Domain Specific Tools SketchUp Manager

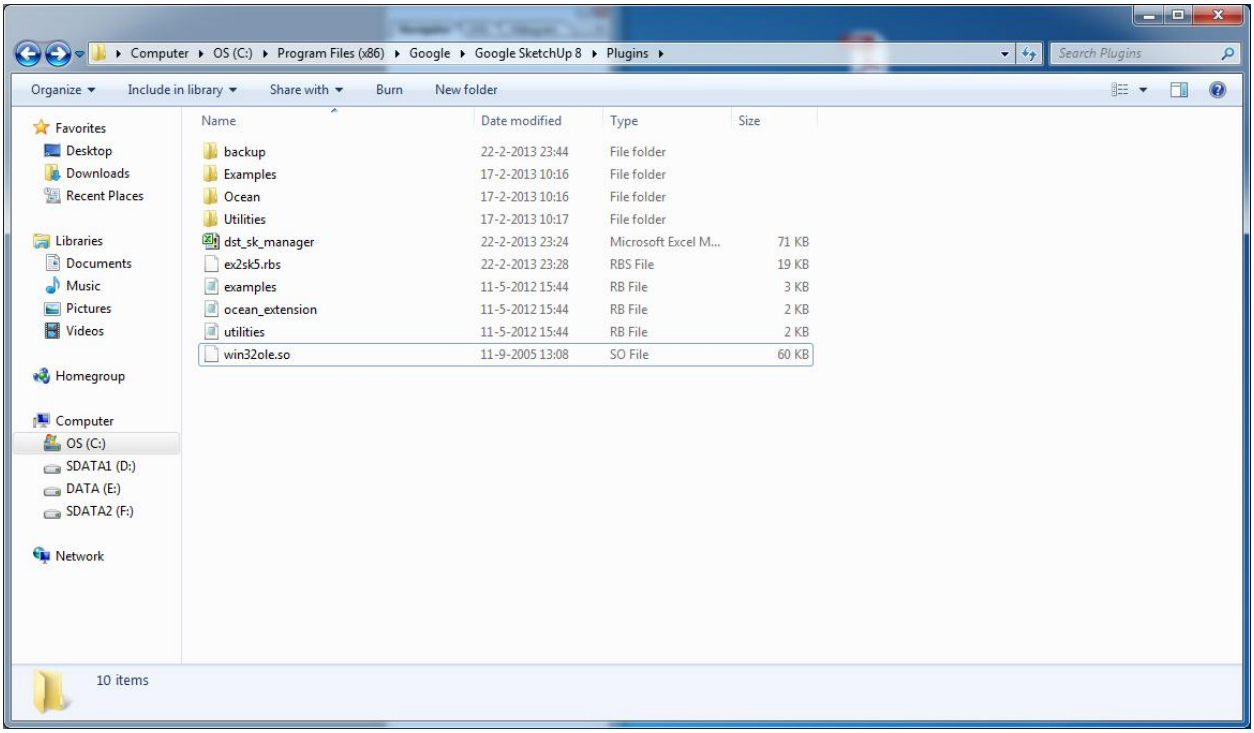
Manual

24/02/2013

Contents

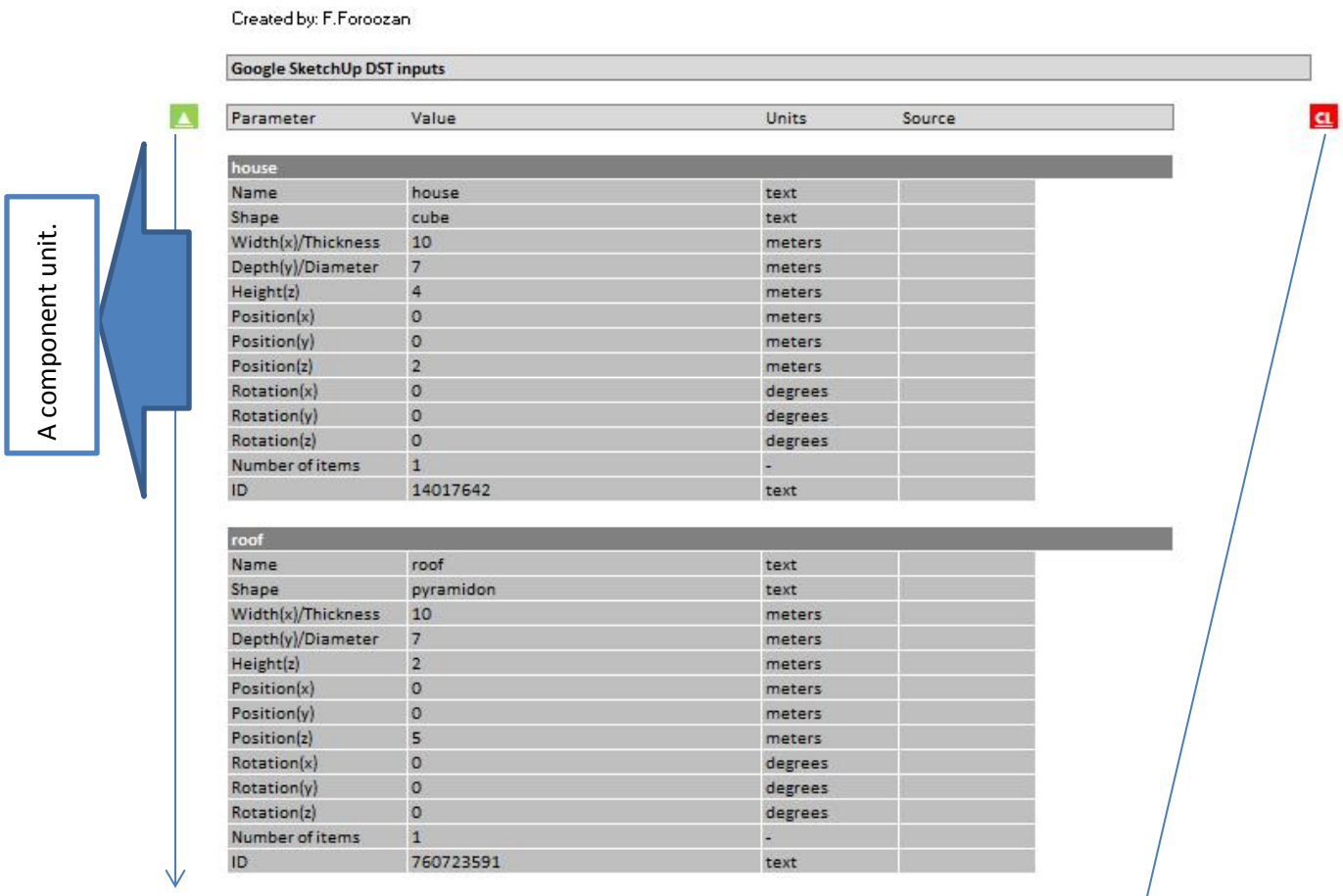
1. Setting up DST SK Manager

Extract the dst_sk_manager.zip in the C:\Program Files\Google\Google SketchUp ?\Plugins\ folder.



2. Excel Worksheet

This application uses an Excel sheet for managing components. The reason for this is the fact that Excel is widely used. The parameter data in the Excel sheet can be fed to SketchUp.



Parameter	Value	Units	Source
house			
Name	house	text	
Shape	cube	text	
Width(x)/Thickness	10	meters	
Depth(y)/Diameter	7	meters	
Height(z)	4	meters	
Position(x)	0	meters	
Position(y)	0	meters	
Position(z)	2	meters	
Rotation(x)	0	degrees	
Rotation(y)	0	degrees	
Rotation(z)	0	degrees	
Number of items	1	-	
ID	14017642	text	
roof			
Name	roof	text	
Shape	pyramidon	text	
Width(x)/Thickness	10	meters	
Depth(y)/Diameter	7	meters	
Height(z)	2	meters	
Position(x)	0	meters	
Position(y)	0	meters	
Position(z)	5	meters	
Rotation(x)	0	degrees	
Rotation(y)	0	degrees	
Rotation(z)	0	degrees	
Number of items	1	-	
ID	760723591	text	

This hyperlink adds a new component unit.

This hyperlink clears both the DSTInput and DSTOutput sheet.

The parameters are entirely free to change but there are some requirements the input data needs to satisfy which will be discussed later.

The worksheet consists of the DSTInput sheet and the DSTOutput sheet. Data will be fed from the DSTInput sheet to SketchUp and from SketchUp back to the DSTOutput sheet.

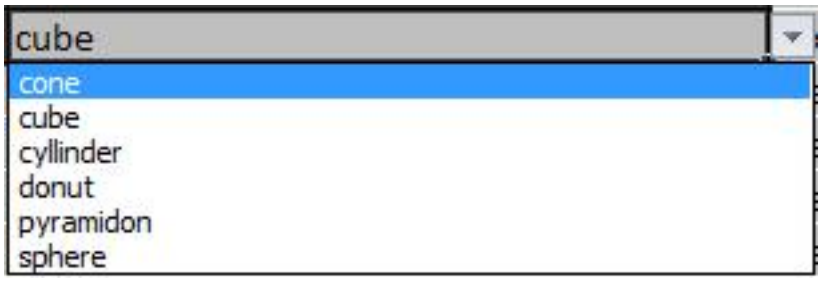
tree			
Name	tree	text	
Shape	cyllinder	text	
