#### SKETCHUPE SKETCH

May 2016

## **COVER STORY**

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Energy Analysis

Plugins for

SketchUp

- Rajib De

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Skema 2D Projection for SketchUp
Park Generator for SketchUp
Perform Object based Rendering with LightUP for
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## A letter direct from the editor desk highlighting on May edition

Christmas is approaching nearby and we are really in the festive mood. So we want to make our magazine more attractive for our readers.

Our readers will find some interesting articles and tutorials in this issue. In our cover story, we delve into the Layout features of sketchup 2016. The Layout in sketchup 2016 becomes more improved in all aspects ranging from layers and group or small dimensions.

In article section, there are four in-depth articles. The first three articles are presented by Sumele Aruofor, the architecture and marketing associate in Sefaira. The articles focus on how Sefaira streamlines the processes for façade design, daylight optimization & net zero energy design.

In another article Artur Coelho, an ICT/arts teacher from Portugal, has presented an article on how 3d printing technology becomes an integral part of educational society.

In tutorial section, Anita Brown, an awesome SketchUpper and SketchUp Community Member, comes up with some useful tips for generating 3d textures with sketchup. In this tutorial, one can learn how to access Maxwell Render Extension directly inside the sketchup interface with the help of SketchUp plug-in for Maxwell Render for creating densely textured rug.

In the second tutorial, Javier Wainstein, the renowned 3D artist, provides step-by-step guidance to design a room with sketchup, 3DS Max and V-ray.

In blog and news section, the sketchup users will find some interesting stuffs on sketchup.

Hope our readers will like this edition and provide their valuable feedbacks for more improvements.

If you have any queries concerning publication, subscription, troubles navigating the site, please mail us at <a href="mailto:rajib@sketchup-ur-space.com">rajib@sketchup-ur-space.com</a>



Best wishes

Rajib Dey

Editor



## Interview with Ahmed Maher, Teaching Assistant, Architecture and Urban Design Program in GUC.

Interviewer: Rajib Dey (Editor-in-chief)

#### Please make your brief introduction.

My name is Ahmad Maher, I'm from Cairo, Egypt. I am a Teacher Assistant in German University in Cairo - Architecture department, Authorized Instructor for Trimble SketchUp The first in Egypt and Autodesk certified Instructor. Iam also Instructor in CADMasters training Center in Egypt.

For more than 9 years now SketchUp is my main tool for design and visualization, either for Training.

You work as a teaching assistant in Architecture and Urban Design Program in GUC. Tell us something about your professional life.

I am interested in the world of Education, Active Learnings and Architecture, and I trying hard to integrate the Computerized vision in Architecture Learning based on the rational aspects of the world Architecture Community hierarchies. So here in GUC we try to focus on parametric modelling and how to teach the students different ways to use the software in Architecture visualization, specially in our Course "CAD-CAM".

#### How sketchup streamlines the Architectural and Urban Design Process?

In GUC, it is the first time here to mix the Sketchup, Vray and lumion in Design conceptual methods, so we established "The Morphological visualization Track" with Architectural competition "Morphing or Forming" which is to prepare students for modelling architectural geometry through the development of parametric schemes for architecture. They have to redesign the unused spaces in the campus by Morph it or they should Form anew masses for the new buildings.

#### When did you first discover sketchup?

My first contact with sketchup was in 2006 it was in my college, Architecture department i felt that i have to find a software to draw my sketches and design and i found that Sketchup is the best way to create 3D models in easy way, so I started to master it by self learning, after that and in 2010 I started my career in Teaching it in the university and in the training centers.





#### How does sketchup impact your workflow?

SketchUp Pro is rewriting the stigma that CAD programs are hard to use. The layout of SketchUp Pro is very intuitive and easy to use, even for the least knowledgeable CAD designers. The added bonus of the 3D Warehouse is a great resource as you'll have constantly new models and symbols to choose from and work with. Although support only lasts for a year, and architectural tools are not plentiful, SketchUp Pro is still a wonderful program for designing and editing 3D models and designs.and we can also use vray or any other render engine or stand alone software to render the outcome of Sketchup.

