



What's New in KeyShot Studio 2025.2

What's New

2025.2

- *KeyShot Studio 2025.2 is the first release that ships generative AI features in the form of “Background”, “Restyle” and “Imagine”. The latter is a helper when brainstorming new ideas quickly, the first two modes are ways to greatly speed up workflows, especially within Product Marketing applications. They do not replace traditional 3D rendering but instead work together with the existing raytracing engine.*
- *Another new feature within 2025.2 is that GPU mode, previously limited to NVIDIA graphics cards, also supports AMD hardware from now on, giving users more options when purchasing well-performing PC systems to use with KeyShot Studio.*
- *Light Layers and Material Randomization Nodes give users more creative control, the color picker improvements are a much-requested quality of life upgrade, the new Solidworks plugin can convert CAD decals to KeyShot Studio labels and the new Duality colors by PANTONE© give users more color options to use.*
- *The steps new users have to go through to get a trial have also been re-designed, leading to a smoother and simpler inflow of users into KeyShot Studio.*

AI

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AI – AI Shots: Overview (2025.2)

KeyShot Studio 2025.2 is the first release that ships with built-in AI functionality: AI Shots.

This is a tool that allows users to combine the power of 3D raytracing and AI image generation and helps them achieve higher quality work in significantly less time than ever before.

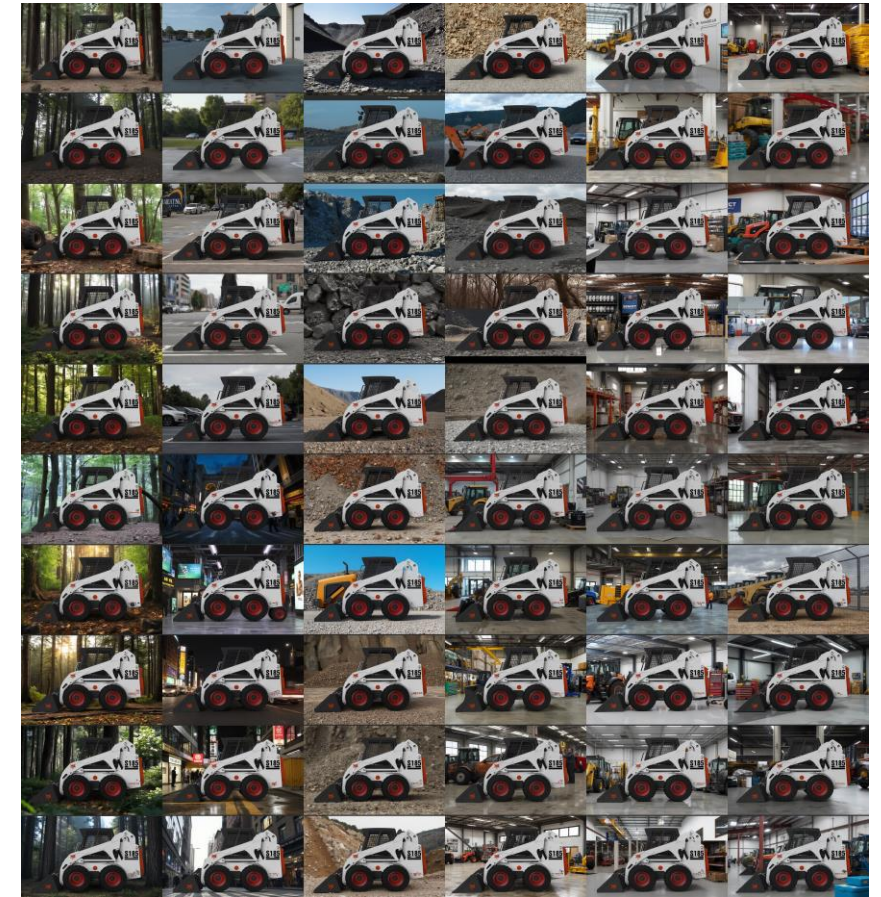
AI Shots comes with three modes that, while identical in UI, differ in how much they are constrained by the 3D raytraced image, giving each mode a unique use case:

- The Background mode is fully constrained. This means it leaves 3D raytraced objects in the scene fully intact, both in respect to their shape and material. As the name of the mode indicates, it is meant for generating a background, an environment or surroundings with AI.
- The Restyle mode is partially constrained. It does not modify the outline of 3D raytraced objects in the scene but can change their appearance. The idea is that a user can easily add a placeholder object like a cube, sphere or cylinder to their scene, position, orient and scale it to where they want to place a more complex object and then use AI Shots to restyle the placeholder into the desired object.
- The Imagine mode is unconstrained. The 3D raytraced objects are completely ignored, meaning that the generated images are freely imagined by the AI and based solely on the user-provided prompt. This allows for extremely fast ideation and brainstorming in the early stages of projects.

Please note that all modes in AI Shots work locally on the user's own computer. No information leaves the user's machine; no internet connection is required. This makes it possible for customers to make full use of the generative image AI, even when working with extremely confidential products, as there is no risk of data leaks or other security issues. A modern NVIDIA GPU (RTX 3090 or better, as much GPU memory as possible, minimum 12GB, preferably 16GB or more) is optimal, AI Shots also works on AMD and newer ARM Apple devices (M1 or newer). With a checkbox in the preferences, it is also possible to use AI Shots on the CPU, although this is so slow that we can not recommend doing so.

