Interview with David Brufau

Tutorial : How colorize material
in Sketchup

Dirt Mapping
in Sketchup

sketchup

4D construction Simulation

List of Contents

A letter to the Desk of Editor

Hello friends!

We are going to publish another spectacular issue of our magazine. Our magazine is coming out on creative intelligence. We want to make our magazine a learning field for newbie SketchUp professionals. For this reason we are providing some exclusive tutorials on our every issue. We want to make our magazine more informative so that the SketchUp users can get the most out of SketchUp.

In the current issue, the readers will get the chance to hear from David Brufau on "How he utilizes SketchUp for rendering purpose. David is a very talented Architectural Designer from Spain.

The present theme of our magazine based on "How SketchUp can be applied for construction scheduling and simulation. Keeping this in mind the team of SketchUp ur space has presented an informational cover story highlighting application of various types of SketchUp plug-in for 4D scheduling.

In tutorial section the readers will learn on how to Colorizing Material in Sketch Up and dirt mapping in SketchUp. These tutorials were presented by Ronel K. Pabico, a promising interior Designer and 3d Visualizer from Philippines.

In article section the readers will get the full insight on level of details related with a SketchUp model and how it is applied to make a Ruby Cube model. This article was presented by Matt Donley, a renowned designer & architect.

The readers will find another article on a new SketchUp exporter known as Minecraft export. This article was presented by Paul Lee, Managing Director of Viewsion Virtual Environments Ltd.

In news section the readers will get some insight on latest happenings & technologies with SketchUp. Hope this issue will also become useful for SketchUp lovers.

 "No matter how busy you may think you are, you must find time for reading, or surrender yourself to self-chosen ignorance."

Hope our readers will like this publication of SketchUp ur Space. We will welcome some helpful feedback from our readers. Please send me your suggestions at rajib@SketchUp-ur-space.com.

Best Wishes
Rajib Dey
Editor

Happy Reading!

Interview with David Brufau - The most talented Architect & Architectural Designer from Barcelona, Spain

Hello DB! Welcome to the arena of SketchUp ur space. Make your brief introduction to the SketchUp lovers?

Hello, my name is David and I'm a catalan CG artist from Barcelona. I'm a SketchUp Pro user well a lover must say.

When did you start to utilize SketchUp in 3D field and How?

I started to dive in at version v6 ,but I discovered it one year before while working in a big firm architectural office in Barcelona. They use it basically for competition and for drafting first ideas. Where i still think SU still unique for that task at the moment.

Which SketchUp plugins are best for architectural visualization & rendering?

Well, I well i don't know which ones are the bests, because I find there are a lot and very useful that can save you in certain moment but i can tell you which ones I normally use most for that tasks. All the Fredo6 collection (fredoscale, round corner) are really useful and powerful , also the ones from Thomthom (Edge Tools, Quad Face tools,) , also tools on surface, and joint push pull are really useful and powerful when doing modeling work. and finally artisan is excellent for more organic modelling.

How SketchUp facilitates exterior and interior rendering?

Well the good thing in SketchUp i think is the feed back you get from your screen, I really don't like the programs with 4 different little screens. In SU what you see is what you get. more intuitive and quickly to move cameras or points of views. The other good thing is you get also a magnificent sun and shadow system that allows you to control your light in your scene in just few clicks.

In your professional career which project seemed to be most challenging?

Well i had to model a mosque in about just a week with all the details , there I really learn how important are shortcuts when modeling.

Who are your inspirations in 3D work?

Alex Roman really shock me when I saw his film. But there are also great artists out there , as Bertrand Benoit, Ramon Zancanaro, also superquality firms as dbox, Hayes Davidson, Mir, Luxigon and a lot more.

Point out some obstacles with SketchUp which you face in your professional work?

Sometimes is difficult to deal with big models with lots of geometry, I recently saw a video from Skechup basecamp that can guide us how to deal better with that. The use of layers for visualizing just some parts of the model I think is a great idea.

Tell us something about your achievements and awards which you received in your professional career.

Well my most important achievements is being surrounded by great people that had help me a lot in the learning of SketchUp and vray softwares, I really want to thank my two friends and mentors Sir Normer Adona, and Fernando Rentas.

What suggestions do you want to provide for newbie 3d modelers and rendering artists?

Keep your model clean and organized, use Outliner and layers in combination.

What will be your suggestions to the team of SketchUp ur space?

Keep rocking and doing that necessary information and divulgation work for SketchUp users, and also the newbie ones.

SketchUp Plug-in for 4D scheduling

In recent years 3D modeling and 4D scheduling & visualization play an important role to facilitate the complex phase of the construction project. SketchUp is a useful tool that can be applied to visualize any construction process efficiently. It facilitates the project managers to detect the delays and inaccuracies earlier. 4D modeling merges 3D drawings with a construction schedule and presents the sequence of construction over time.

There are several plug-in which are compatible with SketchUp to provide better construction scheduling.

Synchro: It is a 4D application (the last D being the "time" dimension) which is utilized to make building projects and schedule them simultaneously. This is useful to find out the parts of the building designs in 3 dimensional view and scrutinize advancement and schedules on each section. Synchro adjoins scheduling to Google SketchUp and convert Google SketchUp from 3D to 4D.

The users can assign human resources, costs, and materials to the building pieces, in 3D. This can monitor the development of the construction in a superior and efficient way without any problems.

Synchro project constructor: It is a plug-in for Google SketchUp which can work as a scheduling and project controlling tool for visualizing how construction phases will take place. Synchro Project Constructor is purposely intended to work with SketchUp models.

It's a lower-cost, standalone application and a full scheduling and project controlling tool compatible with SketchUp to be applied for inserting a chronological dimension to their project planning and design. Synchro Project Constructor incorporates models/3D drawing from SketchUp and then coordinates them with a project timeline on a spreadsheet. This lead to a visual and spatial illustration of construction as it takes places during time.

Synchro Project Constructor is a 4D application that lets you manage a 3D model in time. It's a scheduling tool for visualizing how construction phases will occur. Basically, different

parts of your model exist at different points on a timeline, and you can show and hide those parts depending on when you are.

http://www.youtube.com/watch?feature=player_embedded&v=jIMgyId336U

With this plug-in the project managers can be benefitted by acquiring geometry from SketchUp into Synchro with a characteristic ID attached to each component. Project Managers can easily adjust their SketchUp models and port those adjustments reverse to Synchro at the same time as performing repeatedly on designs.
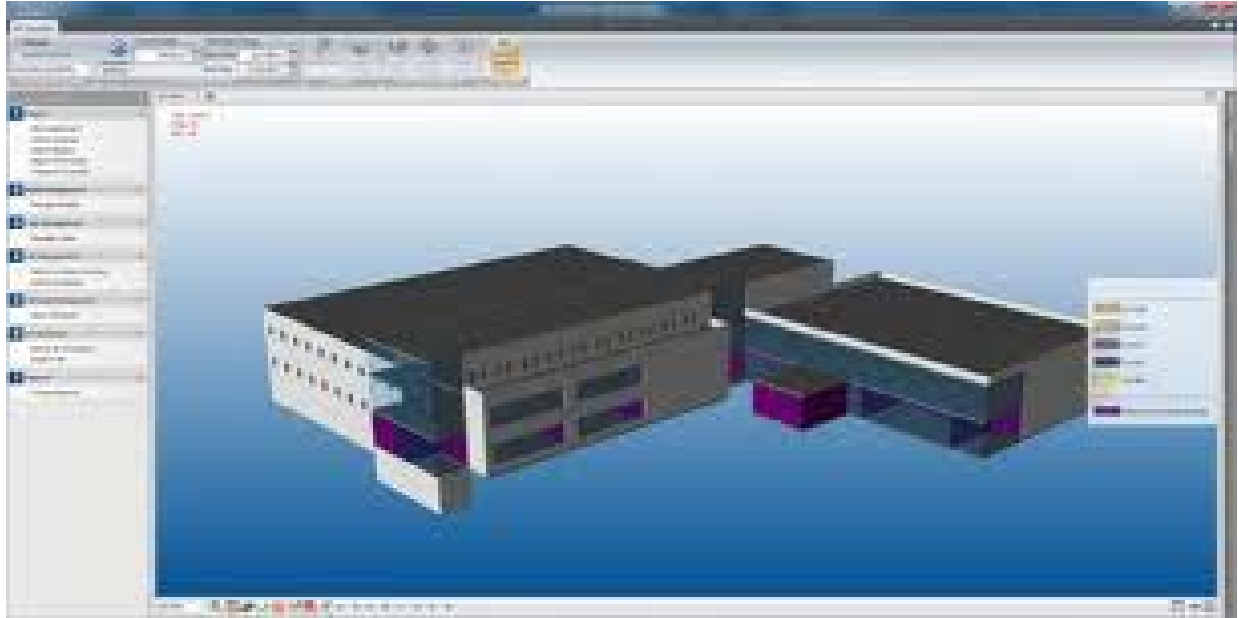
The plug-in can also import SketchUp Files as well as MS Project and Primavera and applied its attributes to generate a 4D simulation of the construction procedure.

OnTime5D: It is a free plug-in well versed with SketchUp. It links models generated from SketchUp with schedules for simulation of building construction process. This plug-in facilitates users to connect their 3d model with scheduling and cost data to produce 5D simulations inside SketchUp. Connect all 3D components through scheduling tasks from a selected schedule and opt for duration of the simulation. View the 5D simulation of building process according to the desired schedule. Concurrent view of the structure, tasks being performed and the accumulative value of money spent.

Create connections between tasks with FS, SS, FF type connections and specify lag. Full audit trail and undo-redo support.

Get more details from the author's website

4D Virtual Builder: D-Studio has developed this plug-in. It will enable users to import schedule files in xml format from MS Project, Primavera and Asta Powerproject. The plug-in is not available in free version but there is a free trial version. The users can get trial version at www.4dvirtualbuilder.com. The cheapest version (without XML import) is cost at $59.

The plug-in comes up with various version like 4D Virtual Builder Light current version: 1.2, 4D Virtual Builder Pro current version: 1.2, 4D Virtual Builder Ultimate 2.0 which is useful to create 4D models completely in SketchUp (by the exercise of 4D functions).

4D Virtual Builder Pro: This plug-in provides great benefits to include time-scheduling information toward entities in the SketchUp model. Here all scheduling information is preserved in the SketchUp file. At the time of put in or editing any time-based information with the 4D Virtual Builder Pro for SketchUp the user must save the file.A start and end date is characterized for every seperate SketchUp entity (or a group of entities or a component). Both the dates find out the start and end of a definite act for that entity (eg. the entity is being created, destroyed etc.). While looking through over time with the 4D Virtual Builder Pro for SketchUp the construction sequence will be visible. If the user choose a date, the SketchUp model is 'updated' depending on the particular start and end dates and previews the position of the model on the selected date. Going back and forth demonstrates the progression of in time and simplifies it to evaluate this procedure and detect possible errors before commencing physically on site.

SuUperPlan "Scheduling direction": The main function of this plug-in is "Automated scheduling" by showing all the objects in your 3D model and arranging them into a calculated sequence. The sequence is Visualizable (4D) and exported to your preferred planning system.

Scheduling Direction" is a very popular method which is extensively applied for any project. It is occasionally utilized owing to physical or spatial constraints or just to keep away from a entirely random and possibly ineffective approach to construction.

"Scheduling Direction" options are accessible from the "Plug-ins > SUperPlan > Options" dialogue under "Scheduling Direction".
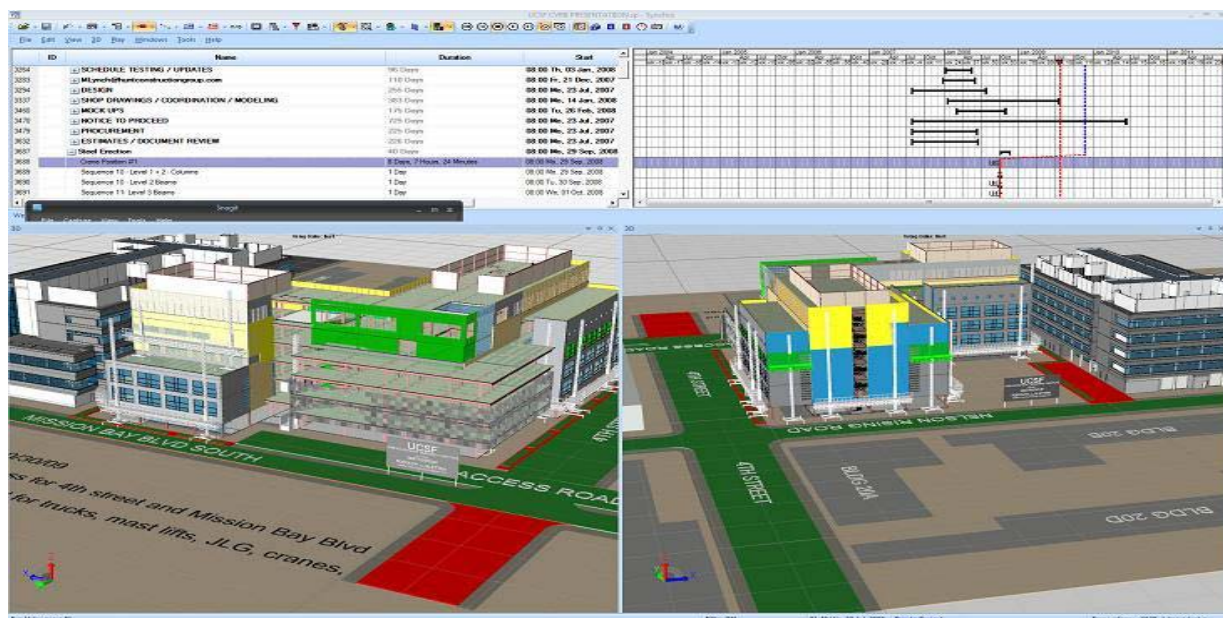
As a plug-in to SketchUp it employs axes linked terms to explain these options instead. As for example the option [-x+x, -y+y] explains the order of object selection as being firstly

from negative to positive in the X axis direction subsequently negative to positive in the Y axis direction (so by setting the Google SketchUp camera to the "Plan" pre-set view it would be from the bottom to top and left to right).

Several general contractors are applying SketchUp to generate models for deriving the 4D schedule and 5D cost estimates at the Concept Stage. So SketchUp is becoming very popular among contractors to twist a conceptual model into real 4D and 5D project deliverables.

Level of Detail Case Study - Rubik's Cube

Whenever you start a new SketchUp model, you make decisions about the level of detail (whether consciously or sub-consciously). What drives those decisions is usually a combination of the size of your model, the amount of time you have to create the model, and the overall purpose of your model. In this article, we'll look at a Rubik's Cube and a couple of different approaches to modeling one.

Rubik's Cube Level of Detail

A Rubik's Cube is a clever puzzle, popularized in the 80's, that consist's of 26 colored cubes that are interlocked with each other. You can rotate each of the 6 faces of the cube to rearrange the individual colors. Once scrambled, the point is to arrange the cubes so that each face of the cube has a unique color on it.
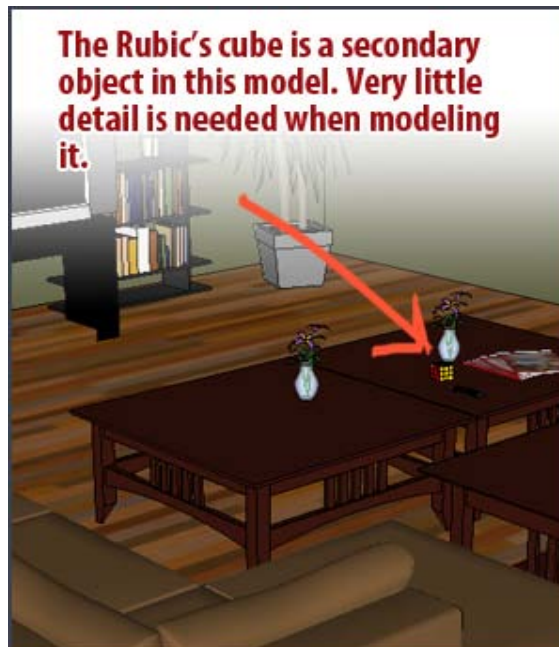
I thought it would be cool to model a Rubik's Cube in SketchUp, and it struck me that there were a number of different ways I could approach the project. They would all technically be a Rubik's Cube, but the amount of detail put into each model would vary greatly.