### The latest version of sketchup is sketchup 2015. Provide your valuable feedback on this latest version of sketchup.

SketchUp is owned by Trimble Navigation, best known for their GPS products. They purchased what was formerly Google SketchUp from Google in 2012, and since then have dedicated efforts to ensuring the much-relied-upon SketchUp software continues to reign as a top choice for architects, engineers, building developers, interior decorators, moviemakers — and those just looking to have plain old fun with design technology. New features make it easier and faster to create, access, share and collaborate on 2D drawings and 3D models. SketchUp 2015 offers 64-bit support for Windows or Mac, while IFC file import capabilities allows back-and-forth sharing of IFC files between SketchUp Pro and any other application.

GUC is organizing an exclusive event on Morphalagical visualization with sketchup. Please tell us something about the event.

Yes, as i mentioned before this is the first time here we work on an Architectural competition in the educational curriculum, so we found the "Morphing or forming competition" which is mainly refers to how the students could use their campus spaces to modify, morph and redesign the unused one. We have another track its about interactive Architecture named "Responsive Prototyping track", it is a magnificent experiment to enhance the computerized Architecture vision of students.

#### How sketchup will evolve in near future?

I think its the time to develop Sketchup as a BIM tool which is a great system to draw and design, and i want to see anew systems of parametric modeling like Grasshopper Plug-in for sketchup.

## Is there anything else you would like to focus on sketchup?

I want to say that sketchup is a magnificent tool to design and create 3Ds in minutes, so it must be considered as one of the best softwares in the world.

What suggestions do you want to provide to the newbie urban designers and architects?

#### Passion

If you can be excited and willing to get out of bed in the morning to be an architect and happy to put in the hours and hours of hard work then you are off to a good start. You will become a person that thinks about architecture all day everyday, as it dominates your mind. If this is something you already feel, then you are in a good place, and work won't seem like work at all!

## Creativity and passion for design

If design gives you a real buzz and you love to get creative then architecture is a great field for you. Tie that in with some of the skills below you will smash it as an architect!

#### **Problem solver**

Working in architecture is a constant puzzle. You must be able to identify a problem (preferably before it arises) and find a suitable solution to address the problem. A problem solver with a curious mind – questions everything... how can this be improved, how will this work, how does this go together...?

Be patient – it takes a long time to learn this trade – and you never really know it all. The benefit of this is that if you keep on learning all the different factors of an architects role, you shouldn't really get bored, and amongst it all you will find the part you love.

#### Resourceful

I consider it to be really important for architects to know the information they need, and have the initiative to go and find it. When you reach a stumbling block, instead of just giving up it is important to be able to find the resources you need to solve the problems you face.



#### Technical knowledge

An enthusiasm for the technical side of things is an advantage. A bit of maths, physics and IT will help – as architecture is not just about design. Implementation of your design and ideas in order to make something that produces functional design solutions and can actually be built requires technical ability.

## Communication - and listening...and persuasion

You are going to be working with clients from different background with different goals and requirements and you have be able to communicate with the client effectively. You will need to be able to listen and understand what your client needs, and often put those needs before your personal tastes, or be able to integrate the two together.

There is a lot of negotiation in architecture, whether you are persuading your client that your design is suitable for their needs or communicating with planners who don't want to approve your proposal. Either way, it is important to have good people skills to get the job done.

If you don't have all these qualities there are always actions you can take to improve your ability to become a great architect.

## How do you evaluate our magazine?

It's very helpful Magazine and one of the best Magazines of Sketchup users in the world, the criteria and it could be a next generation of worldwide media announcement about the up comings in Sketchup.





## Download various energy analysis plugins for sketchup

## Rajib Dey - Editor-in-chief

There are various sketchup energy analysis plugins which can be used to produce improved sustainable designs as well as analyze model in an efficient manner. Besides, obtain an energy rating as you design, or transform the design files into Energy Plus IDF files so that the third party participants can assess them easily.

