











10. Like4Like - get

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14. Construction

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Text + Calls : Fr...



Ha

8. Hushed - Free

Number, Texting...





16. LikeDike -17. iDownloader Plus. Utilities Likes and...

\$4.99







15. Background

Check App -...

Free 🔻















\$0.99







3. Spotipremier

for Spotify...

\$4.99





Free

In-App Purchases

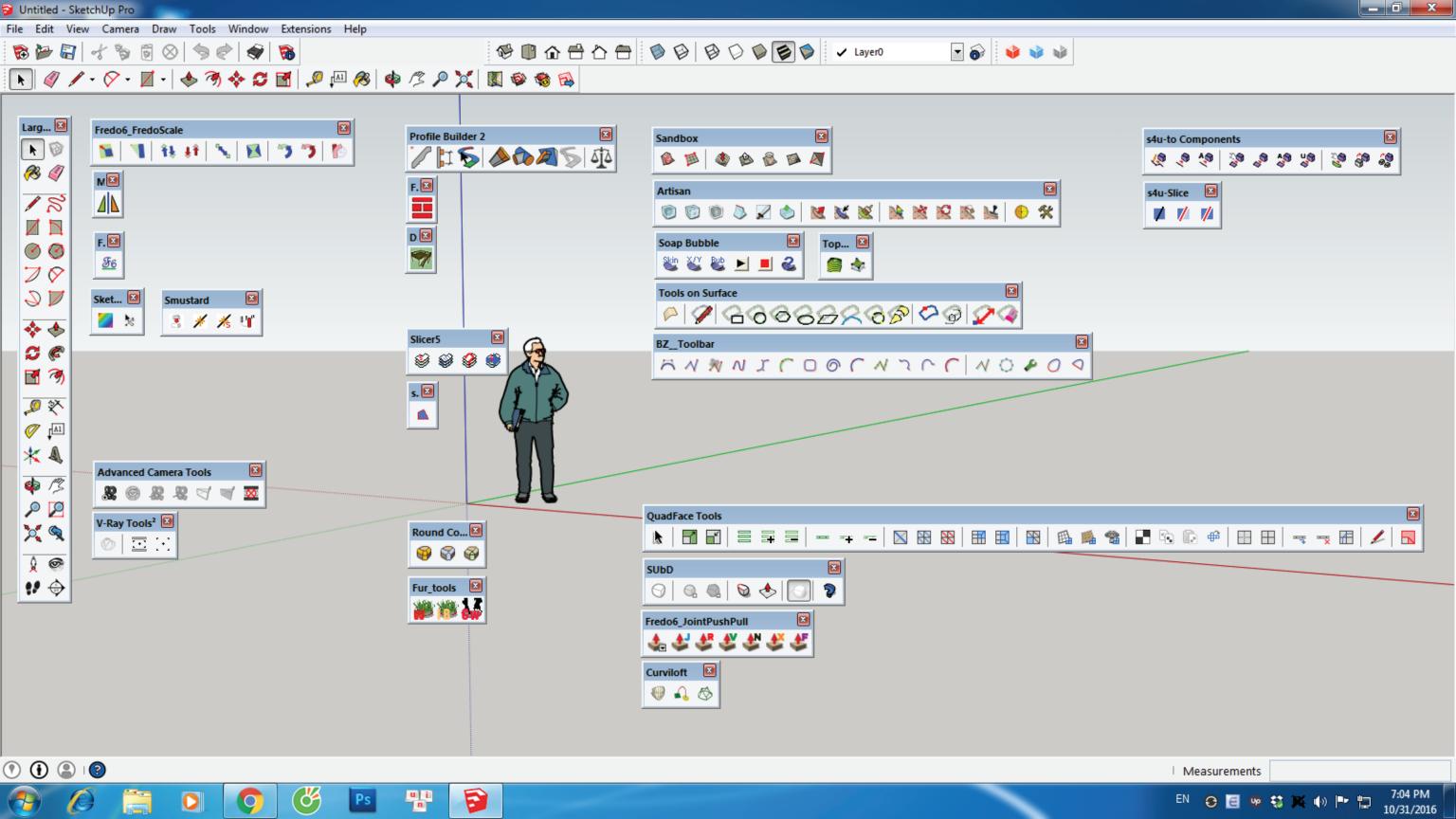














### **TOP POPULAR PLUGINS**

SketchUcation Plugin Store 1. 2. LibFredo6 3. TTLib2 4. Round Corner Joint Push Pull Interactive 5. 6. Curviloft FredoScale 8. FredoTools 9. Tools on Surface 10. **Bezier Spline** Mirror 12. CleanUp 3 13. Purge All 14. Make Fur 15. Toposhaper 16. Shape Bender 17. QuadFaceTools 18. Selection Toys Solid Inspector 2 19. Edge Tools 20. 21. **Architect Tools** 22. SketchUV

