

How to make the model accurate to the real building.

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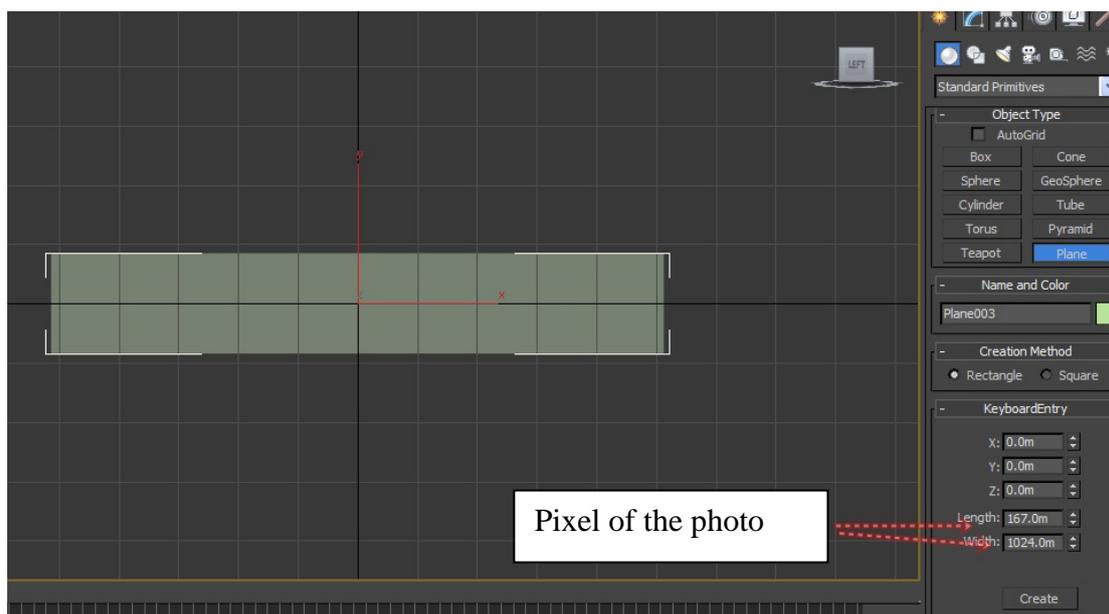
I have been asked many times about how I know height of building that I'm going to make the model in Gmax. The answer is "No, I don't know". The estimate guess is: one story per 3 meters. Nevertheless, you can make your model accurate enough. It is not the accuracy in term of meters but you can make it proportional to other buildings in the airport.

You need a photo that taken from quite a distance to decrease perspective distortion and the satellite image that was already made by using MCX special tool-> coordinate converter. Please visit this [Wiki](#) for the detail of making satellite reference plane in Gmax. Or if you prefer [pdf](#) file I already made tutorial on this.

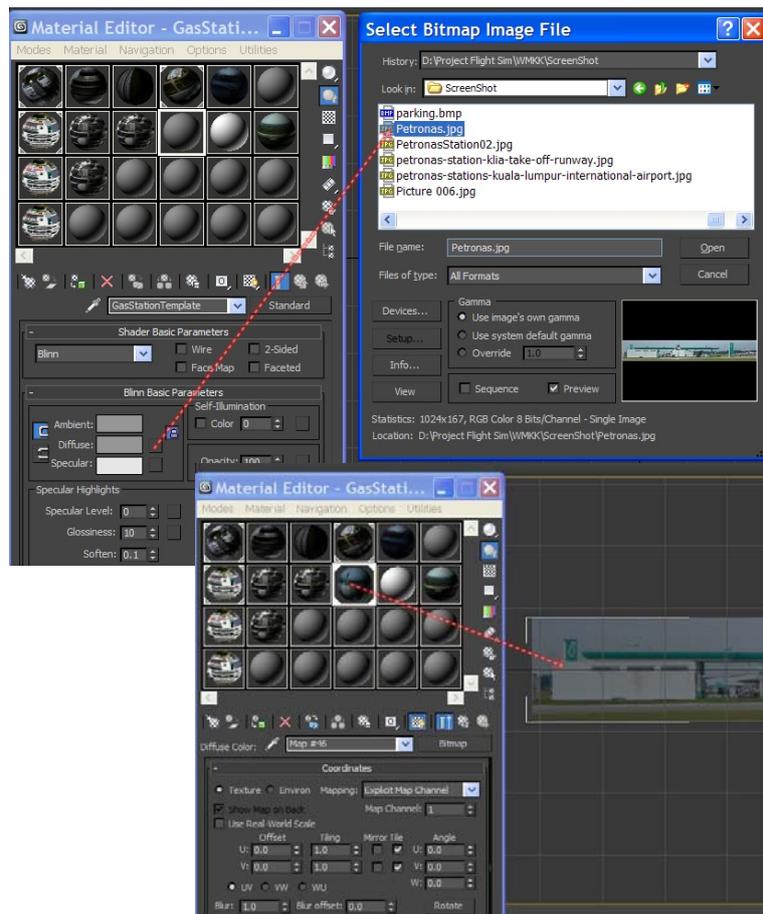
1. You need a photo that is taken with less perspective distortion. No need to be a very clear crisp image. Crop just the building you want to do and remember the size of it in pixel. I am going to make this Petronas Gas Station in the middle of Kaula Lumpur International Airport. This picture is taken quite far so the perspective distortion is less. This picture is 1024x167 pixel.