This does also mean that KeyShot Studio must access a relatively large database that is stored locally on the machine's hard drive. This database is not part of the shipped installer, instead KeyShot Studio 2025.2 downloads the required database fully automatically when the AI Shots feature is started for the first time. An internet connection is required for this download.

All generative AIs are random and unreliable in nature. That also goes for the generative image AI. Sometimes a certain mode, prompt, seed and 3D object will work well and give desirable results, other times the ingredients just don't mix, and the generated images do not meet user expectations. While algorithms and training data can always be improved, it is unlikely there will ever be guaranteed quality results no matter what when working with any generative AI.



60 images of a Bobcat Loader construction vehicle in different environments that were produced with AI Shots in KeyShot Studio 2025.2.

AI – AI Shots: Background mode (2025.2)

Application

Product Marketing

Workflow Step

Contextualizing a CAD product with a full scene

Customer Problem

Importing a CAD file and applying materials to it in KeyShot Studio is quick and easy. But dressing up a product with a full, realistic and detailed scene in the background is not. Making well-designed surroundings is however required in almost all Product Marketing use cases of KeyShot Studio. To make matters worse, not all customers have the required experience or are willing to spend the time it takes to produce these high-quality and detailed scenes.

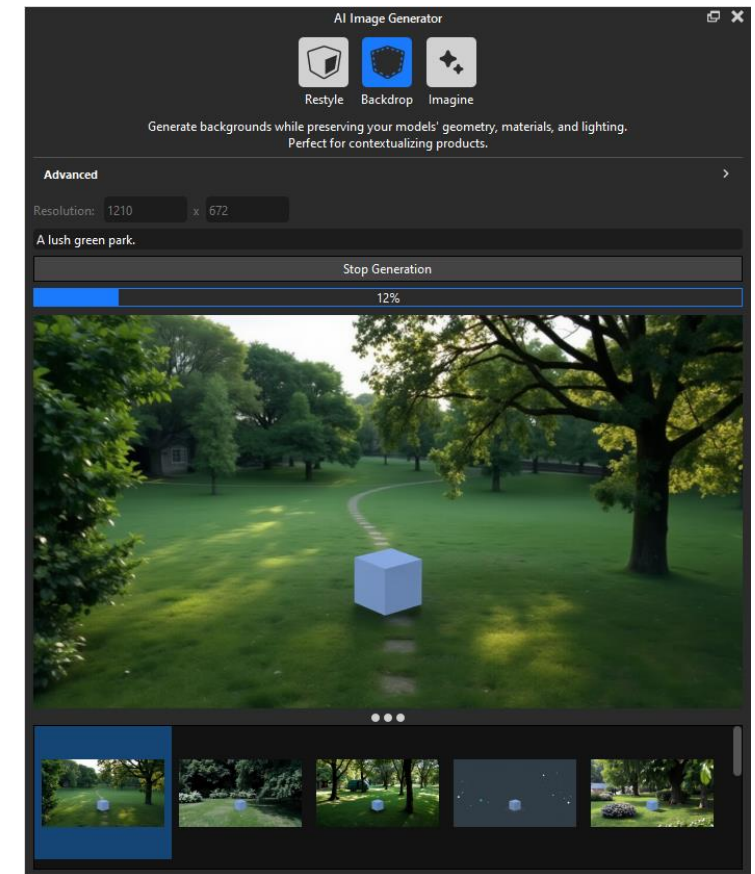
Customer Solution

With the Background mode of the generative image AI in KeyShot Studio 2025.2, users can bring their product into fully AI-generated environments within seconds. Note that the generative AI does not change the product in any way, it always stays the same – it's just the surroundings that are generated by the AI. Also note that the AI does not just 'lock the pixels' of the product, it can produce overlaying foreground objects in front of the product.

Users can enter a prompt that describes the desired scenario, ie. "Headphones on a sunny beach". They are then shown a list of results from the generative AI and can pick their favorite image from it.

Customer Benefits

This means that it is now extremely quick and easy to elevate products with realistic and detailed backgrounds, saving users countless hours of work trying to find or make background assets, positioning these and setting up complex light rigs.



The UI of the Background mode. The resolution input fields are locked as the generated images always maintain the resolution of the 3D rendering in this mode.

AI – AI Shots: Background mode (2025.2)



A pair of Bang & Olufsen headphones without background.



An image of the headphones on a beach that was generated in Background mode. The raw image on the left and the prompt "Placed on a beach, vibrant sunny afternoon, good summer vibes, sunlight from behind the camera from the right" were the only inputs used.

Modelling this beach background by hand would have taken several hours, generating the entire image with AI Shots took two minutes.

