

SketchUp Import/Export

This tutorial shows you how Simmetry 3d integrates with SketchUp.

Concepts

In this tutorial you will learn:

- How to import a SketchUp design
- How to import a foam core contour model and convert it to 3d terrain
- How to export a terrain mesh to SketchUp

Prerequisites

- Project Tree
- Object tools

SketchUp / Simmetry 3d integration

Simmetry3d provides the ability to place multiple Sketchup files on to a editable textured terrain and also allows you to view your designs interactively to give you an overview, or to experience them in first person in the Simmetry 3d Simulator mode.

Simmetry 3d can directly import .skp files, which makes using data from your Sketchup designs very simple indeed. You can also use Sketchup components in Simmetry 3d, even the two dimensional versions that are set to always face the camera.

Another way of using data from Sketchup is to import Sketchup foam core models into Simmetry3d and create a 3d terrain from this data.

The reverse process is also possible; exporting an optimised, textured terrain mesh from Simmetry3d that can be read into Sketchup.

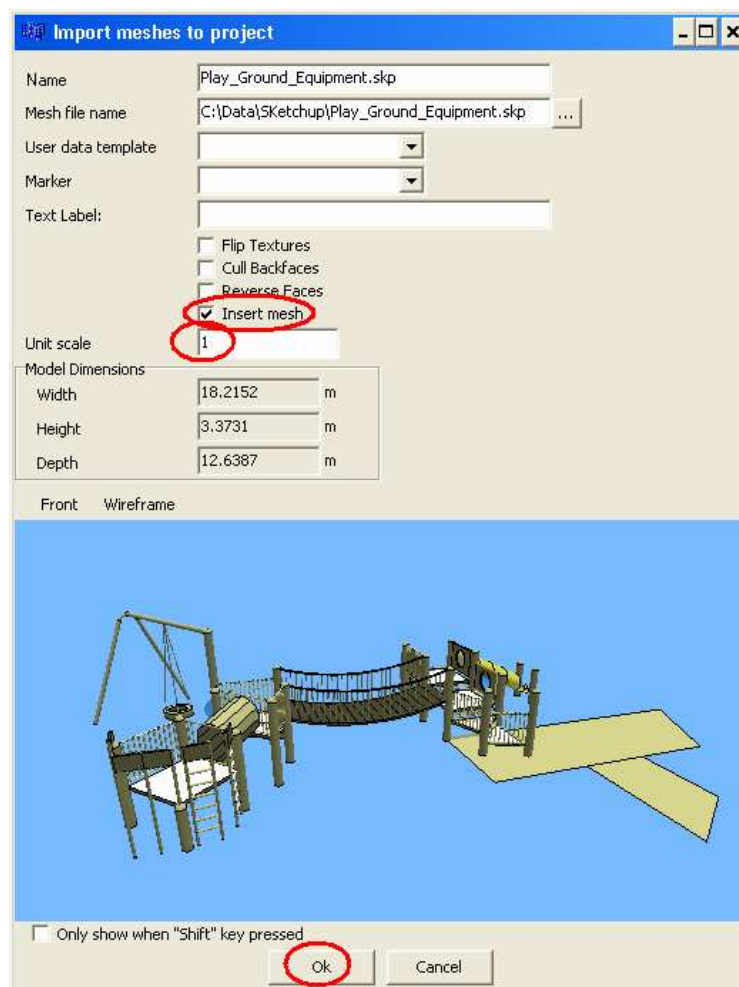
EXERCISE 1

To import a design from SketchUp

- In Simmetry3d choose the “File|Import Wizard...” menu option, and choose “3d model”



- Choose a Sketchup .skp file and press the “Finish” button, this will show a preview of the Sketchup design:

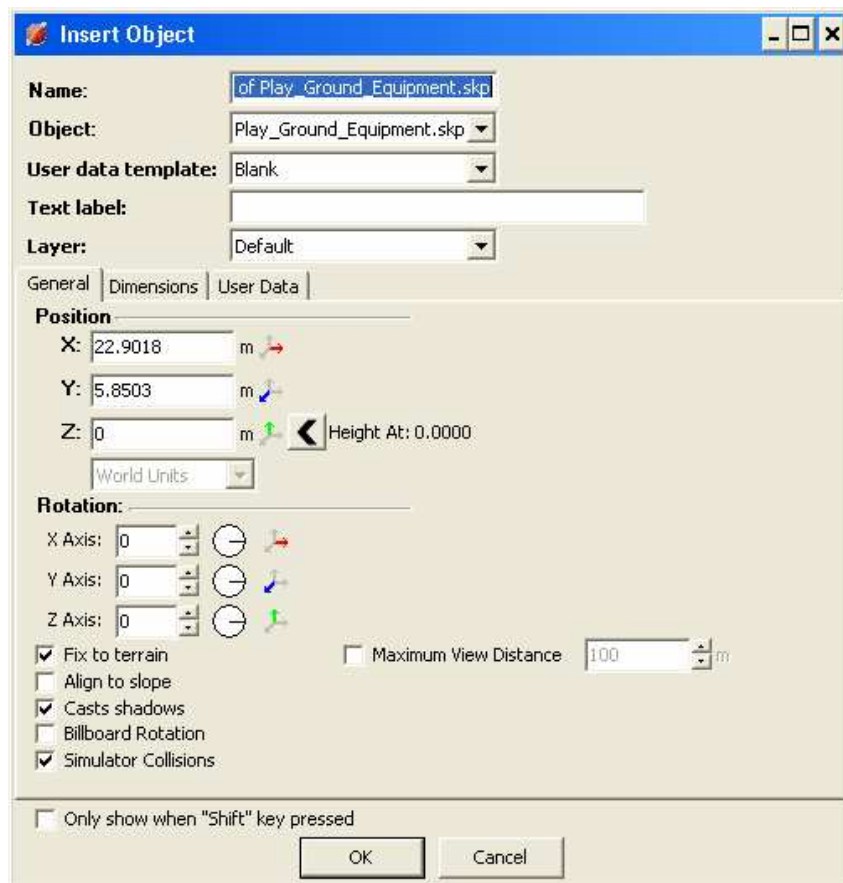


- Check the unit scale is set to 1.0 (unless you want to scale the object). The import process retains the scale of the object as it was in Sketchup. Also choose “Insert mesh” – this will insert the mesh in front of the camera.

- Press the ok button and the mesh will be added to the project tree



- To place a copy of this object on the terrain – drag it from the project tree onto the terrain and drop it at the required position. The following dialog will appear:



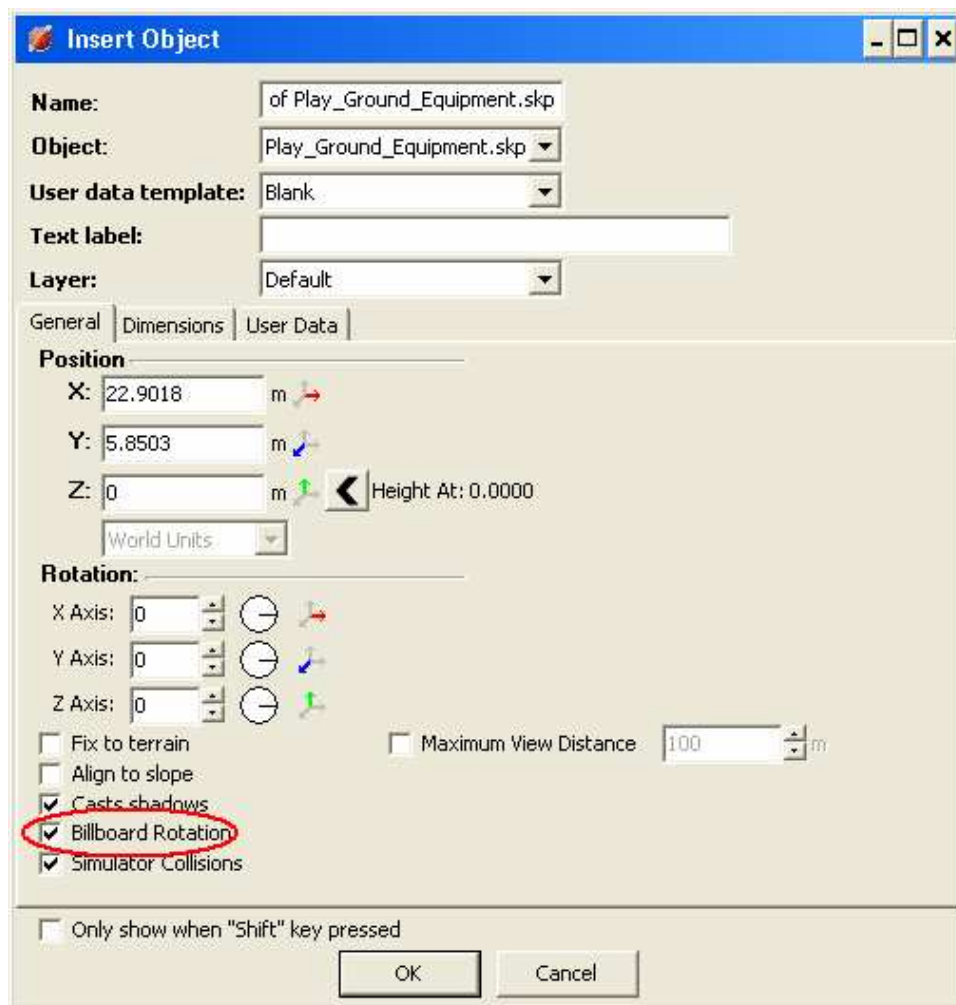
- This lets you alter various settings for the insert, but simply press the “Ok” button to place the design on to the terrain