With any SketchUp model, **the objective is to create a digital representation of something that effectively communicates our ideas.** In order to evaluate whether or not we are successful in that objective, we need to first define what it is exactly we are trying to communicate.

Each model we create has a specific purpose. If we were drawing a Rubik's Cube for example, we might define our purpose as one of the following:

1. A Smaller Element Within a Bigger Model

Perhaps I am creating a model of a room and I want to add some objects to the model to make it look more "lived in". I may decide to add a Rubik's Cube onto the coffee table, next to some magazines and a tv remote.

The Rubic's cube is a secondary object in this model. Very little detail is needed when modeling it.

OBJECTIVE: Create a simple model of a Rubik's Cube to place within a model of a living room in order to add some additional detail to the scene.

In this case, the Rubik's Cube is far from the center of attention in the model, so I wouldn't need to spend much time creating it. **I would only need to add enough detail to the Rubik's cube so that people will easily recognize it.**

I can define simple characteristics that I need to model in order to accomplish this. I'm confident that if I can incorporate these few characteristics into my model, I will have effectively communicated my design for its purpose.

CHARACTERISTICS:

• Level of accuracy: 1/4″

• The overall shape should be 2 1/4″ x 2 1/4″ x 2 1/4″

• Each face should be colored the same colors as a Rubik's Cube (White, Yellow, Red, Orange, Blue, Green)

• Each face should be subdivided into 9 squares to create the illusion of the smaller cubes.
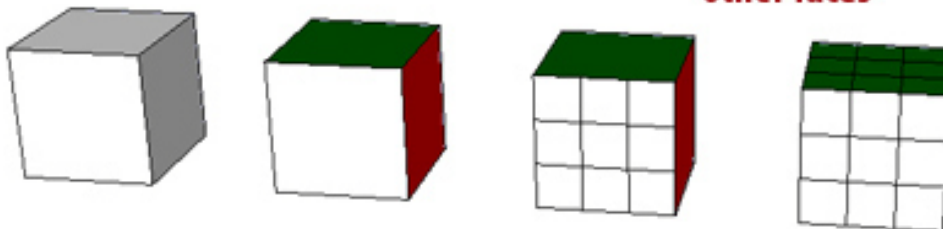
1. Create a cube

2. Color each face

Simple Rubik's Cube

3. Divide the face with lines

**4. Copy the lines to the other faces**

A very simple model, we only model the very basics of the cube in order for people to identify that it is a Rubik's Cube. Beyond that, we don't need to add any additional details.

2. Demonstrate a Rubik's cube

If I were trying to demonstrate what a Rubik's Cube is to someone, I would want to add more detail so that each face of the cube could rotate. In order to do that, I'd have to create each of the smaller cubes as separate groups so that they could be rotated and rearranged.

A more detailed model allows us to rotate the smaller cubes. This helps us demonstrate what a Rubik's cube is and what it does.
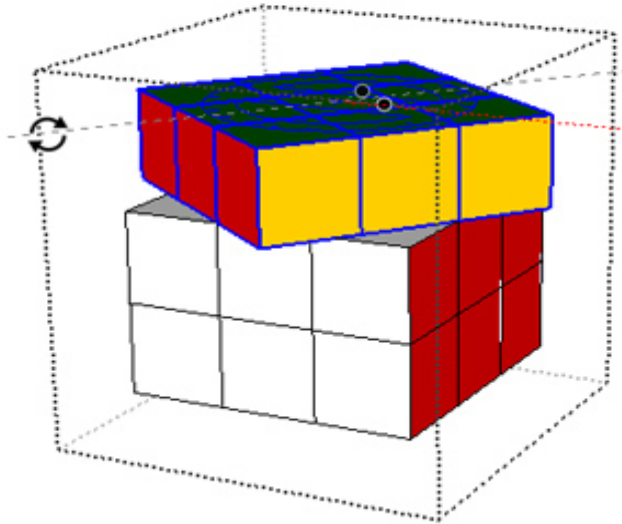
OBJECTIVE: Create a model that will demonstrate to someone what a Rubik's Cube is and how it works.

In this model, the Rubik's Cube would be the only thing in our model, so it will definitely be the center of attention. But since our purpose of modeling it is only to demonstrate the basic concepts of what it looks like and how it works, we still don't have to go crazy with the details. In fact, we could just send our friend to Werner RandelShofer's website and avoid having to create the model in the first place, lol.

CHARACTERISTICS:

- Level of accuracy: 1/4″

- The overall shape should be 2 1/4″ x 2 1/4″ x 2 1/4″

- The faces of the cubes should be colored accordingly (White, Yellow, Red, Orange, Blue, Green)

- The cube needs to be divided into 26 smaller cubes that are grouped independently from each other

A Functioning Rubik's Cube

1. Create cube, make 8 copies

2. Copy those cubes to make the Rubik's cube

3. Color each face of each cube

You can now select a bunch of cubes and rotate them, just like a real Rubik's cube

This model is a little more detailed, but still pretty basic. The main difference is that we've drawn the cube using many smaller cubes. This has given us the ability to manipulate the cube similarly to how you would in real life.

3. An intricate analysis of a Rubik's Cube

In this model, I would have a lot of detail. I want to show how each piece of the cube is connected to one another, so I would model all the interior parts. Since the colors on a Rubik's Cube are actually stickers, I'd create separate components for the stickers and color them accordingly.
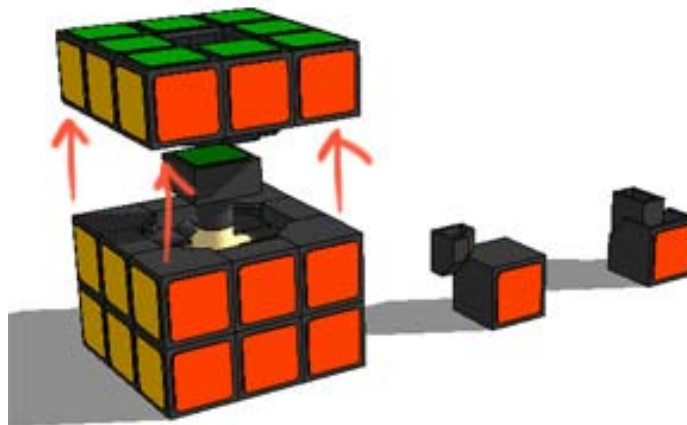
Each "part" of the cube is accurately modeled to within 1/16"

OBJECTIVE: Create a detailed model of a Rubik's Cube and all of its parts in order to understand how the cube physically works.

Since we are trying to understand exactly how a Rubik's Cube works and how it is physically built, I need to take one apart to analyze it. I need to identify each part that makes up the cube, and measure it carefully. I can also identify parts of the cube that are identical to each other, and use components for those pieces in SketchUp.

CHARACTERISTICS:

- Level of accuracy: 1/16"

- Each piece of the Rubic's Cube should be modeled to show their internal structure

- The stickers on the cubes should be modeled separately from the black plastic parts

- The internal axis of the Rubik's cube should be modeled

- Parts should be grouped in a way that allows easy rotation of the Rubik's cube faces

A Detailed Rubik's Cube

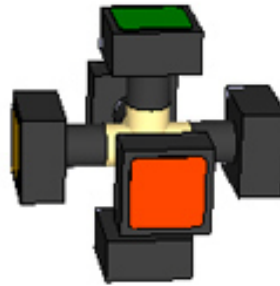### Create components for each part, then assemble the Rubik's cube

Corner Piece   **Edge Piece**   **Central Axis**

The Importance of Defining the Level of Detail

From these three examples, you can see how drastically different these models are from each other. They are all models of a Rubik's Cube, but the level of detail is so different between them. You should ask yourself how detailed your model needs to be before you start modeling.

If you're modeling a house, do you need to model the structure hidden behind the walls? Do you even need to model the interior of the house? If you're creating a model of a new neighborhood of houses, the answer is probably no. Thinking about these things ahead of time will save you time and also provide clear expectations for other members of the design team.

The next time you sit down to create a model, stop and think about the purpose of your model and try to define the level of detail in your head before you start modeling.

SketchUp - Minecraft Export

To do this you need 3 software downloads:

- binvox & viewvox available <u>here</u> You can install these program files anywhere on your system.

- Obj2mc available <u>here</u>

- MCEdit available <u>here</u>

Once you have downloaded the above packages:

1. Create a folder on your desktop called "Minecraft

2. Put the .zip files into this folder.

3. Unzip the files.

4. Open the SketchUp file that you wish to export to MC. (Use a small model to start with. Nothing too complicated.)

    You must export the model as an .obj or .3ds file.... (Note: The .obj exporter is built into SketchUp Pro but if you are using the free version you need an .obj converter plugin. To get the converter you must download and install this plugin file. To find out how to install a plugin, check this instructional page.)

    Open the "obj2mc" folder and doubleclick on the "obj2mc" program file

5. Click on the "select" button (the 3 dots) This will open the file selection window.
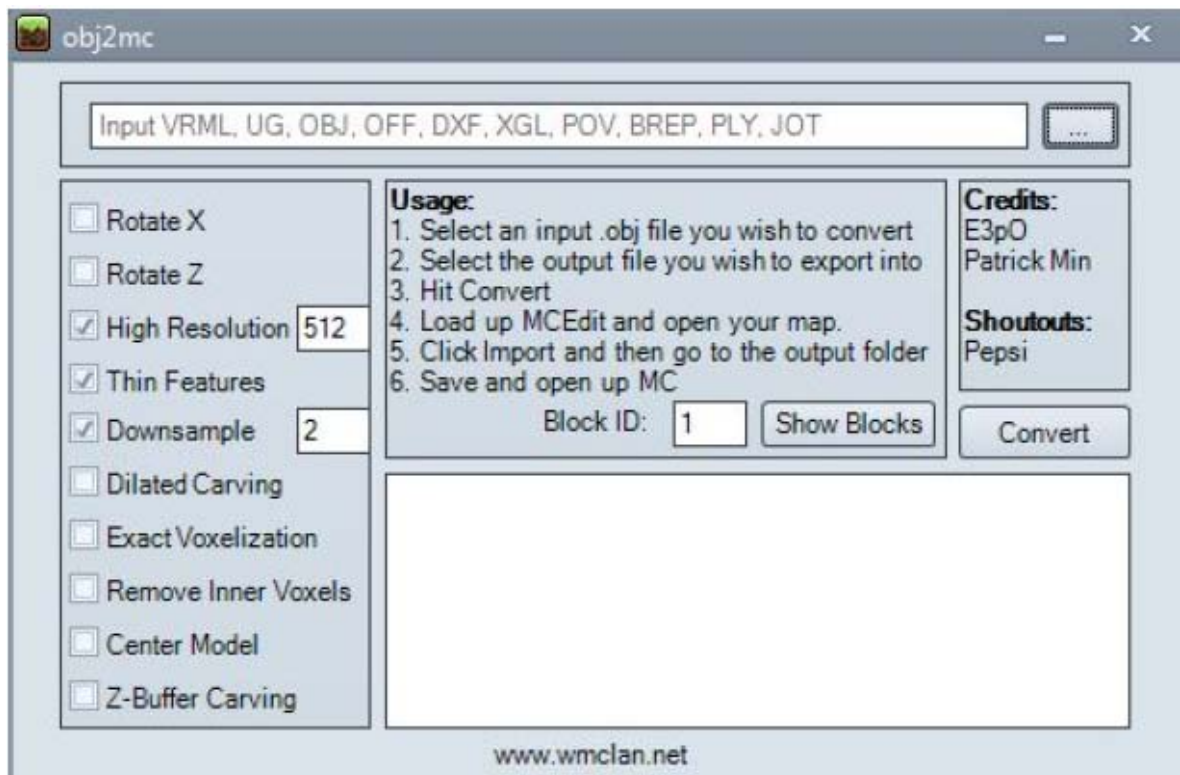
In the file selection window select ".obj" filetype for conversion. (red box below)
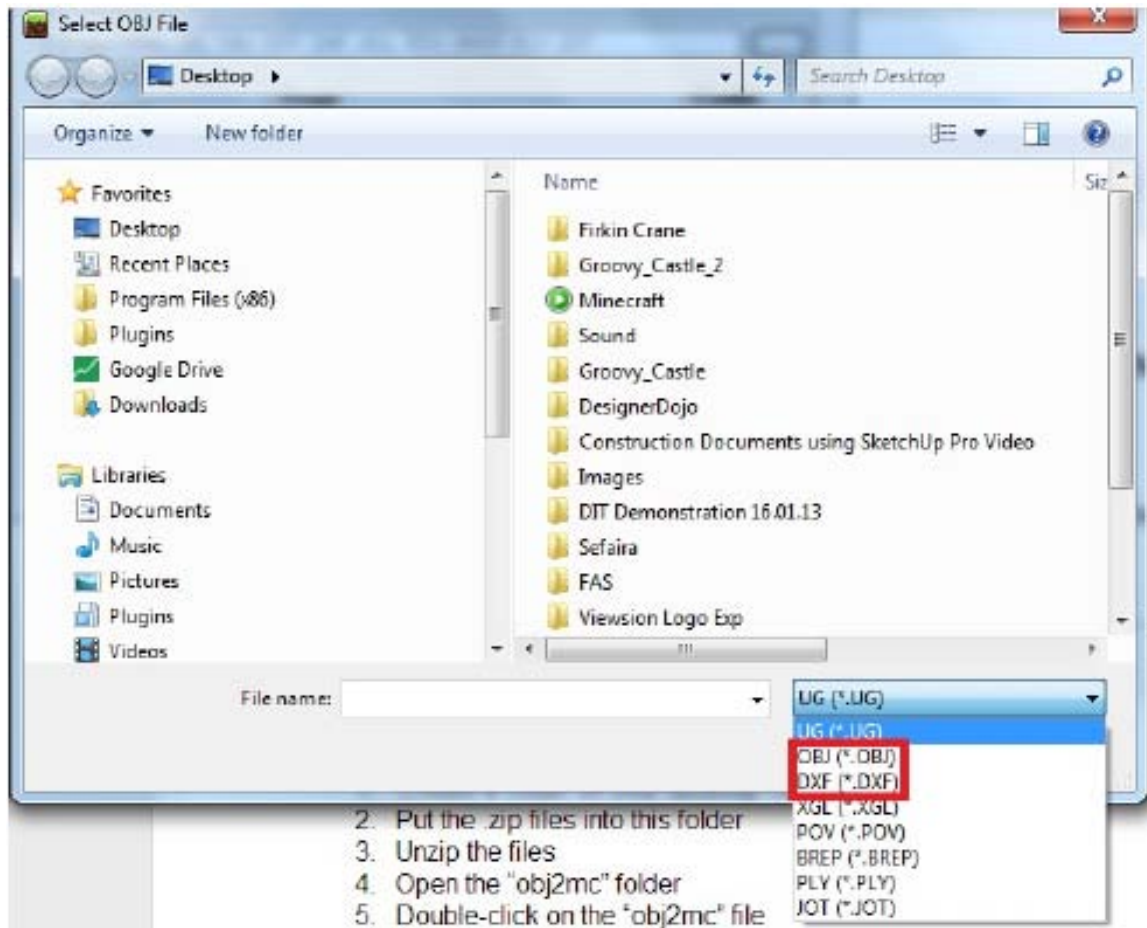
Browse to find the .obj file that you previously exported from SketchUp. Click on the required file and select "convert"

6. The file will be converted to a ".schematic" file.

7. Open the MCedit software and import the .schematic file that you created. You can find out more about how to import, orientate and position the file using the MCedit tool here.