AI – AI Shots: Restyle mode (2025.2)

Application

Product Design / Product Marketing

Workflow Step

Brainstorming design variations in Product Design

Refining or adding visual flavor for background elements in Product Marketing

Customer Problem

Product Design is a creative discipline where creative blocks can cause slowdowns and delays. One way to break through these is to experiment and brainstorm. Doing that in rendering software like KeyShot Studio is however not optimal as it can take considerable time to produce and render these experiments.

Within Product Marketing, sometimes images need to be produced that do not feature a particular product but are instead meant to be used as an element in another KeyShot Studio scene. One example is an image of an office hallway that is produced to be used as a backplate, a background image, in another KeyShot Studio scene where office-related products are then placed inside this hallway. Producing these images with sufficient quality and details within KeyShot Studio can take a lot of time, effort and require considerable experience.

Customer Solution

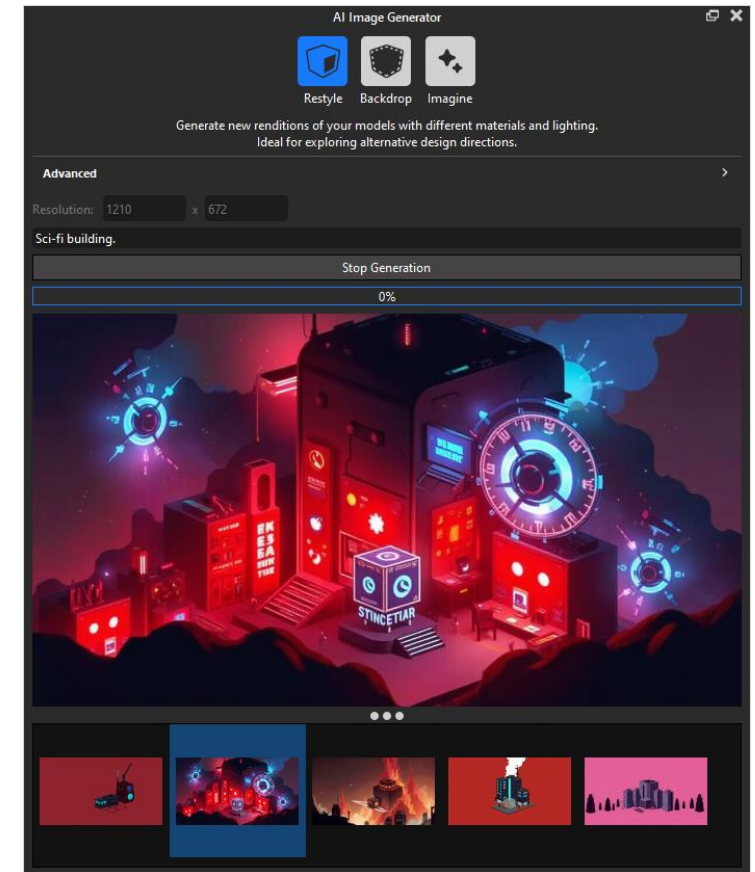
The Restyle mode of the generative image AI allows taking an entire frame, as rendered by KeyShot Studio, and producing variations based on it and a user-provided prompt. This allows creatively blocked Product Designers to transform a rendering of their in-progress design with a simple prompt and use experimentation and fast AI-provided iterations to break the drought of creative flow.

In Product Marketing, users can easily make a simple starter scene with cubes for the walls and floor, another cube to represent a cupboard, a simple hole in the wall for a window etc. in a couple of minutes. They can enhance this scene with Library assets like plants or shelves. To turn this extremely basic scene into something realistic, they can use the Restyle mode of the generative image AI and a prompt like “Modern Scandinavian office interior”, pick from one of the polished images and then use that as the backdrop for other renderings.

Note that the generative AI does respect the outlines of the existing shapes in the image as much as possible, allowing users to make accurate changes to the wall placeholders for example, but it does completely change the objects inner shapes and materials to follow the user-provided prompt as much as possible. With a simple blue default cube and the prompt “A block of Swiss cheese”, the cube will be replaced by a realistic looking block of cheese. This block of cheese will appear exactly where the placeholder cube was placed and not appear somewhere else or larger or smaller in any dimension. The inner structure within the outlines of the cube will however vary, the cheese block could have holes, and its edges won't be perfectly straight.

Customer Benefits

In both Product Design and Marketing applications, the Imagine mode of the generative image AI saves users time and allows them to achieve results of a quality they may not be able to reach with conventional workflows and without generative AI.



