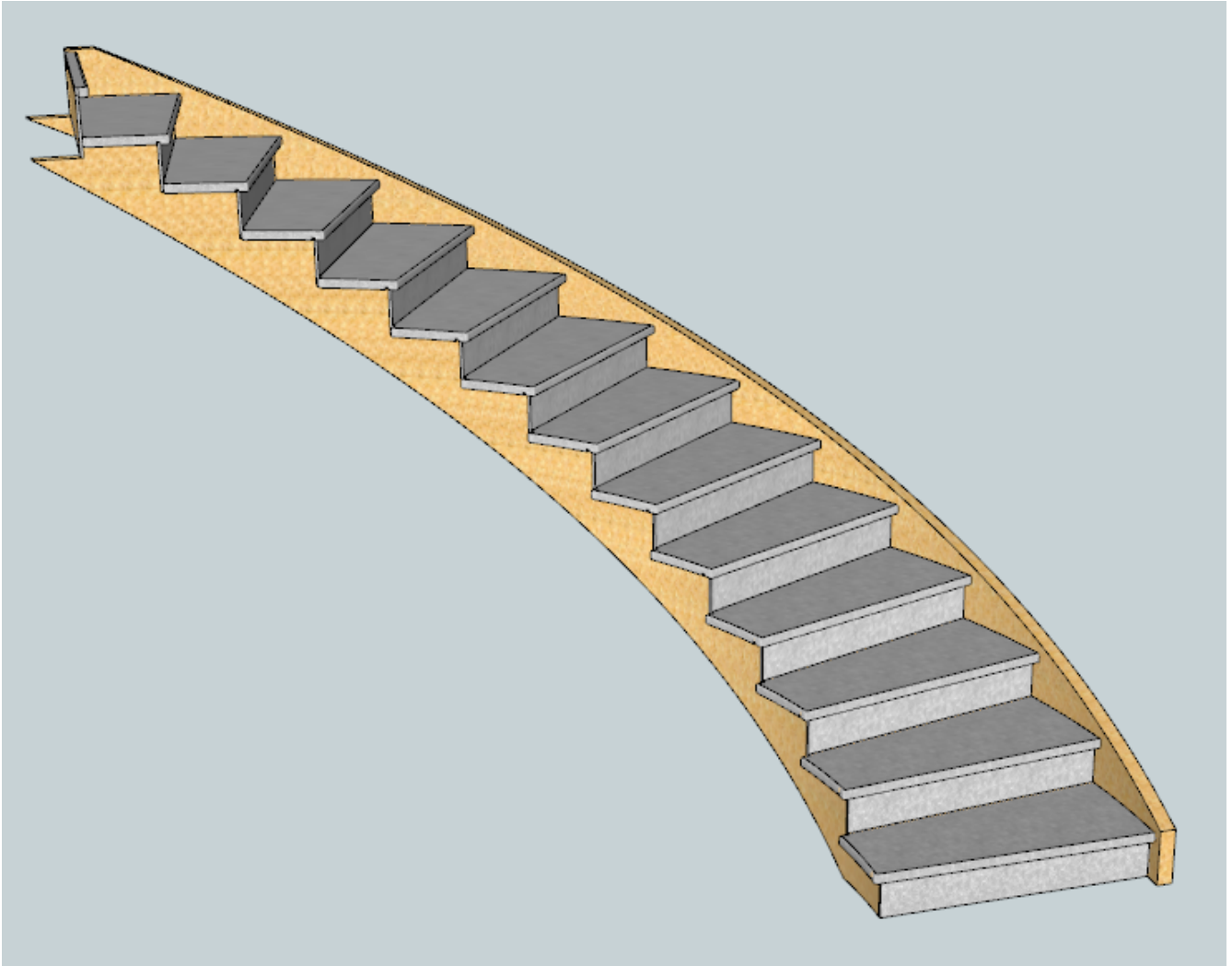


**Stair Maker**  
**Version 1.0.16**



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# 1 Introduction

The Stair Maker system has 4 buttons in the “GKWare Stair Maker” tool bar and has 5 commands under the “Plugins/GKWare Stair Maker” menu.



## Tool Bar Buttons

1. The first button brings up the “Stair Maker” configuration form.
2. The second button extrudes handrail along a path.
3. The third button is used to glue segments together to form a single welded arc.
4. The fourth button provides you with the ability to save your or modify handrail profiles.

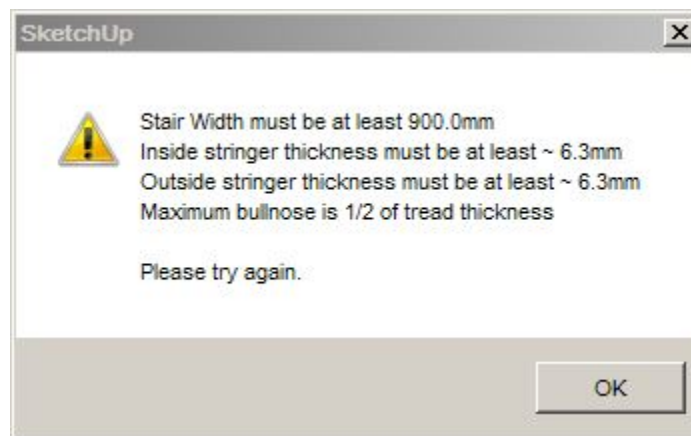
Four of the Five menu choices work exactly the same way as the buttons on the toolbar. The menu choices are in the same order and are:

1. Stair Maker
2. Extrude Handrail
3. Glue Edges
4. Add Handrail Profile
5. Stair Maker - Check License

## 2 Important Notes

It is recommended that you open up a second instance of Sketchup and build your stair there. You can then copy and paste it into your model. The Stair Maker is quite complicated and uses the origin [0,0,0] as the center radius point.

The Stair Maker plugin provides a few built in checks. Here is an example



Please note that there are a number of stair defaults that are in defaults.txt. This includes minimum stair width etc. Additionally, there is a rules.txt file that contains building codes and rules. You may adjust these as needed.

The Stair Maker plugin can calculate a one of three values providing that only one of the three values is initially set to 0. These three values are Radius, Degrees and Average Run.

