



## Scene Photography

### Tips and Tricks

## Picario scene photography tips and tricks

Requirements for providing a good photo for visualizing and generating high quality, photo-realistic images.

The Picario software uses your own photos to dynamically generate infinite variations. There is no need to edit photos one by one, using programs like Photoshop. All you have to do is provide us with suitable photos. We will prepare your photos for editing so you and your customers, can make unlimited color and textures changes based upon the original photos. To achieve a lifelike visualization the photos need to meet certain requirements. Not every photo will give a good end result. What makes a photo a suitable photo to be edited and used by Picario? This document gives you the hints and tips to supply a suitable photo so you can visualize and generate high quality, photo-realistic images that can be used for multiple channels.

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The key to generating and visualizing good images is a good photo. Before you provide Picario with your photos you need to keep certain requirements in mind. If you keep the points mentioned below in mind, you can provide us with a good photo. These specific points are further explained in the chapters below.

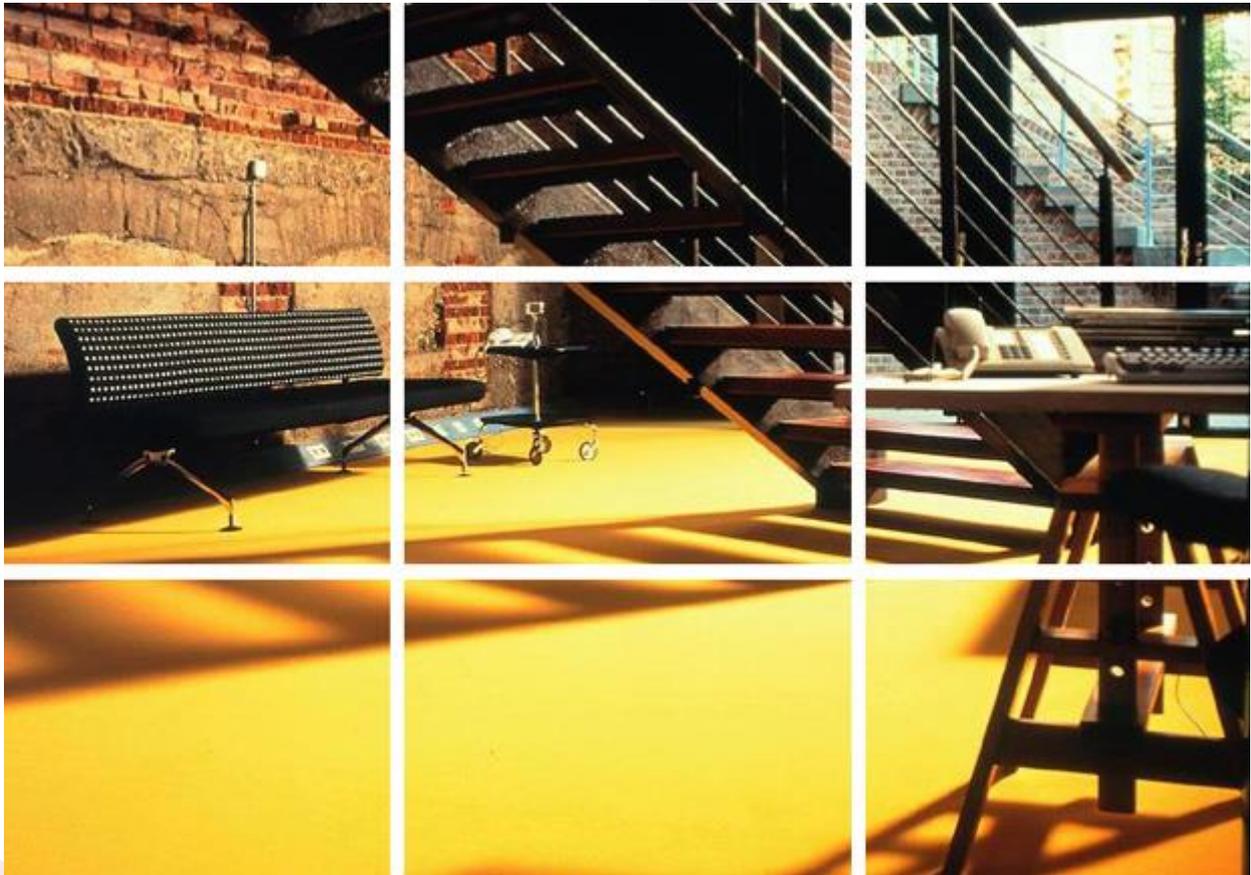
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## Composition

