

Release Notes for InstantPlanner 7.3

December, 2017

News and Changes

Links to Help

Most new dialogs, such as the Render Queue, now have direct links to the associated chapter in the InstantPlanner Help. To access it, simply press the **F1** key on your keyboard.

Render Settings Now Saved and Reusable

The render settings are automatically saved in the drawing which makes it easier to render using the same settings the next time you, or somebody else, opens the drawing.

Advanced Options in Render Queue Window

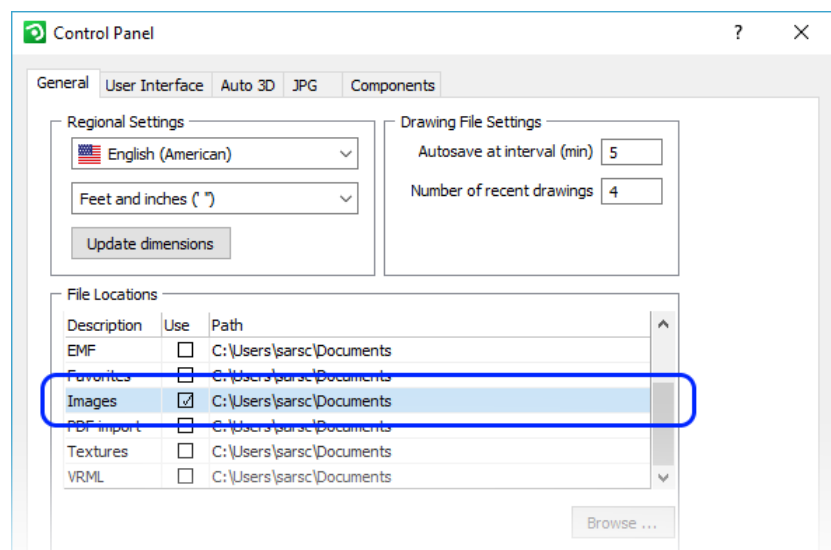
We have added **Advanced options** to the Render Queue. Here, you can enable automatic cleanup of rendered images from the render queue and the render queue folder. You can choose to delete either the .exr file, the .png file, or both. The cleanup will take place when you delete a render job, or when you close the Render Queue window. Note that the **Delete HDR image (exr file)** is selected by default.

This section also holds a button named **Load HDR Image**. If you have used this button to load an HDR image, it will not be removed from the render queue folder during cleanup; only from the actual render queue window. Loading an HDR image into InstantPlanner enables post processing, either to correct / adjust an image, or applying special effects. Note that images that have been removed from the render queue folder cannot be restored.

Image Import Bugfix

When you drag and drop an image from the Render Queue window onto the drawing area, the image file is now saved to the folder as stated in the Control Panel.

Default is to use the Documents folder on your local computer, but you can check the box and browse for a different location if you want to, for example a shared location.

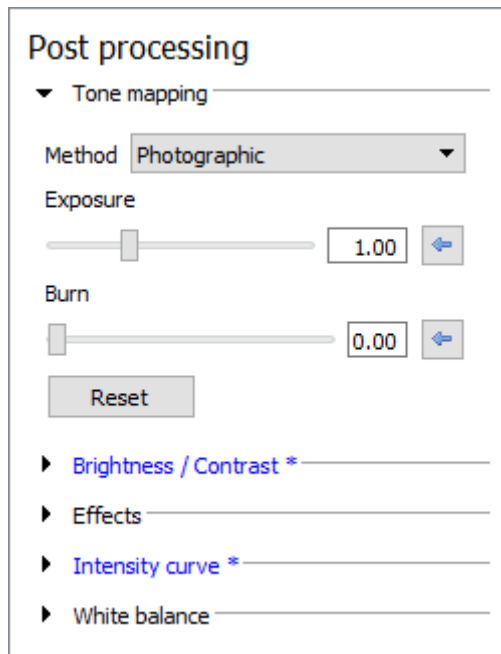


New and Added Post Processing Options

We have listened to user feedback and made the post processing controls more straight forward and easier to use. The purpose for offering post processing in InstantPlanner is that instead of re-rendering images that are, for example, too dark you can work with the post processing effects to enhance the image and achieve a result that you are happy with.

The post processing area of the Render Queue window is divided into the following sections: **Tone mapping**, **Brightness/Contrast**, **Effects**, **Intensity curve**, and **White balance**. Every section has a reset button that will reset all the controls within the section to their default, and there is also a back arrow button that resets each control individually. If a post processing is changed from default, the section name turns blue and displays a *, so you can easily spot where changes have been made.

