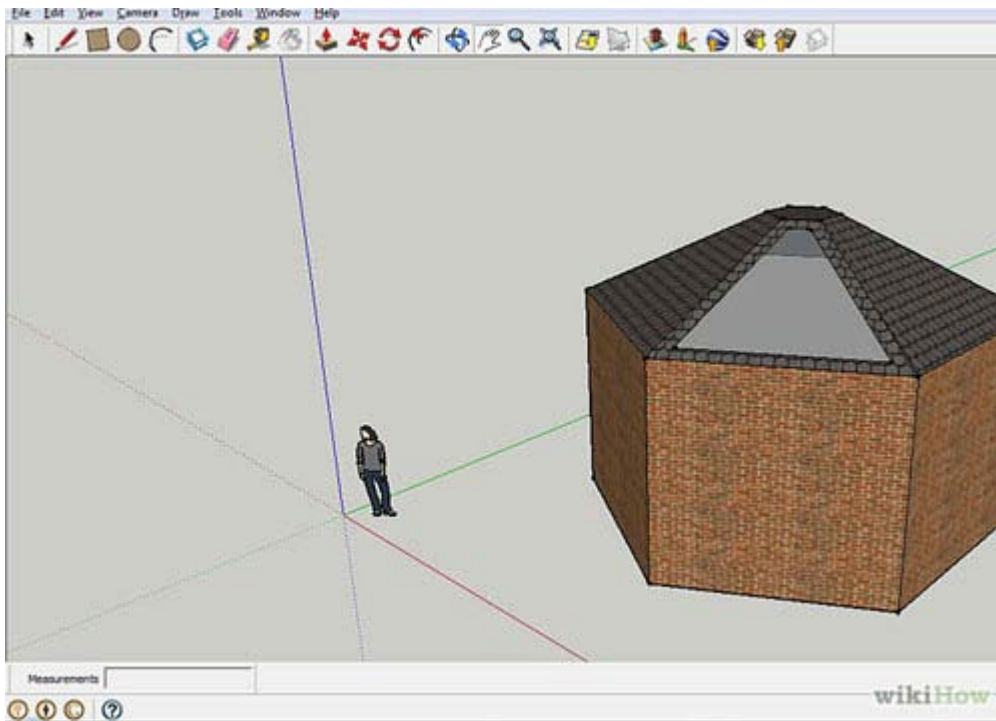
Image Courtesy: wikihow.com

8. Make windows for the top of the building. You'll want to make certain that the inhabitant of this building can see the sky! Click on the Offset icon. Go to one of the angled parts of the roof and create an properly shaped window.
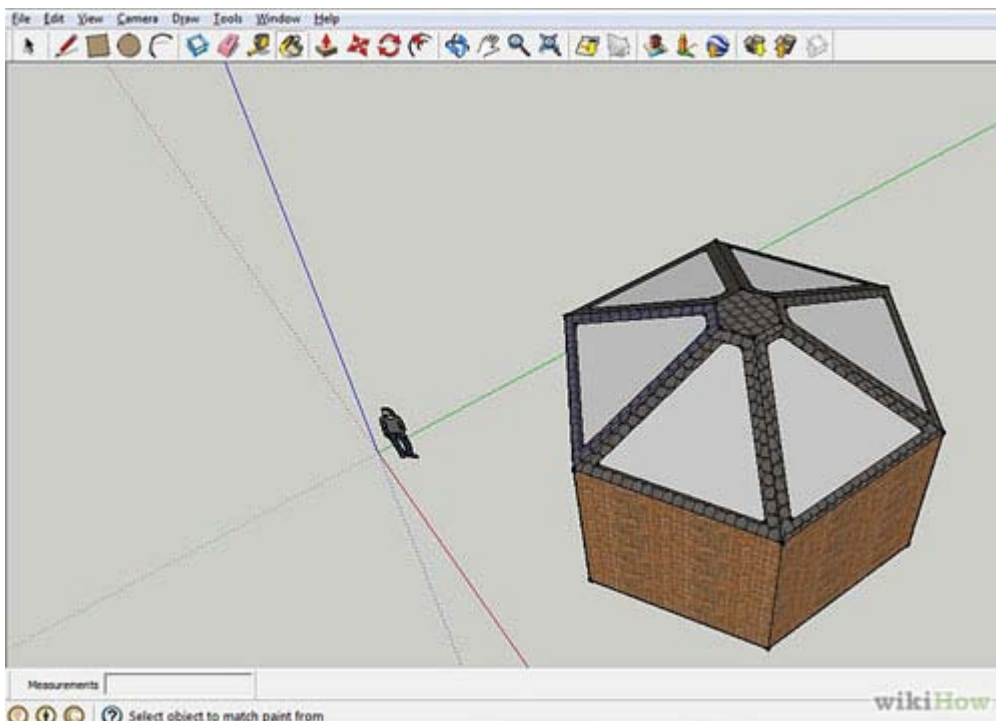
Image Courtesy: wikihow.com

9. Do it again this all the way around. You can also copy and paste all the windows and place in each plane. Using the Offset again, creates windows in every other wall, or wherever you want them.
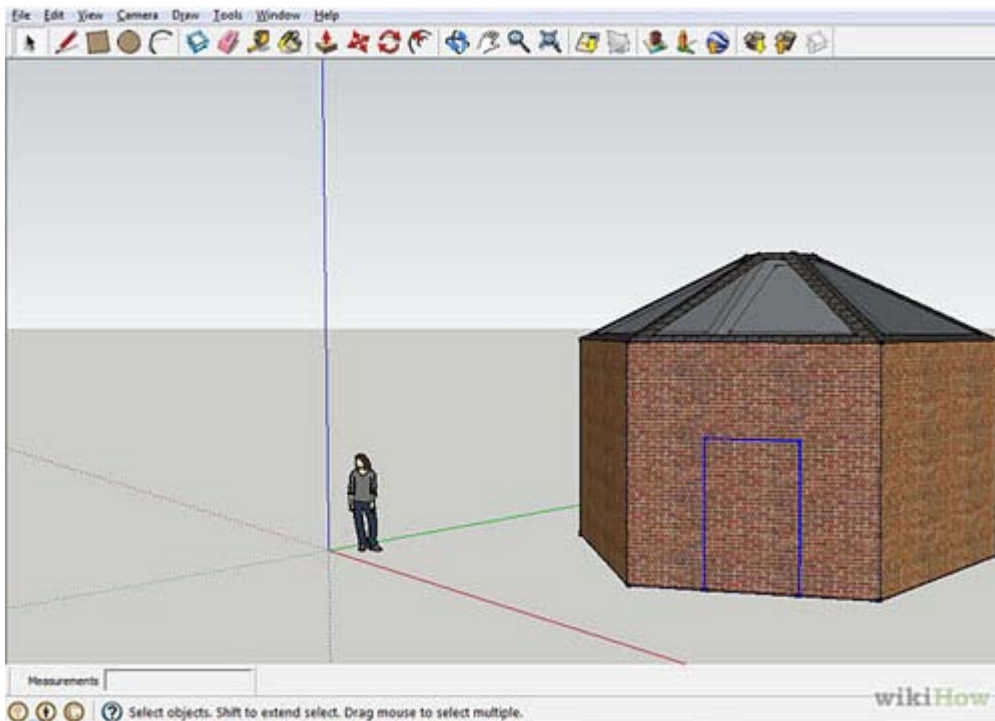
Image Courtesy: wikihow.com

10. Click on the Rectangle icon. Make a door in at least one side of the building.
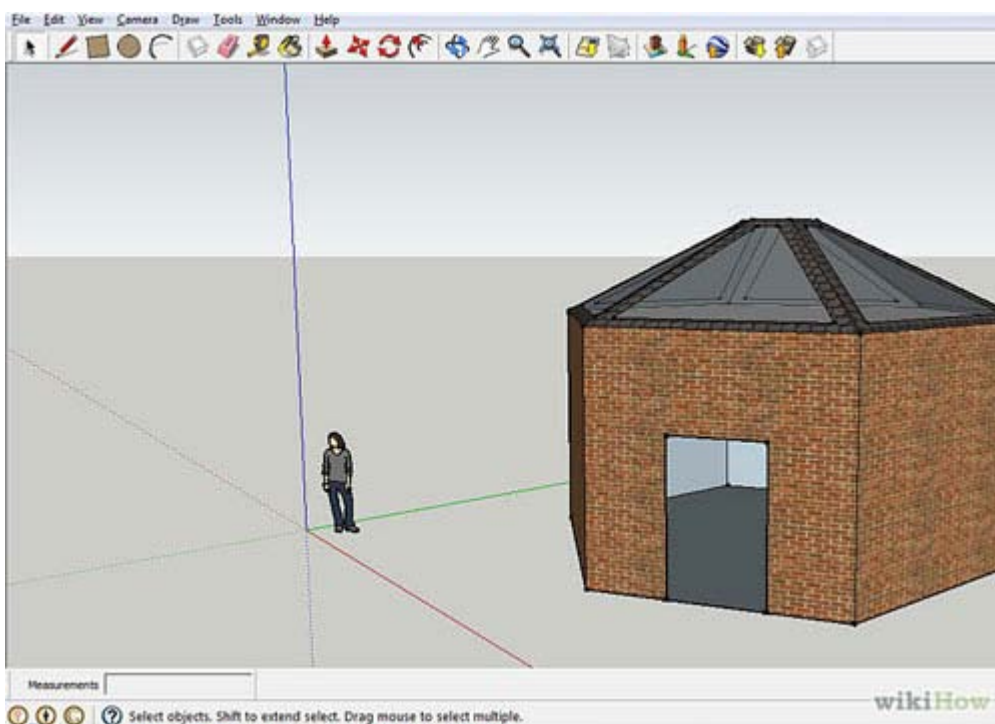
Image Courtesy: wikihow.com

11. Select the door with the selection tool and hit 'Delete' on your keyboard. This will remove the door. Notice how you can see through various windows and see inside the building.

Ref: wikihow.com

CL3VER Releases CL3VER 3.0

Luca Vidotto

Real-time photorealistic lighting, VRay material support and secure project sharing for High Quality real-time 3D presentations.

CL3VER, the cloud based platform for interactive 3D presentations, releases CL3VER 3.0, the new generation of the platform dedicated to engineers, architects, and other design professionals. 3.0 is much improved version of the CL3VER platform that includes WebGL GPU-based real-time lightmap technology, Vray material support and a new scene sharing system that will speed up the production workflow of cross platform interactive 3D presentations.

WebGL GPU-based Real-Time Lightmap: Complementing huge jump in rendering speed resulting in the supporting much larger scenes, CL3VER 3.0 introduces a new proprietary automatic real-time lightmap rendering solution that drastically reduces the rendering time required by traditional visualization techniques from several hours to just minutes.

This solution is hardware agnostic GPU-based Real-time rendering technology, that does not rely on any specific hardware to work. From the most powerful dedicated GPU to a traditional integrated GPU the CL3VER lightmap system is consistent on both Windows and Mac.

This disruptive technology provides instant feedback from changes to lights and global illumination lightmaps by displaying an accurate preview in the editor's scene view of how lighting will look in the published project. Architects and designers can continue to iterate and refine the look of a presentation while final lightmaps update and bake in the background. This dramatically decreases the amount of time needed to make final adjustments to scenes. The user has total control on the quality of the published scene to optimize for its viewing based on requirements.

VRay material support from Autodesk 3ds Max: The 3ds Max to CL3VER export plugin has been improved to fully support VRay materials. This key feature improves the production workflow of real-time presentations from 3ds Max enabling the export of Vray photorealistic materials created in the modeling software and allows them to be made available in the CL3VER editor.

With CL3VER 3.0, once the scene is imported, all the materials are available within the editor. No additional work is required to produce custom materials allowing users to create presentations faster.

A secure and collaborative platform: A new sharing system makes the CL3VER platform more collaborative. Project owners can now quickly invite team members and stakeholders to view, edit and collaborate on a project. Using a simple interface any project can be shared via a link privately, within a restricted number of people, or publicly on a public url that can be published on any website and social media.

Furthermore, a new layer of security has been added encrypting CL3VER projects using a 256 bit SSL security protocol.

Improved importing system = Larger Files: The importing system has been optimized to support huge BIM scenes. Improvements have been made to both the time taken to import files and the size of the 3D files that can be imported. This improvement is being made further to suggestions from end users confirming the average file characteristics that they work with.

Importing speed has increased to be from x3 up to x20 times faster. The maximum scenes size limit has increased x2 in size, increasing the limit from 1Gb to 2Gb, and x6 geometry, supporting now scenes up to 30 Million polygons.

CL3VER 3.0 also supports instancing from imported scenes and a new automatic scene optimization system will guarantee fast real-time rendering on any computer or tablet.