8. When you have edited your world you can then open and play with it in Minecraft!

Please let me know if I have missed anything important in this tutorial and let us have your comments. If you like this content then please subscribe to our blog: SketchUpireland.blogspot.com

Paul Lee - paul@viewsion.ie

www.viewsion.ie

Street Revitalization with Quick Sketches

It is quite enjoyable to take an existing building or an entire streetscape and show its future potential through hand drawn sketches a some imagination. Just for fun, go out and photograph an old building or retail storefront, make a print of the digital photo and draw over it onto tracing paper - adding new facade detail and activities.

I recently visited a historic neighborhood in the heart of Denver and took a series of photographs of the existing blocks. I then selected a few interesting views, traced over them and created several hand drawings that show "before and after" examples of a restoration, an addition above a storefront, and an entirely new gateway element. My three-stepped process is explained below:

Sketch 1: Storefront Addition

This handsome line of shall historic storefronts was a good subject to explore a facade upgrade and second floor addition. I printed the digital photograph on 8 1/2x11″ paper and traced over the image adding new architectural treatment and street trees. I blocked out the drawing in red pencil (not shown) and then created the ink line drawing with a Pilot Fineliner pen.

After scanning the black and white pen drawing (a good step to take if you want a backup copy in case your coloring turns out poorly), I added about ten different colored markers to the original artwork. The color was just enough to give the drawing a sense of materials and depth. The use of a dark gray marker really helped highlight the shadows and 3-dimensional forms.

Sketch 2: Neighborhood Gateway Signage
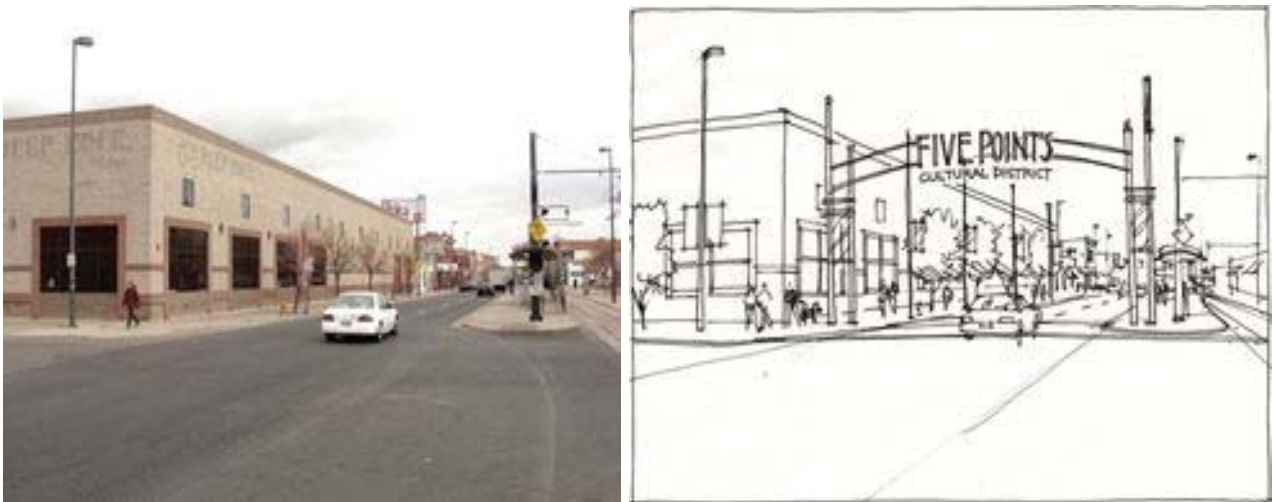
I stood in the center of the one-way street (always watching for oncoming cars) and photographed this scene with the intent of developing a sketch for a possible gateway element to the neighborhood. I followed the same process as I had previously done with Storefront Addition sketch.


Compare the digital photo with the sketch. Notice how I waited for a car to pass in front of me to capture the vehicle's shape. I also waited for a person to walk by to establish the right scale for people in the drawing.

Sketch 3: Historic Building Restoration

This last sketch involved taking a digital photograph of a fully restored neighborhood building and a similar photograph of a historic structure that had not yet been restored. Again, I used the exact same method of tracing and illustrating the building.
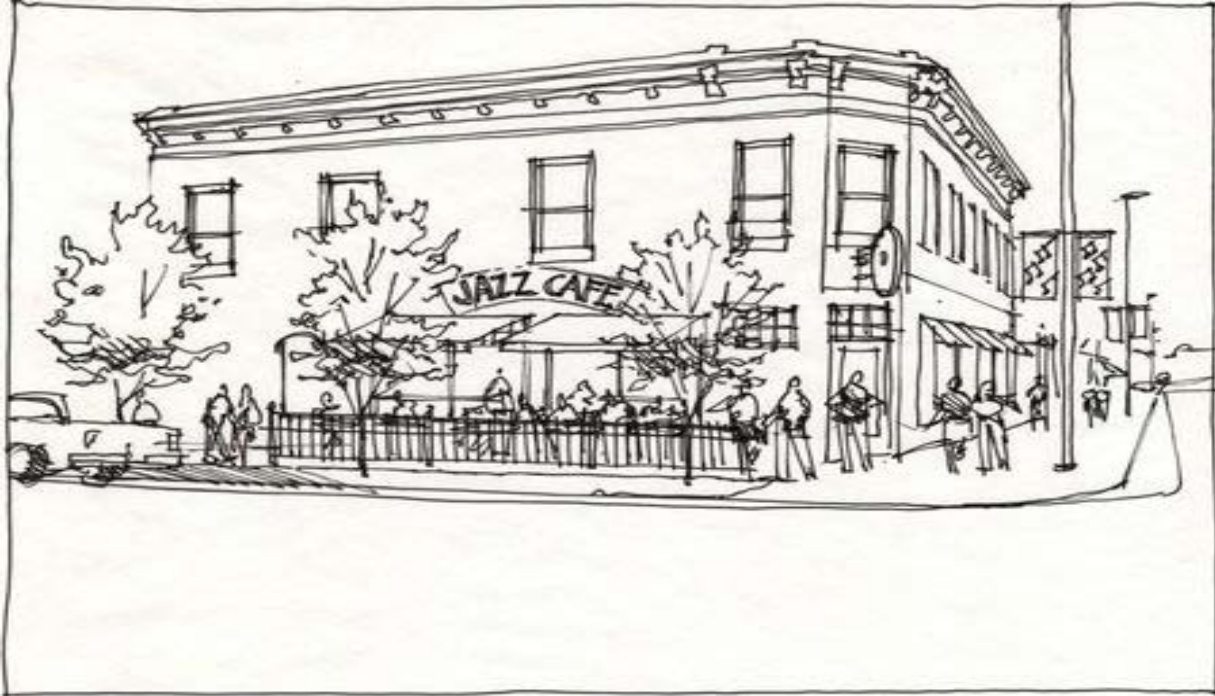
I incorporated enlarged windows to the upper level and an active ground level patio space in front of the building as an outdoor cafe with awnings, tables and chairs, lots of people and new street trees.

Adding Context and Entourage to SketchUp Models

Many architects are so focused on representing their building designs with SketchUp models that they often fail to put those models into the context of their surroundings or even add critical elements (entourage) to the models such as landscaping, people, furnishings and more. The following studioINSITE project illustrates how simple strategic decisions about SketchUp modeling can enhance models and communicate overall concepts more effectively.

This project represents a very quick charrette for envisioning the addition of a new pavilion to an existing country club swimming pool. My modeling process is explained as follows:

Stakeholder Charrette. Our team met with the country club leadership group and held an afternoon workshop to develop different plan alternatives and arrive at a preferred option to extend the pool deck to the west (left) which was hand drawn and colored with markers. This plan was the basis for constructing the SketchUp concept model.

Google Earth Base Image. I saved a jpeg of the site with a reference line of 250' placed at the lower portion of the image. The measured line was necessary to help scale theSketchUp model I constructed of the site using the photograph as the model base.

Photographing the Existing Building. In order to construct a SketchUp model of the country club building, I took a series of digital photographs of each facade section of the structure. I used my digital camera with a semi-telephoto lens setting and photographed each section of the facade with as little perspective as possible. This made applying the photographs to each face of the model with minimal distortion.

SketchUp Site Context Model. It took me about two hours to construct the basic site model with the building massing, site photograph and some minor terracing of the site. I prepared the model in advance of the shareholder charrette. Without adding too much detail, this model placed the pool area in "context" of the country club showing its basic

relationship to the architecture and site topography without investing too much time as our project budget was limited.

Concept SketchUp Model. This model view simulates what one would see from the upper level balcony of the existing country club building. I selected the view to emphasize the adjacencies of the new pavilion, existing swimming pool and the main building.

Adding SketchUp Entourage. Although the swimming pool established the basic scale of the overall space and deck, I inserted numerous people and furniture components into the

model to portray an active space and to verify the size of the deck to accommodate five or more tables and umbrellas.

Creating a Dramatic Overlook. By adding a slope to the site base model, I could model the new deck and pavilion overlooking the existing tennis courts and 18th green below. The SketchUp view was composed to emphasize the retaining wall and dramatic position of the new space.

Model View with Distant Building. This model view placed the new pavilion in relationship with the existing country club. Notice how the fence, furniture and people add

scale to the space. Noticeably absent from this model is any landscape components such as plants or trees. The new pavilion and deck extension was modeled during the charrette and I simply did not have time to add those entourage elements to the model.


Selecting the Right Entourage Components. The people components I inserted into the model during the charrette are shown in the left image. Notice how they are the basic 2D and 3D SketchUp components that are usually added to models. Now observe the same view on the right and how much more improved the scene becomes with the addition of both illustrated people and photographic people components.

Always be aware of ways in which you can enhance your SketchUp model with components such as furniture, people, plants and trees, lighting, fencing and lots more. They really improve your model and give clients a better understanding of the context and your overall design intent!

How colourize materials in SketchUp

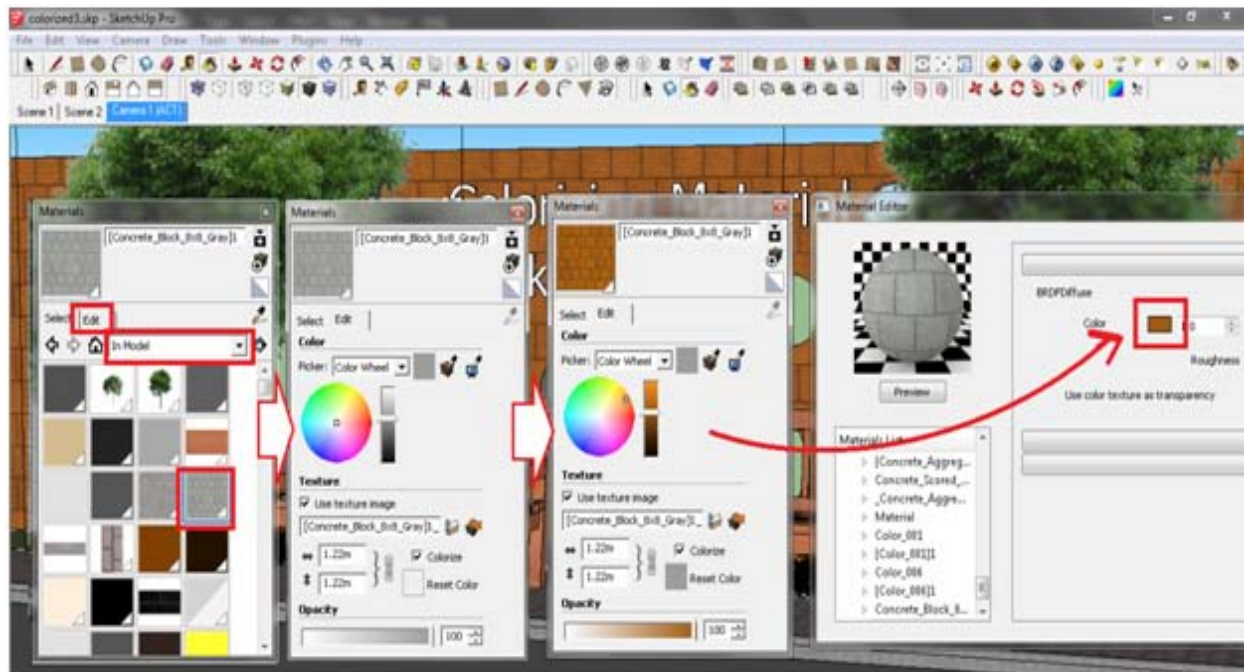Interior designer / 3d visualizer
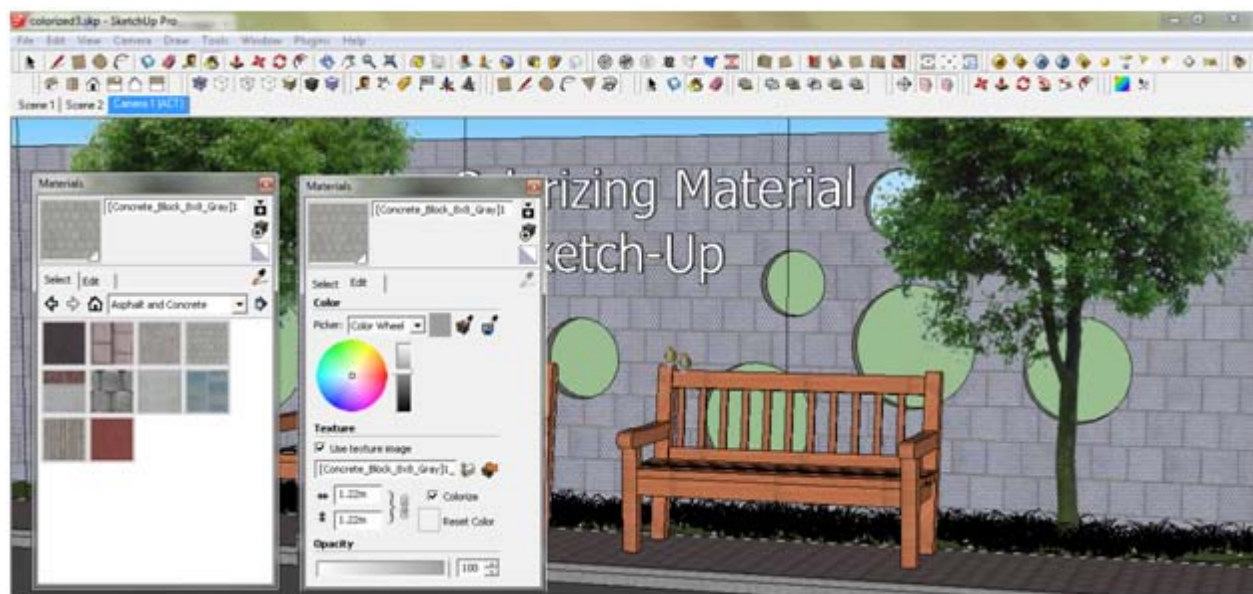
First Procedure:
- so we applied our material, via generic sketchup material editor. the original color of the material is there.
- then render

and this was the rendered image

-From Sketch-Up material highlight the material you want to change its color, press Edit