When an image has finished rendering and the line is green in the Render Queue you can start with the post processing. To apply a post processing effect, click and move a slider sideways, or type in a value in the input field and press Enter. All changes are instant and are temporarily saved in the .png file in the image folder. If you want to keep the edited image, remember to save the .png file manually to a different location, since the file in the Render Queue folder will be overwritten the next time you apply post processing.



We recommend that you start trying these settings out carefully, since tweaking the controls just slightly could have quite a significant impact on your image.

Tone mapping

Tone mapping compresses the color range in an image into a range that can be handled by computer monitors. InstantPlanner offers three options that will affect your image differently. Describing exactly how is difficult, so we recommend that you try them out yourself and compare the results. Remember to look at the overall image as well as the details (for example lit surfaces).



Limited: the Limited option lies very close to the original image. This method limits the color range by cutting out the darkest and the brightest colors. It does not actually correct anything; under exposed areas will remain dark, and over exposed areas will remain bright.



Photographic (default): this option is the default setting because it uses more color shades and most of the times generates the best result. It corrects under and over exposed areas, but could make the colors look slightly plain and dull, in which case you can try the other tone mapping options. This tone mapping removes light effects that are out of range, which the burn control can then recreate, if desired.



Exposure: is basically just like the Limited option but with a control for adjusting the exposure to make the image brighter. In the image to the left, the exposure has been increased to 1.75 (default is 1.00).

Brightness/Contrast

The **Brightness** slider adjusts the overall brightness in the image, ranging from very dark on the left to very bright on the right.

The **Contrast** slider increases or decreases the contrast in the image, making objects in the image more or less distinguishable from other objects and the background.

Note that these controls are global, i.e. they affect the whole image and are not very nuanced.



No adjusted brightness or contrast



Brightness set to 20



Brightness and contrast set to 20, respectively

Effects

These controls let you sharpen or blur your image, or apply a glow effect.

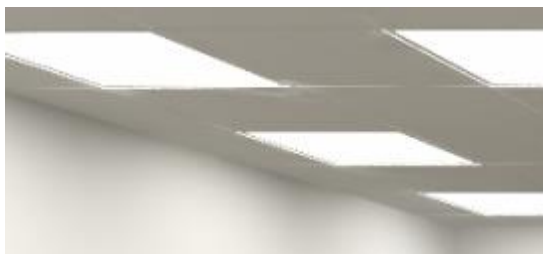
- **Sharpen:** reinforces the lines in the image, making objects look sharper:



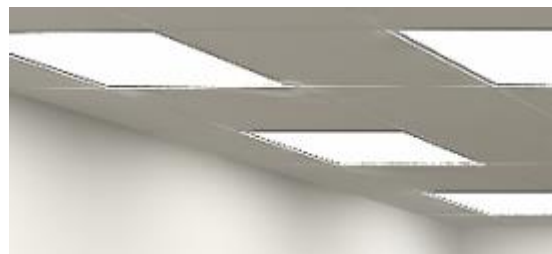
No sharpen effect



Full sharpen effect



No sharpen effect



Full sharpen effect

- **Blur:** applies a blur effect to the image. Notice that the **Radius** control has a large impact here in terms of how much blur is applied. The minimum value (1) applies a very light blur, hardly even visible, while the maximum value (6) applies a really significant blur. The blur effect affects the whole image.



No blur effect



Full blur effect and radius set to 3 (default)



Full blur effect and radius set to 6 (maximum)



No blur effect



Full blur effect and radius set to 3 (default)



Full blur effect and radius set to 6 (maximum)

- **Glow:** makes lit surfaces (such as tiles or table tops) even glossier as the light on them increases.



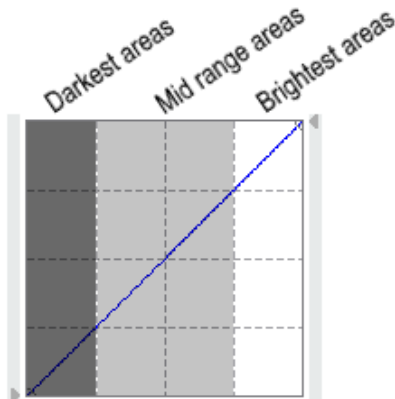
No glow effect



Glow effect set to 80

Intensity curve

The intensity curve is a graphical control for fine tuning the overall light intensity in the image. The leftmost column affects the darkest areas, the rightmost the brightest areas, and the two middle columns affect the mid range areas. It starts out as neutral, with no intensity correction which is displayed as a diagonal line as shown below:



You can change the intensity by selecting one of the presets **Brighten**, **Darken**, **Contrast**, and **Invert**. These will have different effects on the image, and you will notice that the curve changes. You can left click on a control point to slightly adjust the curve, and if you left click anywhere along the curve you will add a new control point. If you make alterations, a dashed line shows the neutral reference line. The reset button is for resetting to the selected preset. If you don't want any intensity correction at all, pick the neutral option from the dropdown menu again. You can also create custom curves simply by adding your own control points by left clicking along the curve, and adjusting them. To remove a control point from the curve, just right click on it.