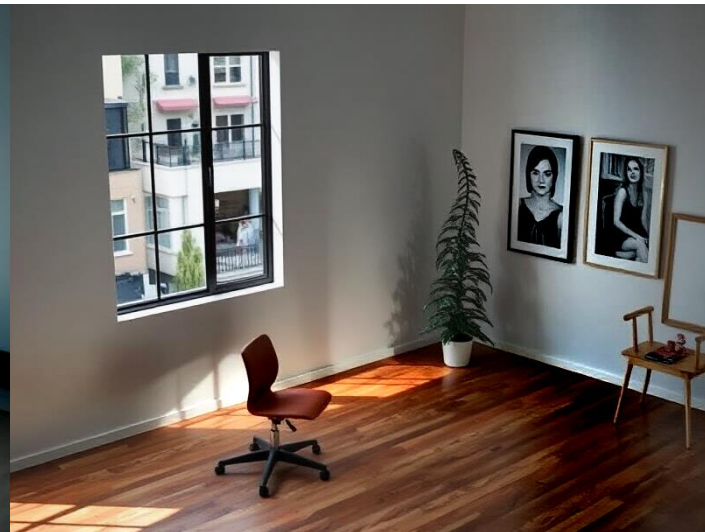
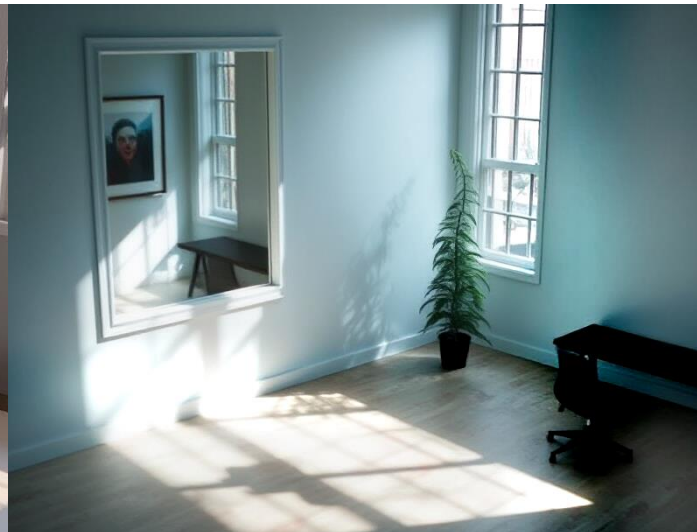
The UI of the Restyle mode. The resolution input fields are locked as the generated images always maintain the resolution of the 3D rendering in this mode.

AI – AI Shots: Restyle mode (2025.2)



An extremely simple placeholder scene put together in less than five minutes. It consists of five flattened cubes for the walls and an imported plant asset.

Constructing this scene in KeyShot Studio is extremely easy as the only required features are the import function and move tool.



Three AI-generated images that use the Restyle mode and “Modern Scandinavian office” as text prompt to turn the basic placeholder scene above into realistic and polished images.

It took less than three minutes to generate these three images, meaning that the overall combined time to result was under eight minutes. Building any of these three scenes in the conventional way would take an estimated several hours and require much more experience and skill within KeyShot Studio.

AI – AI Shots: Imagine mode (2025.2)

Application

Product Design / Product Marketing

Workflow Step

Ideation and brainstorming

Customer Problem

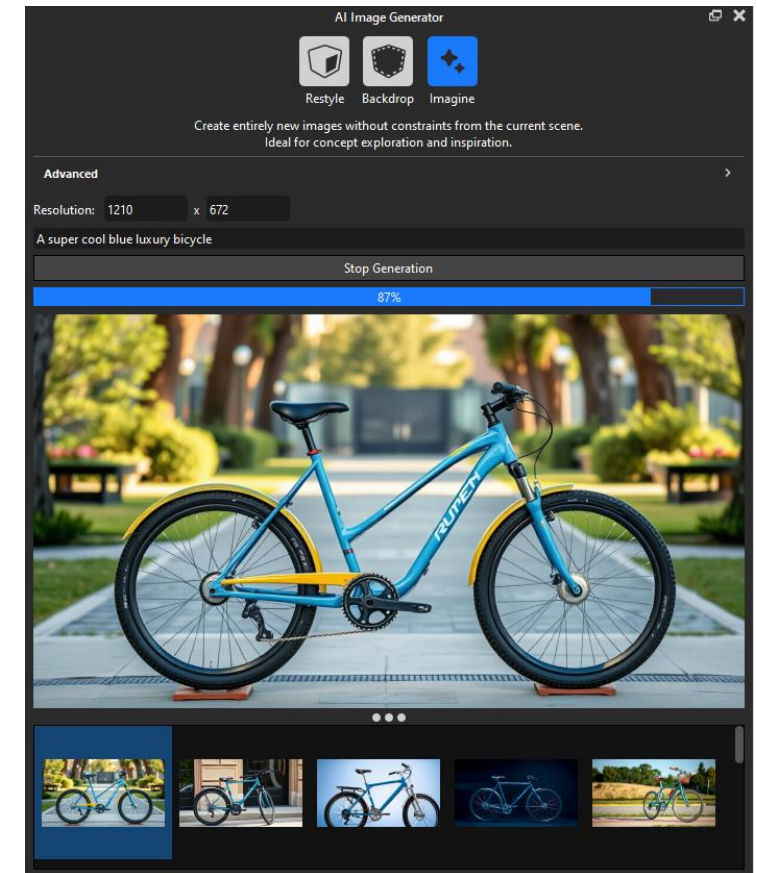
During the initial ideation phase, it can be useful to 'sketch out' ideas for a new product design or marketing asset quickly. This helps when brainstorming: quickly visualizing ideas, dismissing some, continuing with others, and thus iteratively circling on a final approach to take for the new project. Rendering software is unfortunately not very well suited to this stage in the workflow. It takes a long time to model or manipulate 3D assets in CAD, bring them over to KeyShot Studio and render them, slowing down the brainstorm process and potentially draining the creative juices completely.