Composition is an important rule when selecting or making a good photo. A well-known rule is the rule of thirds. Imagine a tick-tack-toe board over the photo. The photo is now divided into nine equal parts by two equally-spaced horizontal lines and two equally spaced vertical lines. Try to place the subject along one of the imaginary lines that divides the frame. Photographers, artists and designers state that aligning a subject with these points creates more tension, energy and interest in the composition. The main goal is to discourage people to simply place a subject at the center of the photo.

Of course there are always exceptions to this rule. For example product photos of a single object are often centered and portrayed against a completely white background. These photos can be great for online stores.

Distracting backgrounds should be avoided. You don't want the subject of interest competing with other parts of the photo. The composition is often focused on maximizing the visibility of the product in question. This means the parts that you and your customer are going to customize, need to be the focus of attention. Take a look at some magazines with products of your interest. These can be a good starting point for learning about composition.



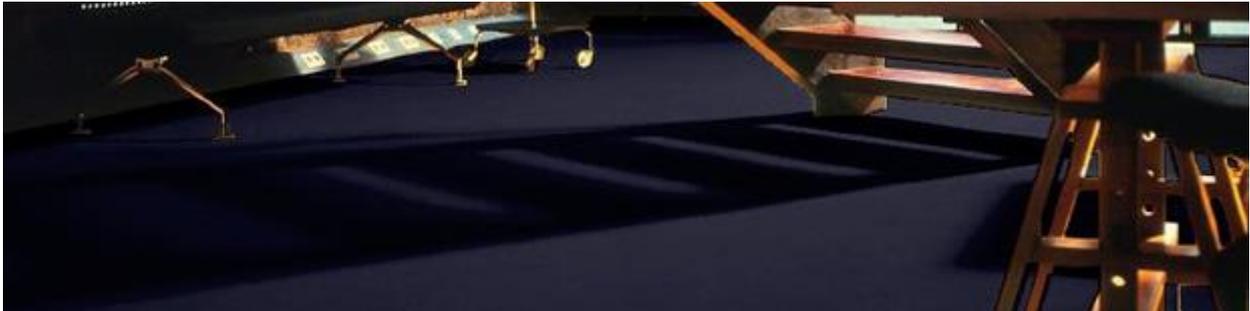
## The importance of shadow and light

Paying attention to lighting is one of the most important jobs of a photographer. Different shades and tones are the key to achieving a beautiful photo and also the key to visualizing and generating photo realistic images. Different shades and tones are the result of light on an object. Make sure the subject of interest is illuminated in such a way that your design will be visualized in many shades and tones. Our software uses these shades and tones and implies them on different textures or colors. This makes the visualized object - regarding the use of a color or texture - look realistic. If an object does not contain different shades and tones the end result can be a flat looking object when different textures are used. The picture below shows a simple example of light and shadow information on an object. The body contains different color shades because of the light and shadows on the object. The metallic gloss and reflections in the body of the scooter are retained while visualizing other colors.



## Choose mild colors for objects and surfaces

We discussed the importance of shades and tones in the last chapter. To get a good and realistic result for both dark and light colored designs, the original photo needs to have a sufficient number of shades on the subject of interest. But on dark surfaces this number can be too small to distinguish them when visualizing other colors. The result will be a flat looking floor and if there are objects displayed on top of them it makes them appear to floating. The picture below has a surface that's too dark.



If you have the option of selecting a color for your master image, the best color to start with is grey. Avoid dark or very light color because this will make it harder to visualize other colors on the object, because there is less shadow or light information available. When the shadow and light information is good it's no problem visualizing a broad spectrum of colors. Even white and black will look realistic. Also avoid the color red. Although the color itself is not too dark or too light, it is a very hard color which also makes visualizing other colors difficult. The picture below shows the ideal situation, all objects and even the floor have a mild color and no textures. This gives the best result when visualizing different colors and different floor textures like wood, carpet and stone tiles.