DynaSCAPE Tool (\$)

Profile Builder 2 (\$)

Vertex Tools (\$)

SUbD (\$)

23.

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Artisan (\$) 27. 28. Soap Skin & Bubble PlaceMaker 29. 30. Skatter 31. Laubwerk 32. Selection Memory (Thomthom) 33. 2D Tools Workplane (TIG) 34. 35. Extrusion Tools (TIG) 36. s4u Make Face 37. s4u Slice 38. s4u To Components (\$) 39. Layers Panel 40. 1001 bit 41. Flowify TIG-weld / Weld 42. 43. Path Copy Scale and Rotate Multiple 45. Raytracer SDM Stepping Stone 46. 47. **SDM Floor Generator** 48. SDM Deck Builder 49. **AMS Library** 50. AMS Soften Edges 51. **AMS Windows** 52. 2D Boolean

Material Tools (Thomthom) 53. 54. Drop GC / Smart Drop 55. Projections (Didier Bur) 56. Faces2Groups 57. Section Cut Face 58. Vray Sketchup 2.0 / 3.4 59. Vray Tool 2 60. **Shadow Analysis** 61. **Instant Road Pro** 62. **Instant Roof Pro** Màu trắng: Plugin có trên Extension Warehouse Màu xanh: Plugin có trên SketchUcation



4	
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Instant Roof Pro

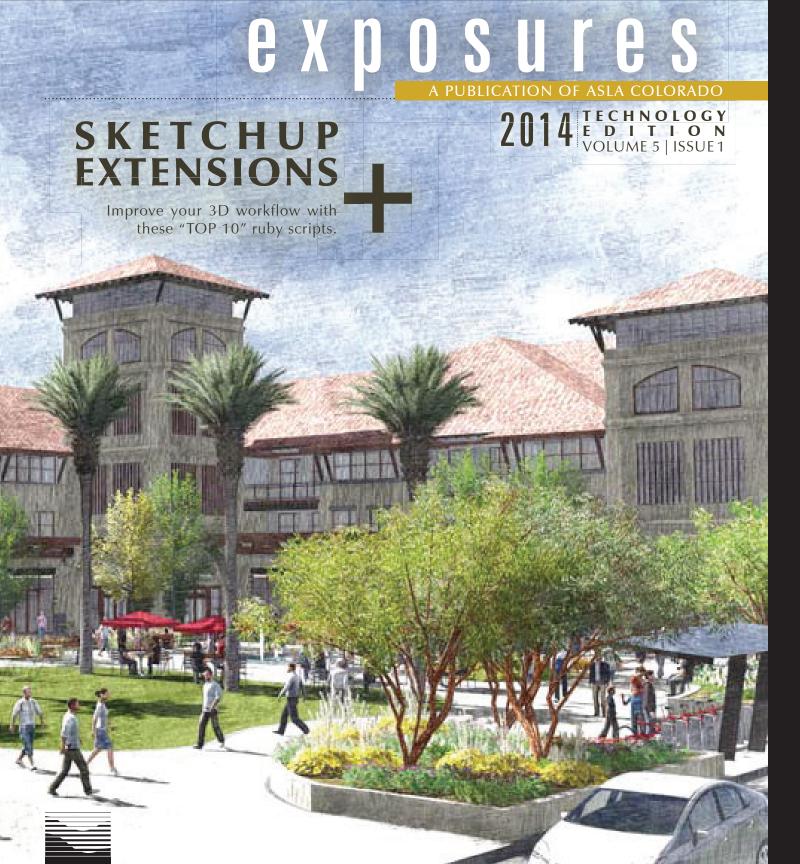






Màu trắng: Plugin cài thủ công

Màu xanh: Plugin cài bằng Extension Warehouse



### **PLUGINS**

- Hỗ trợ các lệnh cơ bản
- Dựng địa hình và hình học phức tạp
- Dựng hình nhanh bằng thư viện
- Hỗ trợ lấy Camera, Export
- Render
- Animation
- Tính toán, bóc tách khối lượng
- Phân tích môi trường