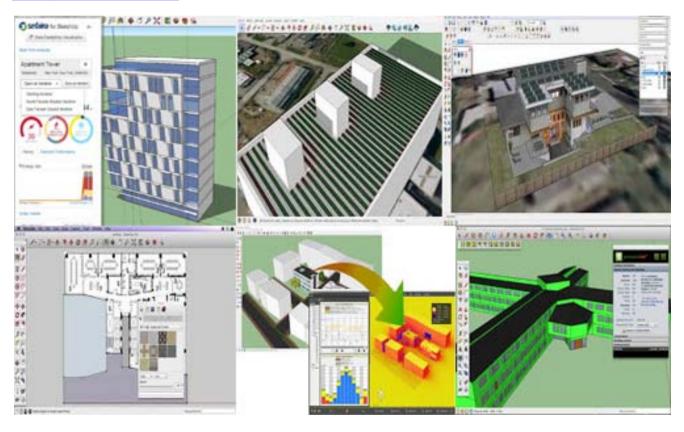
The paid plugins will facilitate the users to add different energy systems into their design like air conditioning, heating, solar power, energy supply, and even lighting systems and as well as visualize energy efficient designs.

The users can also implant photovoltaic modules, replicate modules, select environment scenarios, add various energy devices like inverters and generators, modify and edit the size of collectors to compare with energy requirements, and also calculate complete energy produced automatically.

Given below a huge lists of different types of energy analysis plugins for sketchupwww.bestplugins.com

## https://youtu.be/ZBowopYsAV0

### https://youtu.be/Lu5D-4qAcsI





## Skema 2d Projection for sketchup

## Rajib Dey - Editor-in-chief

Giorgio Argenio develops Skema 2d Projection for sketchup that develops 2d drawings into sketchup beginning from 3d geometry. It will project 3d geometry onto 2d section plane. This sketchup extension can export 2d geometry to dxf file format copying the structure and colors of sketchup layers into cad.

This sketchup plugin is compatible with sketchup 2016.

Given below the detailed processes for applying this sketchup extension :-

#### First Method:-

Choose a section plane. Click on the Skema Projection icon Rectify Parameters and press ok

## Second Method :-

Choose a section plane as well as some entities to be projected Click on the Skema Projection icon Rectify Parameters and press ok

Link for download extensions.sketchup.com

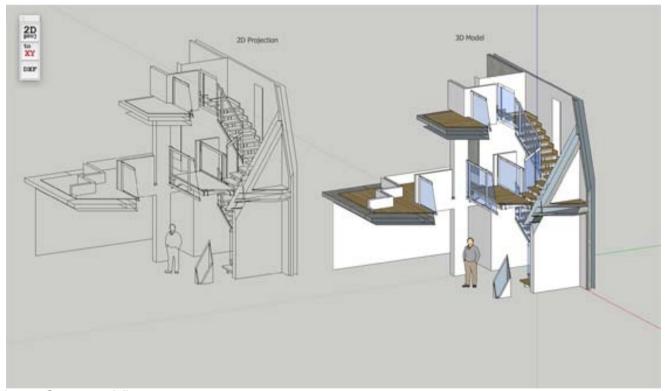


Image Courtesy: piziku.com



## Park Generator for sketchup

## Rajib Dey - Editor-in-chief

Process to install this sketchup extension:

- 1. Download example rulefile(s) and save to any local folder (e.g. Documents): grid park 1 (www.michaelvasiljevs.com)
- 2. Open Park Generator plugin UI in SketchUp. As soon as the plugin is installed "Park Generator" entry will be visible under "Extensions" menu, click on it to open the plugin window.
- 3. Open the Rule File. In the plugin window under "Rule File" click on "Browse..." and choose the file already been downloaded earlier and finish by selecting the "Open" button.
- 4. Choice an Input Region. Input Region refers to the area in which the park will be created . It is delivered by choosing a face (a polygon) in the primary SketchUp window. As for instance a simple rectangular region is formed by pressing "r" (or clicking on the Rectangle button) and then drawn-out the mouse pointer along the ground. It is suggested to apply a face that is not too large (taking a prolonged period to progress) or too minor (will not look as good).
- 5. Generate! By clicking on "Generate" button in the plugin window.

One can also modify parameters and edit the Rule File to create diverse park designs.