Improved editor Interface: To accommodate these new features and streamline the workflow, CL3VER 3.0 comes with a revised editor Interface makes the creation workflow more intuitive and faster. The new user interface together with a new set of predefined UI templates permits creating interactive 3D presentations in minutes. For architects, engineers and designers presenting a project, concept or idea to the team, the stakeholders or to win bids is now a matter of hours.

Automatic navigation menus: This new feature automatically creates navigation menus, with submenus, based on the steps created in the presentation. Any menu button is named with the step name making it easy for any user to create a fast presentation. Once the menu is created the user can customize it with a simple click that opens a button editor.

Multimedia material: CL3VER promotional video:

https://www.youtube.com/watch?v=OiYy2j-ksg0

About CL3VER: CL3VER provides a cloud based platform for interactive 3D presentations for the web and mobile devices. CL3VER presentations help professionals in the AEC and Manufacturing industries to engage customers and stakeholders with the power of 3D and the usability of the web.

The company is headquartered in Barcelona, Spain with offices in Palo Alto, California. For more information, visit www.CL3VER.com.

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Substance Painter for Sensible Texture

Debamoy Ghosh

Substance Painter is a ground-breaking new product that takes a lot of the busy task out of creating sensible textures and the new aptitude to paint with particles offers something that is unique. The fallout is both striking and simple to create artistic work. The one disadvantage of this package is the weak set of included help files, but these are strengthen with a large set of YouTube videos that you can access.

Here is the detail report: You can add detail to your 3D modeling. There are two paths. Firstly, you can add to the number of polygons in a model to add expressive details. Secondly, the there are two ways to add details to a 3D model. For one, you can increase the number of polygons in a model to add expressive details. The well-liked, crowed pulling modeling packages ZBrush and Mudbox are excellent at this, permitting user to sculpt superb models.

But, this detailing appeared at a minimum cost. Ultra high-res models, like those that are sculpted, are hard to imagine and don't work well in even the most advanced game engines.

This carries us to the second way to add detail to a 3D model - with textures. A sophisticated set of textures can make even a trouble-free sphere look incredible and with the use of normal maps, you can even replicate the sculpted effects of a model.

The disadvantage of textures is that they are difficult to paint and relevant to the models.

The typical workflow comprises of painting a texture and applying it to the model and then tweaking the mapping to make the texture fit the model and then go back to touch up the texture, then wash and repeat. This is an awkward process that takes a lot of time to get accurately.

This is where Substance Painter comes in the scene. Substance Painter lets you paint honestly on the 3D model with materials. The painter will compel you to paint with designated materials and the paint stroke brings up to date the texture once including colour, brightness and metals. This is a massive benefit, permitting artists to paint a touch in a single package all at once without the whiplash of moving back and forth between different packages.

Streamlined Workflow: Once a model is loaded into the Painter interface, all its present textures are mechanically identified and loaded with it. These can contain normal maps, ambient occlusion maps, lighting passes, etc. You then identify the specific channels that you want to include. The options include the usual judgment such as Base Color, Height, Specular, Opacity, Roughness, and Metallic, but you can also include Emissive, Displacement, Glossiness, Anisotropic, Transmissive, Reflection, Ior and several user-defined channels. For each channel, you can distinguish the format to use when the texture is saved.

After the channels are set up, you can then decide a material and begin painting. Each of the channels gets updated as you paint. You can also switch to solo mode to vision and work with a single channel by itself. Once the texture is finished, you can export all the diverse channels with a single command. Each channel will share the project name and will have its channel name added on. Since you can view and confirm the results straightaway within the Painter interface, there isn't the need to go back to the originating modeling package. The files exported out of Painter can be loaded and used straightway in the game engine.

Advanced PBR Viewport: Substance Painter isn't just a pleasant extension to your current 3d software (see Figure 1), it is a full-blown texturing package with its own interface, tools and an higher viewport that can vision realistic textures (PBR).

Figure 1: The Substance Painter interface includes moveable panels of presets and tools along with an advanced viewport for viewing realistic (PBR) materials.

Using Substance Materials: Substance Painter rationally uses the Substance Materials (Figure 2). Substance Painter comes with a large variety of materials pre-installed and ready to use or you can purchase and add several additional material libraries. The software also lets you import and use any custom GLSL shaders that you've made.

The pleasing thing about the Substance Materials is that they are beautiful. These shaders are built by material experts and they hold up really well under all kinds of lighting and environments. In addition to materials, the interface Shelf also includes a large collection of brushes, decals and tools.

These are alpha channel stencils that let you quickly add material details include bullet holes, zippers, frost, fur, bolts and rivets.
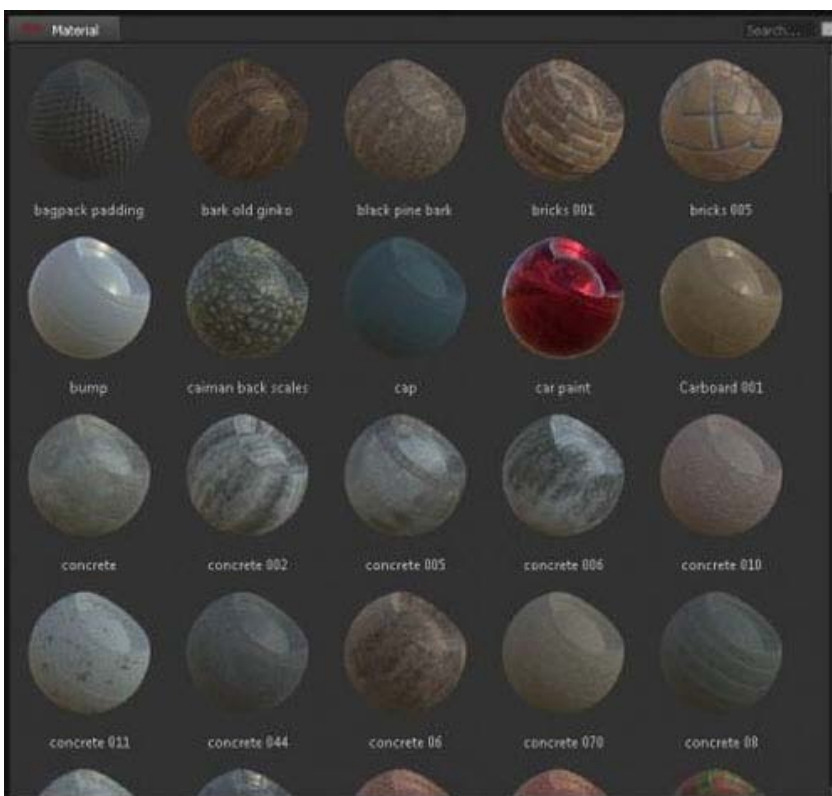
Figure 2: The default Substance materials included with the software offer a wide array of options.

Painting Tools: The accessible painting tools include Paint, Eraser, Projection and Geometry Decals. Each tool can be customized and tweaked with a huge assortment of controls including Size, Flow, Spacing, Angle, Jitter, Shape and Hardness. There is also a real-time interactive preview window that explains the results of the current settings. This is immense for double checking your brush settings before you begin your painting. There is also an evenness mode for applying paint evenly on either side of a designated axis.

Painting with Particles: One of the coolest available features in Painter is the new particle brushes. Using these brushes, you can apply paint using thousands of small particles and these particles respond to physical forces like gravity and wind so that weathering a model is effortless with realistic results.

Figure 3 shows a trouble-free sphere painted with several different materials using the Physical Brush tool. Notice the complicatedness of the results.

Figure 3: The ability to paint with particles is an amazing feature only available in Substance Painter.

Post Effects: Substance Painter for all time uses the Yebis 2 middleware, developed by Silicon Studio, to allow post effects within the viewport. The available post effects include antialiasing, color correction, depth of field, tone mapping, glare, and vignette and lens distortion. This lets you generate your beauty passes straight in the software without having to export it and reload it in your modeling software.

Exporting to Game Engines: Once you are through with the texturing workflow, the finished bitmap textures can be exported to several diverse game engines including CryEngine 3, Unity and Unreal Engine 4. You also have the option to export the textures as PBR, PSD files or as any of the standard bitmap formats.

Ref: gamedev.net

Plugin for Sketchup : Sketchuv of Smustard

Simone Piccioni

In a previous post we saw how to map a texture on a model using spherical or cylindrical plug "UVTOOLS", but if our firm has a more complex shape like that of a tent, a blanket or a towel full of wrinkles?
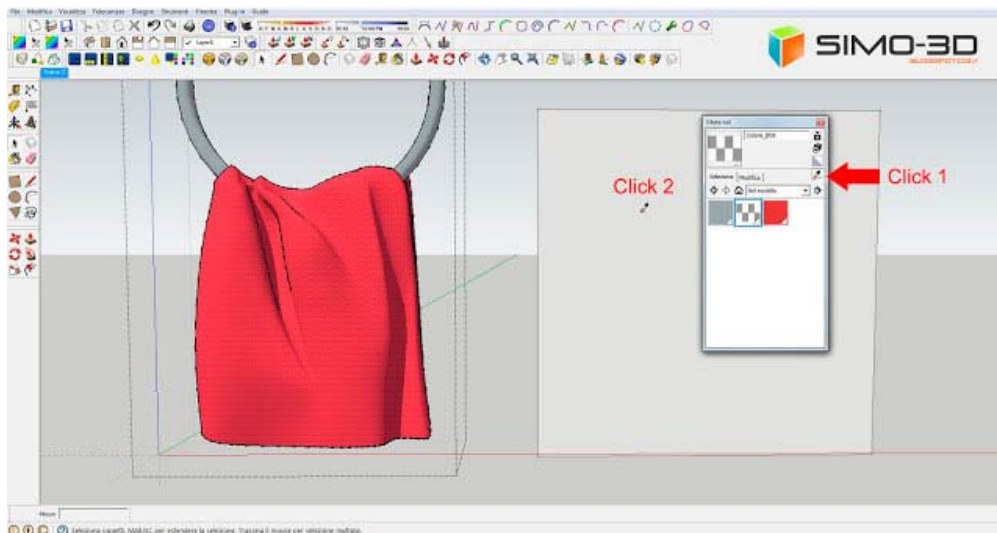
In this case we need:
plugin "Sketch Uv "of Smustard that you can download <u>HERE</u>
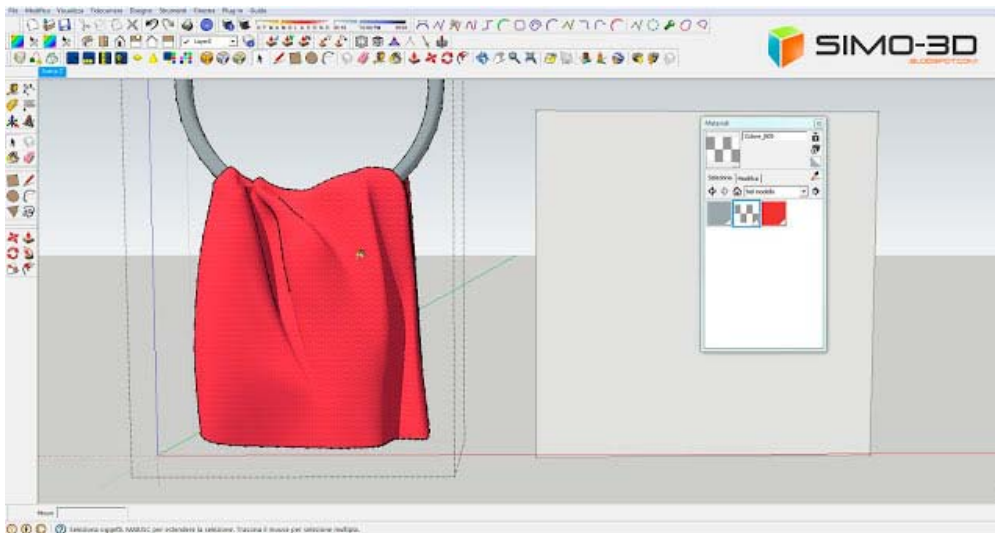and the program "Roadkill UV Tools" that you can download <u>HERE</u>
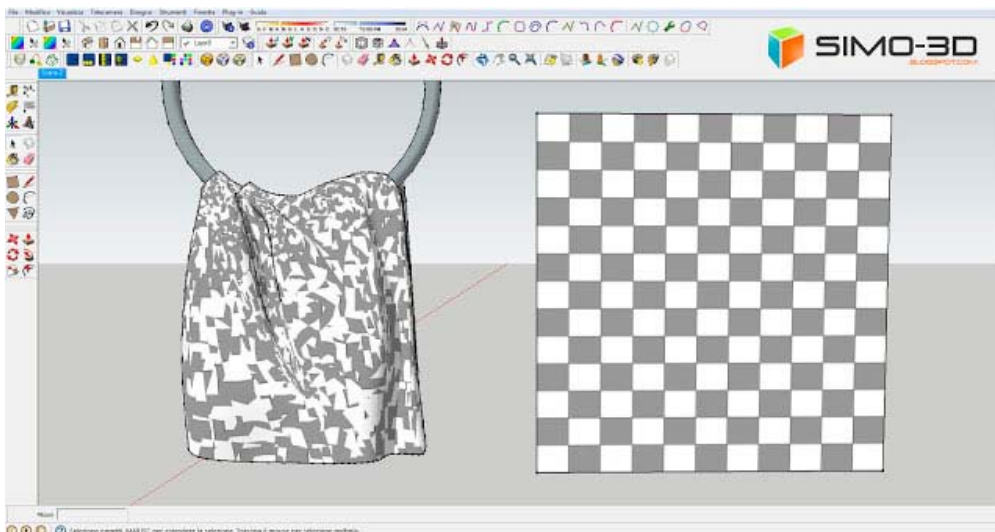
Nell 'bottom image 3d model of our next towel with the texture you want to apply.
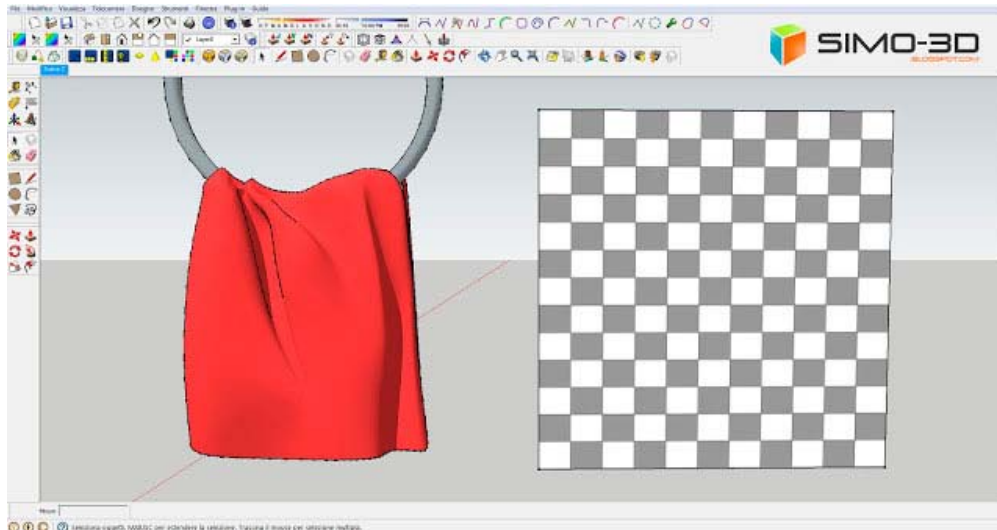
We click in the window of the material Sketchup, the instrument indicated by the red arrow then on texture (see image below), and finally.