Customer Solution

This is where the Imagine mode of AI Shots in KeyShot Studio 2025.2 comes in. It allows users to freely turn any prompt into an image, not via rendering but with a generative AI. It is many times faster to re-phrase a prompt to very quickly try out rough ideas than it is to re-model 3D geometry during each step, making smooth and efficient brainstorm sessions with very short turnaround times between iterations possible without ever having to leave KeyShot Studio. Once an idea has solidified through the Imagine mode, users can then start modelling, importing and rendering their new product design or marketing asset with conventional raytracing means, ensuring full control over the content.

Customer Benefits

Imagine saves users time during the early stages of a new product design or marketing project when they want to quickly try out various rough ideas before investing more time into producing and 3D rendering their most promising idea.



The UI of the Imagine mode. The resolution input fields allow users to pick a custom resolution for the AI-generated images in this mode.

AI – AI Shots: Imagine mode (2025.2)



Six different ideation concepts that were generated in Imagine mode with the prompt "A complex car engine, internals are exposed, white background".

Generating these concepts took less than two minutes.

AI – AI Shots: Further use cases (2025.2)

Seed locking

Each input to AI Shots is a combination of the prompt text and a seed number*. The latter represents the overall look and atmosphere of each variation that the generator produces. By default, this seed is randomized for each generated image, which is why, when left to produce image after image with exactly same prompt, AI Shots still produces different variations.

Users can however choose to disable the randomization of this seed and instead fix it to a specific value. When doing this and leaving the text prompt unchanged, AI Shots will produce the same image again and again. With a fixed seed, it is then possible to adjust the prompt or the 3D scene or camera angle in the Background and Restyle modes to generate new images that are still close to the original image in mood.

In practice, users can freely generate images with varying look and feel until they find one they like. They can then fix the seed to the value that was used in that particular result and modify their text prompt, tweak their 3D camera angle or change the 3D scene by moving objects around, adding or removing 3D assets etc. This way, they will keep the aspect they liked about the initial AI-produced image that they copied the seed from but still be able to modify it after generation.

Mode transfers

Using the three modes previously described directly is only the beginning. More advanced AI users can even transfer their prompt and seed from one mode to another. This unlocks many more use cases.

It is for example possible to use the Imagine mode with the prompt “A car driving up a winding mountain road in the evening” and generate images until an image gets generated that looks promising. Then the user can import their own CAD file of the car they want to show off and orient it in the 3D viewport like the car that the AI previously imagined. Now the user can transfer the same text prompt and seed number from Imagine to Background mode, which will take the rendered CAD car and place it in the same mountain road background that the AI initially generated in Imagine mode.

Backplate generation

Another efficient workflow is to use the Background mode to generate an image for a product, then use that as the backplate in the environment of the 3D scene. The image generated in Background mode will include the product exactly as it is rendered in 3D, so when used as a backplate, those pixels are covered by the actual 3D object in the realtime view. This allows the user to switch between different variations of the product and render high quality images from that point on with the AI-generated background behind the product.

The sky is the limit

The list of use cases presented in this document may not be exhaustive. Our users will likely discover even more ways to work with AI Shots over time.

* Note that changing the 3D scene or camera angle in the Background and Restyle modes, or changing the resolution of the frame, will also change the AI-generated image, even if the seed and prompt are identical.



Backplate generation use case example.

Top: Regular rendering of a pair of Bang & Olufsen headphones with a white background.

Middle: Headphones with AI-generated background in Background mode.

Bottom: Middle image used as backplate with 3D rendered headphones in different colorways on top.

Rendering – AMD GPU support (preview) (2025.2)

Application

Product Design / Product Marketing / Product Documentation

Workflow Step

Real-time or offline rendering

Customer Problem

KeyShot Studio's GPU mode only works on NVIDIA GPUs so users with AMD GPUs are forced to render using the CPU despite having a graphics card in their system. Rendering on the GPU is almost always preferable to doing this on the CPU due to greatly improved performance.

Customer Solution

KeyShot Studio 2025.2 introduces early support for rendering on AMD GPUs. This does not work on any AMD graphics card; support is limited to the Radeon RX 7000 and 9000 series on desktop and the Strix Halo series on laptops. Note that this feature is in a preview state, it is part of 2025.2 and usable, but there several known issues that remain to be fixed.

Customer Benefits

This makes it possible for users with AMD GPUs in their system to render faster, potentially saving them a lot of time. It also gives customers that are currently interested in purchasing new hardware more options as they are no longer forced to purchase, typically more expensive, NVIDIA graphics cards.



An AMD RX 9000 series card (top) and the RX 7000 series below.

Rendering – Light layers (2025.2)

Application

Product Marketing

Workflow Step

Fine-tuning the lighting before rendering

Customer Problem

When a certain surface or part of a KeyShot Studio scene needs more light from a different angle, a specific highlight or specular reflection etc., to visually 'pop' and look great, users typically add primitive lights (spot or planar) to add and fine-tune this lighting accent.