The plugin is still in the beta testing phase. You can suggest your opinions by sending mail to <u>su-park-generator-feedback@michaelvasiljevs.com</u>



Image Courtesy: michaelvasiljevs.com



## Perform object-based rendering with LightUP for Sketchup

## Rajib Dey - Editor-in-chief

EasternGraphics, a renowned software company, develops Sedus Sketch, a free extension for sketchup. This sketchup extension is compatible with SketchUp 2013, SketchUp 2014, SketchUp 2015, SketchUp 2016.

Adam B has developed LightUp for SketchUp. This sketchup extension supports SketchUp 8, SketchUp 2013, SketchUp 2014, SketchUp 2015, SketchUp 2016. LightUP is ideal for product visualisations, architectural designs or immersive 3D experiences. is the quickest and easy to use rendering program for sketchup.

LightUP can be used to rapidly illuminate any model and present it in the most excellent light. LightUP is the first ever sketchup renderer that produces object-based rendering to obtain the superior results within sketchup. The designers prefer LightUP for its high speed.

The designers can fine-tune and rehearse their models as well as instantly view results. Position the camera around your model and get everything to be rendered precisely in real time. Produce fly-through movies and export a file to be used by your clients in their web browser.

Try LightUP free 30 days trial version

## https://youtu.be/Z9EdF0vx1wg



Image Courtesy: light-up.co.uk



## 2016 GLASER STX for Sketchup

## Rajib Dev - Editor-in-chief

This sketchup extension facilitates the users to generate smooth sections with specific depth as well as discriminate amid noticeabe, cut and hidden elements and demonstrates them in the preview with dissimilar colors. Sections are exported as DXF or GLASER -isb cad. 2016 GLASER STX can be used for 3d modeling as well as generating construction drawing.

The extension offers smooth functionalities to independently deal with the section drawings as well as makes the process better for exporting to GLASER isb cad or into DXF-format.

Unnecessary elements in the construction drawing, e.g. hidden edges, can be refined. The same is applicable to 3D-layers for dissimilar components, which also can be exported.

Effortlessly specify any section planes with different cutting depths and transmit them to GLASER isb cad. Jointly with SketchUp Pro, it is possible to utilize the world of BIM data (IFC) for further editing.

This sketchup extension is well versed with SketchUp 2014, SketchUp 2015, SketchUp 2016.

2016 GLASER STX offers the following features :-

- Produce infinite sections in X-,Y- or Z-directions
- Specify separate section depths directly in the 3D-model
- Preview with group and layer selection
- · Transmission of section drawings directly to GLASER -isb cad-
- Export of section drawings to DXF-File

Link for download www.isbcad.de

## https://youtu.be/7GvoA 9St-0

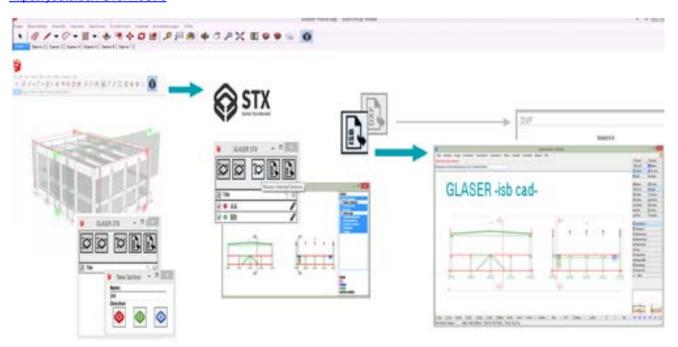


Image Courtesy: isbcad.de



## How to use Lumion to import sketchup projects

## Rajib Dey - Editor-in-chief

This exclusive sketchup video shows how to create model in sketchup and then incorporate it into Lumion and produce animations & tours in record time.

Lumion has the ability to import the projects developed through any sketchup extension. Lumion supports both native .SKP and other common 3D file formats like COLLADA (.DAE) and .FBX.