our towel (see image below).

the result will be ... a pretty crap!

After highlighting our model we click on the instrument of the plugin "Sketch Uv " depicted from the bottom on the toolbar then
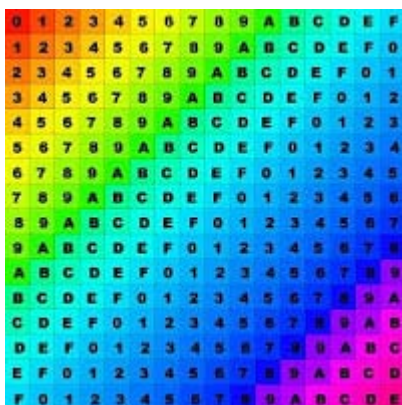
the model with the right mouse button and then on "Export UVs"
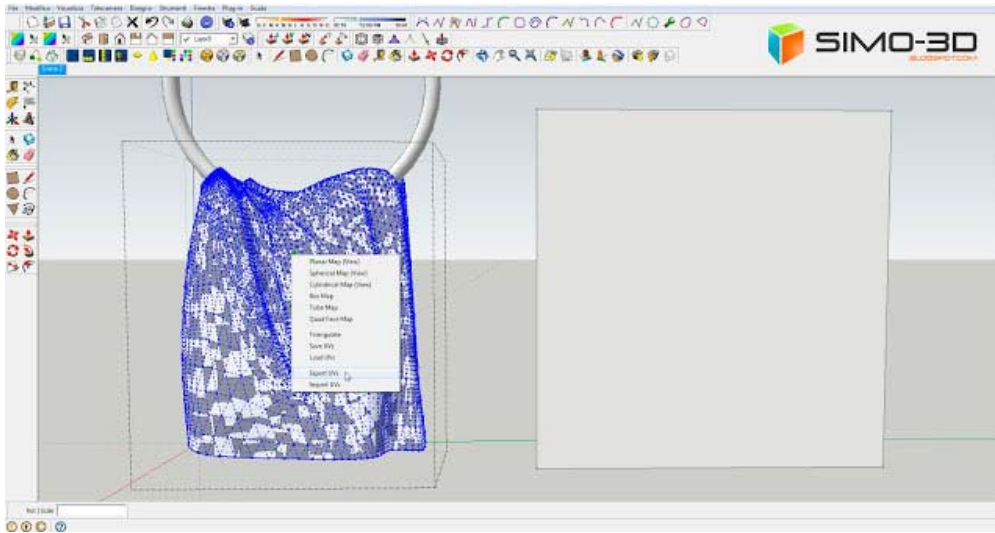
This will open a window where we will see the file path that we are exporting.

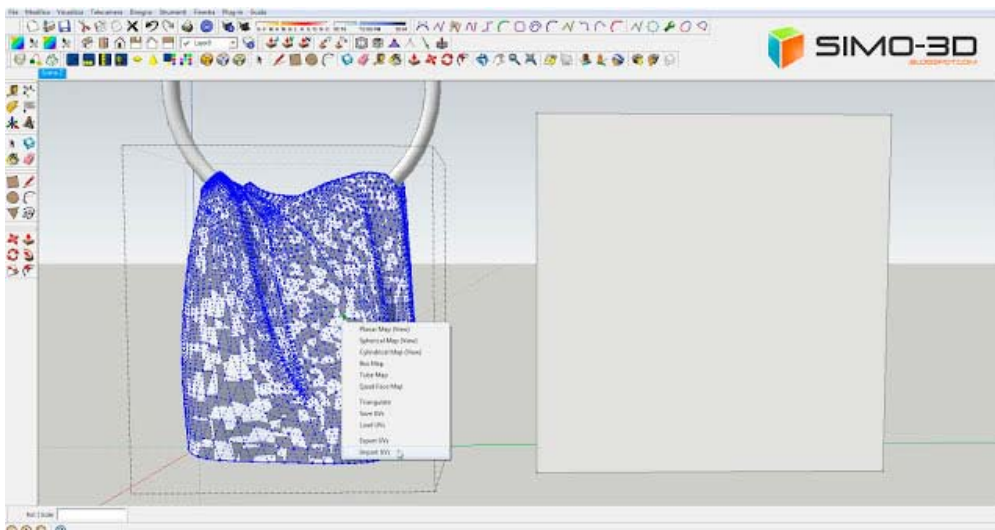SketchUp

⚠ OBJ exported to C:/Users/simone/Desktop/aaa.obj. Open this file with an external UV mapping aplication and then save it using the same path and filename when you have finished UV mapping. Then, use the import command.

OK
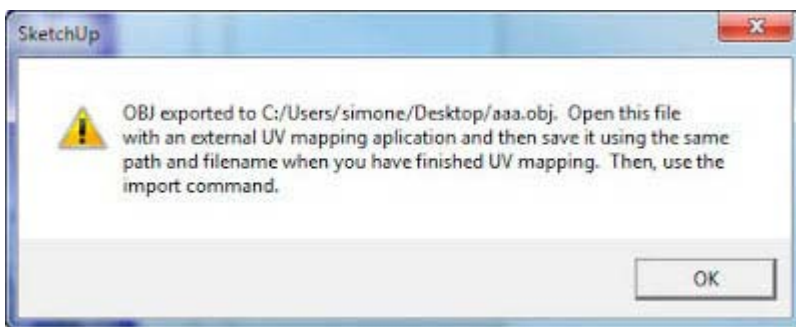
At this point we open the program "Roadkill UV Tools" we have previously installed and load the saved file.
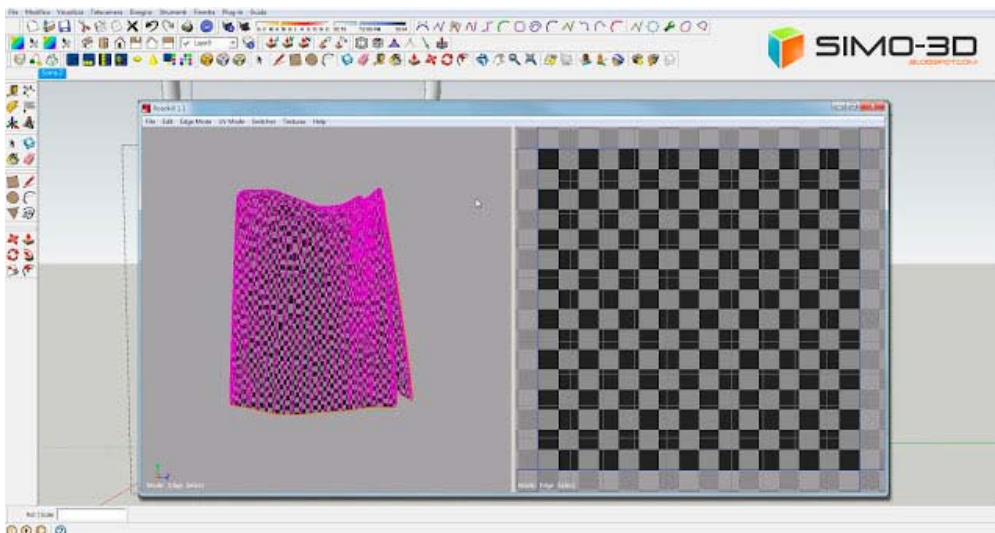
Press "E" and highlight the model in the left pane where we see what it looks like (in the right we will see it as if it was open) then press the "W" (with the "Alt" key pressed we can run with the mouse 3d model at will). Go to "File" in the toolbar and click on "Save".
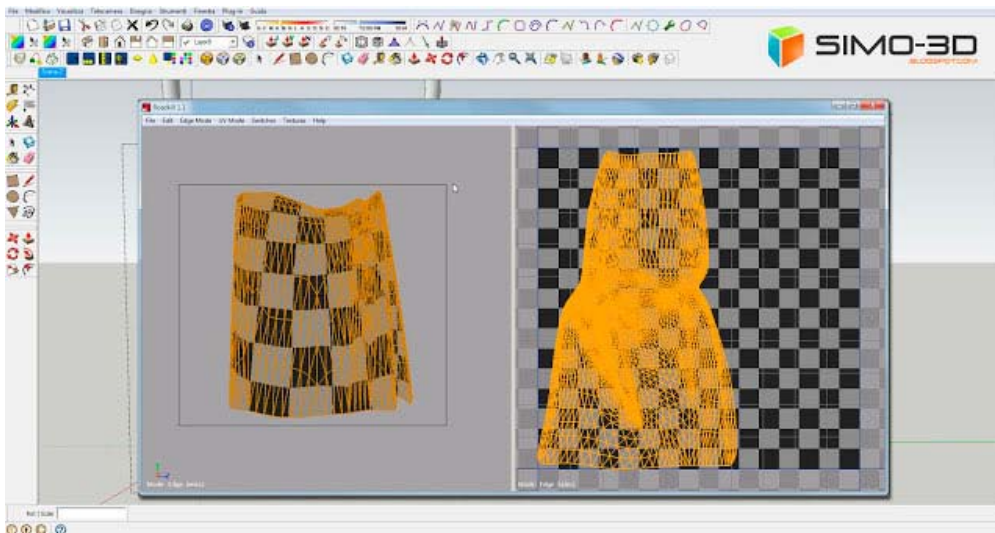
We close "Roadkill" and go back to Sketchup on our model, now with the right mouse button, click on "Import UVs".