If you provide Degrees and Average Run and set Radius to 0 the Stair Maker will calculate the Radius.

If you provide Radius and Average Run and set Degrees to 0 the Stair Maker will calculate the Degrees of stair rotation.

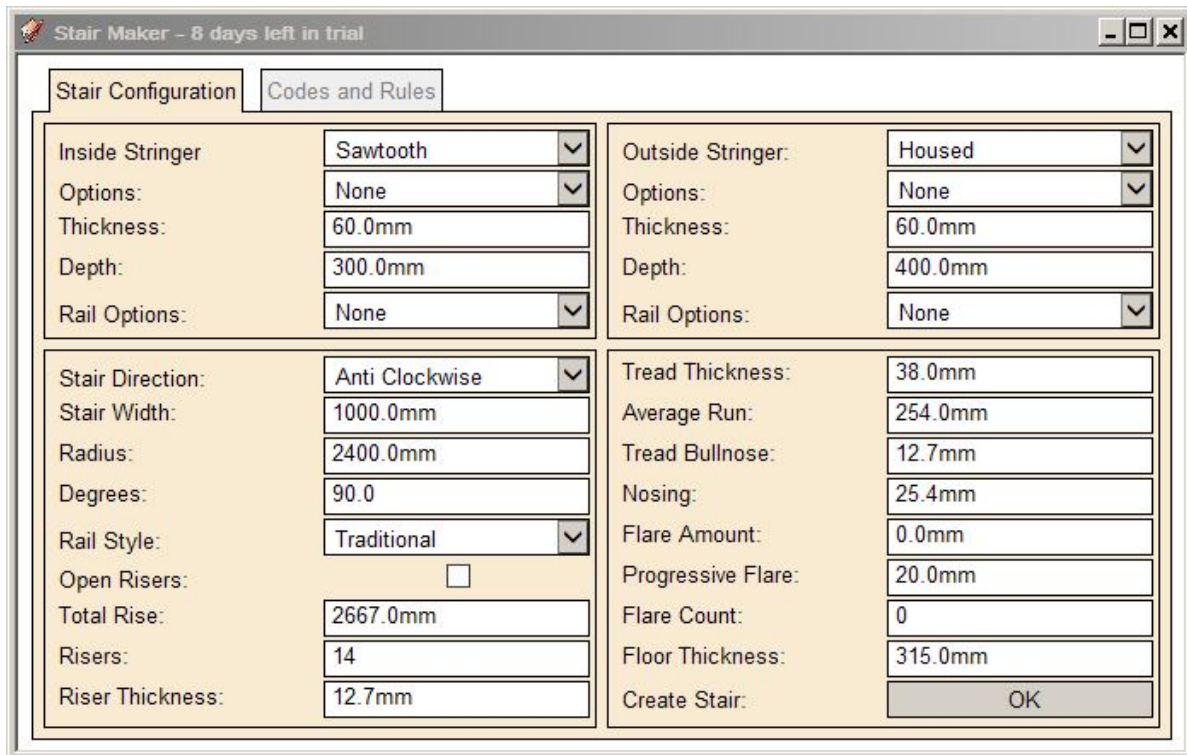
However if you provide Degrees and Radius the Stair Maker will calculate run.

If you set your Radius to 50 mm or less ( but greater than 0 ) then Stair Maker will build a spiral staircase with a center pole.

If you want to delete a stair immediately after rendering then use the undo keys. Ctrl Z will remove the stair. Click stair – make a change and click “OK”

### 3 Metric Stair Maker Input Box

Stair Maker uses an input box which contains four sections. This is the input box when using metric units.

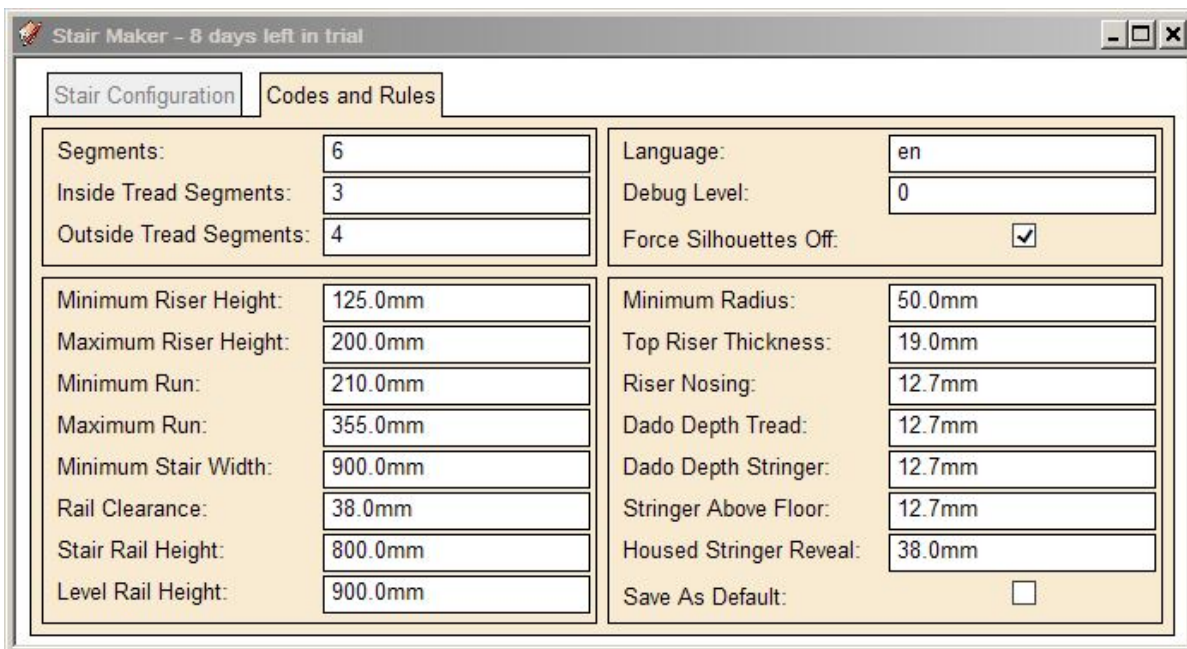


Stair Maker - 8 days left in trial

Stair Configuration Codes and Rules

Inside Stringer	Sawtooth	Outside Stringer:	Housed
Options:	None	Options:	None
Thickness:	60.0mm	Thickness:	60.0mm
Depth:	300.0mm	Depth:	400.0mm
Rail Options:	None	Rail Options:	None