SketchUp Rendering - Visualize your designs with Lumion

https://youtu.be/6IJROs\_Laps



Image Courtesy: youtube.com



Image Courtesy: youtube.com



## How to design roof in sketchup by apply Instant Roof Plugin For Sketchup

## Rajib Dey - Editor-in-chief

This sketchup tutorial by Robson Jacobsen, provides some useful sketchup tips for designing roofs in sketchup efficiently with the use of instant roof plugin.

Instant Roof Plugin For Sketchup is developed by Vali Architects. It supports SU 8 through SU 2016.

Instant Roof offers the following functionalities :-

- Generate a complicated roof instantly just opt for faces and edges; then operate Instant Roof.
- Hip, gable, shed, dutch-gable, mansard, plantation, gambrel, open-trellis, combined, more...
- Eave types: boxed-in, exposed, soffited
- Hips and rafters with customizable ends
- Fascia, fascia-trim, ridge and hip tiles, shingles, or sheet-metal
- Complete mission tile or standing-seam roof
- Apply default roof styles or generate your own
- · Export and Import user defined roof styles
- Select from any unit type supported by Sketchup: Metric- angles for slope or Feet/ inches ratio for slope
- Convert to Pro version for more roof slopes (The free version can produce the following roof slopes: 1/8:12 (0.6 degrees); 2:12 (9.5 degrees); 6:12 (26.6 degrees); 16:12 (53 degrees) or 24:12 (63 degrees).

Link for download Instant Roof Plugin

## https://youtu.be/kN9bM\_HbNw4

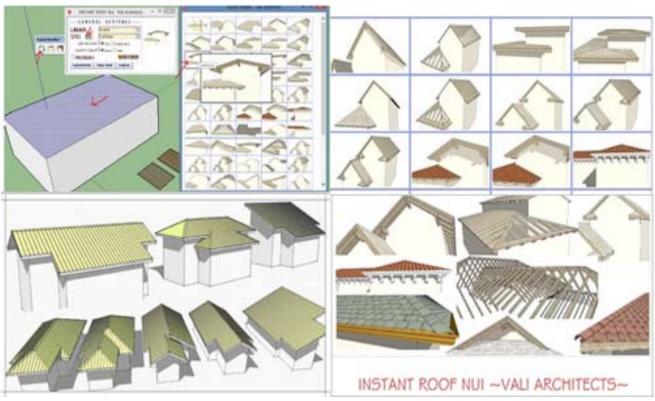


Image Courtesy: valiarchitects.com



## An exclusive video tutorial on sketchup vray interior lighting

## Rajib Dey - Editor-in-chief

This sketchup v-ray tutorial is useful for beginners and advance sketchup users. The tutorial is based on interior lighting with sketchup vray. Learn how to use v-ray material editor efficiently to render an interior scene.

V-Ray for SketchUp 's Material Editor contains three sections:

- **A. Material Workplace** It demonstrates all the selected materials. Click with right mouse button to include, import, export, rename, pack, remove, and select the objects with existing materials like allocating recent materials to the selected objects, removing materials which are unused in the scene, as well as inserting layers with reflections, refractions to the materials.
- B. Material Preview The Update Preview button facilitates the users to view the adjusted materials.
- C. Options for material control The options are modified with the added scene materials in section A.

Click on Update preview button available inside V-ray material editor to update the preview image to existing materials.

## https://youtu.be/3iAjxDERNXY

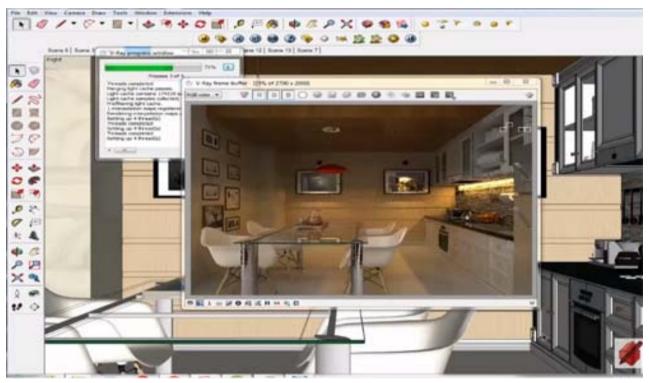


Image Courtesy: www.youtube.com



## Some useful sketchup tips to simplify interior design process with sketchup

## Rajib Dey - Editor-in-chief

This sketchup video is extracted from an online demonstration provide by Josh Reilly, the renowned sketchup trainer, at the 2015 Clerkenwell Design Week in London (May 19 - 21).