TIP: Make sure that Billboard Rotation is turned off when adding normal inserts

EXERCISE 2

Import a Sketchup file that must always face the camera.

- File|Import Wizard again and choose a Sketchup file and press the “Open” button, this will show a preview of the SketchUp design:
- Check the unit scale is set to 1.0 (unless you want to scale the object – the “Model Dimensions” shows you the extents of the object).
- To place this object on the terrain – drag it from the project tree onto the terrain and drop it at the required position.
- Select the “Billboard Rotation” option, to set the insert so that it always faces the camera, then press the “Ok” button to place the design on to the terrain



EXERCISE 4

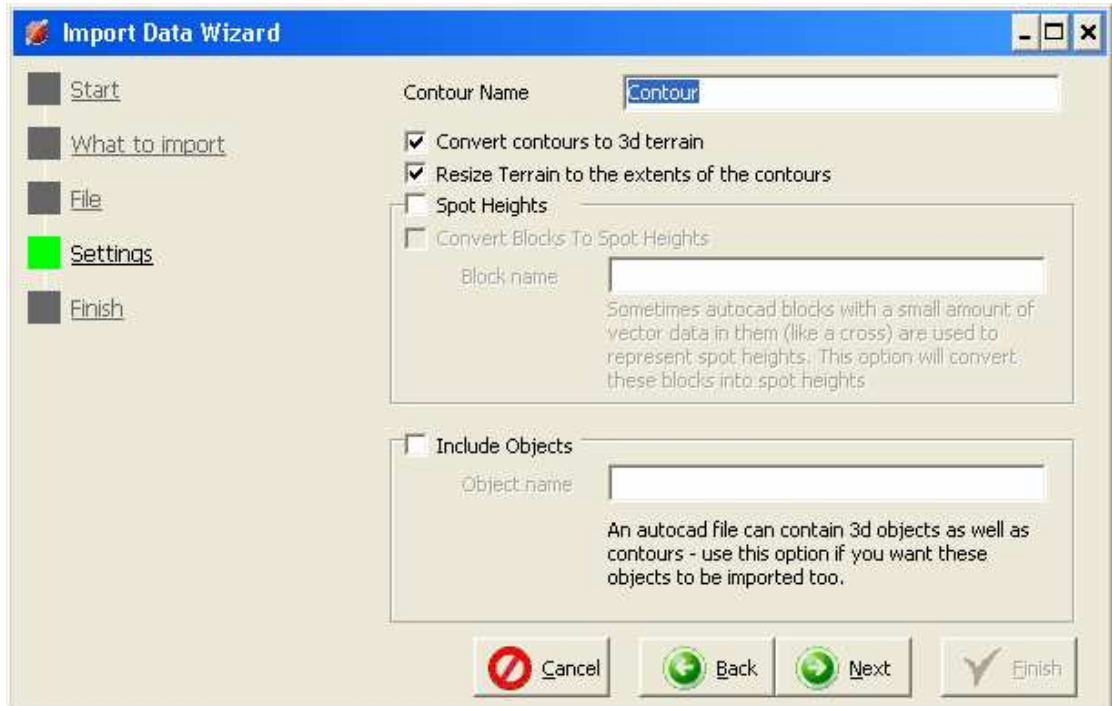
Importing a foam-core contour model from SketchUp.