Stair Direction:	Anti Clockwise	Tread Thickness:	38.0mm
Stair Width:	1000.0mm	Average Run:	254.0mm
Radius:	2400.0mm	Tread Bullnose:	12.7mm
Degrees:	90.0	Nosing:	25.4mm
Rail Style:	Traditional	Flare Amount:	0.0mm
Open Risers:	<input type="checkbox"/>	Progressive Flare:	20.0mm
Total Rise:	2667.0mm	Flare Count:	0
Risers:	14	Floor Thickness:	315.0mm
Riser Thickness:	12.7mm	Create Stair:	OK



Stair Maker - 8 days left in trial

Stair Configuration Codes and Rules

Segments:	6	Language:	en
Inside Tread Segments:	3	Debug Level:	0
Outside Tread Segments:	4	Force Silhouettes Off:	<input checked="" type="checkbox"/>

Minimum Riser Height:	125.0mm	Minimum Radius:	50.0mm
Maximum Riser Height:	200.0mm	Top Riser Thickness:	19.0mm
Minimum Run:	210.0mm	Riser Nosing:	12.7mm
Maximum Run:	355.0mm	Dado Depth Tread:	12.7mm
Minimum Stair Width:	900.0mm	Dado Depth Stringer:	12.7mm
Rail Clearance:	38.0mm	Stringer Above Floor:	12.7mm
Stair Rail Height:	800.0mm	Housed Stringer Reveal:	38.0mm
Level Rail Height:	900.0mm	Save As Default:	<input type="checkbox"/>

## 4 Imperial Stair Maker Input Box

Here is the input box when using imperial units.

Stair Maker - 8 days left in trial

Stair Configuration Codes and Rules

Inside Stringer	Sawtooth	Outside Stringer:	Housed
Options:	None	Options:	None
Thickness:	2 1/2"	Thickness:	2 1/2"
Depth:	12"	Depth:	16"
Rail Options:	None	Rail Options:	None
Stair Direction:	Anti Clockwise	Tread Thickness:	1 1/2"
Stair Width:	39"	Average Run:	10"
Radius:	96"	Tread Bullnose:	1/2"
Degrees:	90.0	Nosing:	1"
Rail Style:	Traditional	Flare Amount:	0"
Open Risers:	<input type="checkbox"/>	Progressive Flare:	3/4"
Total Rise:	105"	Flare Count:	0
Risers:	14	Floor Thickness:	12 1/4"
Riser Thickness:	1/2"	Create Stair:	OK

Stair Maker - 8 days left in trial

Stair Configuration Codes and Rules

Segments:	6	Language:	en
Inside Tread Segments:	3	Debug Level:	0
Outside Tread Segments:	4	Force Silhouettes Off:	<input checked="" type="checkbox"/>
Minimum Riser Height:	5"	Minimum Radius:	2"
Maximum Riser Height:	8"	Top Riser Thickness:	3/4"
Minimum Run:	8 1/4"	Riser Nosing:	1/2"
Maximum Run:	14"	Dado Depth Tread:	1/2"
Minimum Stair Width:	36"	Dado Depth Stringer:	1/2"
Rail Clearance:	1 1/2"	Stringer Above Floor:	1/2"
Stair Rail Height:	32"	Housed Stringer Reveal:	1 1/2"
Level Rail Height:	36"	Save As Default:	<input type="checkbox"/>

## **5 Stair Configuration**

### **1 Section – Inside Stringer**

#### **Inside Stringer**

The Inside Stringer type is Sawtooth, Housed or None. None is useful if you are building a spiral staircase without a stringer.

#### **Options**

The choices for Options are Heel, Foot, Both or None. Currently the Foot is not supported.

#### **Thickness**

This is the thickness of the inside stringer. If for instance you have 5 layers of 3/8" spruce and 1/4" oak plywood then set it to 2 1/8" or 54 mm. It is a good idea when building the stair to set this value to exactly the thickness of the stringer. Use a digital micrometer and measure a sample of all 6 layers.

#### **Depth**

This is the depth of the inside stringer. The default is set to 300 mm or 12". A freestanding stair may require a bit more depth. A housed stringer could be set to less than 300 mm.

#### **Rail Option**

The options are Guard Rail, Wall Rail and None. A Guard Rail is for posts and spindles and a Wall Rail is just a hand rail.

### **2 Section – Outside Stringer**

#### **Outside Stringer**

The Outside Stringer type is Sawtooth, Housed or None. None is useful if you are building a spiral staircase without a stringer or if you are building a stair that has a thick single staircase.

#### **Options**

The choices for Options are Heel, Foot, Both or None. Currently the Foot is not supported.

#### **Thickness**

This is the thickness of the outside stringer. If for instance you have 5 layers of 3/8" spruce and 1/4" oak plywood then set it to 2 1/8" or 54 mm. It is a good idea when building the stair to set this value to exactly the thickness of the stringer. Use a digital micrometer and measure a sample of all 6 layers.



## Depth

This is the depth of the outside stringer. The default is set to 400 mm or 16". A freestanding stair may require a bit more depth. A housed stringer could be set to less than 400 mm.

## Rail Option

The options are Guard Rail, Wall Rail and None. A Guard Rail is for posts and spindles and a Wall Rail is just a hand rail.

## 3 Section – General Section

### Stair Direction

The stair can be Clockwise or Anti Clockwise. The default is Anti Clockwise

### Stair Width

This is the width of the stair from inside of the inside stringer to the outside of the outside stringer. The stair must be at least minimum width. The minimum width is found in the defaults.txt file under metric\_min\_stair\_width and imperial\_min\_stair\_width.

### Radius

This is the radius at the inside of the inside stringer. You may set it to 0 and the Stair Maker will figure out the radius based on Average Run and Degrees.