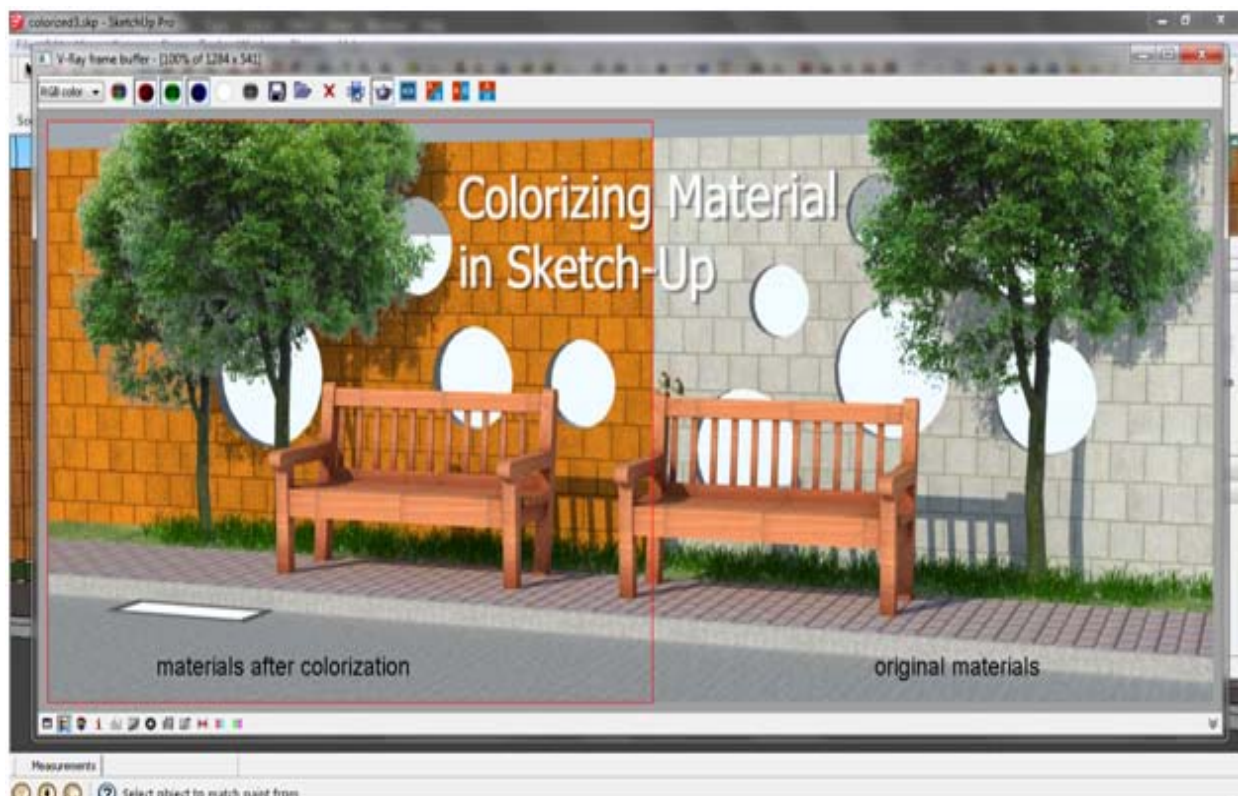this was the original color of the material

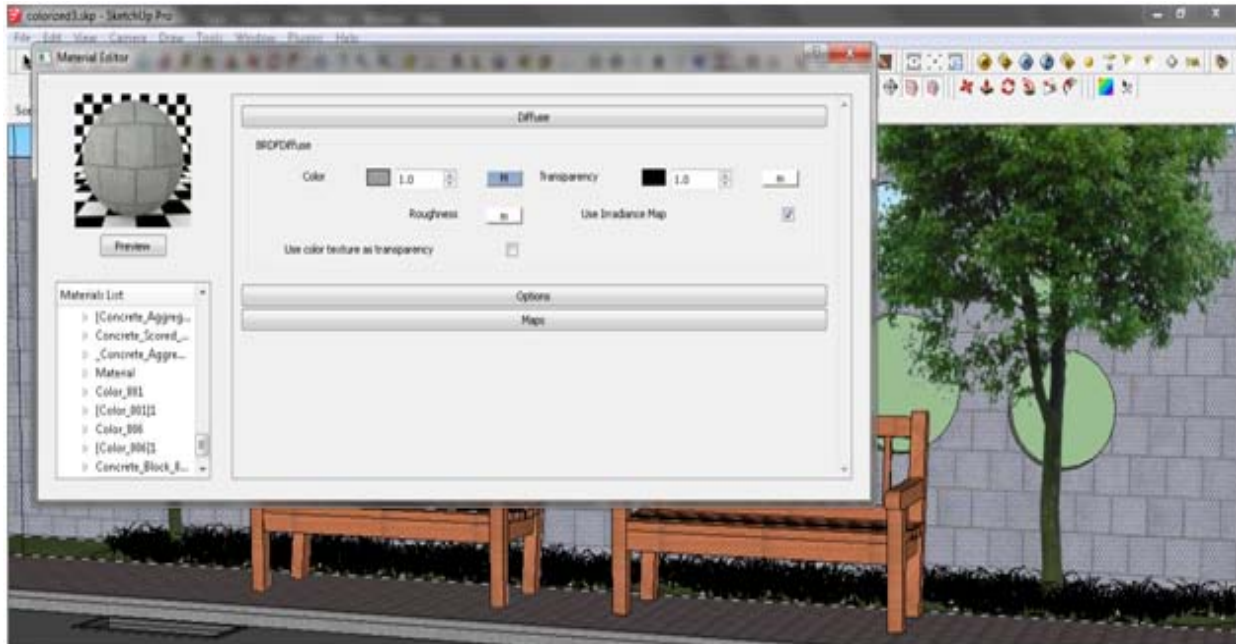Move the slider to the color you prefer. See the preview of the material above

and on vray material. of course it will not show up on the sample slot. its reseve for the bitmap of the material

It will show up also the object to where you applied it

materials after colorization
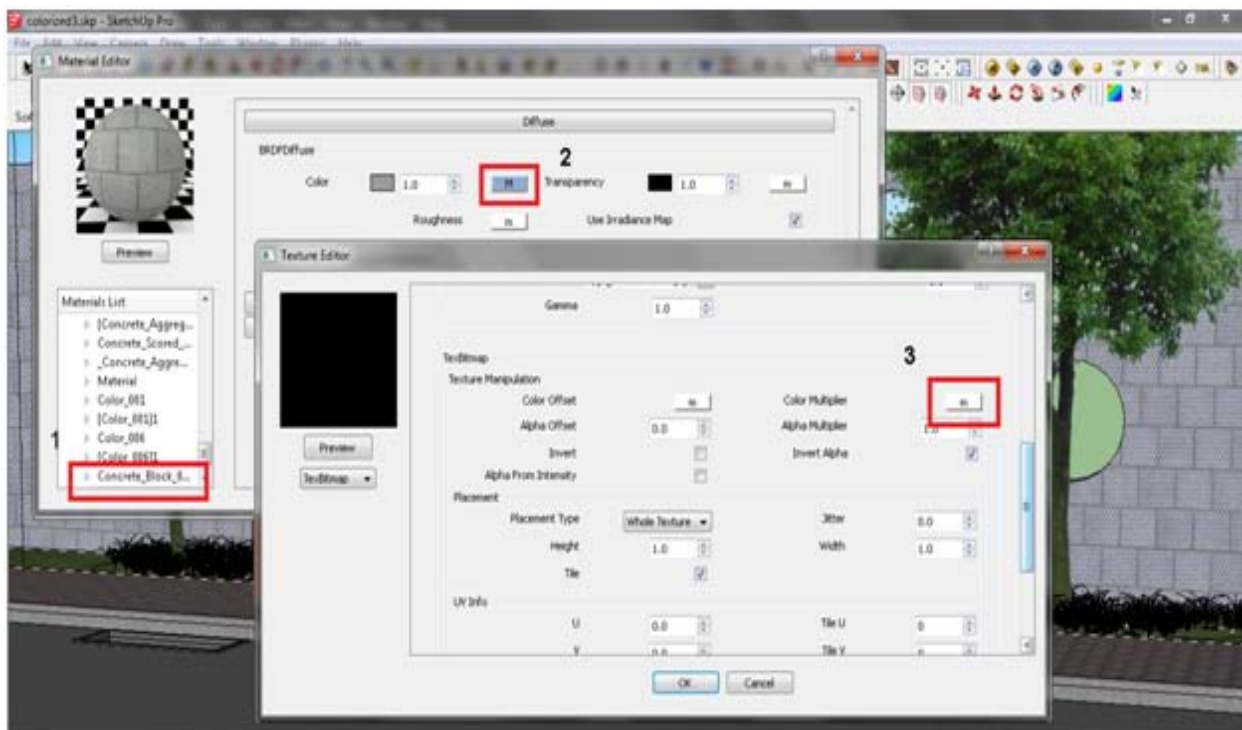
original materials

For some reason beyond our control, there are some instances that the procedure no. 1 dont work then follow this second procedure.
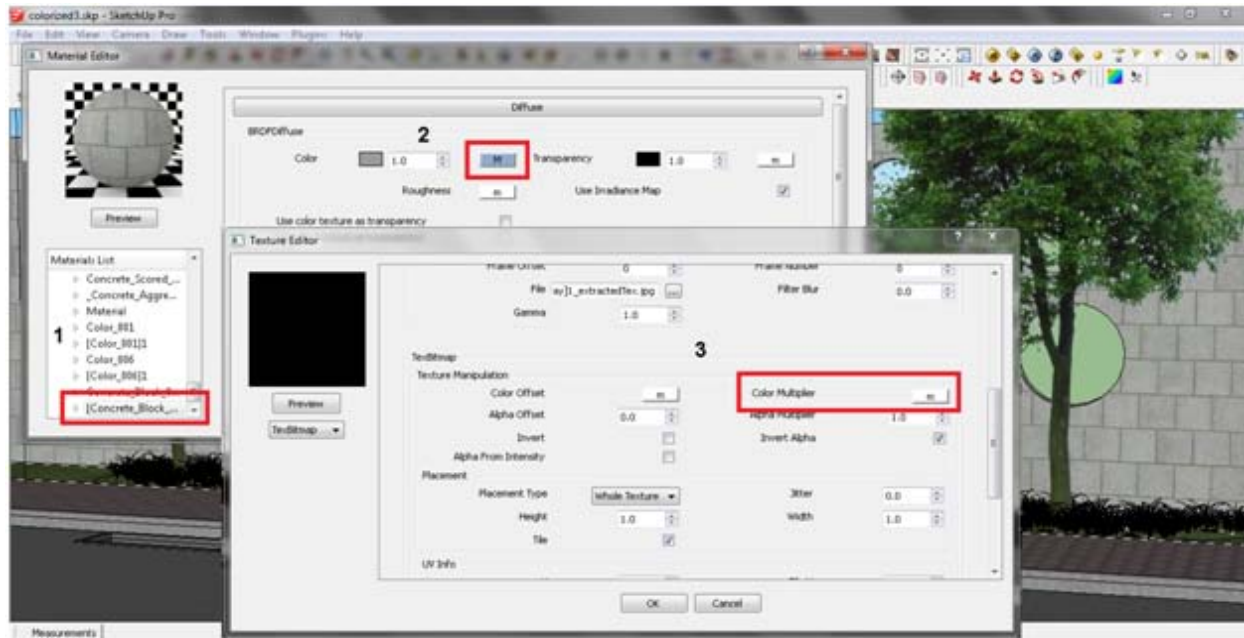
Second procedure:
- Press M button on your vray toolbar (this is for material), it will show up the vray material editor dialog box. Then select the material you want to change its color
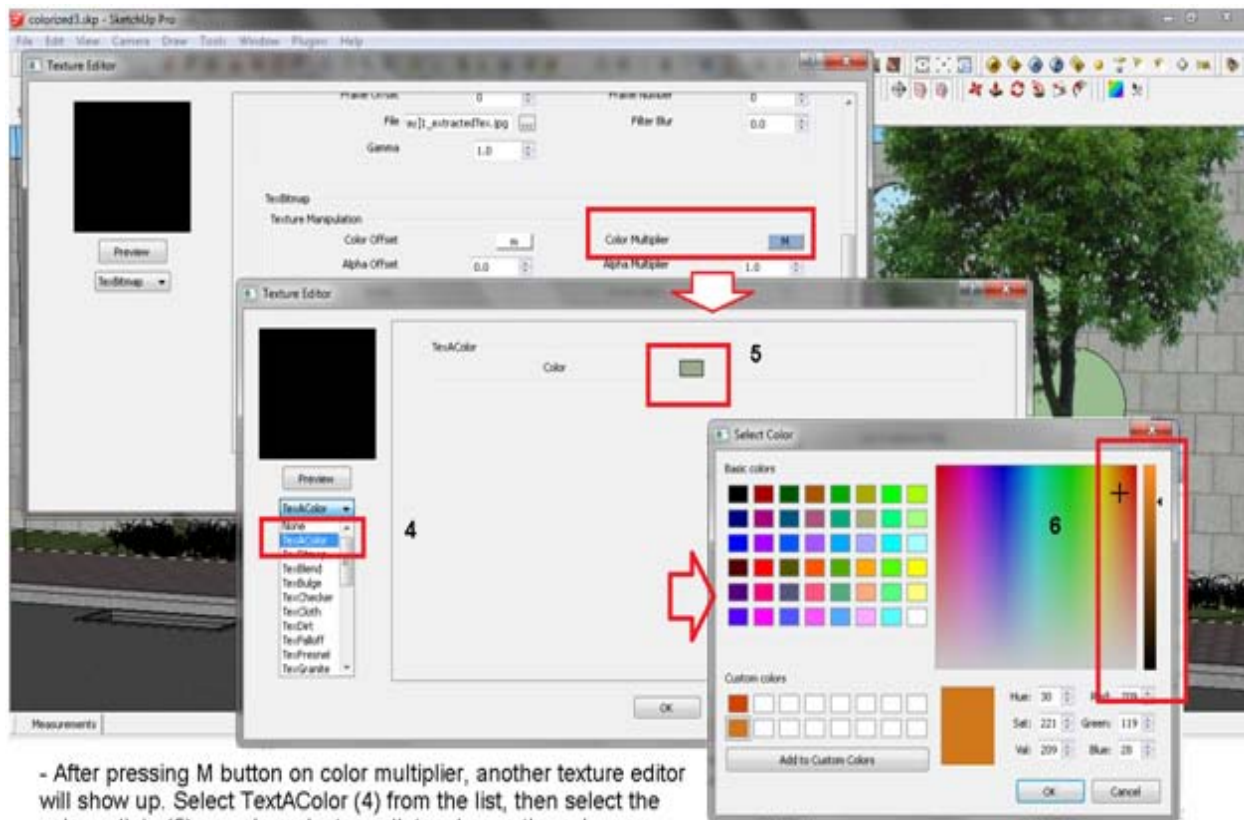