### Avoid overexposure

Overexposure is also something that should be avoided when making or choosing a photograph. Especially when the object is white or a color close to white. The example below shows a photo of a white photo album. The shadows are very light on the white cover which make the edges and perspective hard to distinguish. Also the light on the edges are completely white. This will make it hard to visualize dark colors because you can lose valuable light and shadow information. Also the blurry glow around the edges make it hard to visualize. Another problem are the patterns that are portrayed on the cover. Motifs and patterns will be discussed in the next chapter.



The picture below demonstrates another example of overexposure. You can see that there is too much light coming through the window into the room. The light is making the window look blurry and gives the curtains a hard contrast next to the overexposed window frame. The line between objects is hard to distinct which makes it hard for use to prepare the photo. When customizing such a photo, it can give a false looking effect. Especially when visualizing very dark colors or textures.



### Avoid motifs on objects

We discussed the importance of shades and highlights. This information is used so every possible design and color will be shaded and highlighted correctly. The best way to achieve this is by providing a photo without motifs on the subject of interest. It's possible that important shadow and light information is hardly visible because of the pattern. Additional image restoration is needed if the original photo contains objects with motifs. This can also have a negative effect on the available shadow and light information. The light and shadows may not look realistic. Removing a motif can be a very difficult and time consuming job. Particularly if the motif does not have a dominant background color. The picture below shows an original photo of a floor with a complex carpet design.



Remember that our software can easily visualize motifs and patterns. For example a sofa can be customized with a checkered pattern and a floor can be visualized with an impressive motif. So avoid motifs on objects that need to be edited. Removing motifs is of course possible but it will lead to extra costs and sometimes to less realistic images. The picture below is an example of a rendered sofa. The left side is the master image and the right side the rendered image with a complex pattern.



## Requirements for curtains and other objects with pleats

Curtains or other objects that can be folded should not be too closely packed. It's not a problem when visualizing colors, but it's a different story when motifs and other textures are used. The left picture below shows a wrong composition. The curtain is too closely packed. Visualizing motifs on closely packed materials is possible, but it will take more time and costs more to prepare. Furthermore it's hard to make a realistic visualization.

Another important point to avoid is a deep perspective. This will make the curtains look flat or small if the curtains are at the end of the room. The right picture below shows a deep perspective, that should be avoided. The composition is also wrong because the photo doesn't really emphasize the curtains.



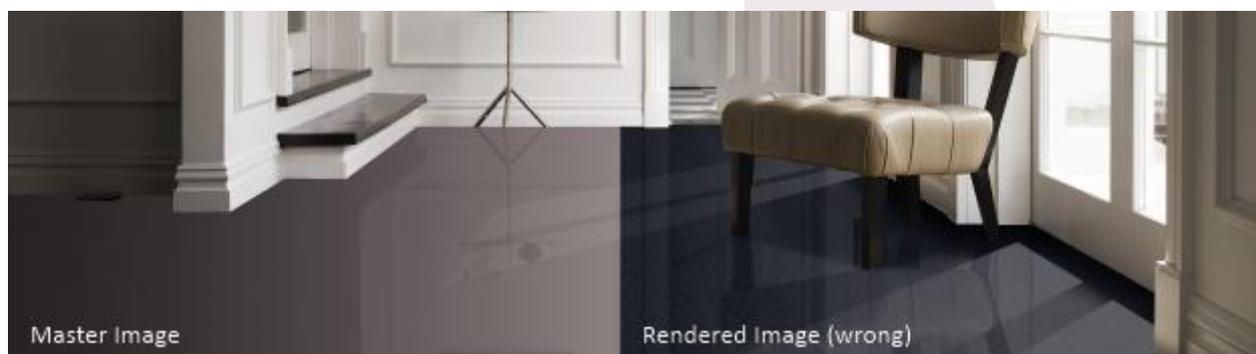
## Visualizing specific materials

The Picario software can visualize all sorts of different objects with different materials. However there are some rules you have to keep in mind when visualizing materials on top of another different material.