### Degrees

You may set the degrees to 0 and the Stair Maker will figure out how far the stair rotates based on Average Run and Radius.

### Rail Style

This is a dropdown list of all the rail styles that you have. The StairMaker plugin supplies 6 different handrail profiles. You can add more handrail profiles.

### Open Risers

This is a check box that will build either open or closed riser stairs.

### Total Rise

This is the total Rise of the stair.

### Risers

Set the number of risers that you wish for the stair. This number is somewhat dependent on the minimum and maximum rise per riser. These values are found in the defaults.txt file under metric\_min\_rise, metric\_max\_rise, imperial\_min\_rise and imperial\_max\_rise. If you set the number of risers to a value where the rise per tread exceeds the maximum rise then the Stair Maker adjusts the number of Risers. Conversely if you set the number of risers to a value

where the rise per tread is less than the minimum number of risers then the Stair Maker will automatically adjust the number of risers.

### Riser Thickness

This is the thickness for the risers and sets the riser portion of a sawtooth stringer and or the dado for the riser portion of a housed stringer. It also sets the width of the dado for the tread where the riser fits into the tread. If you want an open riser stair then set this value to 0. The depth of the dado for both housed stringers and the tread is found in the defaults.txt file under metric\_tread\_dado, metric\_stringer\_dado, imperial\_tread\_dado and imperial\_stringer\_dado.

## 4 Section – Tread Section

### Tread Thickness

This is the thickness of the treads and top nosing. An open riser stair should have a thicker tread such as 3 layers of 3/4" fir plywood glue laminated. A 1" tread is minimum tread thickness governed under most building codes. The default is set to 1 1/2" or 38 mm. Again you may change the defaults in the defaults.txt file to suit your requirements.

### Average Run

The average run is measured at the middle of the tread. You may set this value to 0 and let the Stair Maker calculate a value based on Radius and Degrees.

### Tread Bullnose

This is the radius of the tread bullnose. You can adjust how many segments that the bullnose uses. The setting is in the defaults.txt file and is found under Segments. For example if you want 1/4" radius bullnose then you might try Segments=4 or if you want a 1/2" bullnose which would be good for carpet you might try Segments=6. Alternatively you could set Segments=1 and the Stair Maker plugin will create a chamfer.

### Nosing

This is the amount of the Tread nosing for both the front of the tread and for side nosings when building sawtooth stringers. In most jurisdictions the minimum allowed nosing is 1". The Stair Maker plugin does not adjust this value. You may set it 0 if you wish. There may be cases where you want to attach a solid oak nosing after the fact.

### Flare Amount

This is the amount that you want each and every tread to flare forward. We also call this a continuous flare.

### Flare Amount

This is the amount that every step is flared. It is measured at the center of the tread. Riser boards will also flare by this same amount. Set this to 0 for no flare.

## Progressive Flare

A progressive Flare stair is where each step is flared this amount more than the previous step. For example, if you Flare Count to 5 and Progressive flare to 20 mm then counting backwards from the bottom step the flares would be 100, 80, 60, 40, 20, 0 and so on. Currently disabled for closed riser stairs.

## Flare Count

This is the number of steps that are progressively flared. Currently disabled for closed riser stairs.

## Floor Thickness

This is the floor thickness at the top of the stair and is used to calculate the Stringer Heel and top riser board.

## Create Stair

The Create Stair button draws the stair.

## **6 Codes And Rules**

### **1 Section – Sketchup Geometry**

#### **Nosing Segments**

This value is used to determine the number of arc segments you want for the tread's bullnose. A value of 1 or more is allowed. A value of 1 will give the effect of a mitered bullnose. It is recommended that you keep this number between 1 and 6.

#### **Inside Tread Segments**

This is the number of segments that is used for the arc of the inside tread, inside stringer and inside handrail. A value of 3 is generally recommended, however a larger value may work better for a very tight radius stair.

#### **Outside Tread Segments**

This is the number of segments that is used for the arc of the outside tread, outside stringer and outside handrail. A value of 4 is generally recommended, however a larger value may work better for a very tight radius stair.

### **2 Section - Options**

#### **Language**

Choose which language you want. The default value is 'en' which is English. Please note that unlike most of the stair configuration settings the language file is loaded when Sketchup starts up. So you must restart Sketchup for a new language setting to take effect. If the language you choose is not available or if you enter an invalid choice then StairMaker defaults back to 'en' English. You may create your own language file if one does not exist. Save the lang.en file as lang.?? where the ?? represent the language code that you want. Please send me the completed language file and I will include it in the next release and post it to the web site.

#### **Debug Level**

This setting is currently not used. It is intended to be used to log various values of the ruby script for potential bug tracing.

#### **Force Silhouettes Off**

If checked this setting will turn off the Edge Style 'Profiles'. If not checked then Force Silhouettes has no effect.

### **3 Section – Building Codes**

#### **Minimum Riser Height**

The “Minimum Riser Height” is used to override the number of risers if necessary. Stair Maker adjusts the number of risers if the current number would create a stair where each riser height is less than this value. Change this value if your jurisdiction has a different value. Canadian Building Code is 125 mm.

#### **Maximum Riser Height**

The “Maximum Riser Height” is used to override the number of risers if necessary. Stair Maker adjusts the number of risers if the current number would create a stair where each riser height is greater than this value. Change this value if your jurisdiction has a different value. Canadian Building Code is 200 mm.

#### **Minimum Run**

The “Minimum Run” is used to check the run of straight stairs and is not currently used for this version. Canadian Building Code is 210 mm.

#### **Maximum Run**

The “Maximum Run” is used to check the run of straight stairs and is not currently used for this version. Canadian Building Code is 355 mm.

#### **Minimum Stair Width**

The “Minimum Stair Width” is used to make sure that the stair follows code. Canadian Building Code is 800 mm.

#### **Rail Clearance**

The “Rail Clearance” is the amount of finger room between a wall rail and the outside of the wall stringer. Canadian Building Code is 40 mm.