Select the material, go to its diffuse properties, press M button on diffuse, under texture editor, go to Color Multiplier and press the M button on it.
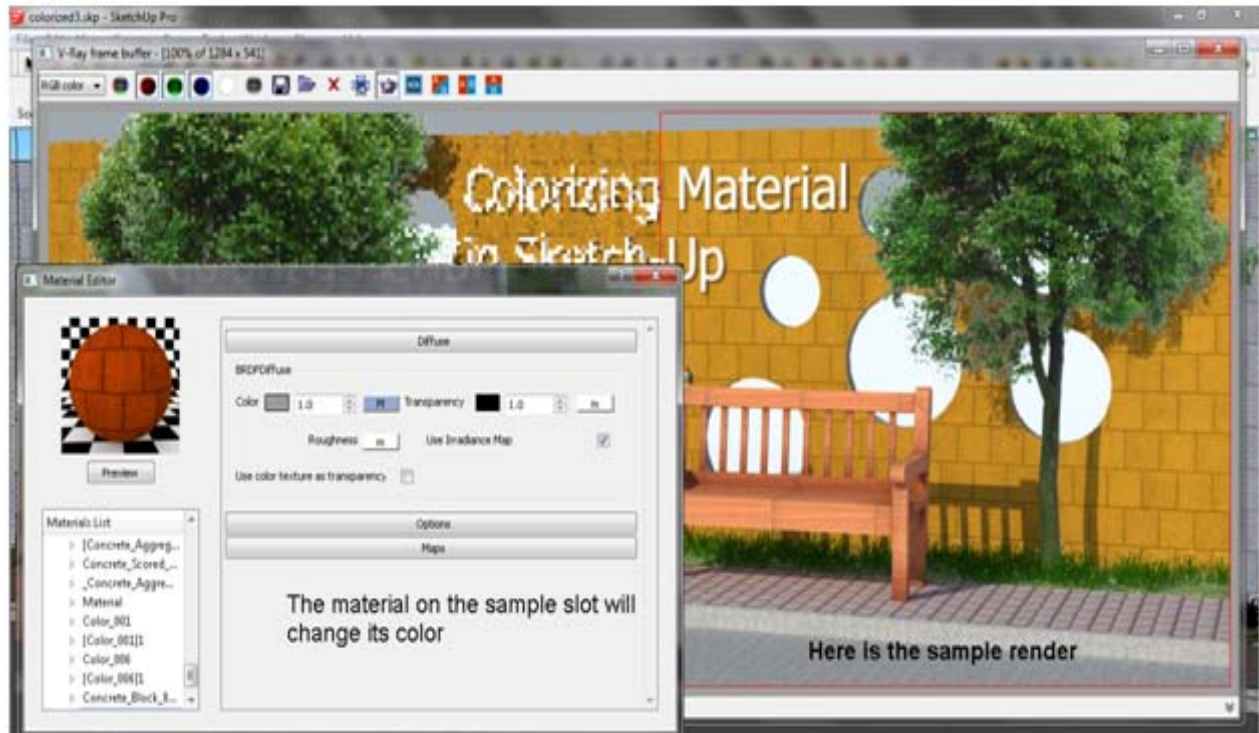
-Select your material, go to its diffuse, press its M button, under texture editor, go to Color Multiplier and press its m button.
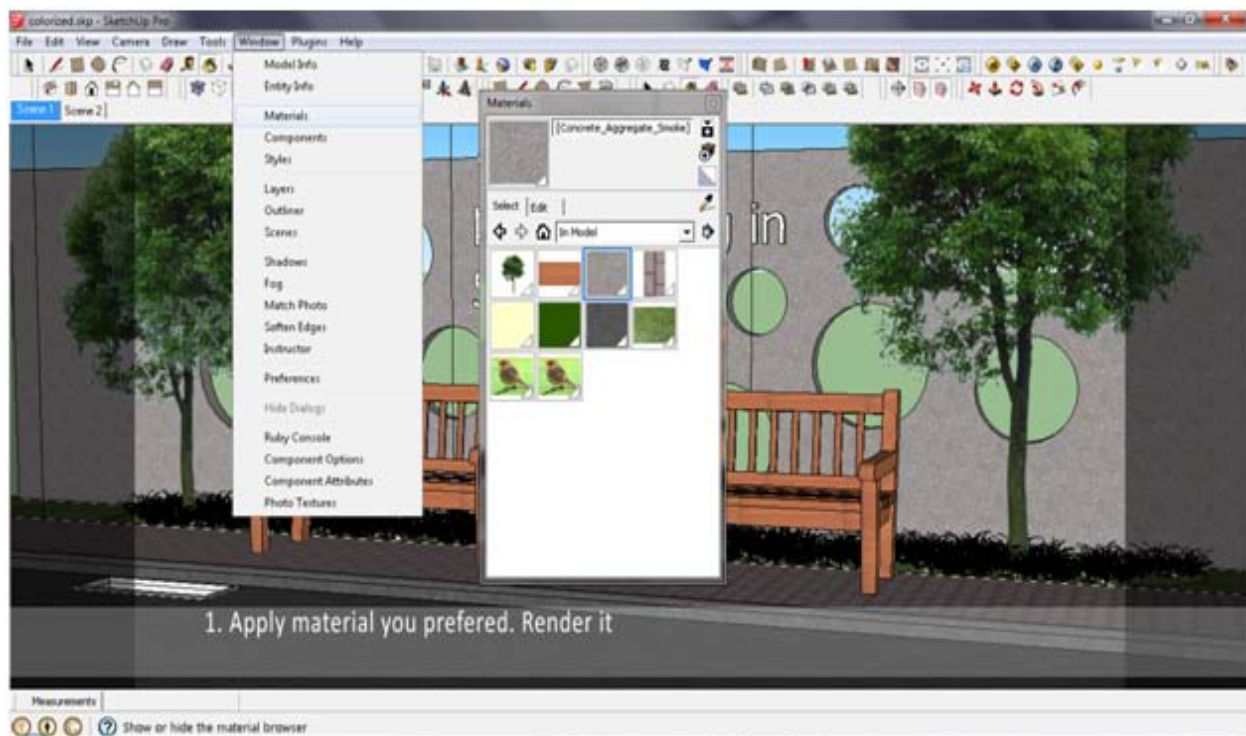

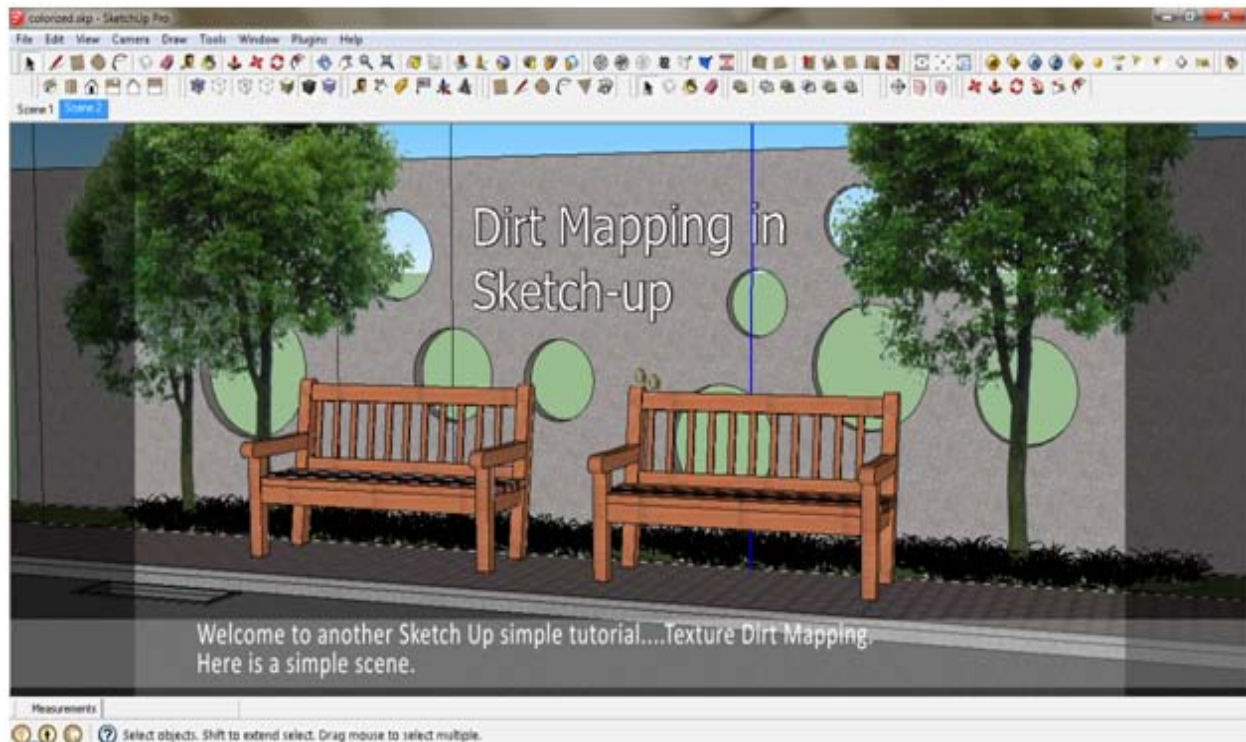- After pressing M button on color multiplier, another texture editor will show up. Select TextAColor (4) from the list, then select the color pallete (5) on color selector pallete, choose the color you prefer (6). hit ok

The material on the sample slot will change its color

Here is the sample render

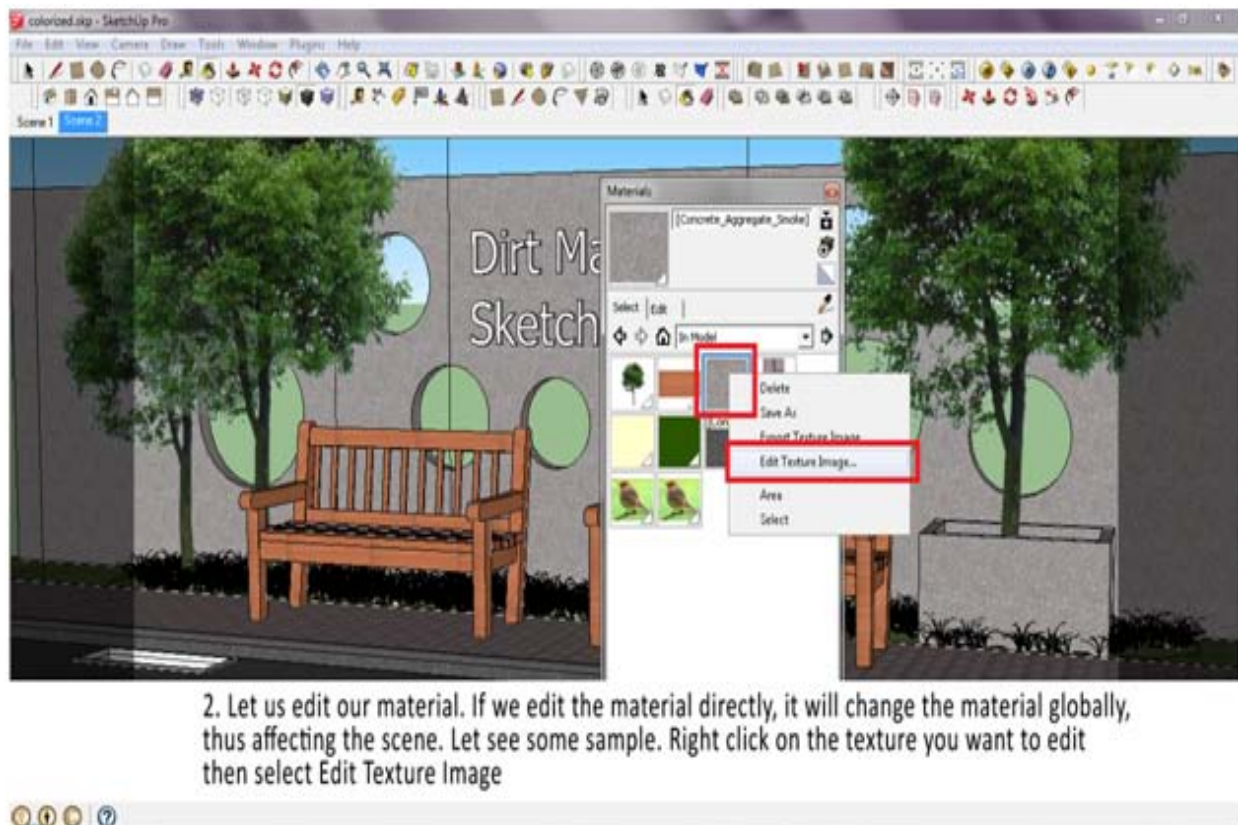# COLORIZING MATERIAL in SKETCH-UP

by: ronel k. pabico

Dirt Mapping Tutorial with SketchUp

Here is the initial render. Bit boring isnt it. So lets proceed adding some dirt
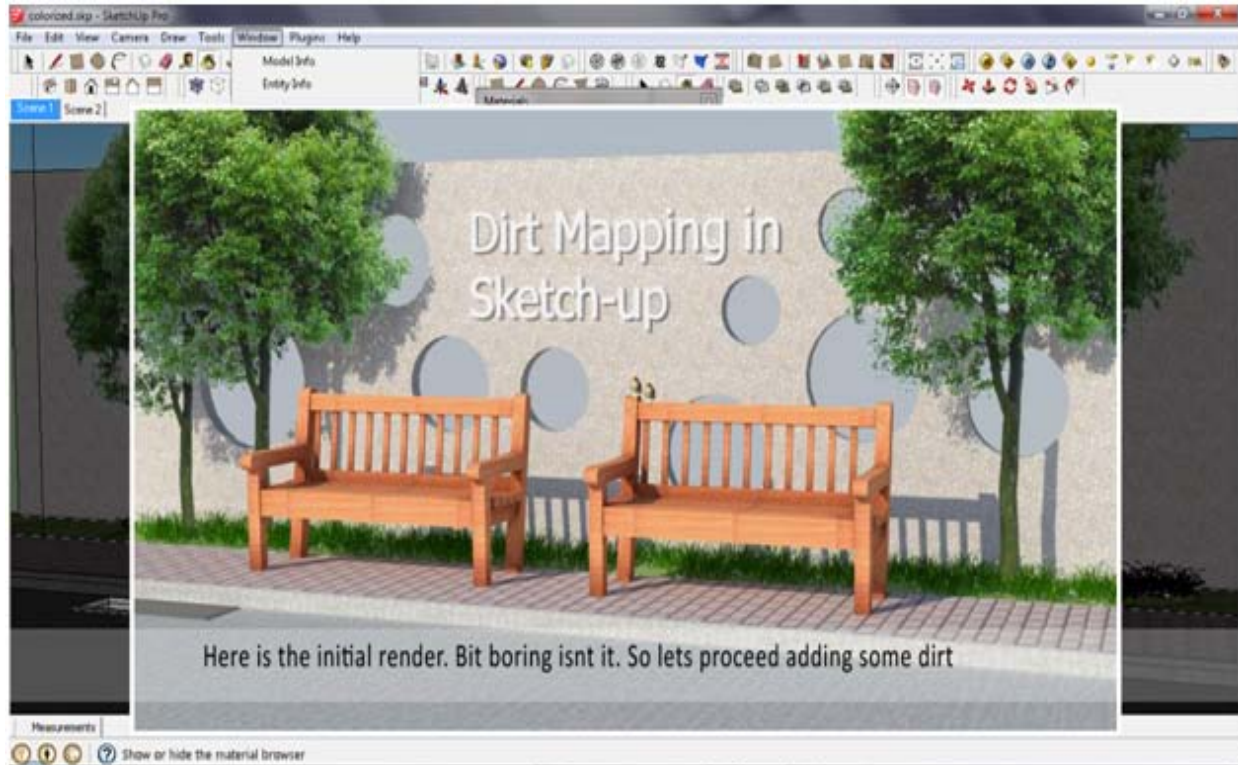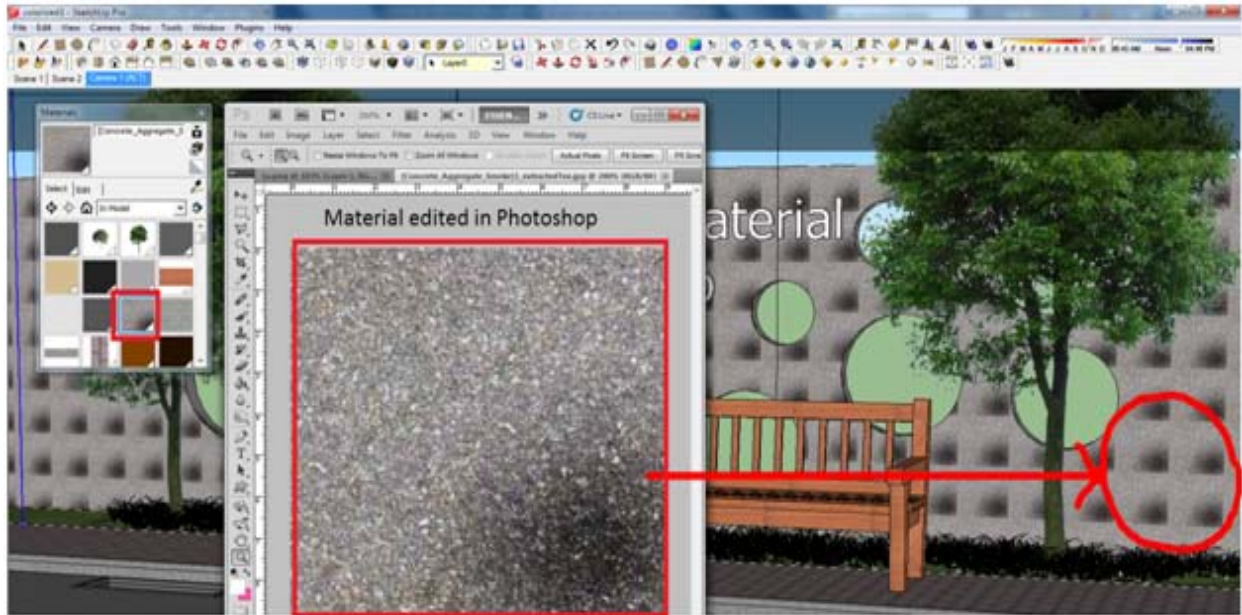
2. Let us edit our material. If we edit the material directly, it will change the material globally, thus affecting the scene. Let see some sample. Right click on the texture you want to edit then select Edit Texture Image

3. It will chage the material dramatically. See preview image

What we need is to add dirt to the area marked with red color. See image with markings. To do this, let us go back to our scene

4. Right click on the model with the texture we want to change, then select Make Unique Texture. This will add new texture image on the list of our material browser.