This is the result. Just only adjust the size of the texture directly in the material of Sketchup.
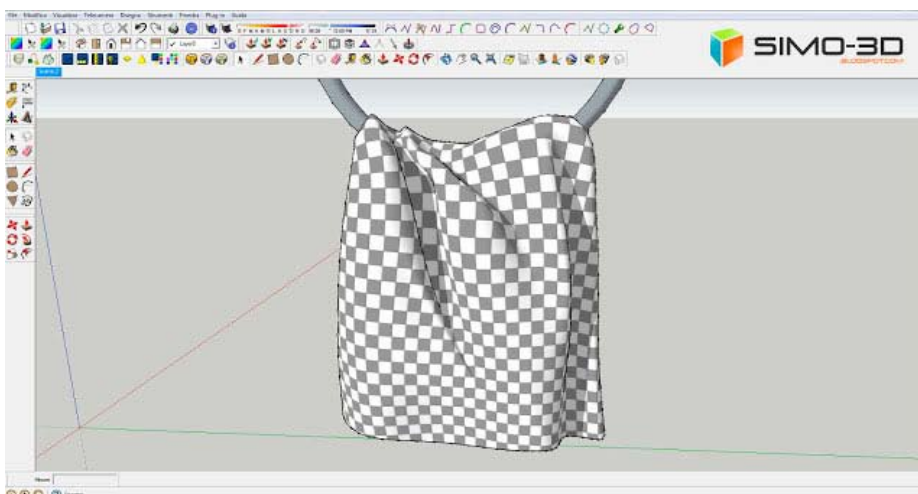
With the plugin "SketchUV" We can also place a texture on a spherical, cylindrical or flat clicking on it with the right mouse button directly from the menu without using "Roadkill".
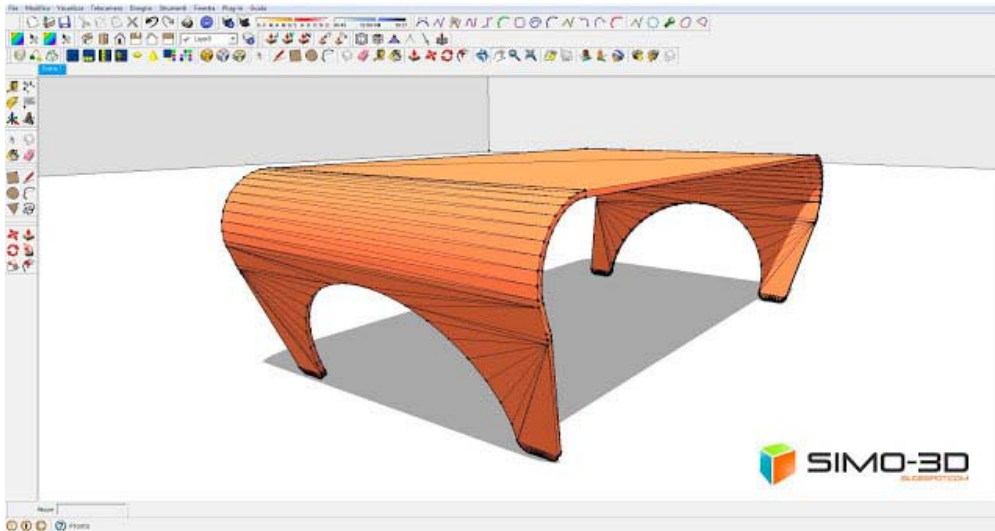
Ref: simo-3d.blogspot.it

Plugin for Sketchup Cleanup

Simone Piccioni

CleanUp is a very useful plugin, essential when we import .3ds models always full of geometries that only serve to burden the model.

With this plugin we can "clean" our model from all those segments, hidden geometry, duplicate faces ... too.
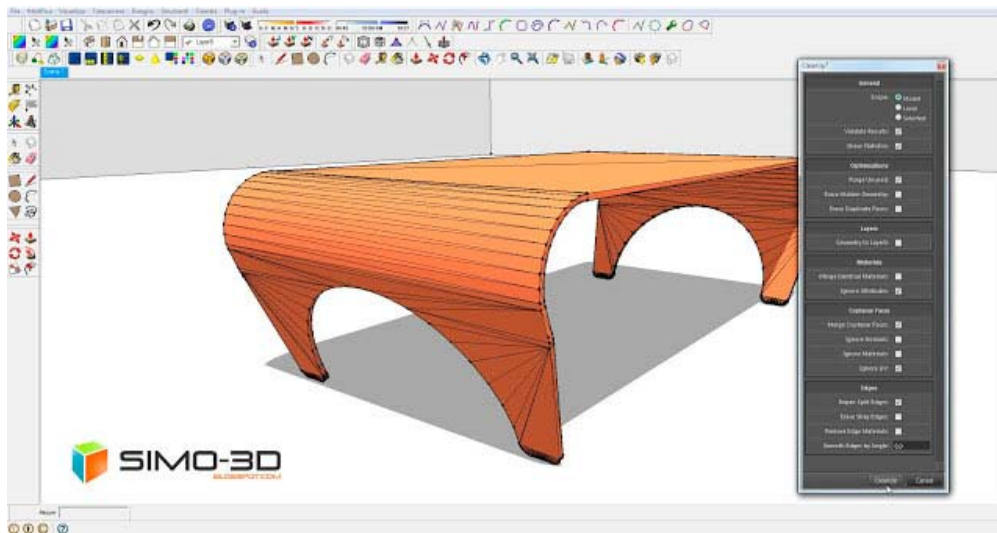
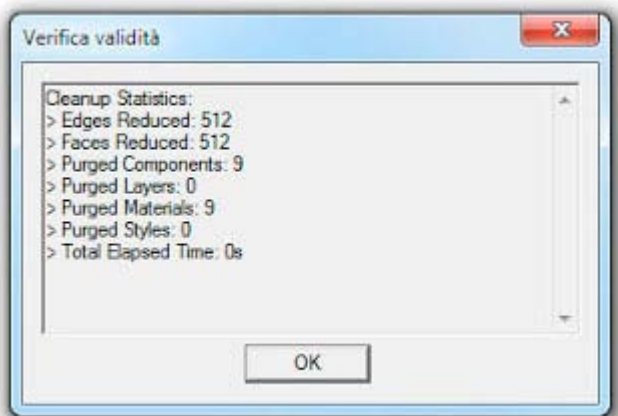Click HERE to download CleanUp

Take for example this table.

After highlighting the model to optimize plugin go to the toolbar, then "CleanUp" and finally click on "Clean".
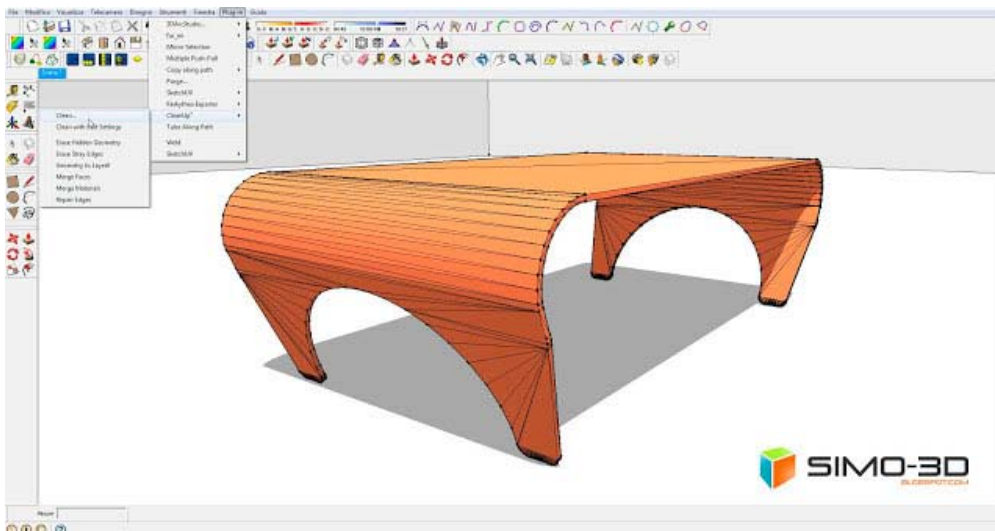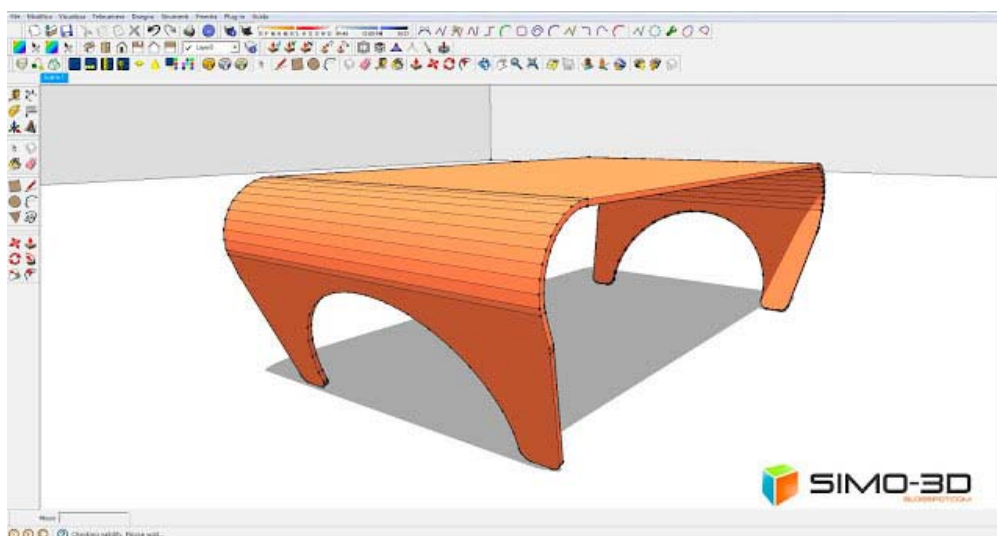

This will open a window where you can select the functions to be performed, in this case I left the default and I clicked on "Clean Up".

The bottom window shows all the various elements deleted.

It looks like this now our table.

Ref: simo-3d.blogspot.it

Some useful tricks to calculate height of structure on Google Earth

Rajib Dey: Editor-in-chief

1. At first download sketchup make (free) as well as Google Earth Pro (free)

2. Install sketchup with the help of a template in meters. Turn on the big tool set and tool bars which are available in the view menu

3. Select add location situated at google tool bar. Put 35.236390° and 53.950016° in the coordinates and click 'Select Region' located at the top right.
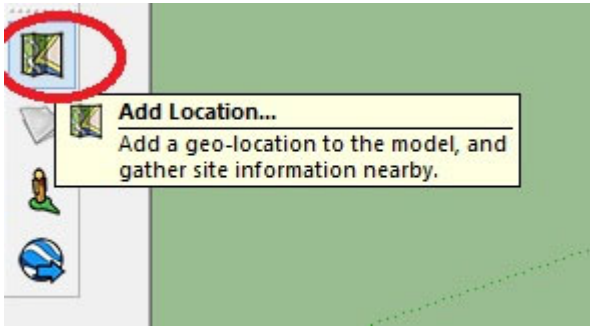

Image Courtesy: bellingcat.com

4. In order to pick the territory just about the gantry tower, drag the pins. Ensure to take in the complete shadow. Once it is ready, press Grab for importing the image into SketchUp.
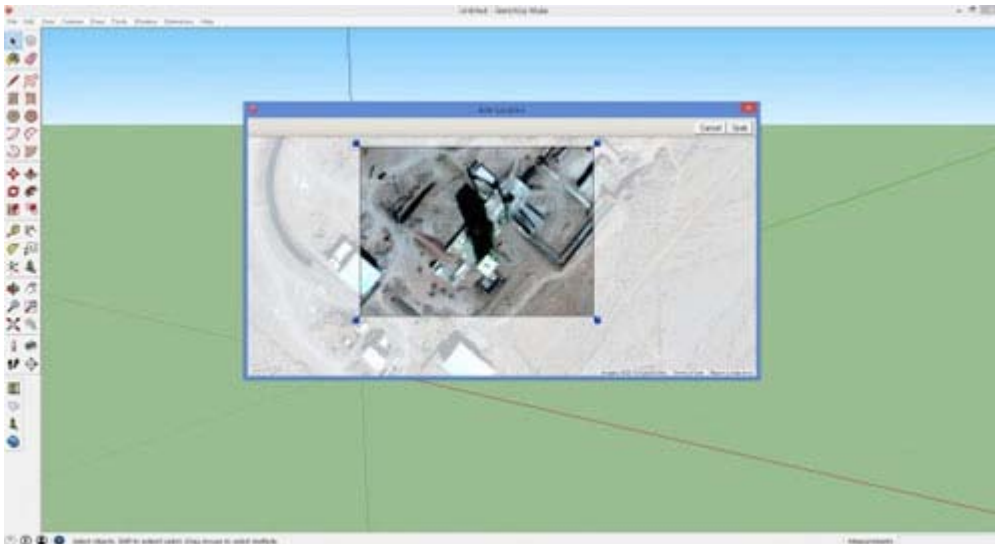

Image Courtesy: bellingcat.com

5. Now there is an image along the red and green axes. The blue denotes the vertical space. Now, rearrange the axes to the corner of the tower and sketch a rectangle around the base. Zoom in and out unless you notice the position where the shadow meets the structure.