The video is intended for beginner's sketchup users who want to produce a workflow with sketchup in interior design.

SketchUp is an ideal 3d modeling program to swiftly visualize an interior design project. With sketchup, you can easily generate 3d models for interior design together with various pieces of furniture & accessories.

You can explore with colors and materials. Make final presentations and animated walkthroughs for client. Besides, you can also produce labeled and dimensioned working drawings.

#### https://youtu.be/zmDFIW0J8JU

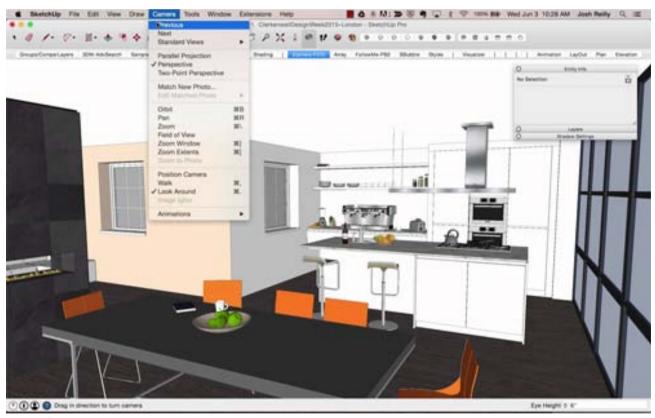


Image Courtesy: www.youtube.com



## SteelSketch for Sketchup – A sketchup extension to produce pipes & steel profiles extruding across linear entities

## Rajib Dey - Editor-in-chief

SteelSketch for sketchup supports sketchup 2014 and sketchup 2015. This sketchup extension is used to create pipes and steel profiles extruding across linear entities.

SteelSketch facilitates the users to generate pipes having circular section extruding across a linear object or arc as well as generate pipe having rectangular section extruding across a linear entity or arc and produce a steel beam choosing the section profile out of a large archive containing all the ISO standard sizes.

## **Commands: Create Pipe**

A pipe is formed with circular or rectangular section. The command displays a window where the circular or rectangular section are selected. In function of the choose, fulfill the fields showing the section dimensions and then press OK. Then choose the linear entities or arcs there to extrude the selected profile.

**Create Profile**: A steel profile having the selected section is formed. The command displays a window to choose the section out of the tree list where all the sections of the ISO Standard are preserved. While choosing an element the window displays the section preview. Now press OK and then choose the linear entities or arcs there to extrude the selected profile.

Try LightUP free 30 days trial version

Get Weight: Obtains the volume and weight of the designated pipe or profile.

In order to download this sketchup extension visit, <a href="www.oldbridgesoft.com/steelsketch.html">www.oldbridgesoft.com/steelsketch.html</a>. For any query, send mail to <a href="mailto:support@oldbridgesoft.com">support@oldbridgesoft.com</a>

## https://youtu.be/NEhBFPXJ0oQ

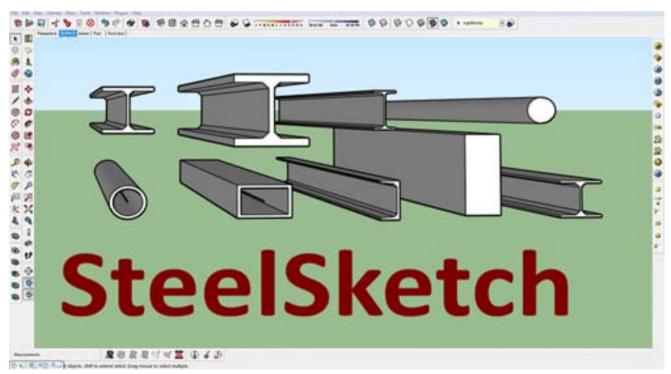


Image Courtesy: extensions.sketchup.com



# How to use Sketchup Pro 2016 for modeling a house & rendering with vray plugins

## Rajib Dey - Editor-in-chief

Sharpen your skills on Sketchup Pro 2016 by watching this sketchup pro 2016 tutorial presented by Mufasu CAD.