## **TOP 10**

SKETCHUP EXTENSIONS
(a.k.a. Plug-ins or Ruby Scripts)

BY DANIEL TAL

"EXTENSIONS SPEED UP THE MODELING PROCESS BY HOURS, SAVING YOU TIME, ENERGY AND FRUSTRATION"

............

ketchUp allows users and programmers to create their own tools, called extensions or plug-ins, by using the Ruby Script programming language. Extensions can greatly extend how SketchUp functions. Many are specialized tools that can save you hours of work or perform tasks beyond SketchUp's native tool set. If you use SketchUp but have not tried extensions before, they are a must to check out.

If you are an active or even new SketchUp user, you should make the effort to learn and try extensions. The bottom line is this: extensions speed up the modeling process by hours, saving you time, energy and frustration. Extensions will allow you to get the most out of SketchUp and improve your models.

It is suggested that you read any of the instructions or watch the videos that accompany the extensions below before using them. These can be found at the point of download. That will insure the extensions will work for you.



SketchUp 2013 and SketchUp Make (free version) include the Extension Warehouse which functions inside the program.

#### SketchUp 2013 – Extension Warehouse

SketchUp 2013, the recent release from Trimble SketchUp, includes the Extension Warehouse (Window > Extension Warehouse). You will need to login with a Google account and then you can access all the extensions.

In previous SketchUp versions (like SU 8), you needed to manually install extensions usually by browsing to the root SketchUp program folder on your hard drive. For many SketchUp users this could be confusing if not difficult. The Extension Warehouse changes all that.

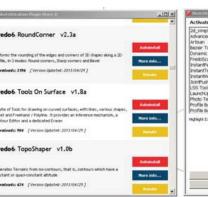
Much like SketchUp's 3D Warehouse (where you can search and download models), the Extension Warehouse provides quick and easy access to custom tools. The Extension Warehouse allows users to search, install and manage extensions directly from a menu inside SketchUp.

#### 2 SketchUcation Plug-in Store

Not to be outdone, SketchUcation, the popular SketchUp user forum (www.sketchUcation.com), has released its own version of the extension warehouse. Called the SketchUcation Plug-in Store, it allows you to browse over 600 (yes 600!) SketchUp extensions. You can install and manage all your extensions with this plug-in. Between SketchUp's Extension Warehouse and the SketchUcation Plug-in Store, you should be able to find all the custom SketchUp tools you need.

The SketchUcation Plug-in Store and all the extensions are all free. Just register for free with SketchUcation, download the plug-in and start installing plug-ins.

You can find the SketchUcation Plug-in Store here: http:// sketchucation.com/resources/ plugin-store-download BELOW: SketchUcation Plug-in Store Extension and associated menus in SketchUp









#### Chris Fullmer Extensions: 25

Chris Fullmer has been writing SketchUp plugins since 2009 when he designed a free study course at UC Berkeley aimed at using SketchUp Ruby to make tools to help improve the landscape modeling process. Chris now works for Trimble as part of the SketchUp development team as a 3D Quality Engineer.



#### CLF Arc Centerpoint Finder by Chris Fullmer

Add a Construction Point to the "should-be" centerpoint of an exploded arc or circle.



#### CLF Select Same Length Lines by Chris Fullmer

Select lines that are the same length of the selected line, or of a specified length.



#### CLF Color by Slope by Chris Fullmer

Add color to faces based on the slope of the face.



#### CLF Loose to Groups by Chris Fullmer Turn loose geametry into groups



#### CLF Center on Origin by Chris Fullmer

This plugin will center components and/or groups onto the model origin 0.0.0.

ABOVE: Chris Fulmer, a landscape architect, has many excellent tools on the SketchUp Extension Warehouse.