#### **Stair Rail Height**

This is the height of the stair rail as measured vertically from the tread nosing. Canadian Building Code is 800 mm. For inside residential stairs

#### **Level Rail Height**

This is the height of level rail as measured vertically from the floor. Canadian Building Code is 900 mm for inside residential rails and 1000 mm. for outside and commercial rails.

### **4 Section - Details**

#### **Minimum Radius**

This is the minimum radius that we allow for inside stringers on spiral stair cases. At this setting we will create a solid round pole instead of a stringer.

## Top Riser Thickness

The top riser can be a different thickness than the other riser boards. This is because it is used to secure the stair to the upper level. There are also the situations where you have flared risers. The top riser is never flared.

## Riser Nosing

The “Riser Nosing” or riser return is for sawtooth stringer and is the amount that the riser board extends beyond the sawtooth stringer. It is used to return the carpet.

## Dado Depth Tread

Riser boards extend into a dado on the underside of the tread. This is the depth of that dado. The width of the dado is determined by the thickness of the riser board.

## Dado Depth Stringer

Treads and risers extend into a stair dado on the inside surface of housed stringers.

## Stringer Above Floor

This is the amount that a housed stringer is above the upper floor landing. A value of 0 means the stringer is cut flush with the floor. A value like 12.7 mm means that the stringer is cut so that none of it is more than 1/2” above the floor.

## Housed Stringer Reveal

## Save As Default

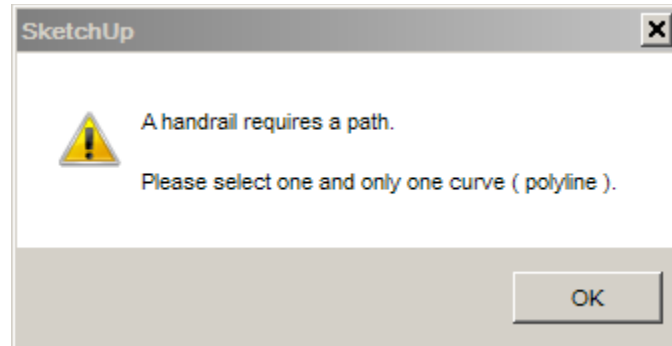
Check the “Save As Default” check box and stair maker will store all stair configuration, codes and rules to defaults.txt file and rules.txt when you click “OK” and create stair.

## 7 Extrude Handrail

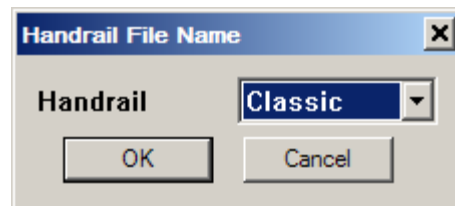
Extrude Handrail gives the user the ability to create 1 or more sections of handrail. The handrails may be level rail or stair rail.

The user first selects a polyline (an arc or a number of line segments that are glued). The the user clicks the Extrude Handrail button or chooses Extrude Handrail from the GKWare Stair Maker sub menu.

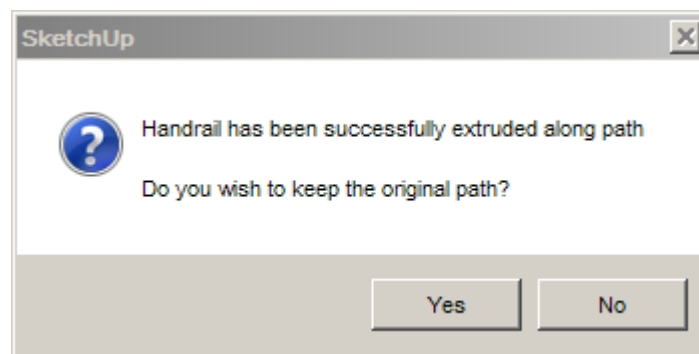
If the user does not choose a path then the user will see:



If the user selects a proper curve ( polyline ) then the user will see:



If the user chooses a handrail profile and then clicks ok the user will see:

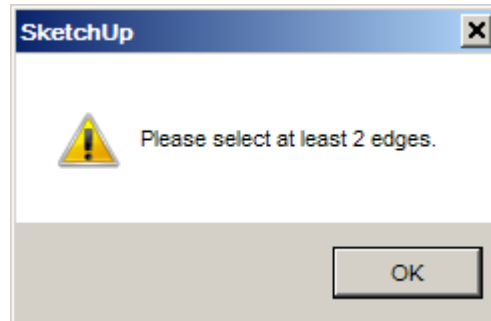


If the user clicks 'No' then the original path will be deleted otherwise the original path will remain selected.

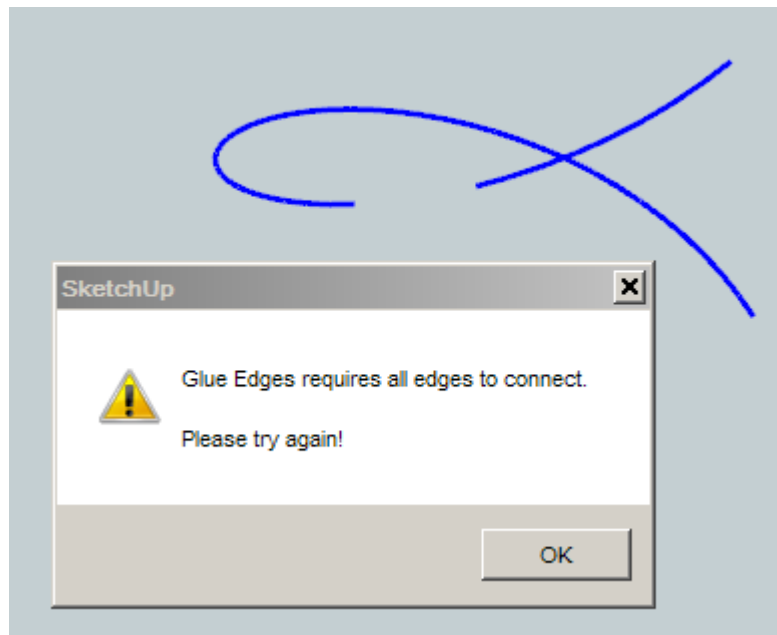
## 8 Glue Edges

Glue Edges will glue together (weld) a number of connected edges together. If some of the edges were already glued together this process will glue all the edges together.