Image Courtesy: bellingcat.com

6. To transform 2D rectangle into a 3D tower, use the Push Pull tool. Afterwards, go to View menu and select shadows. Here, the shadow produced by SketchUp is not equivalent with the one in the imagery.
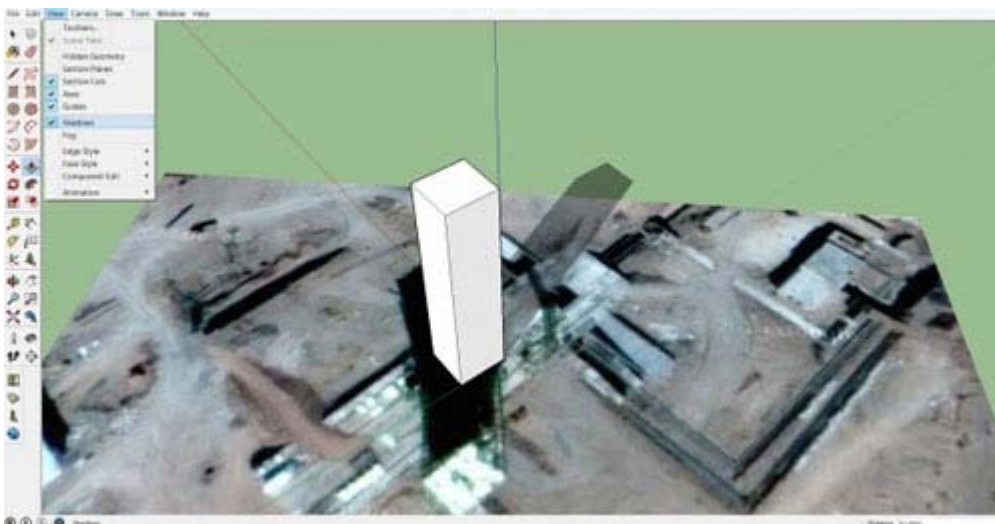

Image Courtesy: bellingcat.com

7. In order to modify it, return to Google Earth and check when the image was selected. SketchUp is just pulling the API from Google. It is located on the bottom right of the window.

Image Courtesy: bellingcat.com

Capture the slider bar and change it unless the shadow produced by sketchup, match with the imagery shadow. It may not bring the right height, but the SketchUp shadow contains the identical shape as well as the "width" of the shadow on the satellite image.

8. Fine-tune the height of our tower to ensure that the shadows are matched. Use a tape measure and check how tall it is.

Image Courtesy: bellingcat.com

9. Make sure that the tower is on top of a pad that is also elevated (see its shadow?). For being more perfect, you must create it too.

Image Courtesy: bellingcat.com

This process may be difficult for crowded structures, uneven terrain, and poor resolution which can bring error. So avoid creating a model of something right alongside a cliff. You can apply the terrain function on the Google toolbar. You can also create all the other structure which will obtain and produce your own shadows.

Ref: www.bellingcat.com

Learn to apply materials in sketchup through newly launched sketchup skill builder series videos

**Rajib Dey : Editor-in-chief**

Sketchup Team comes with sketchup skill builder video series to improve your sketchup skills. This sketchup video is one of the parts of these video series. This sketchup video is based on how to apply materials to the sketchup components. This sketchup video is designed for beginner sketchup users.

The sketchup users can find any material, which is applied to any model, in the Materials Panel. There exists a Home icon, which shows all the materials presently inserted to the file and in the dropdown menu there is In Model that also records the materials included to the file.

Go through the following exclusive article presented by Rich O'Brian to sharpen your ideas in this matter.

How to edit materials in SketchUp

https://www.youtube.com/watch?v=RkC9FTPKu3w
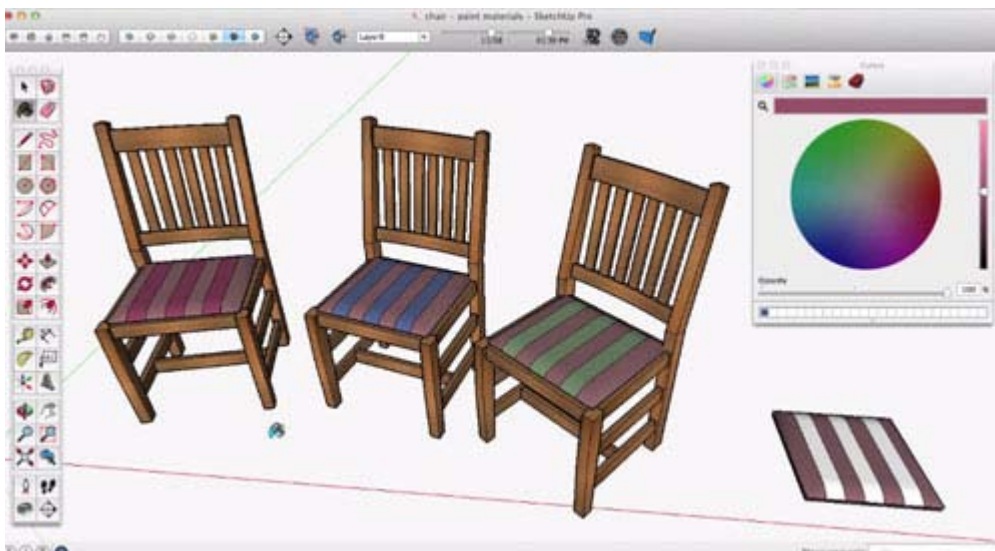
Sketchup STL export tutorial

Debamoy Ghosh

If SketchUp trainees would like to use this write-up in this tutorial to assist the enthusiasts, then those trainees can export to the STL file format or use Google SketchUp for 3D printing. This is actually a great effort by shapeways.com to wholesome help of SketchUp trainee.

This tutorial is meant for Sketchup 7.1 or higher. The working machineries are both the free version of SketchUp and also SketchUp Pro 7.

First Step: Open your model in SketchUp and export - There are various free and cost effective add-ons for producing .stl files within Sketchup, but having trying many of them, mostly do not work very good.

It has become very easy to make perfect .stl files from the Sketchup update though (7.1).

Here is how to do it utilizing a pair of important, constructive and free programs side by side Sketchup (MeshLab and Accutrans3D).

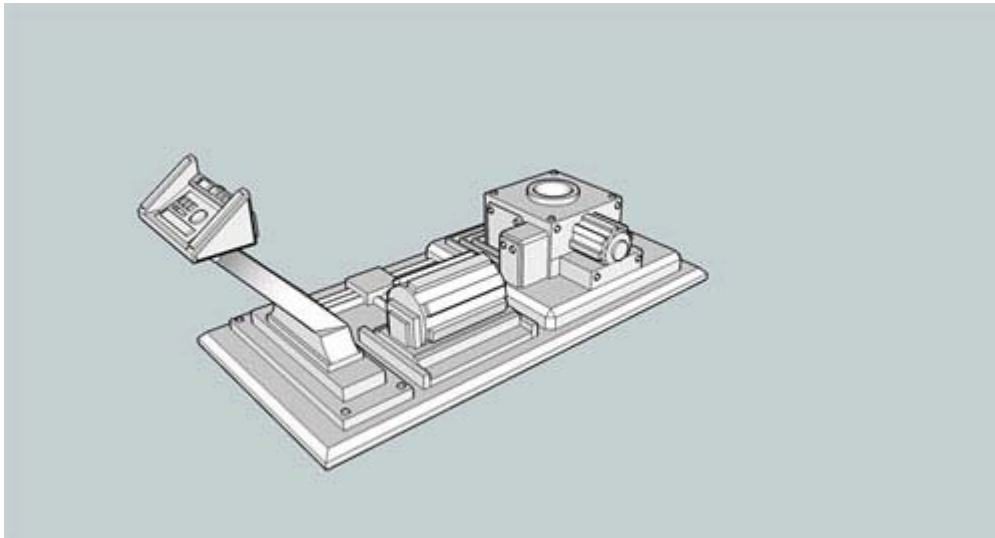Meshlab is free and open source and Accutrans is free for 30 days.

Image Courtesy: shapeways.com

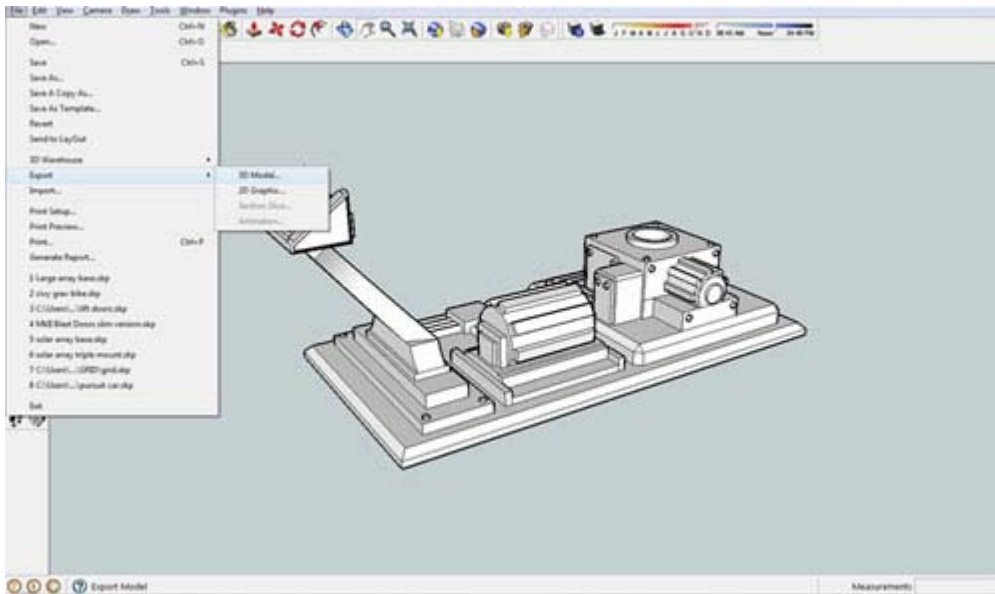Export as 3D model (Collada) (File -> Export-> 3D model)

Image Courtesy: shapeways.com
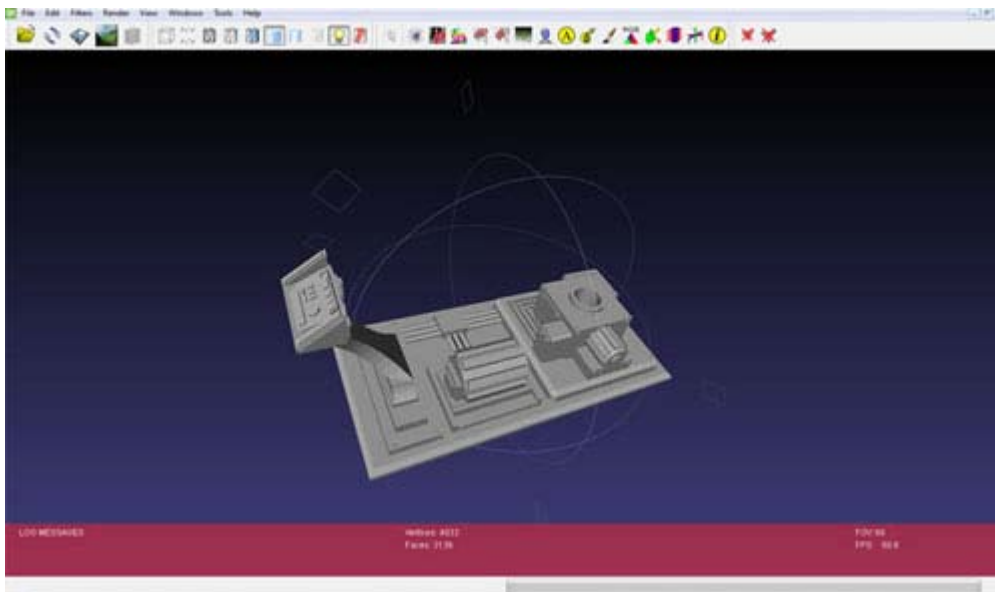
Second Step : Open in Meshlab and Save as STL
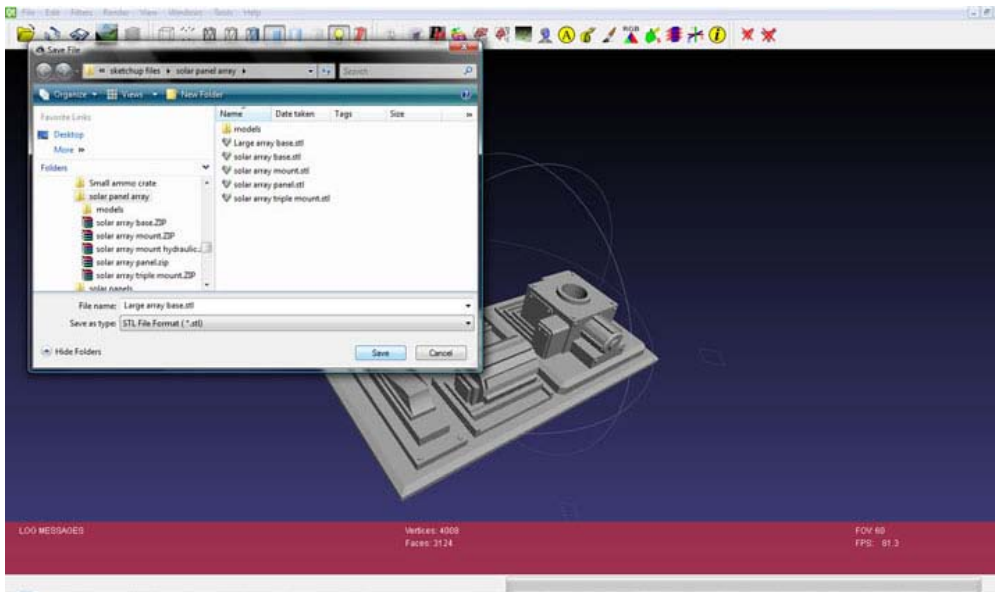