You can also click the small arrows on the side of the grid to change the curve's start and end points.

White balance

Adjusting the white balance will change the color balance in your rendering; making it look warmer or cooler. The white balance is adjusted by clicking anywhere along the scale from amber through white to blue, until you are satisfied with the result. To set a custom reference color, click the color preview and select your reference color.



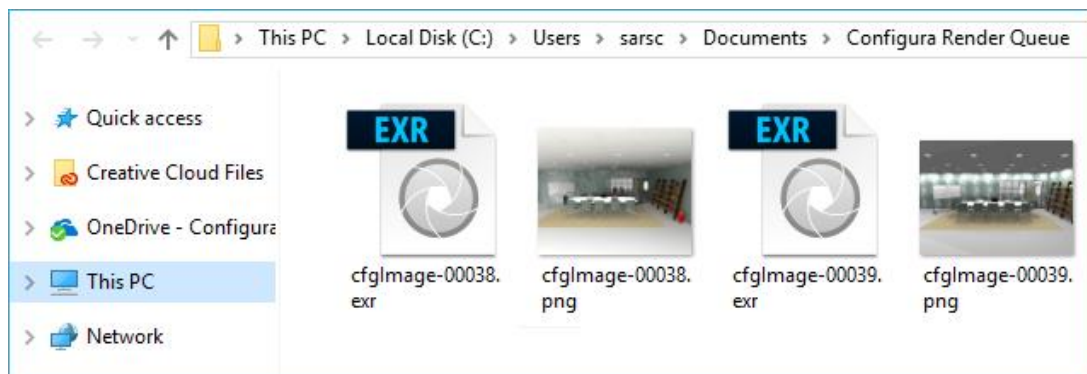
White balance set to about halfway in the Cooler direction



White balance set to about halfway in the Warmer direction

HDR Rendered Images Now Save at Render

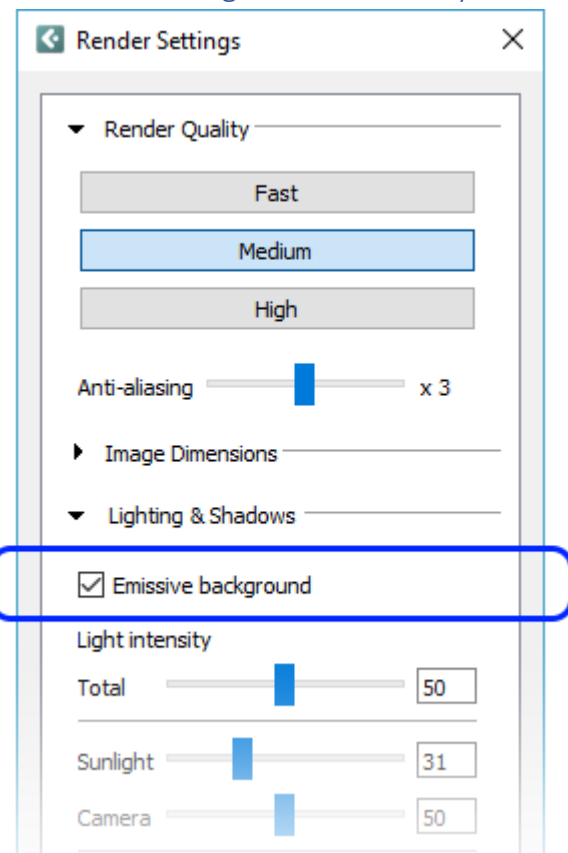
- Although InstantPlanner has rendered HDR images for some time now, they have not been saved. Saving them is now done automatically. From the **Render Queue** window you can open the folder containing your renderings, where the HDR images are tagged with the new file format .exr. The reason for saving .exr images is to enable editing in photo editing software. Note that your image is also saved in the .png format, just as before, so there will be two images with the same file name but with different file endings. If you have added any post-processing effects, this is reflected in the .png file.