Since lights affect the entire scene, this can have an unwanted effect on the other surfaces and parts of the scene. This means that users need to make compromises – they need to balance the lighting needs of all the different parts to ensure that each part looked as good as it could without negatively affecting the lighting in another spot.

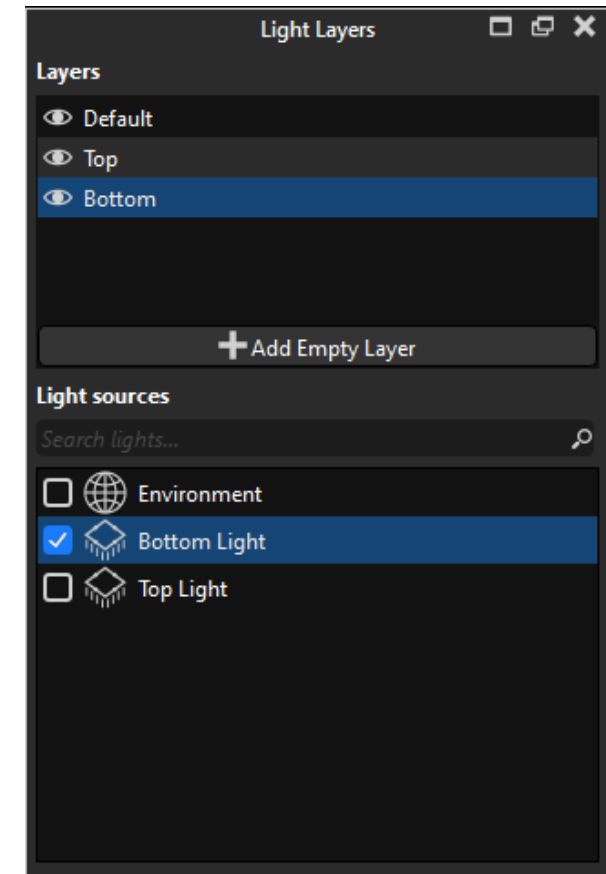
Customer Solution

With Light Layers, users can now limit the effect that a primitive light has on just the surfaces and parts they choose. This means that users do not have to compromise anymore and can simply dial in the perfect lighting for each part completely on its own. This is not possible in real-life photography and physically incorrect but does make it much easier to achieve the exact results that users are looking for.

Customer Benefits

Light Layers saves the user a lot of time when they are tweaking the light setup for their scene, making it unnecessary to go back and forth many times between the different areas where a scene needs more or less lighting. This is especially helpful towards the end of the lighting process when an overall lighting setup has been achieved by conventional means, without Light Layers, and now the goal is to tweak the highlights on the different parts in the scene without spending a lot of time on finding compromises.

Additionally, Light Layers make it possible to achieve better looking results than ever before due it now being possible to achieve lighting that is not physically realistic but does produce more aesthetically pleasing highlights on individual parts of the scene for example.



The UI of the Light Layers tool. Users select or add new layers in the top section, then control the environment and physical lights that are active within each selected layer.

Rendering – Light layers (2025.2)



A rendering of an iPhone 16. The visible aluminum side of the phone has been carefully lit such that visually pleasing highlights occur in the corners and along the three buttons, directing the eye to the interesting spots in the design.

The lights used to achieve this look on the side of the phone have however also produced a sharp horizontal line across the reflective screen on the front of the phone, which is generally undesired.



Using Light Layers, it is possible to limit the lights that give the side of the phone their polished look to only that part, meaning that the screen on the front of the device is not affected by these lights at all. Then other lights can be dialed in and limited to just the screen to ensure this part looks exactly as desired as well. In this case, a diagonal line was produced across the screen.

Materials – Randomization nodes (2025.2)

Application

Product Marketing

Workflow Step

Creating natural variation in background objects

Customer Problem

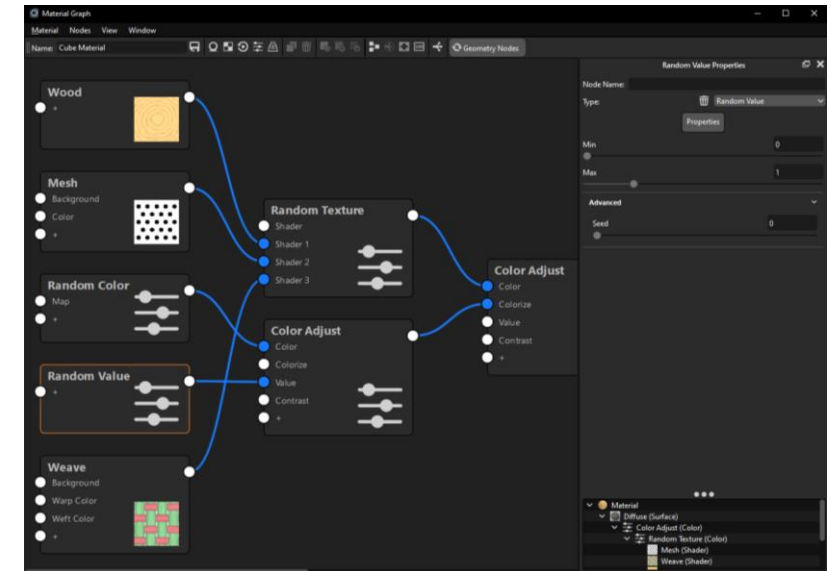
Background objects and materials can suffer from visible repetition. Tiles on a wall can be too identical to be realistic, wooden panels that make up a floor can have the same exact grain pattern etc. Manually creating this variation takes a lot of time as each repeating element must be manipulated or even re-modelled by hand. Furthermore, customizing the wood grain pattern for each wooden panel for example means taking one wood material and manually duplicating it for each element, then modifying each copy of the original material by changing the grain pattern on it. If there are 25 wooden panels, the user goes from one original wood material to 25 customized wood panel materials. This is especially problematic if the user later wishes to change all wooden panel materials, for example to make them darker or lighter, as they now must change all copies equally with no mechanism to easily copy over the changes without also removing the customization work from before.