- In SketchUp choose File|Export|3d Model...
- Choose dwg format:



- In Simmetry3d choose File|Import Wizard and choose "Contours":





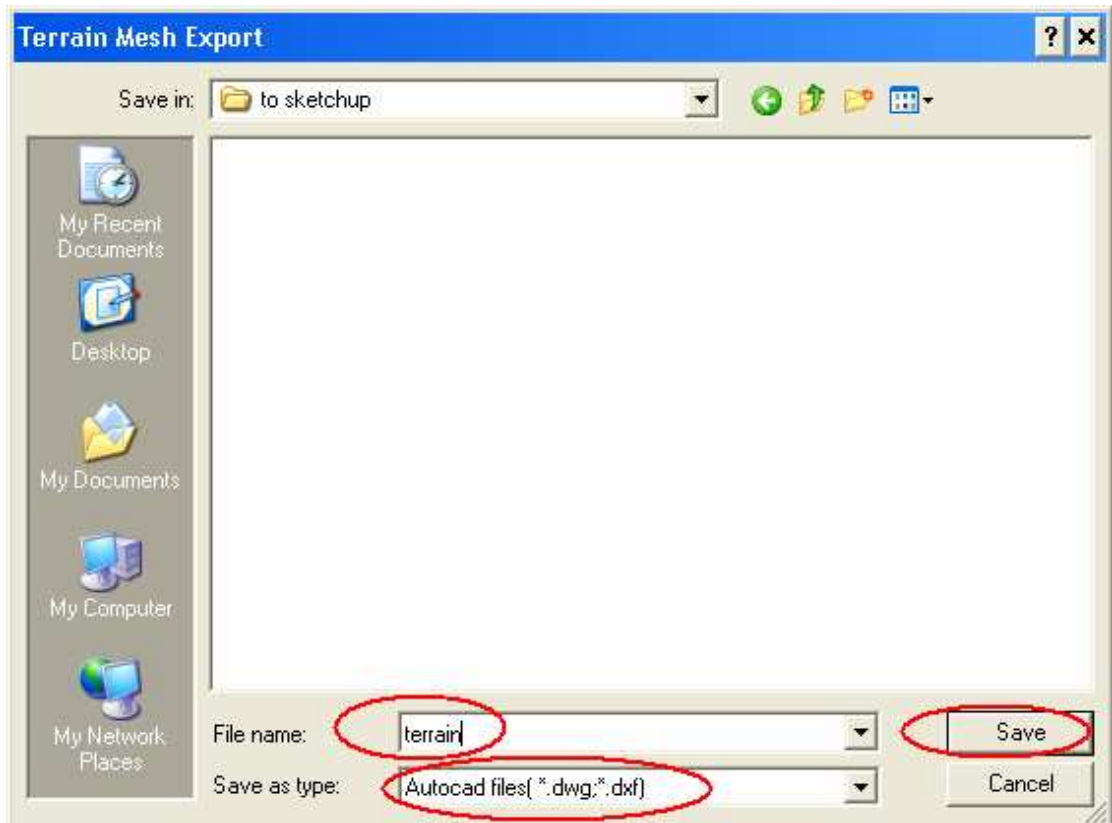
- This will import the foamcore model and convert it to a terrain in Simmetry 3d.

EXERCISE 5

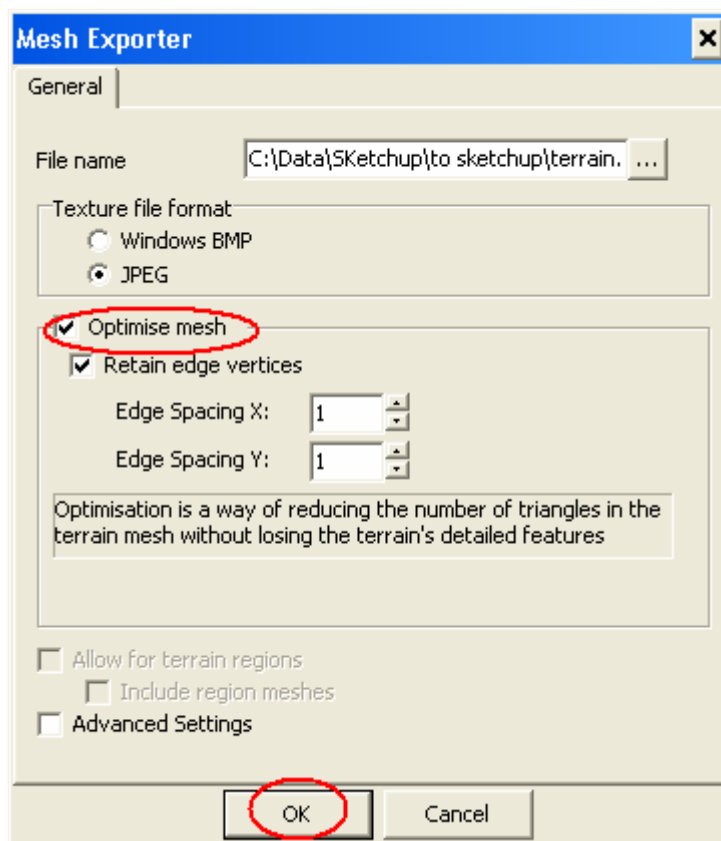
Export a terrain mesh to SketchUp

- Prepare the terrain in Simmetry to your requirements.
- File|Export Wizard and choose “Terrain Mesh”:





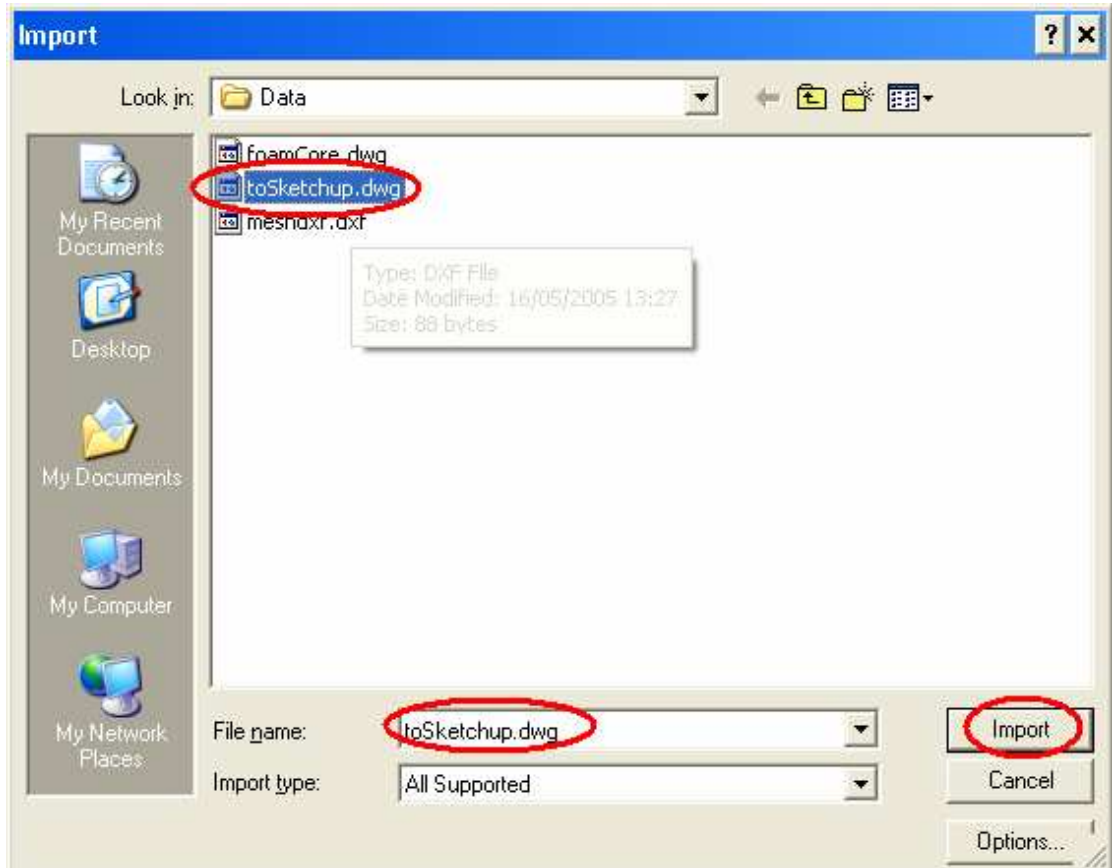
- Check the settings in the dialog especially the ones highlighted below, then press the “Ok” button.



- A dialog appears which lets you adjust the number of triangles in the terrain mesh.



- Press the “Wireframe” button to toggle between textured and wireframe view. Adjust the “Number of Vertices” with the “Optimisation” slider. When you are happy press the “Export” button.
- In SketchUp choose File|Insert|DWG / DXF...



- This will import the terrain mesh into SketchUp. (You may need to do a Camera|Zoom Extents to show it all).
- In the same directory as the dwg file you will find a bitmap file of the same name – this can be stretched over the terrain in SketchUp – you will find a tutorial on how to do this on their website.

TIP: If you are using Sketchup 5, you can also export the terrain from Simmetry3d as a 3ds file to import both the terrain and texture at the same time.