Width(x)/Thickness	0	meters	
Depth(y)/Diameter	0	meters	
Height(z)	0	meters	
Position(x)	0	meters	
Position(y)	0	meters	
Position(z)	0	meters	
Rotation(x)	0	degrees	
Rotation(y)	0	degrees	
Rotation(z)	0	degrees	
Number of items	1	-	
ID	814490021	text	

MAN-ADD-COMP			
Name	851434081	text	
Shape		text	
Width(x)/Thickness	10	meters	
Height(y)/Diameter	7	meters	
Depth(z)	4	meters	
Position(x)	19.391	meters	
Position(y)	-7.345	meters	
Position(z)	0	meters	
Rotation(x)	0	degrees	
Rotation(y)	0	degrees	
Rotation(z)	0	degrees	
Number of items		-	
ID	851434081	text	

In SketchUp it is possible to re-use previously created shapes and write them back to the DSTOutput sheet. A manually added component box looks different from an automated one. The position and rotation characteristics of the shapes are outputted to Excel.

3. Shapes

In this application there are six primitive shapes.



Cone: Takes Dim(x) and Dim(y) as input parameters.

Cube: Takes Dim(x), Dim(y) and Dim(z) as input parameters.

Cylinder: Takes Dim(y) as (radius) and Dim(z) as input parameters.

Donut: Takes Dim(x) and Dim(y). Requires: Dim(x) << Dim(y)

Pyramidon: Takes Dim(x), Dim(y) and Dim(z) as input parameters.

Sphere: Takes Dim(y) as (radius) input parameter.

**dimensions are meters*

4. SketchUp

When you start SketchUp the plugin will be automatically loaded. In the "Plugins" menu there are two functionalities, namely: *Import from Excel* and *Export to Excel*. In the "component" windows you can re-use already defined components and write them back the DSTOutput sheet.

For questions, bugs or recommendations contact me at farazforoozan@gmail.com.