If the user clicks “Glue Edges” button without choosing at least 2 edges then the user will see:

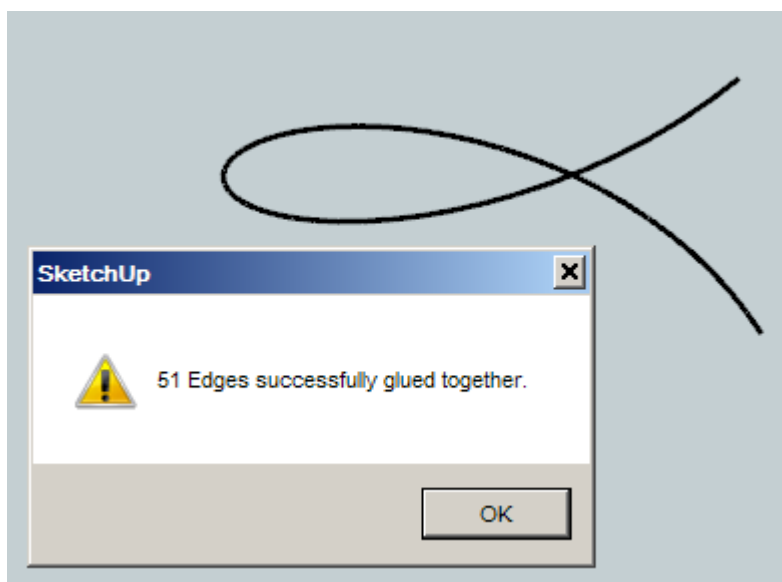


If the user chooses more than 1 edge but the edges are not connected then the user will see:





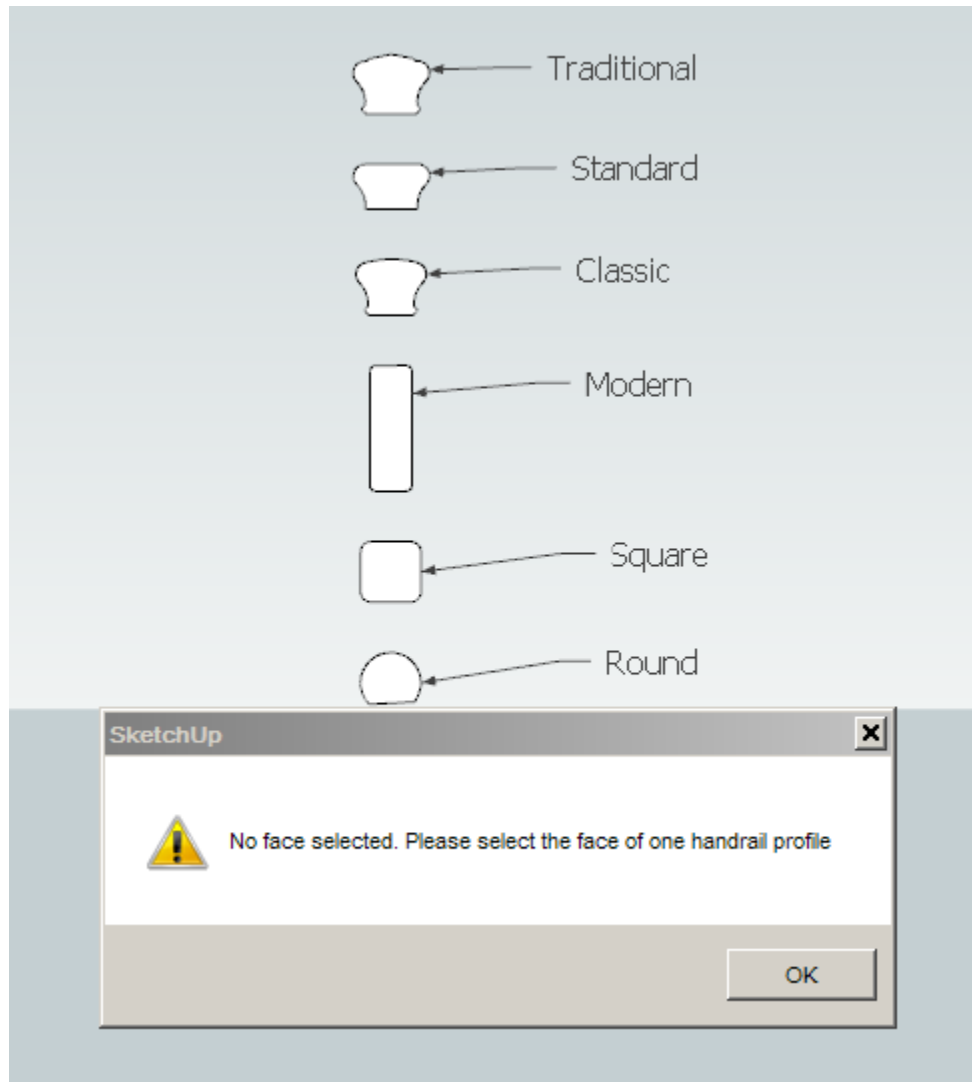
If the user chooses more than 1 edge and all the edges are connected together then the user will see something like this:



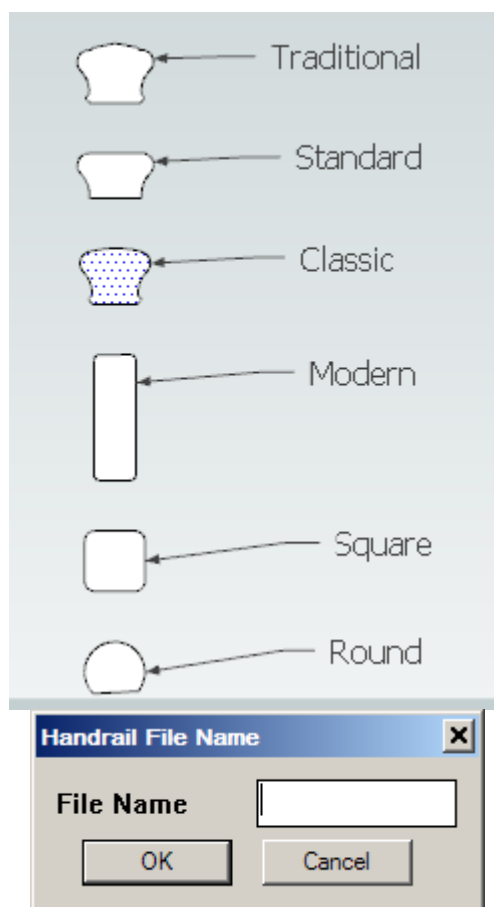
## 9 Add Handrail Profile

The “Add Handrail Profile” button allows the user to add or modify a handrail profile. You may load your own handrail profile or use the one Stair Maker provides which is GKWare\_StairMaker/rail profiles.skp.