Customer Solution

With the new randomization nodes in KeyShot Studio 2025.2's material graph, users can easily create random variation inside a material that breaks repeating patterns. Material graphs can now use the new "Random float", "Random shader" and "Random UV shift" nodes to generate randomness that is unique for every instance of the material, meaning that each part the material is applied to can look different without requiring any duplicates of the single original material. The random numbers from these nodes can be used in many creative ways as they can, like all other nodes in the material graph, be connected to numerous different other nodes and drive different parameters this way. They can for example be used to randomly offset UV coordinates, giving each stone tile or wooden panel its own look and grain pattern, they can be used to make individual stone tiles slightly darker or brighter, and can even move parts randomly via displacement.

Customer Benefits

The addition of the randomization nodes makes it possible to create more realistic and natural looking scenes that include repeating elements with a smaller amount of original hand-created or manually tweaked assets, thus saving the user time.



Some of the new randomization nodes in the material graph. A random texture is chosen (wood, mesh or weave) and colored with a random color that itself has had its value adjusted by a random value. The random value node is selected, and its parameters can be seen in the sidebar on the right: Both the minimum and maximum value for the node can be tweaked, as well as the seed number.

Materials – Randomization nodes (2025.2)



A simple application of the Random Color node. The gems in this ring are individual parts with the same linked material applied.

They have the same exact transmission color in the rendering on the left, making them look unnaturally alike. On the right, a Random Color node has been used to slightly vary the hue, saturation and value of each individual gemstone. This results in a more realistic and organic looking image.

Note that both renderings are made with a single gem material without duplication.

Materials – Randomization nodes (2025.2)

The rendering on the left suffers from repetition issues: The wood grain pattern is repeated exactly on each door and floor panel and all the wooden elements have the same overall brightness.



On the right, randomization nodes have been used to automatically fix these issues.

The doors have their UV texture coordinates randomized, which makes the pattern not repeat. The same goes for the wooden floor panels. Here, a random value node was used to additionally vary the brightness of each panel, leading to an even more organic and natural look. The latter has also been applied to the wooden blocks on the back wall and ceiling.

Materials – Randomization nodes (2025.2)



Randomization nodes can, in combination with the displace geometry node, even generate random surface details. In this case, the height of the square elements is controlled by a random value node.

Quality of Life – Color picker overhaul (2025.2)

Application

Product Design / Product Marketing / Product Documentation

Workflow Step

Picking colors, creating and managing multi-colors, linking or unlinking colors

Customer Problem

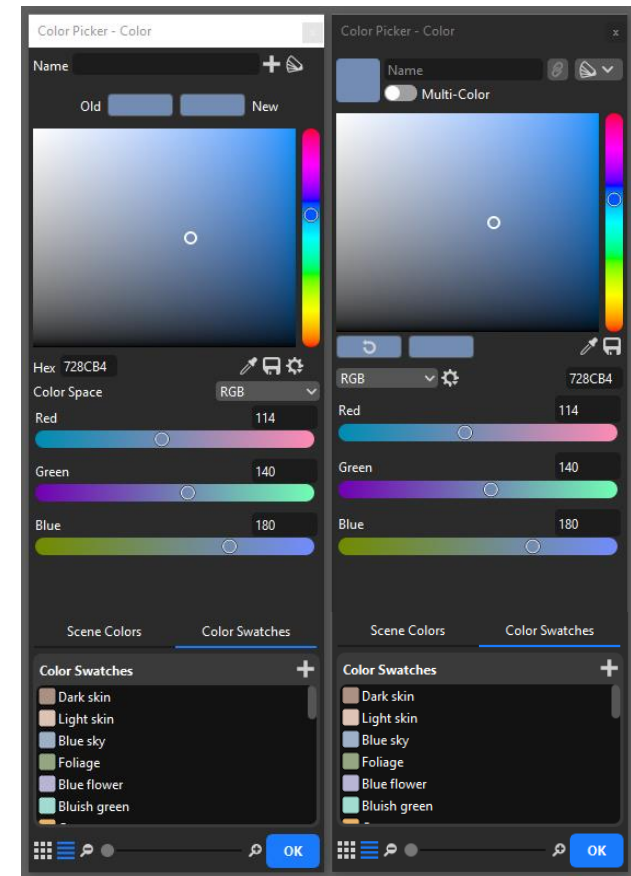
KeyShot Studio 2024.2 introduced both the concept of multi-colors (colors that can have multiple variations - analog to multi-materials) and linked colors (the ability to use one color in multiple slots, for example in two different materials, and when changing this color in one place, the color changes everywhere - analog to linked materials). But it was not easy to see which colors were multi-colors and which colors were linked, leading to confusion and accidental and unintended changes in colors.