Image Courtesy: shapeways.com

Image Courtesy: shapeways.com

Third Step : Open in Accutrants

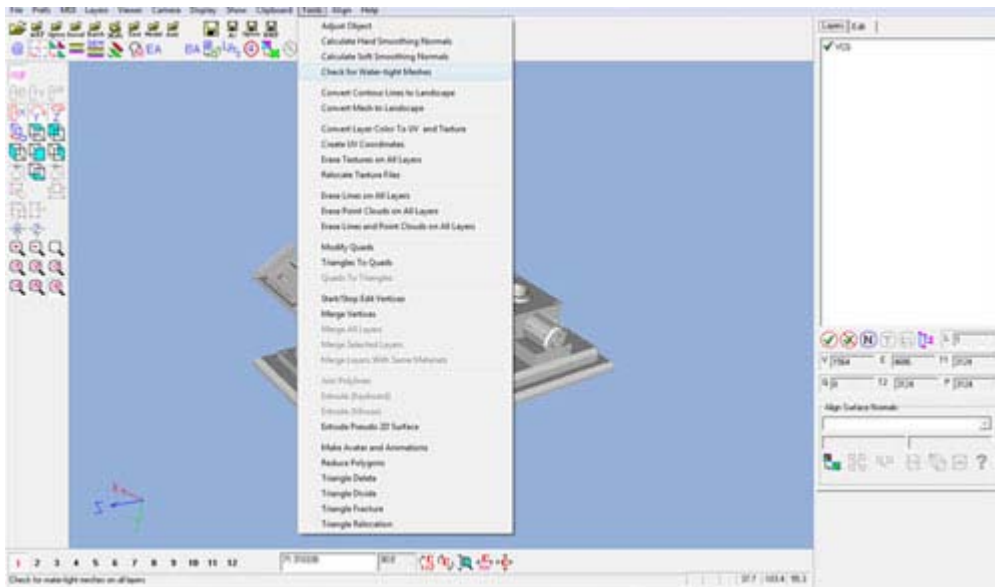Open the .stl file in Accutrans3D and go Tools -> Check for Water Tight Meshes...

Image Courtesy: shapeways.com
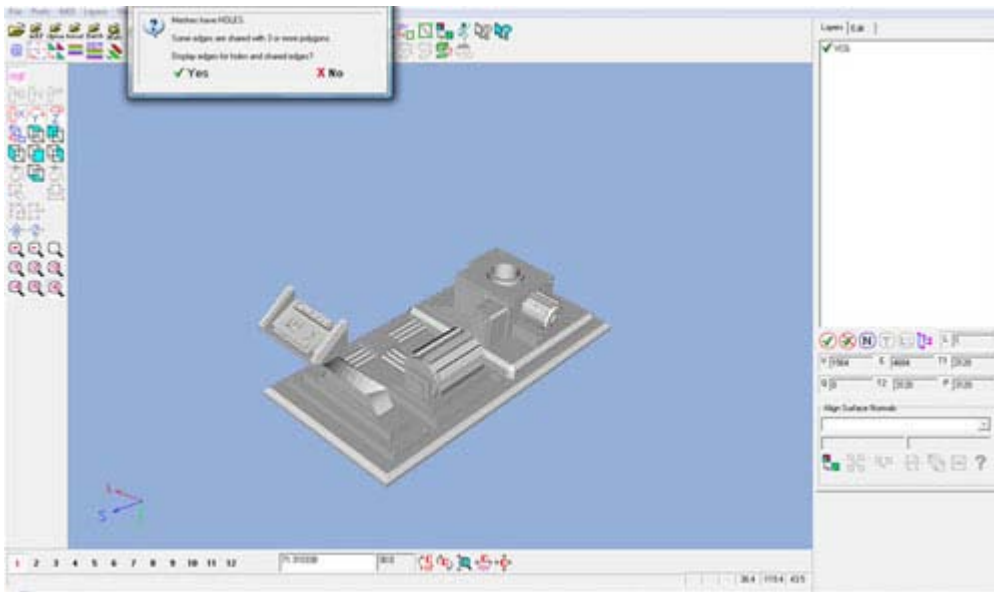
If there are errors it will look like this:

Image Courtesy: shapeways.com

Click "yes" and it will highlight holes with a Red line and Edge errors with green lines.

Remove a large face or area: Sometime errors happen – sometimes these are truly difficult to see.

There is a ploy that could get back to the SketchUp file and erase a big area globally.

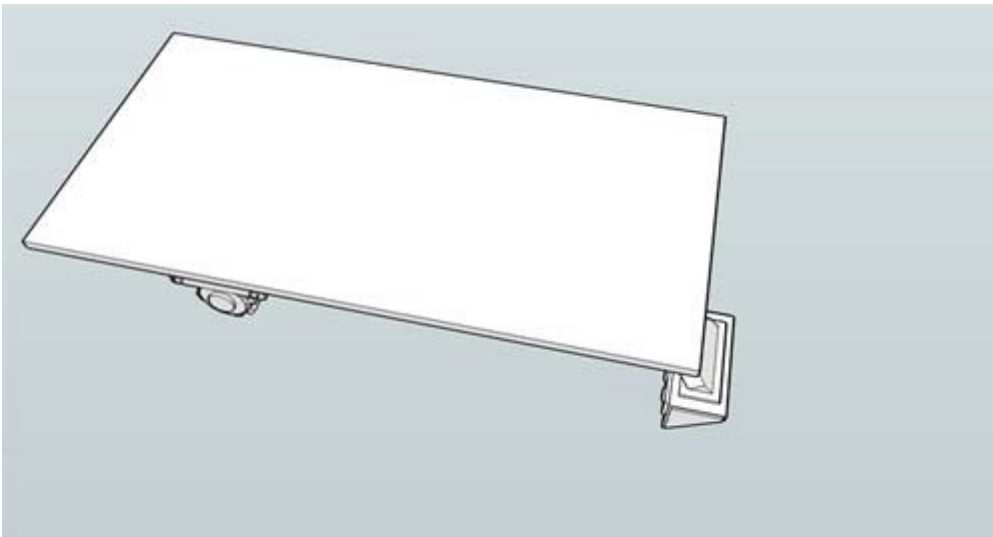(Let us get rid of the flat base of the model)
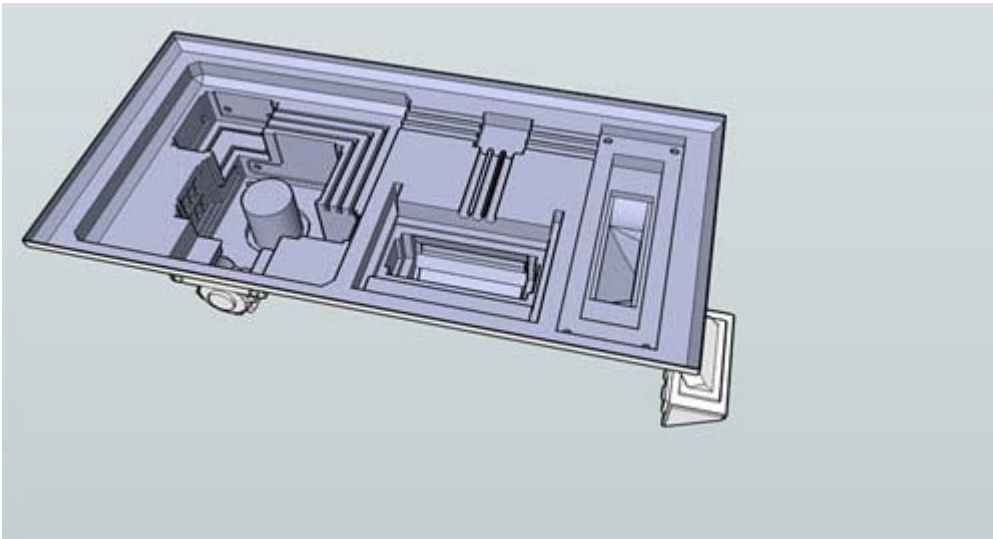

Image Courtesy: shapeways.com

Image Courtesy: shapeways.com

Back to Accutrans & repair in SketchUp: So, now the user are exporting the file again, swap it to an .stl and put it back into Accutrans and, again, check for watertight meshes.

This would let the user easily "Look inside" the model for those annoying errors.
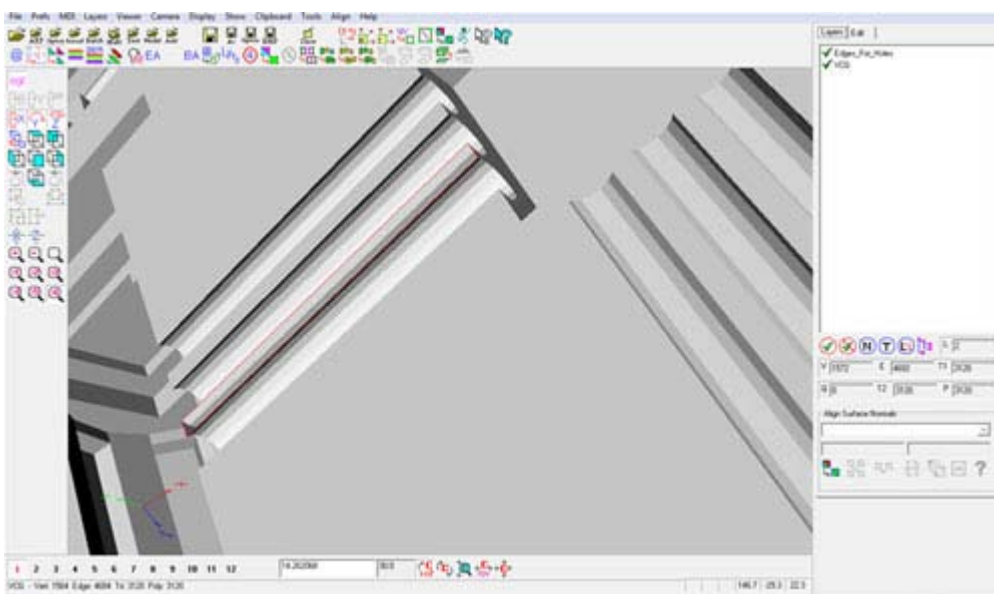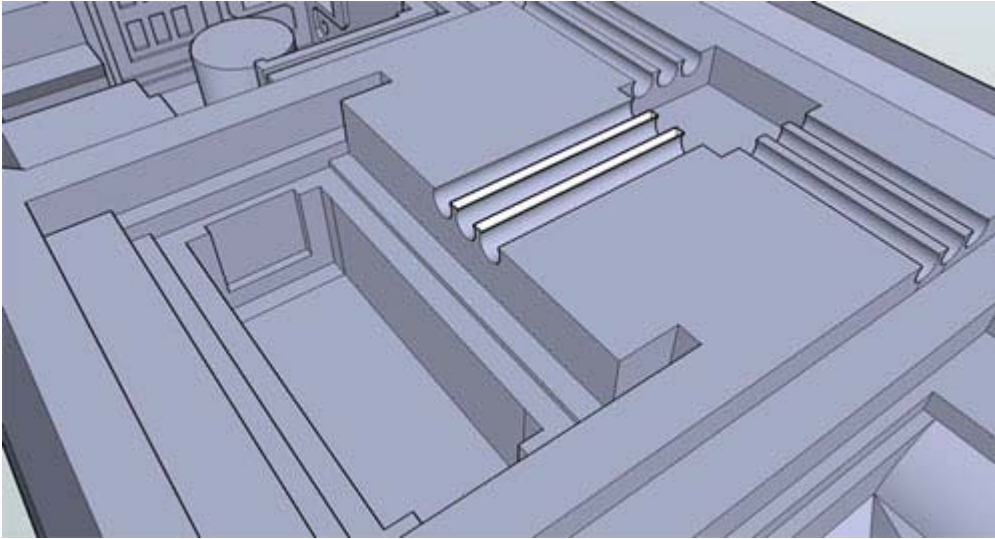