Emissive Background Setting Now Optional in Medium and High Render Quality

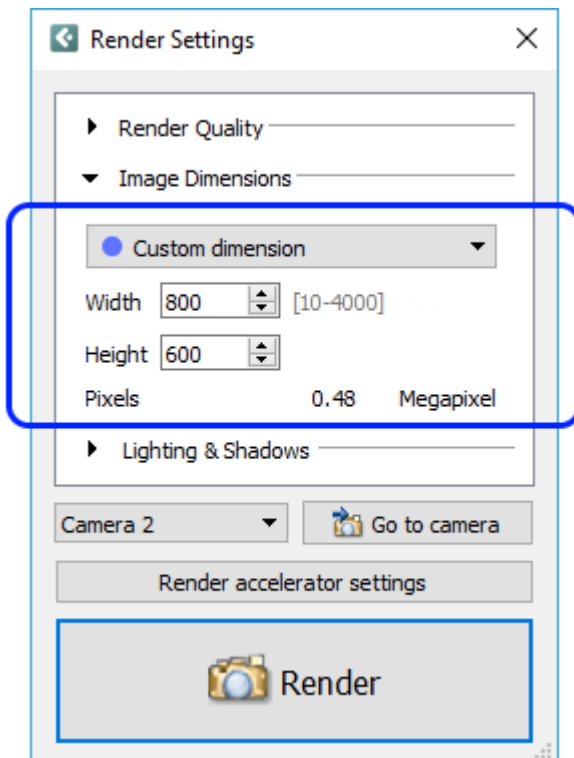
- Selecting either the **Medium** or the **High** render quality in the **Render Settings** dialog now displays an **Emissive background** checkbox in the **Lighting & Shadows** section.

Previously, emissive background was always activated for medium and high quality renderings but is now optional. Leaving this box checked, which is recommended in most cases and the default setting, will add a lot of additional light onto the scene during rendering. This is mostly a good thing that contributes to realistic-looking renderings, but open scenes with very bright colors, textures, and models could render too bright. Therefore, we have made it possible to turn off emissive background. If you are working on a closed room with walls and ceiling, the emissive will have very little or no effect at all. In this situation, you will need to work with other light sources, such as the camera light or the ceiling with integrated lights, to achieve good lighting.



Render Settings now Support Custom Image Dimensions

- We have added a **Custom dimension** option to the **Image Dimensions** section of the **Render Settings** dialog:



Quick Render Improvement

- Thanks to lighting updates, the quick render option **Develop (preview)** now generates really nice looking images too:



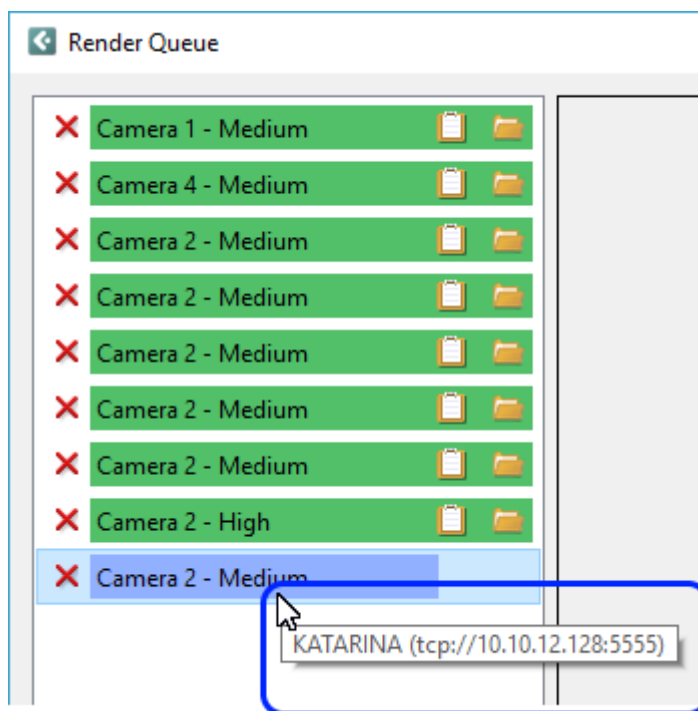
Quick render example



High quality rendering example

Render Accelerator Updates

- In the **Render Queue** window, you can hover with the mouse over a rendering in progress to see which computer is accelerating the rendering:



- It is now possible to restart renderings that for some reason have failed and could not complete.