5. This is now the preview of the texture. As you can see, there are some materials on the same surface that doesnt included in the on our first selection because of the boundary cause by those text. Although its minor but what if its a large surface. To get rid on this, lets proceed to our next step

6. Select again the surface of the model particularly the large surface area. Press CTRL on the keyboard then select all those small portion you wish to add. When done, right click then select Combine Textures

BEFORE

AFTER

7. On your Sketch Up material browser, right click on the combined textures and select Edit Texture Image. This will launch your 3rd party Image editor, in my case Photoshop. Add dirt. In here, i just use burn tool When done, save it

Final Rendered Image

Here is another example, preview of the scene

Initial rendered image

Added with some materials

Select the pavers surface, press CTRL to add the road surface on the selection

When done, go to material browser, select that that combined textures and select Edit textured image

Initial texture

After editing, some dirt added, save the texture

43
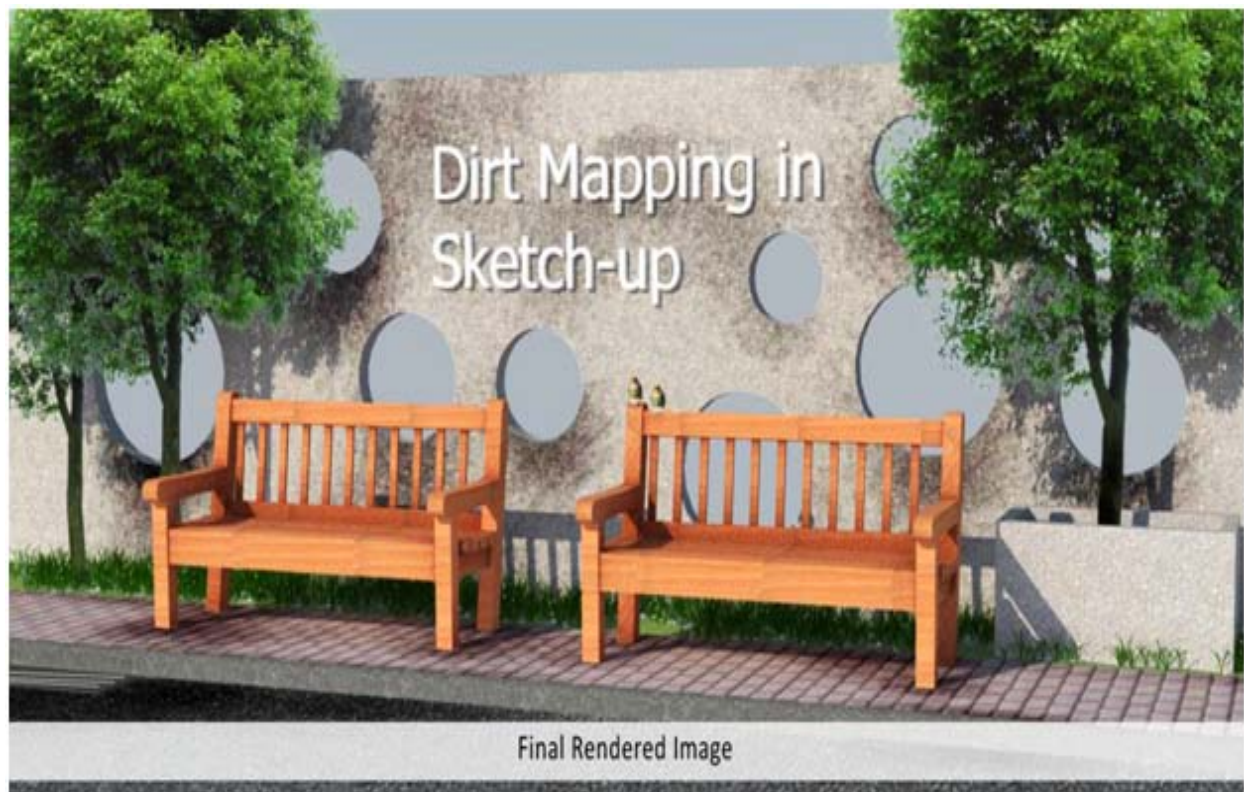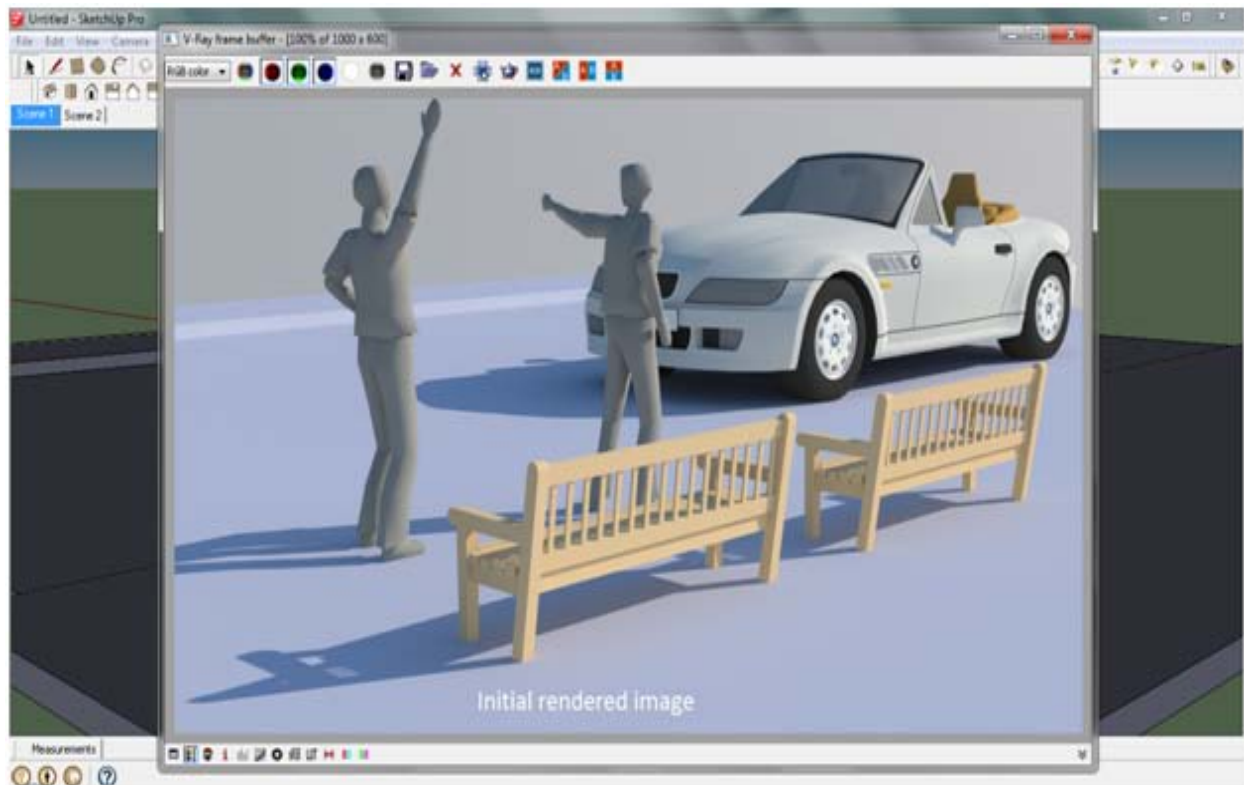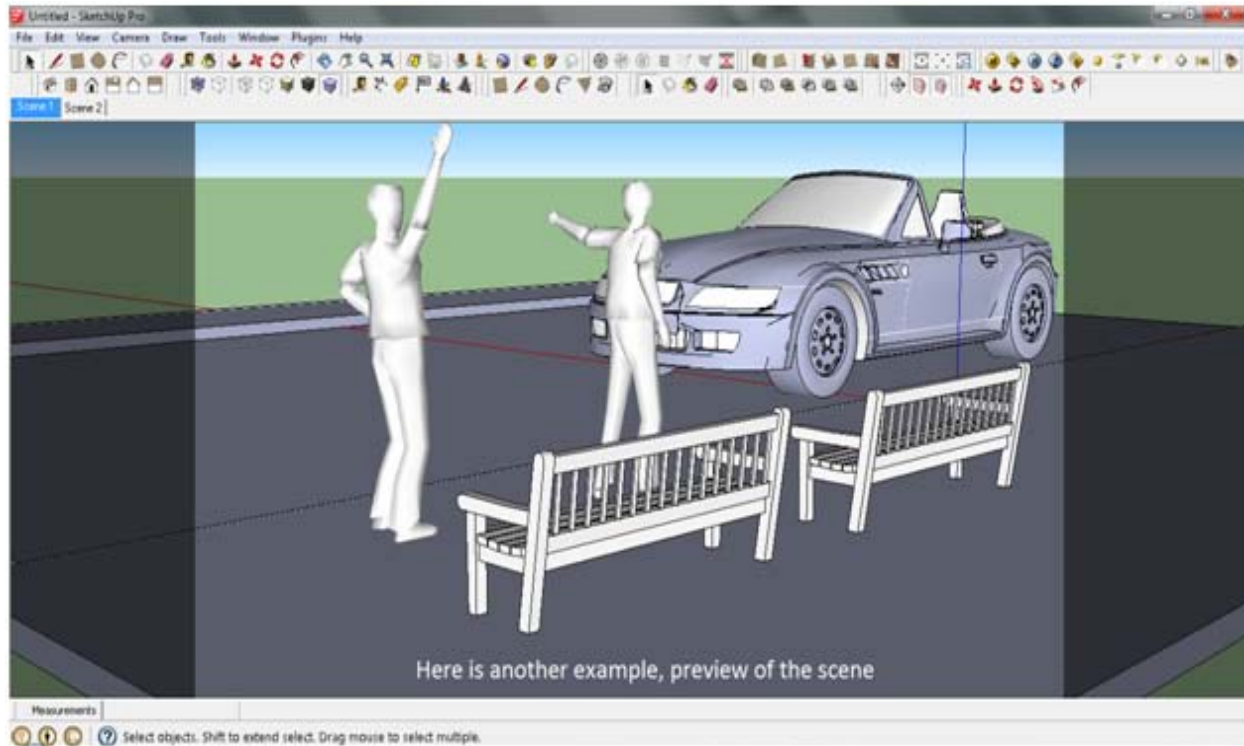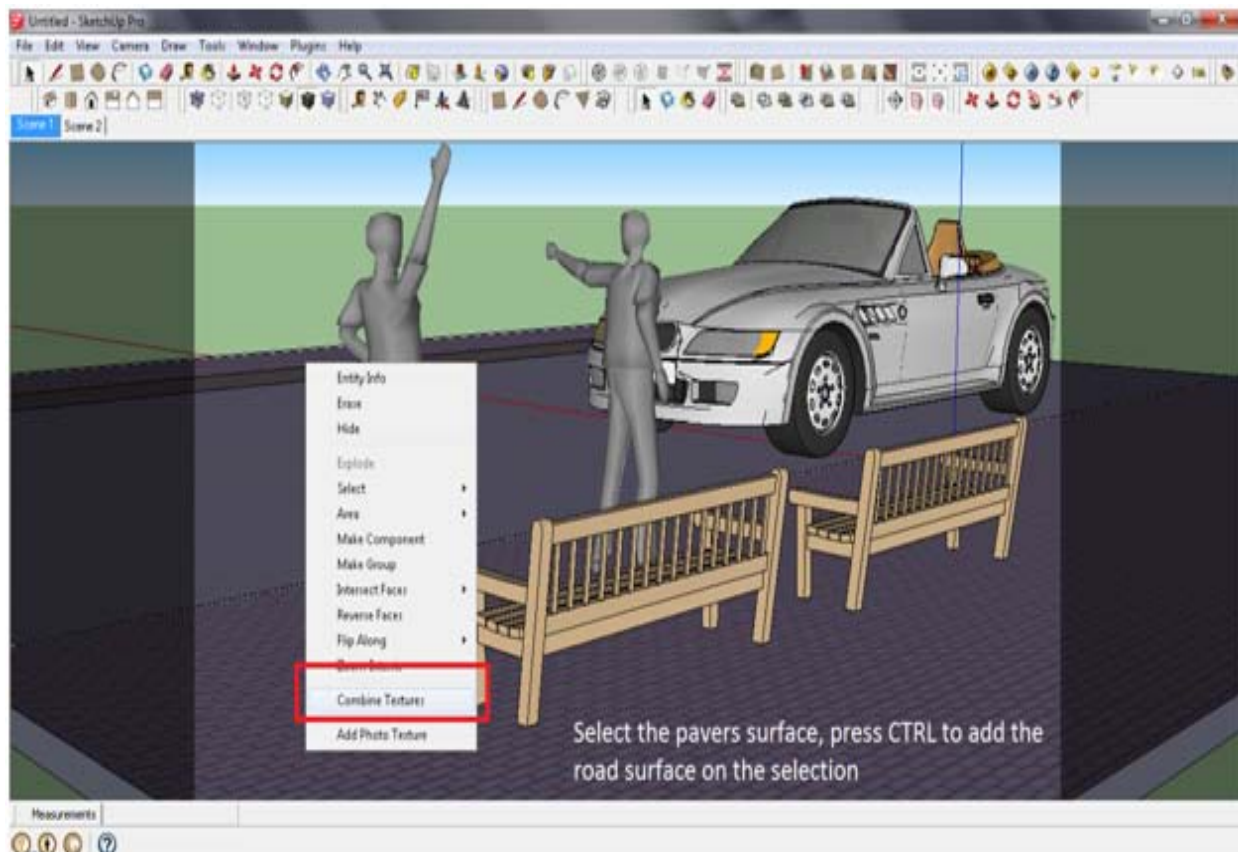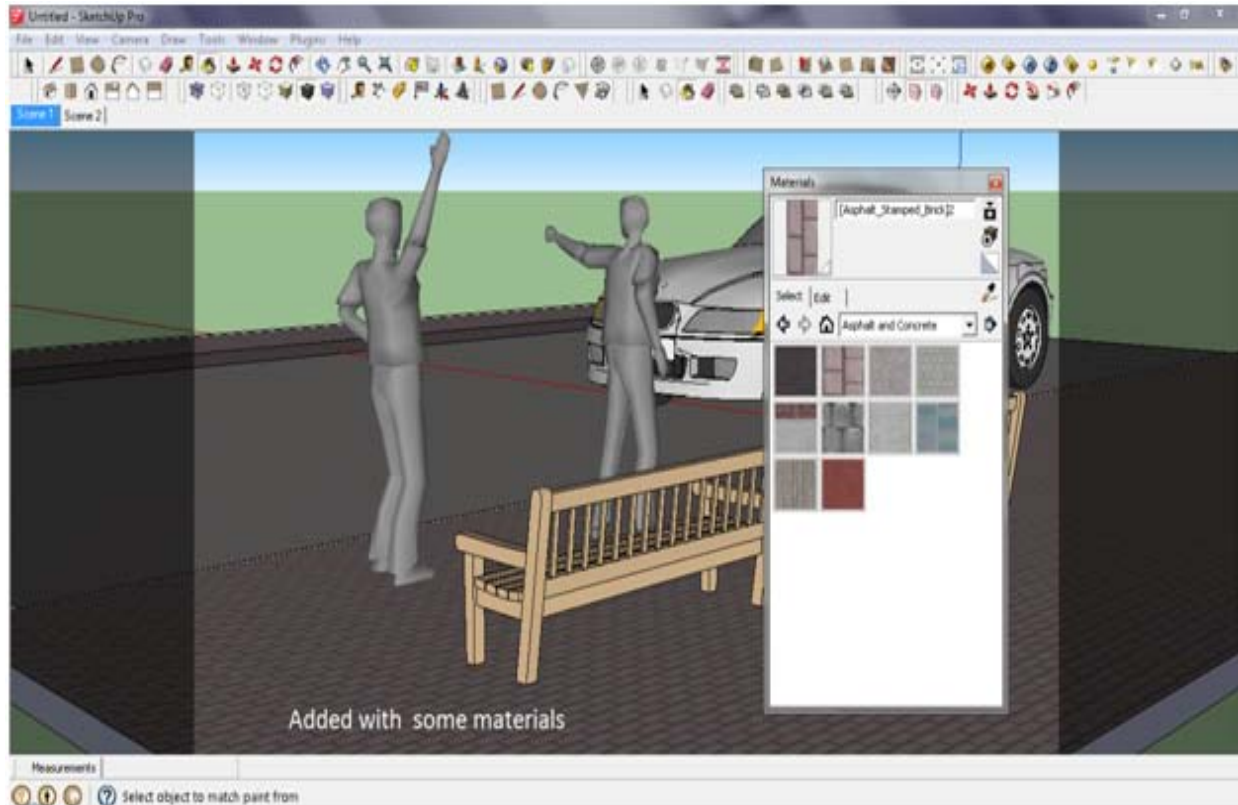
Make your Google SketchUp models mobile on the iPhone and iPad