Example 1. When the master image contains for example a shiny leather sofa and the textures that need to be visualized are polyester, this can result in an natural looking objects. The reason for this is the importance of shadow and light information. A shiny leather fabric will fold differently and will also reflect light in a different way. The picture below demonstrate the effect of matching wrong materials. The left side shows the master image and the right side an unrealistic visualization of cotton on leather.



Example 2. The same can be said about different floors. A laminate floor reflects light and sometimes has reflections on the surface. If you want to visualize carpet on these floors they will look unrealistic, because it's impossible to see reflections on carpet. This is demonstrated in the picture below. The left side shows the shiny floor and the right side shows carpet containing reflections which is impossible.



The best solution for this problem is to choose a grey surface. Also keep in mind if the materials you want to visualize need to have reflections. As an example, a grey concrete floor (as displayed on page 6) can be used to visualize almost everything, from stone tiles, to wooden floors and carpet. If this isn't an option than photograph materials that are all most the same as the materials you want to visualize.

## Transparency

Some projects have the option to display or remove certain objects in a photograph. Other projects will have objects that should be editable but must also be transparent. When you want to have transparency in a scene, it's important that you provide us with two equal photos. The object should be visible in one photo and invisible in the other photo. It is very important to be very precise and not to move the camera while making the photos. The two photos should be exactly the same to the last pixel. The textures can be made transparent, so you can see through the object.

The picture below demonstrates this principle. The bathroom was photographed with and without the shower curtain. The new texture that we used on the shower curtain is transparent. You can see the floor and showerhead partially through the curtain.



## Dimensions

The Picario software not only lets you customize your photos using different colors, you can customize them with different textures as well. Textures can vary from different types of cloth and patterns to bricks, wood and tiles. For the best result - regarding the use of different textures on your photos - it's important to provide us with the dimensions of the object that need to be prepared. The width and height information of objects are the key to realistic visualization. The example below shows a floor with wrong dimensions. The wooden floor parts are displayed exponentially larger than they really are.



The example below shows how you can easily provide us with the dimensions. Just mark the objects that need to be prepared, preferably in a smaller version of the original photo. The same rules apply to flooring. Just mark the floor along a wall and specify the dimensions. We can use these dimensions as a guide to for creating the floor surface.



## Image resolution

A high resolution is desired when providing us with a photo. This makes it easy for us to edit the photo and to give the best end result. It is always possible to scale down the photo. The final size usually depends on the application of the photo. Photos should have a minimum width of 1024 pixels. The picture below demonstrates low photo quality. The blurry parts, like the window frames, are hard to prepare and visualize. The end result will not be pretty.



A lot of online stores use high quality images to visualize their products. Customers want to see the product from up close, to reduce the look and feel barrier online stores lack. Therefore a lot of online stores use a zoom option. This can be anything from a pan and zoom to a deep zoom. If the texture and master image are of a high quality it's possible to really see - for example - the way a piece of cloth is fabricated when you zoom in. The picture below demonstrates why we stress the importance of high quality and high resolution photos. The same sofa from page 8 is used to demonstrate the visualization of a textures. Only this time you also get to see the details from up close when you zoom in on the photo. Your products will be displayed more accurately and the look and feel barrier that normal online stores lack is reduced.



## Checklist

- Did I choose a good composition in my photo to suit my project?
- Did I make the object the center of attention in the photo?
- Did I shoot a photograph with enough light and shadow information on the objects?
- Did I check if the surface or objects are not too dark for a realistic visualization?
- Did I check if the surface or objects are not too bright for a realistic visualization?
- Did I check if any objects in the photo are overexposed?
- Did I avoid bright colors, like the color red?
- Did I avoid motifs and other patterns on the objects that need to be prepared?
- Did I avoid a lot of folds and pleats in curtains?
- Did I choose a good perspective?
- Did I choose the right material for the master image?
- Did I use a grey surface if possible?
- Did I make two pixel perfect photos when transparency is required?
- Did I measure the objects and floors portrayed in the photo?
- Did I shoot the photo in a high quality and in a high resolution?