If the user does not choose the face of a handrail profile then the user will see:

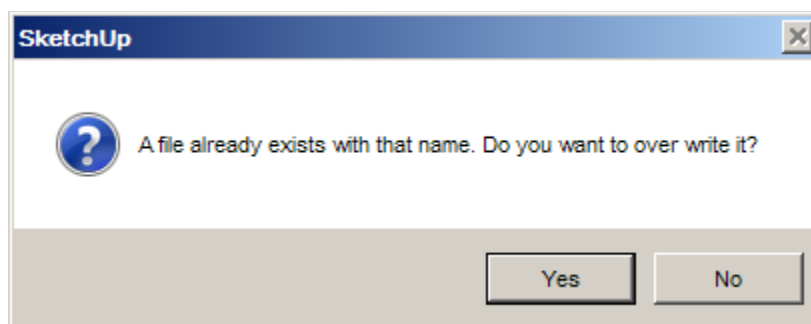


If the user selects 1 and only 1 handrail profile face and then clicks the “Add Handrail Profile” button then the user will see:

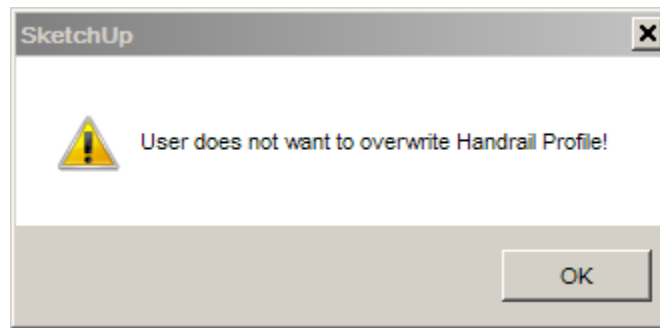


The user needs to create a name for the Handrail Profile. Please note that the rail profiles.skp file has the names of the supplied handrail profiles. You may use the same name which will result in over writing the handrail or preferably you can enter a different name.

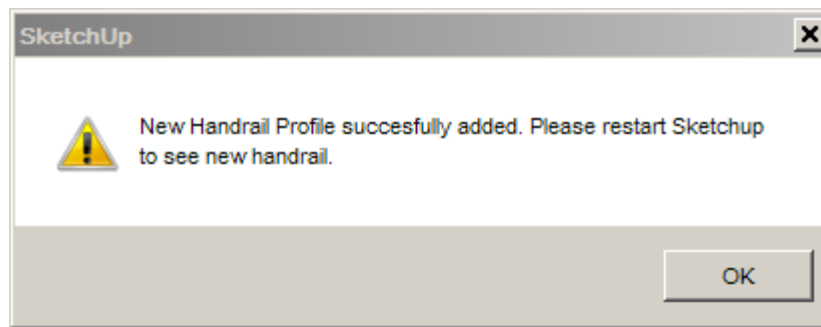
If the user enters a name that exists, for example “Classic” the user will see:



If the user chooses “No” then the the user will see:



If the user chose “Yes” then the user will see:



## **10 Stair Maker – Check License**

For a licensed user - Stair Maker checks licenses at first time use for each new sketchup session every 5 to 10 days. During a trial Stair Maker checks licenses at every first time use for each new sketchup session.

The “Stair Maker - Check License” menu option forces the license check. This is useful if you are wanting to run the Stair Maker off line for extended periods of time. After you Check License you will have at least 5 days before Stair Maker will try to Check the license.

## 11 defaults.txt

There is an optional file called defaults.txt which contains 1 or more lines that override the plugins defaults. You may override any number of defaults.

# default non length values for input box

direction=Anti Clockwise  
inside\_option=None  
outside\_option=None  
inside\_stringer=Sawtooth  
outside\_stringer=Housed  
inside\_rail=Guard Rail  
outside\_rail=Wall Rail  
risers=14  
degrees=90.0  
flare\_count=0  
open\_riser=false  
rail\_style=Traditional

# metric default values for input box

metric\_stair\_width=1000.0  
metric\_floor\_thickness=315.0  
metric\_radius=2400.0  
metric\_inside\_thickness=60.0  
metric\_inside\_depth=300.0  
metric\_outside\_thickness=60.0  
metric\_outside\_depth=400.0  
metric\_total\_rise=2667.0  
metric\_riser\_thickness=12.7  
metric\_tread\_thickness=38.0  
metric\_tread\_bullnose=12.7  
metric\_nosing=25.4  
metric\_average\_run=254.0  
metric\_flare\_amount=0.0  
metric\_progressive\_flare=20.0

# imperial default values for input box

imperial\_stair\_width=42  
imperial\_floor\_thickness=12.25  
imperial\_radius=96  
imperial\_inside\_thickness=2.5  
imperial\_inside\_depth=12  
imperial\_outside\_thickness=2.5  
imperial\_outside\_depth=16  
imperial\_total\_rise=105  
imperial\_riser\_thickness=0.5  
imperial\_tread\_thickness=1.5

imperial\_tread\_bullnose=0.5  
imperial\_nosing=1  
imperial\_average\_run=10  
imperial\_flare\_amount=0.0  
imperial\_progressive\_flare=0.75