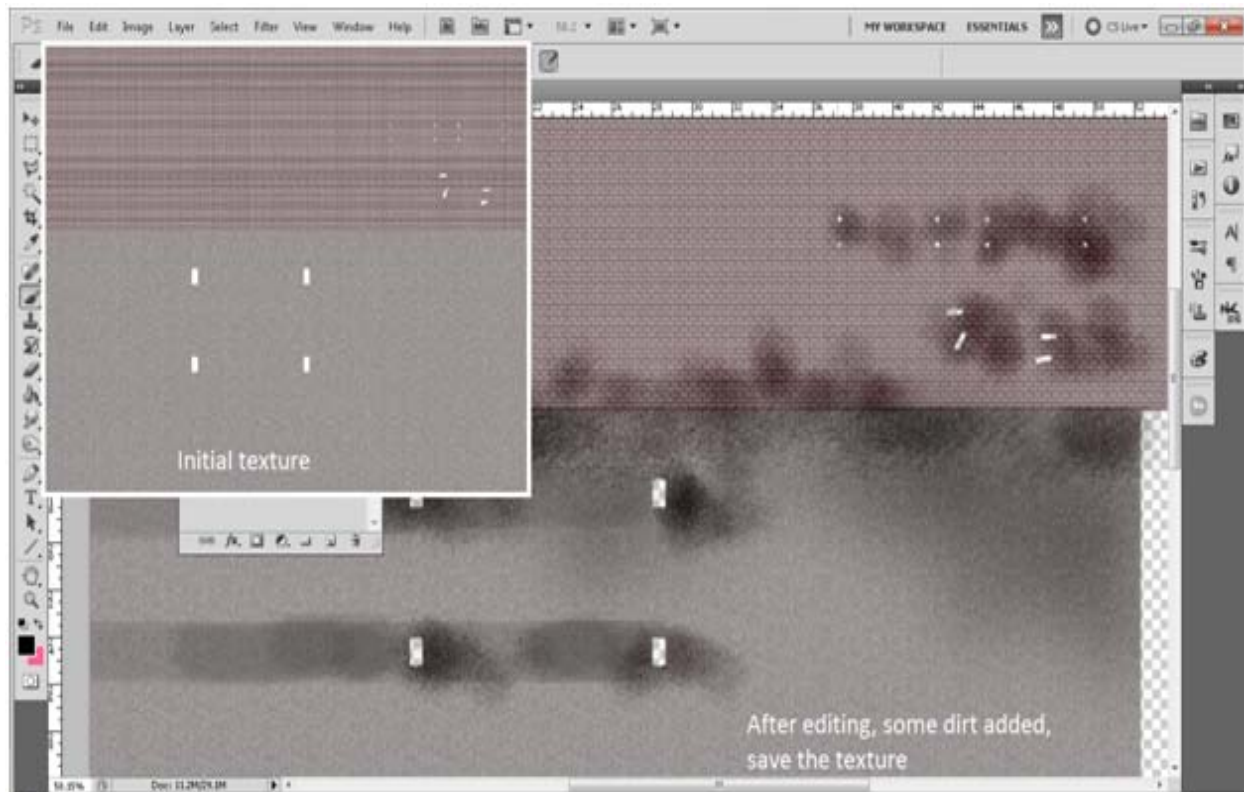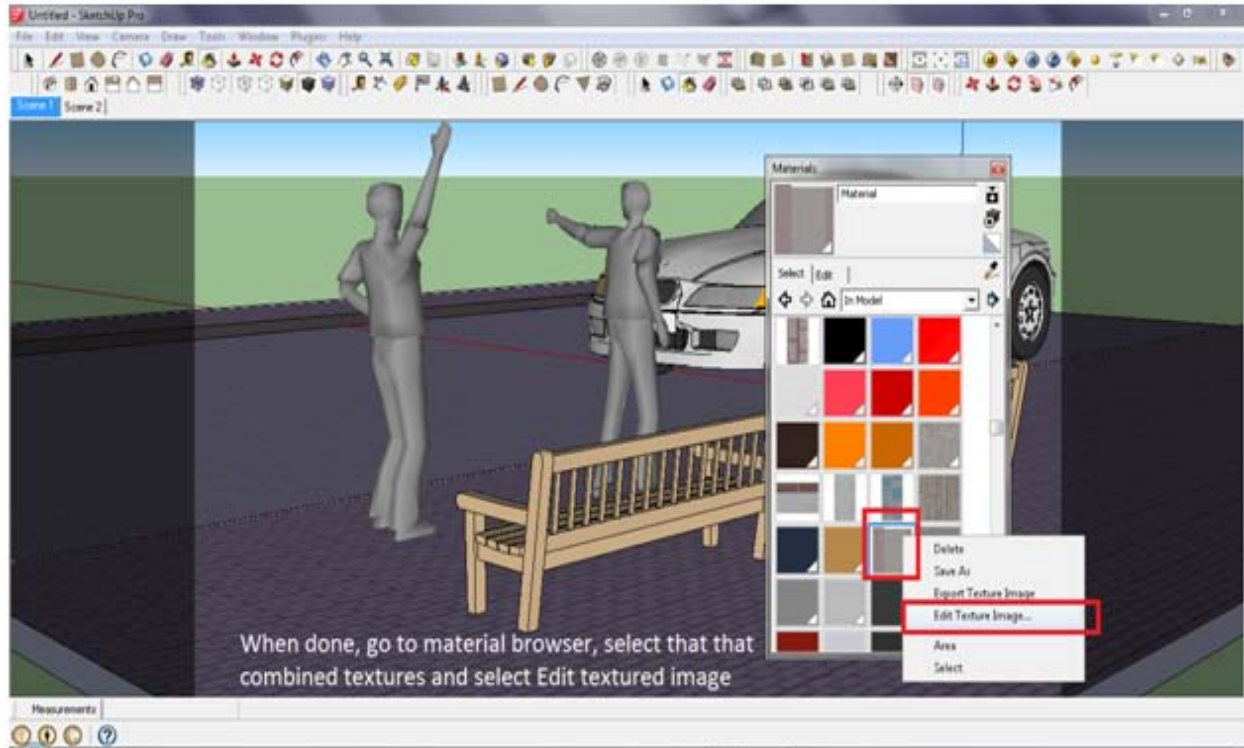**Now available on the App Store here! FREE to download with sample model included.**

Imagine seeing your building model in situ, as if it were already there.

You could view it from a distance. Get up close. Move around it, look upwards, step inside and even admire the view from the windows. See it in relation to existing buildings and features. Check important design features.

It's all possible via that most modern of portable devices – your iPhone* or iPad** - thanks to augmented reality technology and 3DOn's easily downloadable ARchitecture App, now available free of charge on the App Store (search for 3DOn ARchitecture). It also comes with a sample model you can view to get a feel for the App.

Sophisticated technology it may be, but it's deceptively simple to use and very affordable at a price of £9.99 plus VAT for unlimited model uploads for a whole year! You pay when you upload your first model.

And the applications and possibilities are boundless. Quite simply, they're as wide as your imagination.

- 3GS and later only
- iPad2 and later only

Find out the advantages of using 3DOn ARchitecture over similar apps by clicking here

Why not also check out our 3d augmented reality feature-tracking solutions? We're leading the way with AR marketing on mobile devices. Click the 'feature-tracking apps' link on the menu bar to find out more...

http://www.youtube.com/watch?feature=player_embedded&v=3dLDnmGH_M0

School Tool - 3DTin Provides Free, Online Modeling Environment

Freemium 3DTIN is an online 3D modeling tool that allows users to render designs as intricate as the Taj Mahal or playful as Super Mario. The feature set more closely mirrors Google SketchUp than the costlier AutoCAD (or SketchUp Pro) but designs can be exported in a variety of formats if another modeling tool is required.

In true open-source fashion, All functionality (including saving to the cloud) is provided absolutely free-of-charge with the caveat that designs are shared under Creative Commons; a premium account gets you private cloud space. A word of caution, however, to Internet Explorer and Safari users: 3DTin requires Google Chrome or Mozilla Firefox with WebGL support.

Want to get into 3D printing

A DECENT COMPUTER Even though software programs like Blender, Google SketchUp, TinkerCAD, and the like are free, they still utilize 3D graphics, for obvious reasons, and unless you have a decent processor and graphics card, you're going to get frustrated in a hurry.

Luckily, most of the programs now make it pretty easy to export a 3D design as a .obj or .stl file, which most printers will accept and print out.

ABOUT $1500 Yes, you can get DIY 3D printer kits for cheaper, but this seems to be about the baseline for printers that come pre-assembled and are accessible to the average person who didn't spend their entire childhood putting together Lego sets.

3D Systems and MakerBot are the two biggest brands in consumer 3D printers. Start there.

If Lego building is how you did, in fact, spend your childhood, you can get in for as little as $500. Google "RepRap" and get down to business.

You may have heard of the 3D printing pen that's on Kickstarter? Yeah, that's not a 3D printer. It's basically a really cool glue gun that let's you kind of draw in three dimensions, spitting out a plastic that dries really quickly in the air. But you can't upload designs into it or anything.

A LOT OF PATIENCE You're going to have to work at it. The programs mentioned above are pretty intuitive, but there's a lot of trial and error before you can get the hang of designing a 3D object that looks how you want it to look.

Just because it looks good doesn't mean it will print well. Overhangs don't really work well — they'll collapse. Thin waists will break or topple over.

The printer resolutions are getting better all the time, but thin and delicate structures can be challenging without higher-end machines.

OR NOT Go to Shapeways.com and buy something. They'll print it out and send it to you. Easy.

Go to Thingiverse.com and download someone else's open-source design and print that. Easy.

The barriers to making 3D printing accessible to the average person who can work an iPhone and has some Google skillz are coming down all the time. Staples has a print-on-demand service in Europe, actually. Just wait about two years and you'll be able to head down to the FedEx store on Monument Square and print out anything you want.

InfiniteSkills Release "Learning SketchUp Tutorial" A Comprehensive Training Guide to Mastering This Intuitive 3D Modeling Program

Software training firm InfiniteSkills Inc. this week introduced its "Learning SketchUp Tutorial," a course designed to assist beginners and experienced users to maximize the capabilities of the user-friendly 3D modeling program.

SketchUp is a 3D modeling program with a wide range of applications in architecture, civil and mechanical engineering, and video game design. Among the range of available 3D modeling programs, SketchUp's design emphasizes ease of use along with an online community known as 3D Warehouse where designers share models free of charge.

InfiniteSkills' Learning SketchUp Training Video - DVD can serve as a quick start guide for new users or help experienced SketchUp designers fine-tune their understanding of the subtleties and complexities of SketchUp tools and techniques.

Learning SketchUp Training Video

Course author Scott Onstott is a design consultant, former university lecturer, and independent video producer with more than 15 years' experience writing and teaching video courses on design visualization and image-manipulation software. He is the author of eleven books including AutoCAD 2013 Essentials, Photoshop CS6 Essentials, Enhancing Architectural Drawings and Models with Photoshop, and more.

Onstott's clear and concise teaching style is perfect for guiding users efficiently through SketchUp's powerful tools. Student's will learn tips and techniques gathered from his years of experience, and be able to apply them immediately into a SketchUp workflow.

"SketchUp is so intuitive that it is actually fun to use," Onstott says. "Although it is easy to learn the basics, mastering SketchUp's subtleties and complexities takes a bit more time and attention, and that is where the course is really designed to help students."

After beginning with an overview of the SketchUp user interface, Onstott helps users customize their workspace, and explains the powerful third-party plug-in capabilities of Ruby Scripts. He then goes in depth with SketchUp tools for viewing, editing, layering, and contextualizing your models, before going into the same level of detail with drawing tools.

The course covers everything users need to know for topics like mastering surfaces and edges, designing architectural models, and more, with closing chapters covering final publishing, including presentation, color control, and importing and exporting procedures.

Free demo videos and a full list of course contents can be found on the Learning SketchUp training page of the InfiniteSkills website: http://www.infiniteskills.com/training/learning-SketchUp.html

InfiniteSkills offers its Learning SketchUp Training Tutorial either as a DVD or a direct download from the company website at a retail price of $49.95. All titles and formats are compatible with Mac and Windows operating systems. Shipping is available around the globe. Additionally, InfiniteSkills tutorials are supported by project files which correspond to examples in the videos, allowing users to work alongside experienced instructors right on their computer or iPad.

17 Fantastic SketchUp Plug-in, Bundled into one for your easy use

We have been using SketchUp more and more often, we we always feel there is a lack of proper tools, especially where freeform design is concerned. This is true even for the pro version. Luckily, SketchUp is open source in that in allows ruby script by unapproved 3rd parties to be added onto the software. This enables some incredible applications. For a list of the scripts we've taken and merged, and examples please refer to and respect the original authors, listed here. We also added the DXF/STL import export tools formerly posted/created by Jim, which no longer have an original url on the web.

MEGA SketchUp pack r1

- Consider backing up your entire SketchUp plugin folder first
- To use these files, simple unzip the main file into your SketchUp plugins folder, and reload SketchUp.
- Reload SketchUp.
- Two scripts were left optional for you to extract yourself:
- Organize your new toolbox.
- Go here to look for great guides and example

3D Modeling - Google SketchUp

Before I homeschooled I worked as a mechanical engineer. 3D modeling is a way engineers and others in technical fields explore new concepts, design products and provide instructions for manufactures. New parts are modeled in three dimensions by first sketching them in two dimensions and then giving them depth. For example, to create a cylinder the modeler would first sketch a circle and then extrude or pull the circle in one or two directions to create a cylinder.