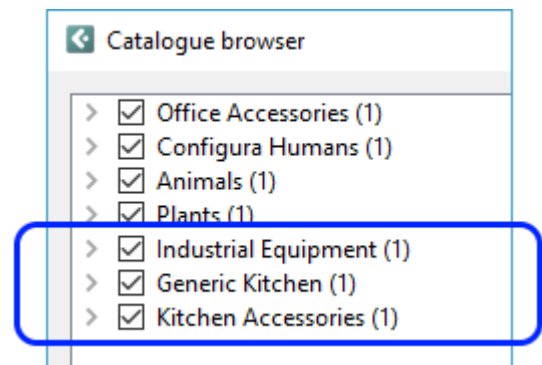
Higher Quality Geometry on Curved Windows and Walls

- Several 3D primitives (mainly curved and elliptical windows and curved walls) now have a higher quality geometry which makes them look better in a Walkthrough or quick render. This action was taken as a step in the Redway migration process.

Updates to Catalogues

- We have added three new accessory Catalogues with items for industrial environments and kitchen areas. By default, they are enabled but can be disabled from the Catalogue Browser:

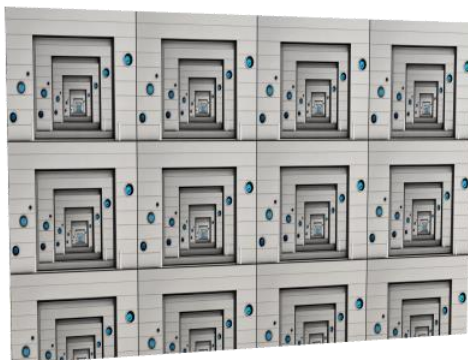
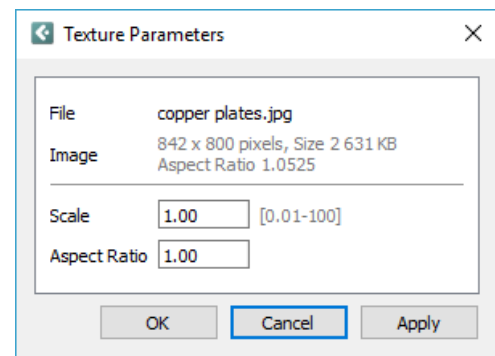
Below is a small selection all the models found in these Catalogues:



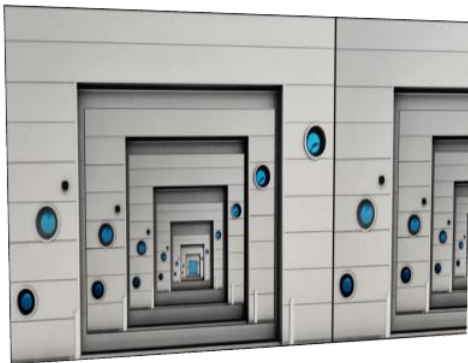
- All Catalogue objects now have a scaling slider in their quick properties that lets you scale them up or down in size. Be careful when scaling objects that are snapped together with other objects. Since catalogue objects don't take snapping into account when you change their properties, the end result will probably not look as intended.
- The Catalogue Browser now contains an option for the user to enable/disable Catalogues.

Easier Texture Scaling on Walls

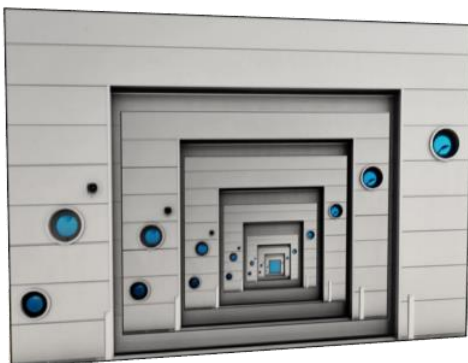
- As a response to user requests, we have worked on making texture scaling on straight walls easier and more straight forward. Therefore, most of the scaling functionality has been removed from the **Texture Parameters** dialog, where only scale and aspect ratio remains:



By default, textures are applied in 1x1 meter tiles on the wall. If the wall in question is 4 meters long and 2.7 meters high, and we keep the default scale of 1, we would get 4 repetitions of the texture along the wall



Setting the scale to 2.7 would give us one repetition along the height of the wall.



To make the texture fit the entire wall, we'll need to do a bit of counting. Our wall aspect ratio is $4 / 2.7 = 1.48$. Hence, setting the scale to 2.7 and the aspect ratio to 1.48 will make the texture fill the whole wall.

Note: Rectangular textures are also compressed into 1x1 meter tiles and will therefore look distorted. To avoid this and use the full image width to fit the wall, you have to keep the aspect ratio of the texture or image, which is calculated as image width divided by image height.

Miscellaneous

- We have added support for 2018 .dwg files.
- The **Send error reports** dialog now lists additional files.

Bugfixes

- We have fixed the issue where plants in the **Plants** catalogue would cast incorrect shadows, looking as if the leaves were transparent:



Notes

- The 7.3 version of InstantPlanner is the last version with 32-bit support.