2. Make a plane in Gmax with one section. You have to put the size of pixel to the box as figure and click create. I will call this a building template.



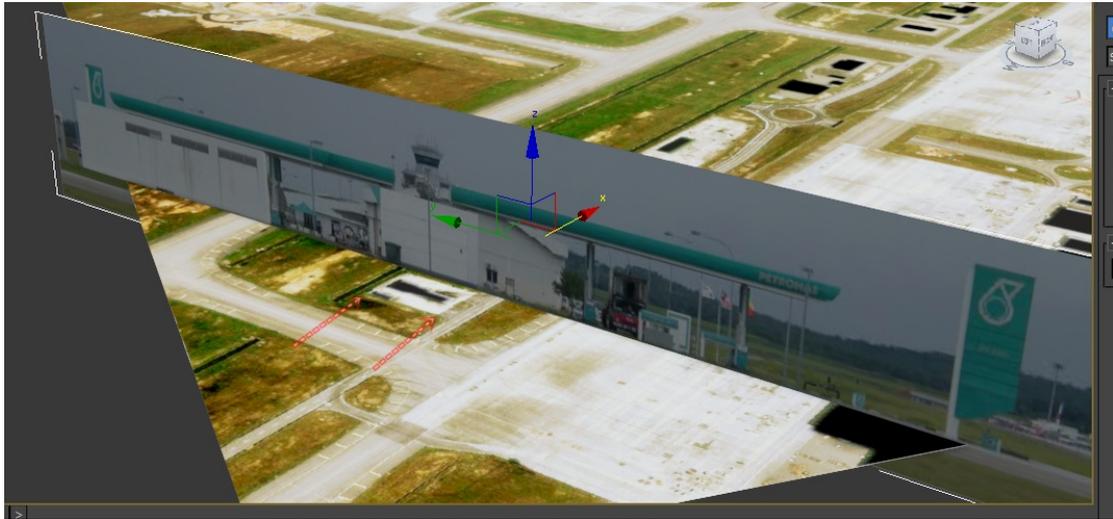
3. Make a new material and choose this photo as a diffuse texture. Then apply to the building template plane.



4. Change the position of the building template, make the base of the building in photo at the 0 level and move the pivot to z=0.



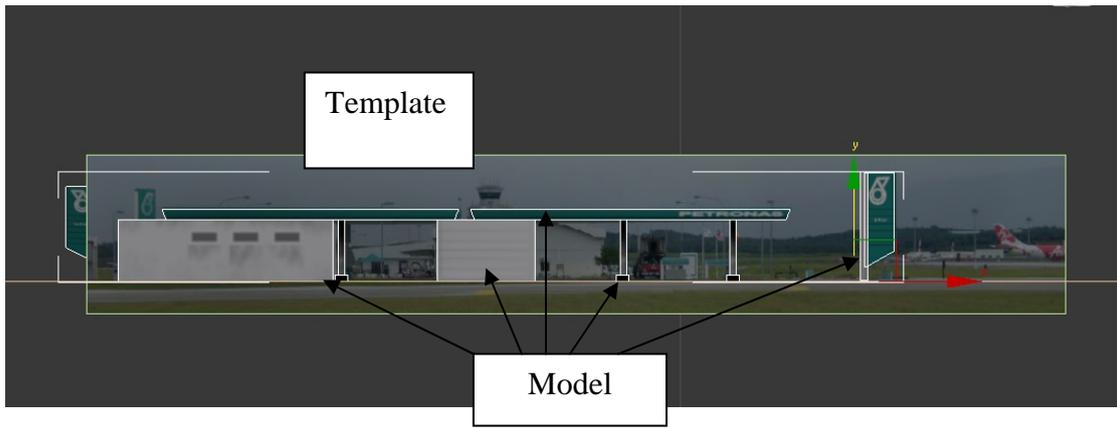
5. Then take a perspective view and move the building template to the place that you are going to build the model. Wow! my template is much bigger than the space of that Gas Station (red arrow).



6. Uniformly resize your building template to fit the size of the satellite image. Note on the edge of the roof, the edge of the building. Please keep in mind that not all the points will align perfectly since any pictures still have perspective distortion.



7. Start building your model by using the satellite image as a top plan and the building template as a side plan. I will not go into the detail of how to make the model and how to map the texture. It is beyond the scope of this tutorial.



8. Now your model will perfectly fit to the real thing.