I used both the design tools ProEngineer and Ideas to design parts and create drawings for the parts to be manufactured. Recently I discovered Google SketchUp and downloaded it to introduce solid modeling to my kids. I am amazed that this software is free. Although it isn't quite as powerful as professional software, it can be used to create realistic designs.

My nine year old son created this house using Google sketch-up.
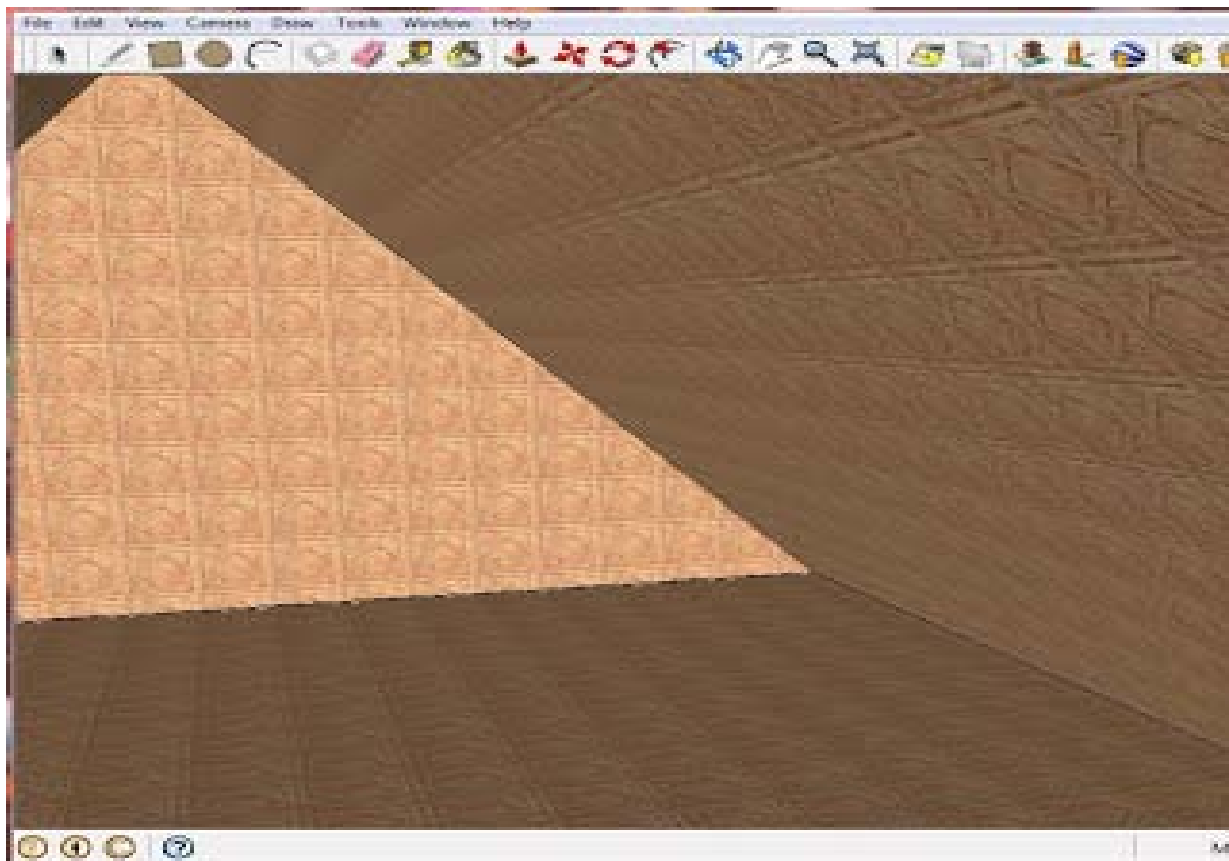
Here's the view inside the attic.
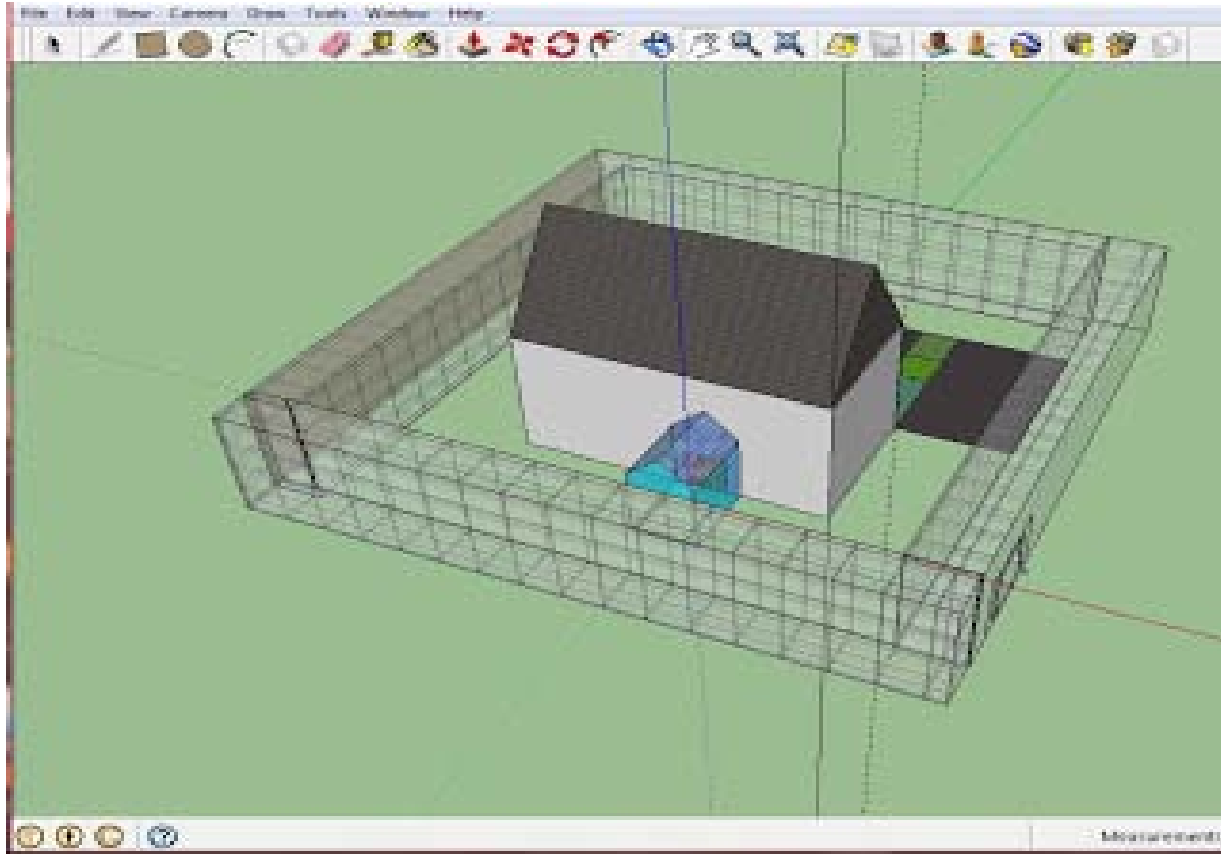
He also created this fortified house with a glass room in the back.

The user can easily rotate and zoom in on the models to help when creating the designs.

This is free. Amazing. In addition, there are tons of video tutorials for users to learn how the software works.

When I first showed it to my son I told him this is what I used to do when I worked. He said "Really? You got to do really cool stuff. You got to sit and dink around all day." Then he worked the next 6 hours non-stop to create his first 3D house.

If you have any budding engineers or enjoy cool technology this is definitely something to check-out.

Free Google SketchUp Tutorials Full 2013

Three-dimensional models are constituent if you're in the pattern tract. Google SketchUp gives you the noesis to easily make your own 3D models. With an easy-to-use program and a beamy path of Ameliorate features, it's the perfect agency for tyro and middle designers like.

To solon, Google SketchUp puts all of the support options in unelaborate sight, which include video tutorials, tips and tricks, a journal, and a assist touch. It asks you to superior a templet from a sesquipedalian itemize that includes templates for architectural design, woodworking, Google Ground moulding, and first plans. We started orbicular with the Rootage Upbringing Example - Inches. The human interface is fair base in figure, which is a benevolent many: Google SketchUp

Download - Google SketchUp Tutorials Full 2013

Mansycom to market Google SketchUp Pro in India

Yash Birla Group company Mansycom Consultants today said it had partnered with Google to market and distribute the search engine giant's premium 3-dimensional modeling software package 'Google SketchUp Pro' in India.

"The tie-up to distribute and market Google SketchUp Pro is synergetic with our company operations, as we are into 3D, 4D and 5D simulation services field in India. Google SketchUp Pro has found a niche in architecture, landscape design, real estate development, interior design, furniture building and to other design professions," Mansycom President Suresh K Gupta said in a release here.

Mansycom is a subsidiary of Yash Birla Group firm Birla Aircon Infrastructure.

The company offers services using 'Google SketchUp Pro' and other latest building technology solutions that provide architects or designers and all the stake holders a real-time seamless linkage between design, estimates and construction schedule in order to control cost escalations and reduce delays in project implementation.

SketchUp for crime scene reconstruction

We're never surprised to hear that SketchUp is being used in ways we didn't expect, but we were particularly impressed when we came across this article about SketchUp's knack for reconstructing crime scenes. We wanted to learn a bit more about how 3D plays into crime scene reconstruction (and yes, some of us are Dexter fan boys), so we tracked down Detective Albert Schade, the article's co-author and the mind behind Crime Scene Interactive, a website that details workflows for modeling crime scenes in 3D.

How long have you worked with 3D modeling software?

I've been 3D modeling since the mid 90's; I got my feet wet with Animation Master and Milkshape: those really broadened my use of computer generated animation and modeling. Since then I've toyed with 3D Studio Max, Maya, Blender and SketchUp.

So what is "Crime Scene Interactive?" Who is it for?

Crime Scene Interactive has gotten a lot of attention since the publication of our article in the Association of Crime Scene Reconstruction Journal. Crime Scene Interactive is a workflow that allows you to make interactive courtroom exhibits through the use of SketchUp, Blender, Gimp or Photoshop, Ultimate Unwrap3d and the Unity 3D game engine.

SketchUp, in particular, is a huge part of that workflow thanks to its ease of use and the ability to quickly model in real world measurements. SketchUp also happens to be very expandable with the ability to add features via Ruby and its nice assortment of import/export options.

What role does 3D modeling play in your detective work?

I'm a Detective in the Forensic Services Unit for the Berks County District Attorney's Office. I investigate homicides, serious bodily injury cases and fatal crashes. I also instruct police officers in fingerprint comparison, blood spatter, evidence processing, and 3D crime scene creation. 3D modeling is a great way to make exhibits for all of these disciplines.

In law enforcement, we face several hurdles when bringing cases to court. During evidence collection and processing we obtain a large amount of information. When we testify in trial, we need to relate that information to juries -- groups of people with very diverse educational backgrounds -- in a very short period of time. Demonstrative exhibits help visually display that information. So 3D models and walkthroughs are incredibly useful for taking the vast data we've collected at a crime scene and relaying it in court so that a jury panel can make an informed decision.

3D is also important for investigations. Most people don't realize that police departments spend a lot of resources not only proving what did happen, but what didn't happen. In pursuit of the truth, rapid availability of reconstruction information helps us decipher witness or suspect statements. We can focus on the right people and not waste time on bad leads.

How did you first come across SketchUp?

I first used SketchUp for personal projects. I like woodworking, so I used SketchUp with the Cutlist plugin to help organize my project and develop a shopping list. Learning how engineers and various other artists and professionals around the world were using SketchUp is what led me to start using it for crime scene work.

Now, SketchUp fits perfectly in my workflow. With a large caseload, I need to keep investigations moving. With SketchUp, I can mock crime scenes very quickly, and then communicate the spatial relationship of items in the scene to other investigators in a clean, concise fashion. From there, we can start the process of testing theories and corroborating witness accounts to physical evidence.

Are there specific tools in SketchUp that are particularly helpful for your work?

LayOut is a great tool for turning sections of scenes into illustrated visuals for a presentation slide. SketchUp Pro's reporting function is also very useful, because I often have to provide defense attorneys with data that shows my scene model is accurate. The report option lays out this data in a spreadsheet, saving me a lot of time.

The ability to export models to .FBX format is also important because I currently use the Unity game engine to animate interactive walkthroughs of a scene. The DXF import option also helps because some of our measuring equipment saves to DXF; that import ability makes it easy to load control points directly into SketchUp Pro.

It sounds like you use several 3D tools in cooperation with SketchUp; what else is in the quiver?

I use Blender to make human models animate and any organic models that would otherwise be difficult to create in SketchUp. HemoSpat is a blood spatter analysis suite that allows me to create a 3D model of a bloodletting event's area of origin. It can then be imported into SketchUp for placement in the crime scene model.
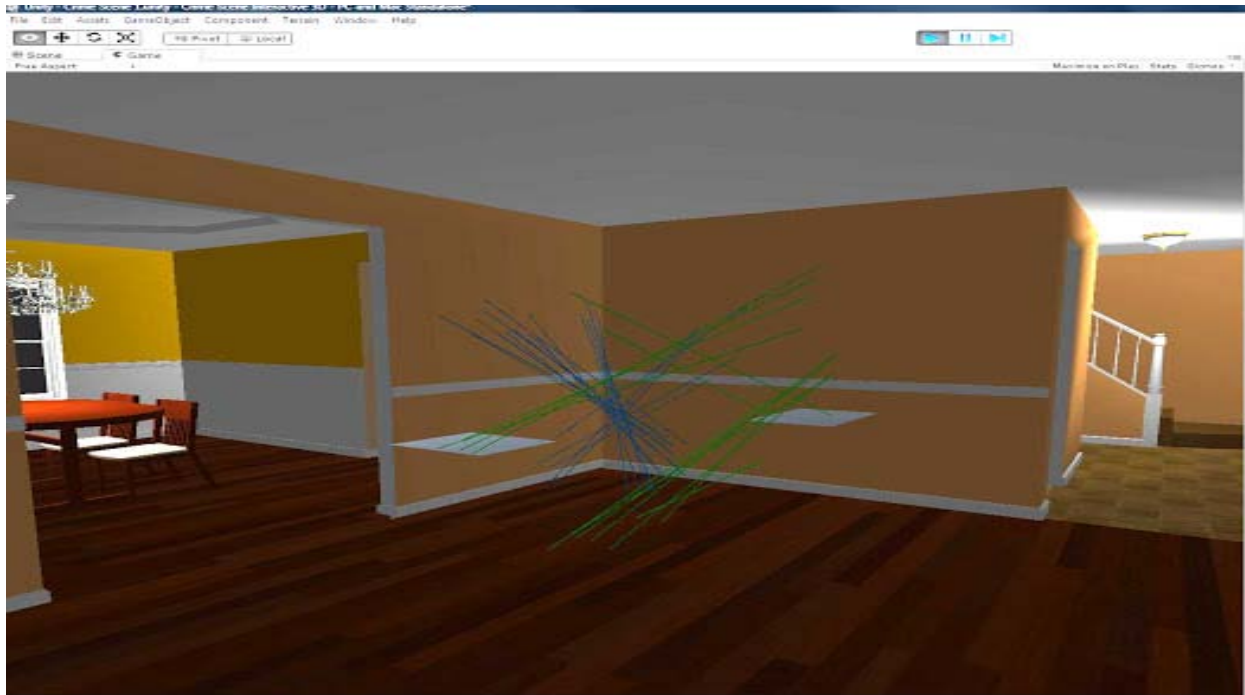
I also use Unity, a game engine that brings crime scenes to life in an interactive animation. This lets you walk through the crime scene in a courtroom just like a video game. You can interact with items of evidence, and display images from the crime scene in relation to the model.

SketchUp ur Space - The Creative Team

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.

Ramesh Komanna
ramesh@jobs2india.com

Ramesh 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. He designed the website of SketchUp ur Space.

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.