Learn the basic exterior rendering with vray by using standard materials. The tutorial is specifically designed for beginner's sketchup users.

While modeling the house with sketchup, style is used to modify the background setting as well as various sketchup materials are applied into the object.

V-Ray for SketchUp Windows Edition Free 30 Day Demo www.vray.com

#### https://youtu.be/IT6MIXuOpts

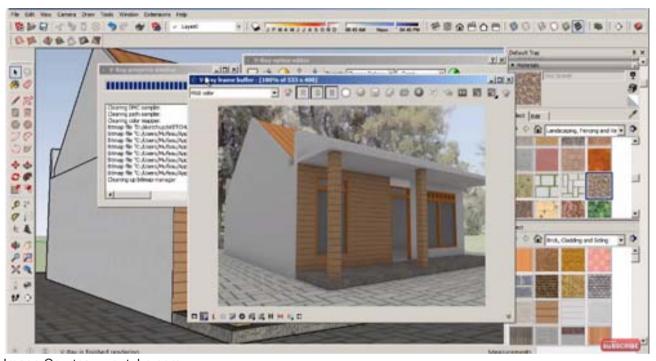


Image Courtesy: youtube.com



# Generate & export content to a 3d game engine with PlayUp Tools for Sketchup

## Rajib Dey - Editor-in-chief

Sushi 8 Studios develops PlayUp Tools for sketchup. This useful sketchup extension facilitates the sketchup users to generate and export content to a 3D game engine.

This sketchup extension is considered as a great productivity tool for designers. It makes the process easy for exporting and importing content by providing a simple and improved pipeline to port and position a level that includes components and groups into a game engine.

Presently PlayUp Tools supports Windows platform only and it is capable of exporting to the following engines: Amazon Lumberyard, Crytek CryENGINE 3, Epic Games Unreal 4, and Unity.

Most updated version is PlayUp 2.0. Go through the following link to get the upgraded features of PlayUp 2.0

Link for download playuptools.com

## https://youtu.be/DrgnLLeCOdk

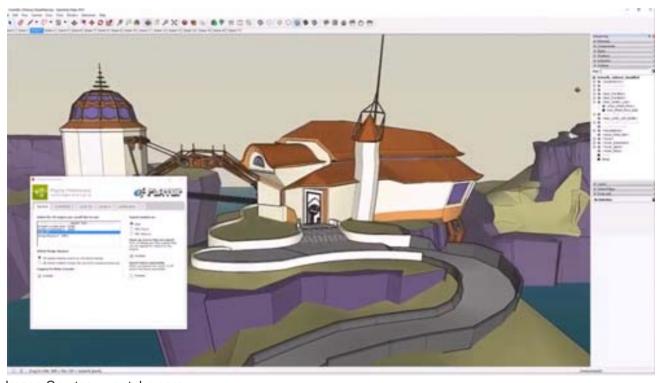


Image Courtesy: youtube.com



## **Sedus Sketch – The newest free sketchup extension**

## Rajib Dey - Editor-in-chief

EasternGraphics, a renowned software company, develops Sedus Sketch, a free extension for sketchup. This sketchup extension is compatible with SketchUp 2013, SketchUp 2014, SketchUp 2015, SketchUp 2016.

With Sedus Sketch, the users can download independently configured Sedus seating and office furniture products.

Sedus Sketch offers the following functionalities :-

- Formation of graphical and commercial product information in real time
- Advanced 3D renderings of Sedus multi-variant products
- Download of Sedus CAD data into SketchUp
- Rule based configuration and visualization
- Availability of complete portfolio of Sedus office furniture and seating products

Link for download Sedus Sketch



Image Courtesy: extensions.sketchup.com

Ref: extensions.sketchup.com



## 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 magazinewith the help of his creativity Sketchup ur Space has gotten a classy as well as trendy look...