## 12 rules.txt

```
# defaults
language=en
debug_level=0
force_silhouettes_off=0
inside_sections=3
outside_sections=4
segments=4

# metric building code and stair configuration
metric_top_riser_thickness=19.0
metric_tread_dado=12.7
metric_stringer_dado=12.7
metric_riser_nosing=12.7
metric_minimum_radius=50.0
metric_stair_rail_height=800.0
metric_level_rail_height=900.0
metric_housed_stringer_reveal=38.0
metric_stringer_above_floor=12.7
metric_min_rise=210.0
metric_max_rise=200.0
metric_min_run=210.0
metric_max_run=355.0
metric_min_stair_width=900.0
metric_rail_width=76.0
metric_rail_clearance=40.0

# imperial building code and stair configuration
imperial_top_riser_thickness=0.75
imperial_tread_dado=0.5
imperial_stringer_dado=0.5
imperial_riser_nosing=0.5
imperial_minimum_radius=2.0
imperial_stair_rail_height=32
imperial_level_rail_height=36
imperial_housed_stringer_reveal=1.5
imperial_stringer_above_floor=0.5
imperial_min_rise=5
imperial_max_rise=8
imperial_min_run=8.25
imperial_max_run=14
imperial_min_stair_width=36
imperial_rail_width=3.0
imperial_rail_clearance=1.5
```



### **13 config.txt**

userid=User  
password=test  
host=cabmaker32.com  
service=/gkware\_service.php

## 14 Files and File Locations

If you are several versions of Sketchup or have several users on a network then you can have one copy of the gkware\_stairmaker in a location of your choosing. All you need to do is to place a simple file in each version's plugins folder which is named loader.rb by convention and has the following 2 lines where the second line is a folder of your choosing and where you will unzip the gkware\_doormaker\_v1.0.15.rbz file.

```
require 'sketchup.rb'  
require_all( 'C:/Users/Public/Documents/Sketchup' )
```

The Stair Maker Plugin has the following files:

1. Sketchup
  1. gkware\_stairmaker.rb
2. Sketchup/ gkware\_stairmaker
  1. stairmaker\_loader.rb
  2. stairmaker.rbs
  3. stairmakerlib.rbs
  4. stairlib.rbs
  5. treadlib.rbs
  6. riserlib.rbs
  7. utils.rbs
  8. stairmaker\_sm.png
  9. stairmaker\_lg.png
  10. extrudehandrail\_sm.png
  11. extrudehandrail\_lg.png
  12. defaults.txt
  13. rules.txt
  14. config.txt
  15. stairmaker.pdf
3. Sketchup/gkware\_stairmaker/config
  1. readme.txt
4. Sketchup/gkware\_stairmaker/handrail
  1. Classic.txt
  2. Modern.txt
  3. Round.txt
  4. Square.txt
  5. Standard.txt
  6. Traditional.txt
5. Sketchup/gkware\_stairmaker/translators
  1. en.lang
  2. fr.lang
  3. ru.lang
  4. zh.lang
6. Sketchup/gkware\_stairmaker/css
  1. gkware.css

## **15 Version History**

### **Version 1.0.16 – May 22, 2014**

1. Missed a couple of web dialog labels with language translation. Fixed.
2. Extrude Handrail didn't work with SU 2014. Fixed.
3. Add Profiles didn't work with SU 2014. Fixed.

### **Version 1.0.15 – May 17, 2014**

4. Stair Maker now calculates Screen size which is dependent on language file, OS, Browser etc.
5. Modified language translation files. Added "Screen Width Pixels" which is a minimum value. This helps Stair Maker calculate proper screen size.
6. Changed "Radius" to "Inside Radius"
7. Inside Radius, Degrees and Average Run labels are now in Red. This is to visually identify which fields have mouse over help. Hold mouse over red label to see additional information.

### **Version 1.0.14 – May 14, 2014**

8. Added documentation for buttons and menu choices: "Extrude Handrail", "Glue Edges", "Add Handrail Profile" and "Stair Maker – Check Licences".
9. Modified user feedback for the prior buttons and menu choices.
10. Moved Adding of new layers into Make\_Stair. The Ctrl-Z undo key will now remove the added layers.
11. The "Extrude Handrail" process was creating a violation. Fixed.

### **Version 1.0.13 – May 8, 2014**

1. The Metric rule for minimum run was wrong. Should be 125 – Fixed.
2. Missed updating the plugin menu for stair maker. Fixed.

### **Version 1.0.12 – Apr 27, 2014**

1. Separated rules, defaults and connection data from defaults.txt file into rules.txt and config.txt
2. Remove functions from stairmaker.rb that are in utils
3. Move code into stair\_defaults.rb and stair\_gui.rb
4. Update GUI to use tabs and tables
5. Add second page of defaults to input box
6. Add in language translations for second page
7. Write save\_defaults function for "Save as Defaults"
8. Clean up code - move Stair variables into separate st
9. Rail width needed to be calculated based on profile
10. Splice in licensing information

11. Modify the html, css, javascript and jquery code

### **Version 1.0.11 – Mar 6, 2014**

1. Now SU 2014 compatible
2. Added missing line to gkware\_stairmaker\_loader.rb. Utils.rbs was only loading if door maker was installed.
3. Added Config folder to hold user configuration and temp files
4. Make button images for add Handrail profile and glue edges
5. Fixed bug in handrail scaling
6. Auto Sizing of Web Dialog. For some reason - need to add room for scroll - even if it shouldn't be needed
7. Fixed bug where trial string keeps growing
8. Handrail was not going into "Handrail" layer. Fixed
9. Changed Stringer "Width" to "Depth" in web dialog, language files and in defaults.txt
10. Made changes to defaults.txt for "imperial\_stair\_width"

### **Version 1.0.10 – Feb 21, 2014**

1. Made changes to web dialog to support Mac OS (Mavericks)

### **Version 1.0.9 – Feb 15, 2014**

1. Made changes to web dialog – error when units have feet and inches.

### **Version 1.0.8 – Feb 9, 2014**

1. Added better error handling for http error

### **Version 1.0.7 – Feb 8, 2014**

1. Units using feet created error. Fixed.

### **Version 1.0.6 – Jan 29, 2014**

1. First published version. Please read help file for complete description