Image Courtesy: shapeways.com
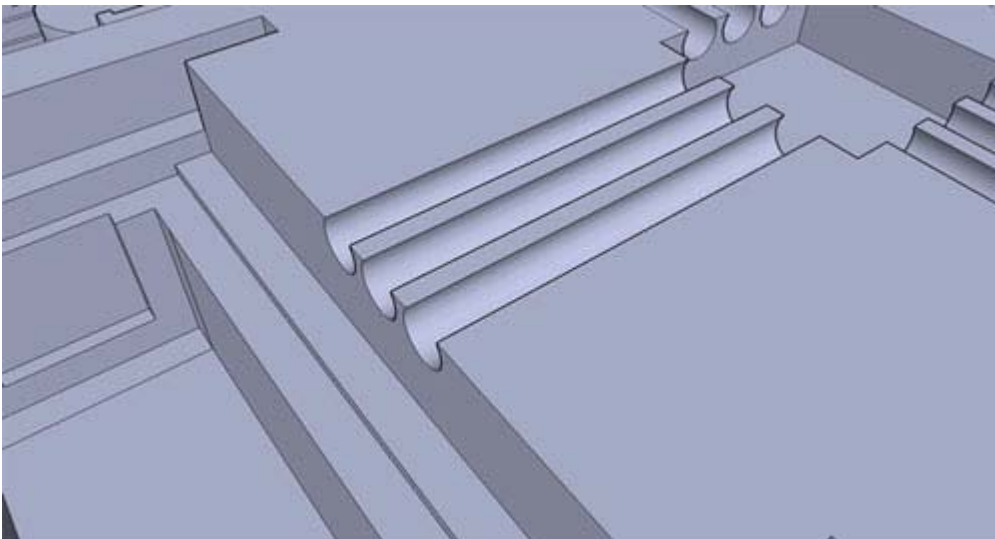
Image Courtesy: shapeways.com

Image Courtesy: shapeways.com
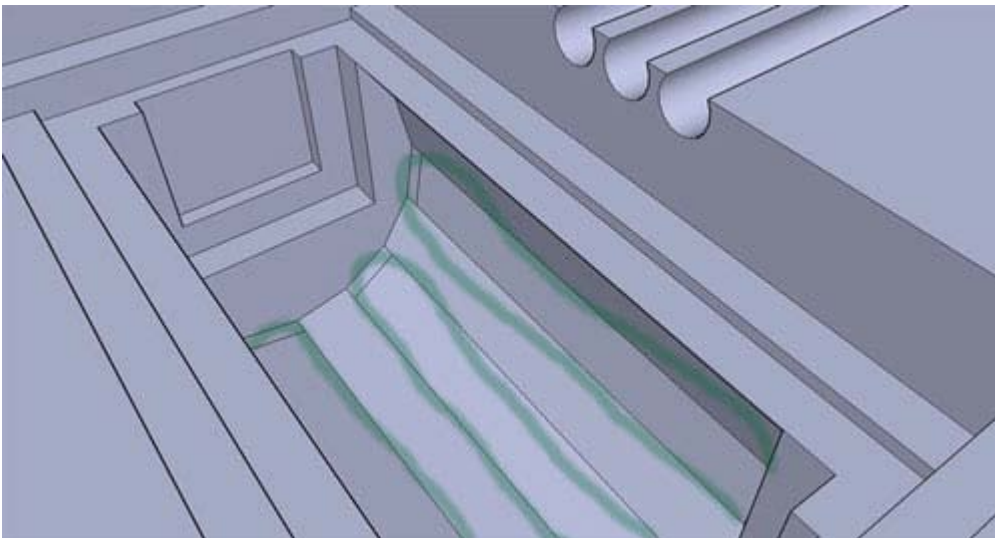
Image Courtesy: shapeways.com

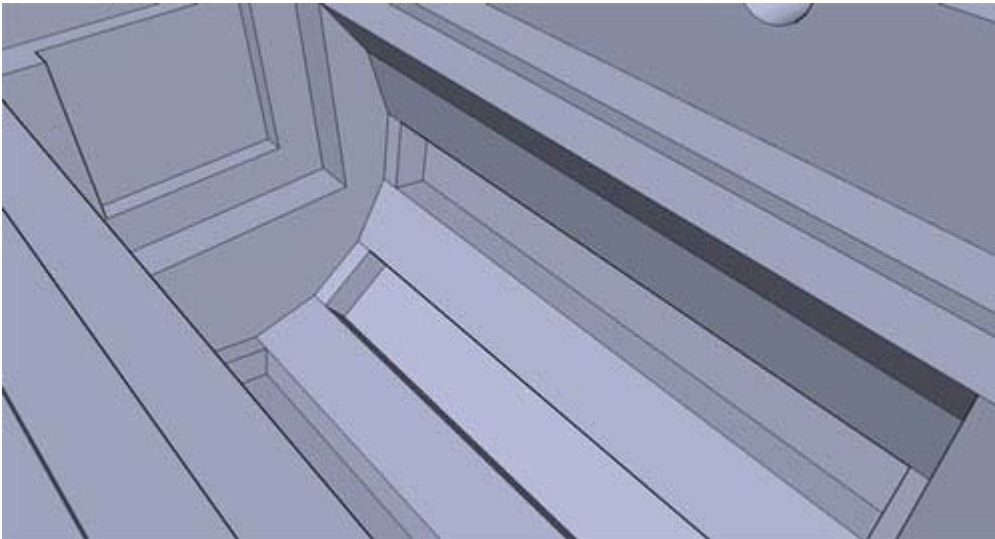Image Courtesy: shapeways.com

One last watertight check

- OK, save your file.
- Export it again (File -> Export -> 3D model -> COLLADA file.
- Open it in Meshlabs.
- Save As .stl
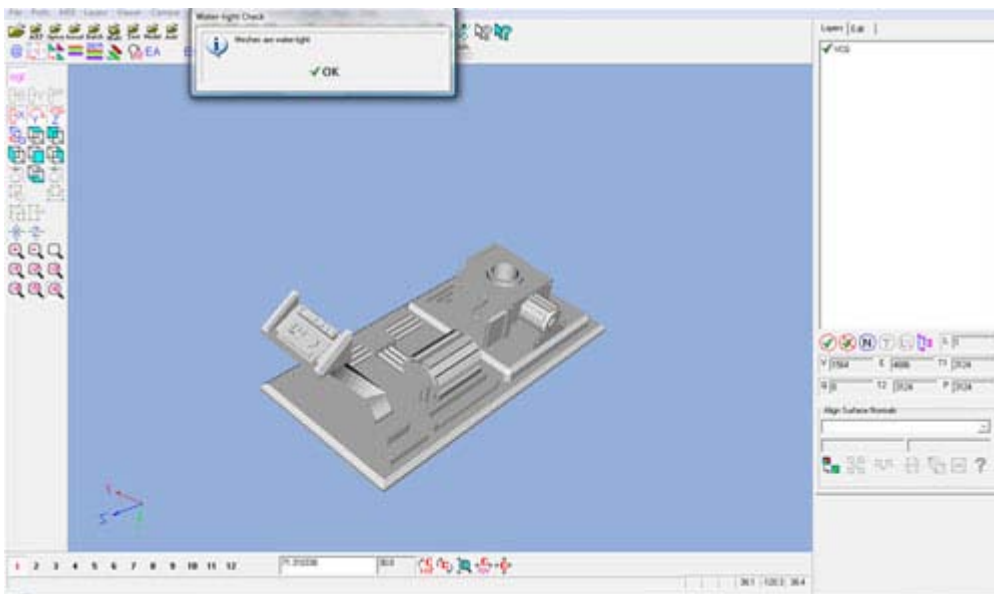- Open it in Accutrans3D and run the watertight check again...

Image Courtesy: shapeways.com

OK - now you are ready to upload to Shapeways as ether a .dae (COLLADA) file OR as an .stl file.

Ref: www.shapeways.com

3Dponics presents 3Dponics Customizer MakerBot-Ready App

Debamoy Ghosh

3Dponics Inc., maker of the first-ever 3D-printable hydroponics system, is all set to release its first MakerBot-Ready App: the 3Dponics Customizer. The app is presently one of just a few apps to be brandished by MakerBot, the leading creator of consumer-friendly desktop 3D printers, with the aim of helping people ascertaining the 3D printing not only an amusement, but a way of spreading education and knowledge.

The 3Dponics Customizer agrees to the customer to design their own custom gardens. They are now trying to mend the shape, size and orientation of the original 3Dponics parts.

The bases of work are – iOS, OS X, Android, Windows, Windows Phone – and in any browser.

No plug-ins is compulsory, and it's streamlined with efficiency in workflow means that virtually anyone, in spite of of skill level or prior 3D-modeling knowledge, can use it.

"Now that the 3Dponics Customizer is a MakerBot-Ready App, we expect more people will build 3Dponics, since getting started will be easier and faster. Not only that, but it will be more fun and educational. We expect this app will encourage MakerBot users to take on more meaningful 3D-printing projects, to get creative with their designs and to build the most efficient 3Dponics system yet." said Michael Golubev, Founder and CEO of 3Dponics Inc.

Work process is very easy. Customers have to download the 3Dponics customization app and begin to design the own exclusive portions for 3Dponics.

When they're prepared to print, they click Save, and the file gets sent to their MakerBot Fifth Generation Replicator.
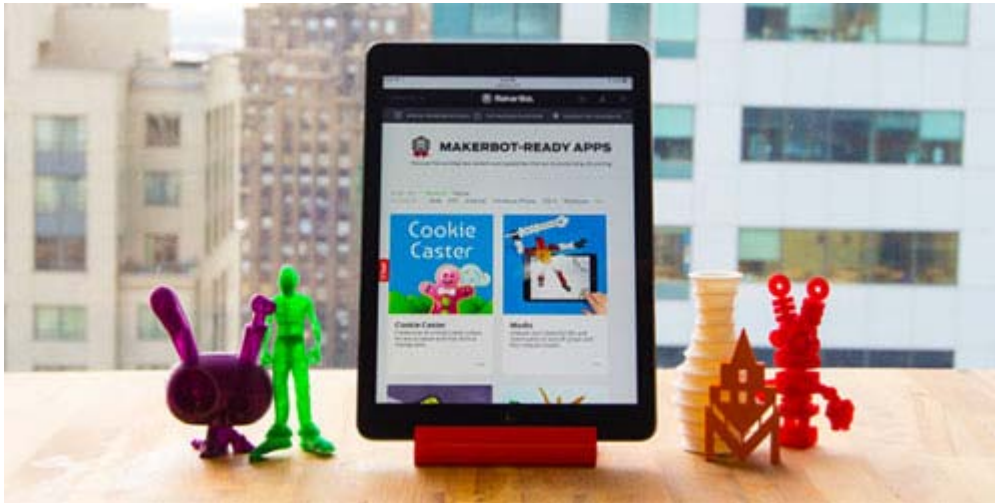
From there, users basically connect their MakerBot to WiFi; open their Library to admission the MakerBot-Ready Apps portal; and select the 3Dponics Customizer.

Their list of custom portion will be there, they have to start the print.

Ref: tenlinks.com

3DPonics Reveal New easiest 3D Modeling & Printing App

Debamoy Ghosh

The 3D printed hydroponics system is now the subject to discuss. With the aim of making "open source learning", 3DPonics has sustained to enlarge upon their designs, because of the open source community of developers who have taken part in the project.

Last June, It has been analyzed on a company called 3DPonics Inc. which began in order to create accessible a free to download, 3D printed hydroponics system.

With a goal of creating "open source learning", 3DPonics has sustained to expand upon their designs, for the open source community of developers who have participated in the project. The company has also been looking to enlarge in other guidelines within the 3D printing space.

Now 3DPonics has proclaimed the presentation of 3Dcreative.ly, which they claim to be a "next-generation 3D-modeling tool".