#### 3 - 6

### Chris Fulmer SketchUp Extensions: CLFTOOLS

Chris Fulmer is a landscape architect and programmer. He has been a long time SketchUp user and has developed many extensions for use in SketchUp. Recently, Trimble SketchUp hired Chris as part of the quality assurance and development team. Aside from the great news of a landscape architect working on SketchUp, Chris has many extensions that are just awesome. Below are some of the tools he has developed that are worth installing and trying out.

Even better, many of these tools can be found in the SketchUp Extension Warehouse. Simply search for Chris Fulmer in the Extension Warehouse or look for CLF TOOLS. THANK YOU CHRISTII

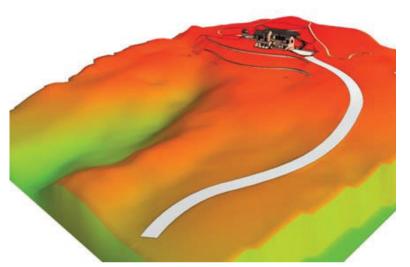
#### 3 CLF - Scale and Rotate Multiple

This excellent tool replaces the Ruby Script Randor. Scale and Rotate Multiple, among other things, allows you to randomize the scale and rotation of selected objects and components. It's IDEAL for randomizing vegetation size and positions. It is a must have script if you are modeling site plans with vegetation.

### 4 CLF - Color By Slope

Color By Slope is a SketchUp slope analysis tool. Select your surfaces (best suited for a terrain model), input two color values and this extension will color the selected faces based on their slope. While it won't color slopes based on specific grade values, it's a quick and easy way to view terrain grades for fast studies.

ABOVE: CLF Color by Slope: Yellow and blue were the selected colors for the slopes map. The extension colored surfaces ranging from yellow (flat) to blue (steep), displaying a color gradient



## 5 CLF – Color By Z

surfaces.

Color By Z will color selected faces and even better, terrain, based on elevation. Select the terrain mesh (not the group but all the loose faces), select two colors and the extension will color the surfaces based on their height, displaying surfaces with a gradient of color from highest to lowest.

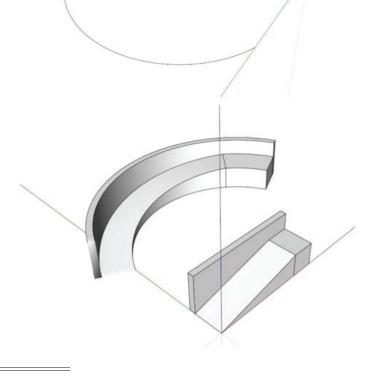
showing the range of flat to steep

LEFT: CLF Tools Color By Z shows elevation colors from green (low) to red (high).

### 6 CLF – Shape Bender

Want to create complex forms and shapes with a simple click? Shape Bender does the trick. Contort and conform a shape to curves, arcs or just about any other form. Simple to use and powerful in results, you can bend ramps and walls to fit specific site plan spatial forms as just one example.

RIGHT: On the top is a simple ramp and wall. The ramp and wall can be bent with the Shape Bender extension to match the arc. The result (bottom image) is a curving sloping wall and ramp.

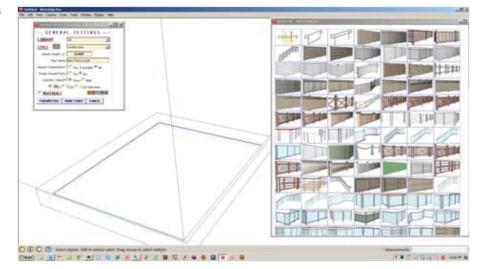


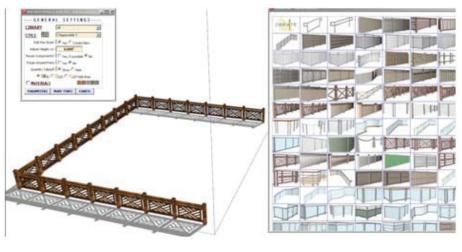
# 7 - 8 | Vali Architecture Series Instant Fence and Instant Wall

Chuck Vali, an architect by practice, programs SketchUp extensions for "beer money" (as he says it), and has created powerful and must have plug-ins. He previously brought us Instant Road, Instant Roof and Instant Grade. He has two new scripts that are a must have. These low cost extensions can save you many hours of modeling. You can find these scripts at <a href="http://www.valiarchitects.com/sketchup\_scripts">http://www.valiarchitects.com/sketchup\_scripts</a>

The two scrips listed on the following page automate the creation of complex fences, gates, retaining walls and more. Simply draw lines and edges, combine them into a group and activate the scripts. You then choose from dozens of different types of fences or walls. The extension will automate the creation of the selected object along the selected edge, using the edges as a path.

