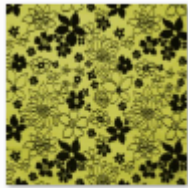# Common mistakes and errors

Factors that may give rise to InteriCAD automatic shut-off

1. Resolution of the texture maps should be under 800*800 in the scene. If the resolution of the texture maps is too large (total surface number of the scene itself is also big) then it may cause program automatic shut-off when saving the scene after Radiosity.

large

Type: JPEG image
Dimensions: 2362 x 2362

Size: 4.68 MB
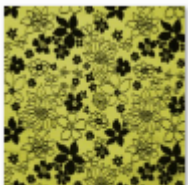
small

Type: JPEG image
Dimensions: 800 x 800

Size: 938 KB

2. Tiny fragment which is far away from the scene may cause program automatic shut-off when starting Radiosity. It may also make the Radiosity speed very slow; let's say even 10 minutes a time. In such cases, the scene will become very small when we change to Top view or isometric view. Then we can see that there is a tiny fragment far away from the scene after we change the display mode to wireframe. Or there will be an infinite object-line (This may be caused by door or window frame which is generated from 2D Design file). It will back to normal after we delete it.
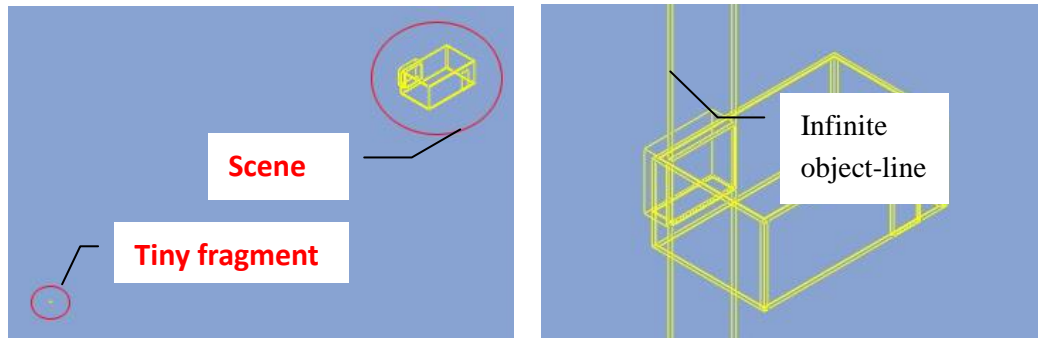

3. If there were too many data in the scene then it will take a certain amount of time to complete the operation when we click "apply" after we edit object, like move or change size. And it may easily make program automatic shut-off if we close the "edit object" window when the operation haven't completed yet.

Inappropriate property of material which may cause troubles

1. It's not suitable to set transparency or reflection value on a surface when using photon Raytrace especially we have already set that surface as light or it's a complex curved surface. For example: the surface will show in black when we do operations in iScan.

2. It may easily make the Radiosity stop working when there's an abnormal refraction value for certain material (above 10 or even 100).
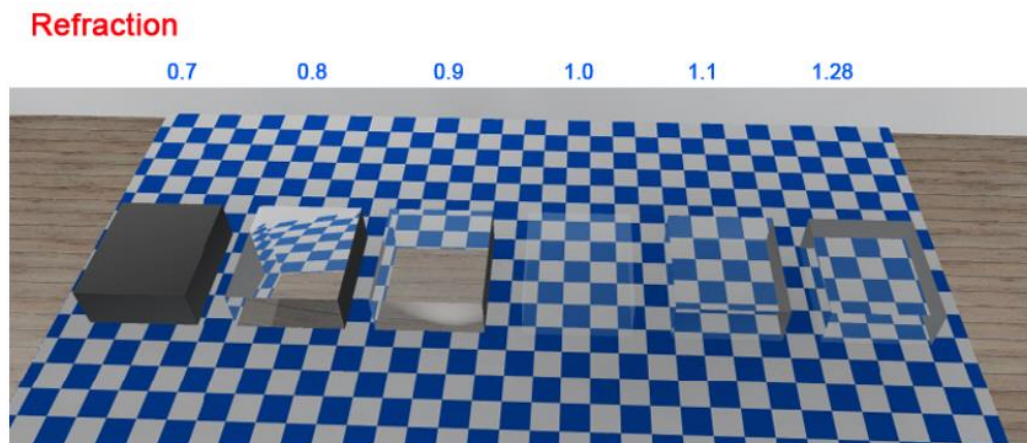
3. We should not set a large surface at a high smoothness value when using photon Raytrace (to high smoothness value, photon Raytrace is more sensitive than classic Raytrace). And it will seriously slowdown the render time when set a large surface at high smoothness value.
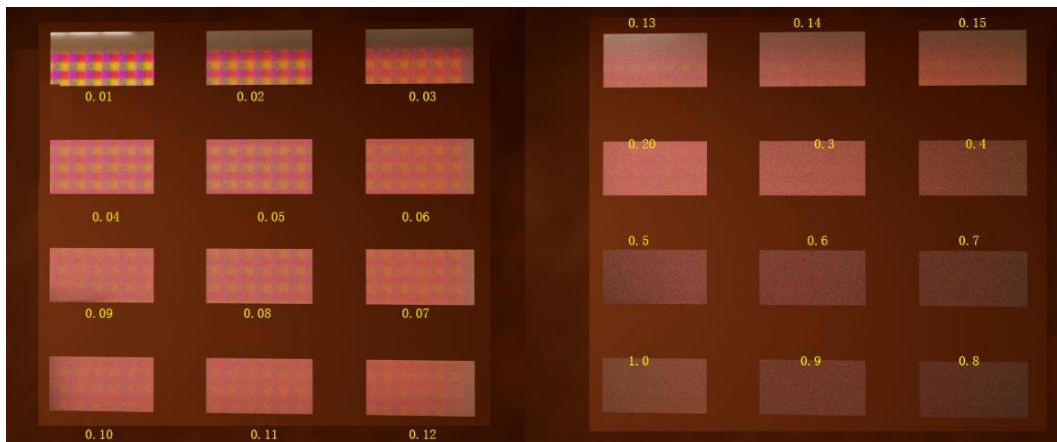
Note: This image shows the smoothness effect in Photon Raytrace. The reflection is also 1.0.

Other points for attention

1. It's suggested to restart the program after photon Raytrace (especially after saving image).
2. Make sure the scene is closed if we have set sunlight. This can avoid white noise after rendering.
3. The rendering may be disrupted when the camera location is completely overlapped with target point along all three axes. And this situation would be obvious when saving a 3D image.
4. Do not confound the contrast value with black and white values when we auto adjust the brightness and contrast.
5. There are several limits in Render. First of all, the total surface number in mrs file. Theoretically, we suggest that surface number should be under 2 million, because Render can only utilize 2G RAM at most. However, besides restoring the surfaces, Render needs to restore light settings, materials, maps (which consume much memory space), photon maps and other data structures, therefore, the actual allocated RAM may be less than 2G.
6. The second limit of Render is the position of model. We assume that users wouldn't put the model at the place like (3000000, 3000000, 3000000).
7. The third limit in Render is the precision of the model. We also assume that there has no triangle with its side <0.000001 millimeter in the user-made models.