

New features of PhotoMatch v3.1

The most important addition to v3.1 is the support for lens distortions. You can estimate the amount of distortion (as it is often a result of real world lenses with a small focal length) with PhotoMatch and enhance the integrated Cinema 4D renderer to produce lens distortions with the new PhotoMatch Post Effect.

Mode-Tab

New option

Render this resolution Every time you use the PhotoMatch Image button to load an image or movie, the resolution values of this file will be transferred to the Render Settings as well. If you want to use other resolutions for rendering, just check this option and you will be able to use your own resolution settings within the Render Settings dialog. Just take care that you keep the original aspect ratio of the loaded background image as other ratios will result in visible distortions while rendering the background image.

New mode

Lens distortion This mode will activate a grid overlay over your loaded background image. Open the PhotoMatch Lens-Tab for more options of this mode. Remember to deactivate this mode after you are done with the lens distortion as the calculation of the grid will take additional time and can slow down the screen redraw. If you plan to use this mode try to keep the size of the loaded background image as small as possible to reduce calculation time.

Model-Tab

New option

Distortion overlay If you used the Lens distortion mode to estimate the visible amount of distortion of your background image, you can activate this option to add an additional layer showing a distorted version of the chosen side of the preview cube. This will allow you to create 3D geometry in your scene that matches the distorted rendering of your background object. The calculation of the distorted overlay will slow down the screen redraw. Try to use smaller background images to speed up the display speed and only enable this option when needed.

Lens-Tab

Grid distance	A numeric value, setting the space between the visible grid lines when in Lens distortion mode
Center of lens -> X	Ranges from -100% to +100%. Positive values shift the center of the lense to the right side. A value of 0% results in a lens center that is placed in the middle of your background image.
Center of lens -> Y	Ranges from -100% to +100%. Positive value shift the center of the lens to the bottom. A value of 0% results in a lens center that is placed in the middle of your background image.
Strength of distortion	Ranges from -1.0 to +2.0 and sets the amount of distortion. Regular wide lenses will show a distortion between 0 and 0.2. A value of 0 give no distortion at all.

To speed up the distorted grid calculation keep the size of your background image as small as possible and only activate the Lens distortion mode when needed.

PhotoMatch Lens – Post Effect

Open the Cinema 4D Render Settings and switch the dialog to show the Effects list. Use the small button on the top right corner to open up the list of available Post Effects and choose the PhotoMatch Lens Post Effect from the list.

You can use the PhotoMatch Lens Post Effect without having done the Lens distortion calculation with PhotoMatch and even without having a PhotoMatch object in your scene. Just enter the amount of distortion to the Distortion input field and shift the Lens Center along the X and Y axis with the Lens center X and Y values.

You can use the Zoom factor values to scale the distorted rendering along the X and Y axis. A value of 1 for both settings will result in an unscaled image while values above 1 will scale the image up und values below 1 will scale the content of the image down.

Using the Img. Center X and Y values you can move the content of the distorted rendering along the X and along the Y axis.

As rendering with distortions will scale and move the visible content of your scene, you can use the Zoom factor value and the Img. Center values to move the content of your image back to its original position. When working with PhotoMatch you'll not have to care about this part.

Just do the distortion estimation using PhotoMatch and its Lens distortion mode and click on the Sync with PhotoMatch button within the PhotoMatch Lens dialog afterwards.

This will not only paste the amount of distortion from the PhotoMatch dialog to the PhotoMatch Lens dialog but it will also calculate the amount of scaling and moving for you that is necessary to keep all distorted objects in place. So you'll not have to enter a single value to the PhotoMatch Lens dialog at all.