3Dcreative.ly makes other 3D modeling software packages presently on the market, taking in the mind, that there are many persons and companies who own 3D printers but don't have the skills necessary in order to generate high quality 3D printable models.
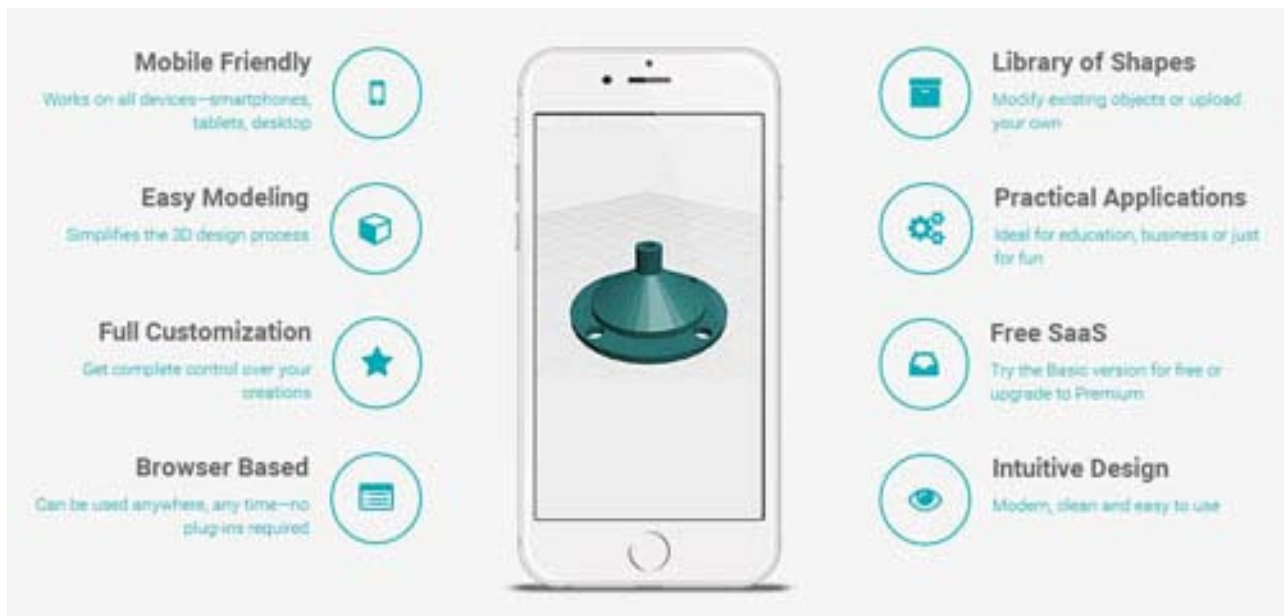
The latest app, which will be obtainable on almost any platform, including Windows, OS X, Android, iOS, and Windows Phone, and within any browser, seems to get aim at making 3D modeling accessible to every person.
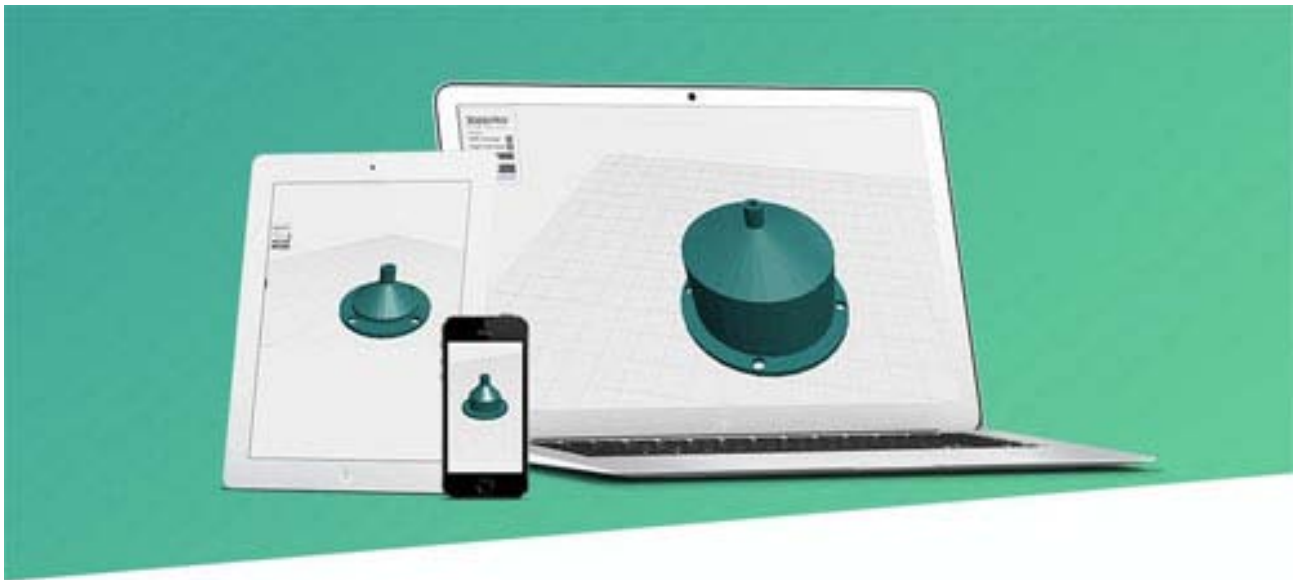
"The most significant feature that differentiates 3Dcreative.ly from its competitors is that it is intended for a mass consumer market, meaning that anyone, regardless of age, skillset or prior 3D-modeling experience, will be able to use it," the company tells 3Dprint.com.

The said application is an offshoot of 3Dponics' original Customizer App which was planned to permit their users to produce custom pieces for their personal hydroponic interior gardens.

Nevertheless, this new app permits for users to bring in practically any 3D file from repository websites such as Thingiverse and Youmagine. After that loading these files into the app or make 3D files from scratch using shapes provided within the app itself.

Mobile Friendly — Works on all devices—smartphones, tablets, desktop

Easy Modeling — Simplifies the 3D design process

Full Customization — Get complete control over your creations

Browser Based — Can be used anywhere, any time—no plug-ins required

Library of Shapes — Modify existing objects or upload your own

Practical Applications — Ideal for education, business or just for fun

Free SaaS — Try the Basic version for free or upgrade to Premium

Intuitive Design — Modern, clean and easy to use

"Given its intuitive design, 3Dcreative.ly will appeal to a wide range of people—from rapid prototyping professionals, designers and makers to teachers, students and practically anyone who wants to bring his or her ideas to life," explained Michael Golubev, Founder and CEO of 3Dponics.

While the app is not yet presently available, it will be later this year. There will be a totally free basic version, as well as a first-class version available for a fee.

3DPonics is presently looking for beta testers, and anyone fascinated, should contact the company directly.

It should be motivating to see how well this app engages people, particularly within educational establishments, where 3DPonics has been concentrating a lot of their attention.

Reference : 3dprint.com

Designing Kitchen Cabinets with SketchUp

SketchUp is an outstanding tool for designing kitchen cabinets. The free version has abundance of strong features, and even professionals with access to $30,000 cabinet design software regularly use it.

Before you start drawing, think about what you're actually trying to accomplish. If you mean to draw every end panel, top, bottom, shelf, back and toe kick for every cabinet, you're going to misuse a lot of time. Drawing all those parts isn't essential. popularwoodworking.com published this news writer by Nick Lieurance. We are presenting you an excerpt.

The designing of Kitchen cabinet with the help of SketchUp is interesting. You just desire to see what the design is going to look like.

Here's a tip for designing kitchen cabinets with SketchUp the simple way: Draw the overall shape of the cabinets and doors, but don't make divide parts for each cabinet. You just want to see what the design is going to look like. You can make sure anything is going to fit without wasting any time drawing parts you're going to have to put in a cutlist later.

If you have a difficult situation that requires a custom cabinet, create a new model and sketch all the parts so that you can show, exactly how to set up the cabinet. If you require using a custom piece of hardware, download the specs and use them to make sure you know how to slot in.

When you sketch your cooking place, start with a precise, to the point and exact drawing of the room itself, with accurate wall heights, lengths and other dimensions. First of all, calculate your kitchen and create note of the sink center and plumbing locations. Draw the outlets, windows, doors, trim and other features of the room. A well-dimensioned model will help you keep away from the surprises during installation.

You'll want to generate several layers in SketchUp to help you keep everything prearranged. You should put the room on the default layer (Layer0). When you're trying to turn the model around and look at things up close, having the room on its own layer will come in handy. You'll be able to conceal the walls, floor and other structural things that might block your view. Create separate layers for appliances, base cabinets, base fillers, countertops, upper cabinets, upper fillers and trim. Make sure you regulate the current layer each time you switch from drawing a base cabinet to something else, or from an upper to trim, and so on.

You'll use it to trial with doors and drawer configurations, cabinet widths and other ideas. When you've settled on the overall design, you can make dimensioned shop drawings and work out the small detailings.

Ref: www.popularwoodworking.com

Art of Illusion 3.0 – the newest free open source 3d modeling, rendering & animation studio

Rajib Dey : Editor-in-chief

Java-based open source Art of Illusion, a free 3d modeling, rendering & animation studio, can transform your creativeness to the next level. This useful 3d modeling app can be applied to generate models out of cubes, spheres, cylinders, curves, spline and triangle meshes and more. Besides, the users can characterize materials, edit textures and surface properties as well as produce naturalistic images through motion blur, depth of field and more.

The users can easily export sequels of still images to be used in other places as well as saved as a .mov video. Apply forward and inverse kinematic animation for providing support for skeletons.

The users can also get supported with scripting, through a bunched example attributing fur to your model with a single click.

The users will be able to download the scene file from art gellery and open & perform with it in Art of illusion.
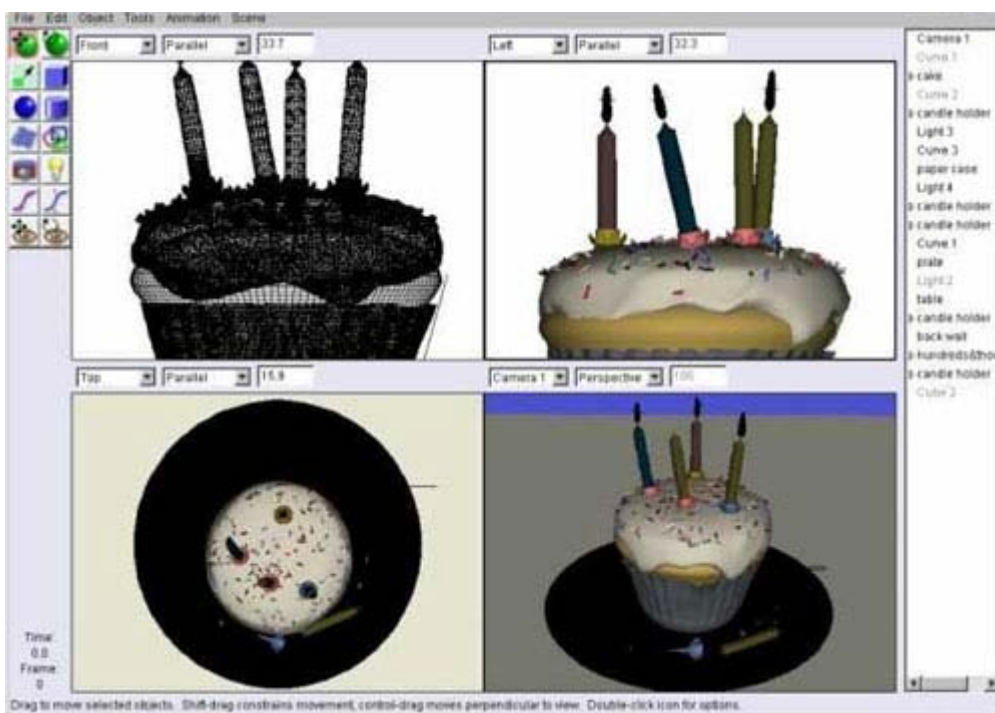
Magazine Details – The Creative team of Sketchup-ur-Space

Started in September 2010, Sketchup ur Space (SuS) was the first online magazine devoted to SketchUp, that unique, innovative 3D design tool from Google. It holistically covers features, events, news, updates, reviews and many tips and tricks.

Rajib Dey: rajib@sketchup-ur-space.com

Rajib, the editor-in-chief of SketchUp ur Space magazine is the main writer. He is responsible to write the cover story, blog and many other columns. Along with it, He is creating a liaison between the writers and the readers.

Manoj Kumar Singh: manoj@jobs2india.com

Manoj is enthusiastic helps to put the content of the SketchUp up Space magazine in the html version. Manoj is the html developer who beautifully creates each and every edition with care along with the PDF version.

Abhishek Mondal: abhishek@jobs2india.com

Abhishek is the designer-in-chief of this magazine with the help of his creativity Sketchup ur Space has gotten a classy as well as trendy look...

Debamoy Ghosh: debamoy@jobs2india.com

Pouring the confidence to budding 3D modelers is a challenge, which makes them believe that they can create a universe. I try to bring exciting stories that not only riveting read but put them the right technical path. After all, every right action needs believe and determination for fulfillment.