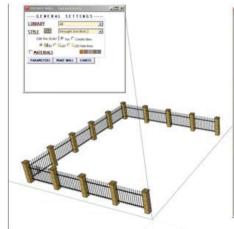
RIGHT: Instant Fence allows you to select edges, then select a specific fence type. The extension will automate the creation of the fence along the selected edges.

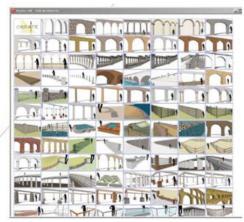


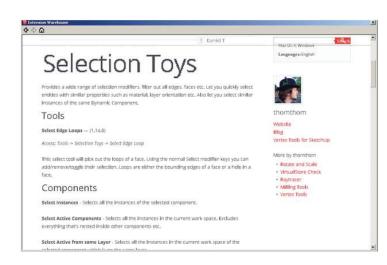


LEFT: The extension creates the selected fence along the drawn edges.

RIGHT: The **Instant Wall** extension, like Instant Fence, will generate different wall types from selected edges.







### 9 Selection Toys by ThomThom

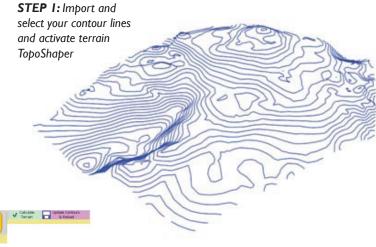
Selection Toys is a must have Extension for anyone using SketchUp. It simply allows you to select objects edges, components and groups with ease. It greatly extends the way you can interact, move, copy and organize your model.

It is found on the Extension Warehouse; don't be overwhelmed by the menu. This extension is worth exploring to the fullest. Read the documentation! You won't believe how this script will help organize and interact with SketchUp model objects and components. While you're at it, check out the other scripts by ThomThom, who provided us with Selection Toys.

### 10 TopoShaper by Fredo6

Last but not definitely not least is TopoShaper. This phenomenal tool can be considered "From Contour" on steroids. TopoShaper will allow you to generate a grid or mesh terrain as opposed to TIN or triangulated irregular network which is what the Sandbox FromContour generates. A mesh terrain is much easier to work with allowing for better sculpting or alteration of terrain surface when using other terrain tools like Instant Road, Artisan and even the Sandbox Smoove Tool.

#### FOUR STEPS TO TOPO USING TOPOSHAPER



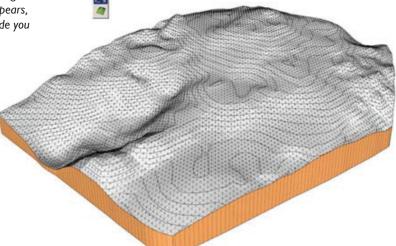


CLEANSING

step 2: TopoShapder will enter the "CLEANSING" phase of the operation. The extension will indicate where missing contour data can be repaired and help you interpolate missing contour information. This can be a quick or long process depending on how refined you want the final terrain to appear. During this stage, you will be presented with a large flat grid representing your terrain. This is intended to make it easier to select and fix contour areas.

Step 3: TopoShaper will now show you a preview of the final terrain. This will be in a mesh terrain form. At this stage you can adjust the mesh grid creating a small or large gridded terrain surface.

**Step 4:** After confirming the grid spacing and are happy with the how the terrain appears, select generate terrain which will provide you with the final result.



Check out Toposhaper on SketchUcation:

http://sketchucation.com/forums/viewtopic.php?f=323&t=52039

It can also be accessed using the SketchUcation Plug-in Store extension. It does take some getting used to but is not hard to use. The script was created by Fredo6, who has created a bunch of extensions for terrain modeling.

Daniel Tal is a landscape architect who has published two books on SketchUp: Google SketchUp for Site Design and Rendering In SketchUp. Check out his website: www.brightmantal.com

14 / ASLA COLORADO EXPOSURES