Customer Solution

KeyShot Studio 2025.2 features a redesigned color picker that makes it much easier to visually understand which colors are multi-colors and which are linked.

Customer Benefits

This change makes KeyShot Studio easier to use, saving time otherwise spent on troubleshooting why the color system is behaving as it is.



The old color picker from KeyShot Studio 2025.1 on the left and the new and improved UI from 2025.2 on the right. Notice the link button next to the name textfield at the top and the multi-color checkbox underneath. These two additions visualize and control which colors are linked or multi-colors.

KSS CAD Integration – Solidworks plugin with decal support (2025.2)

Application

Product Design

Workflow Step

Bringing Solidworks scenes with decals into KeyShot Studio via the plugin

Customer Problem

Solidworks scenes can include parts that have decals. These decals work exactly like labels in KeyShot Studio and can be used to represent stickers, logos, flat screws and many other material details. When transferring a scene from Solidworks to KeyShot Studio via the plugin or import, these decals in Solidworks would however disappear as they were ignored by the plugin.

Customer Solution

Alongside KeyShot Studio 2025.2 we are releasing a new Solidworks plugin that can also transfer decals and convert them into KeyShot Studio labels. It is important to note that importing Solidworks files with decals through File > Import still results in the decals disappearing, it is only the plugin we provide that solves the customer problem.

Customer Benefits

This new plugin makes it possible to position stickers, logos etc. once in Solidworks and means users no longer have to recreate the effect the decals had again in Studio with labels. This saves users time.



The label on the bottle has been created as a decal in Solidworks and will be - once brought into KeyShot Studio 2025.2 via the latest Solidworks plugin - imported as a label and rendered correctly.

Content – PANTONE© Dualities colors (2025.2)

Application

Product Design

Workflow Step

Applying accurate real-life colors to products

Customer Problem

The newly released Duality colors from PANTONE were not supported in KeyShot Studio 2025.1 and prior. This made it impossible to use these official colors in product designs.

Customer Solution

KeyShot Studio 2025.2 does include these 175 new colors from PANTONE and thus makes it possible for Product Designers to use them in their work. They are available for both the cotton and plastic PANTONE palettes in KeyShot Studio's color library.

Customer Benefits

The ability to use the latest colors from PANTONE that look the same in renderings and the real world thanks to PANTONE's color calibration.



Trials – Simplify trial activation (2025.2)

Application

Product Design / Product Marketing / Product Documentation

Workflow Step

First contact with KeyShot Studio

Customer Problem*

New users who want to trial KeyShot Studio need to click through around 16 steps and need to enter their information at 3 different steps. This happens at account creation, trial request form and activation wizard, which asks for different kind of information. At this point, users get no additional information about trial codes.

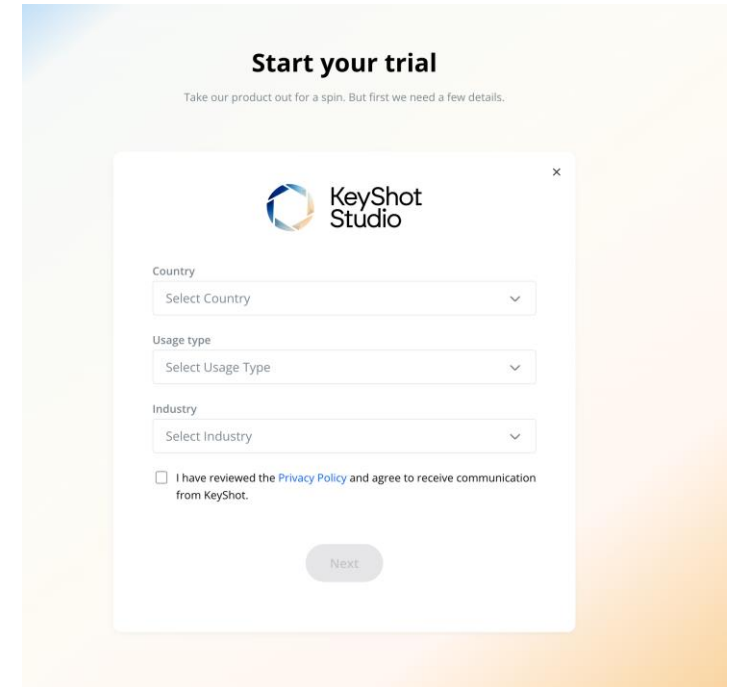
Customer Solution*

Now, new users need to click through only around 9 steps and enter their information in account creation and their account page. In their account page they can activate a trial, enter their trial code and get additional information, and download the installer.

Customer Benefits

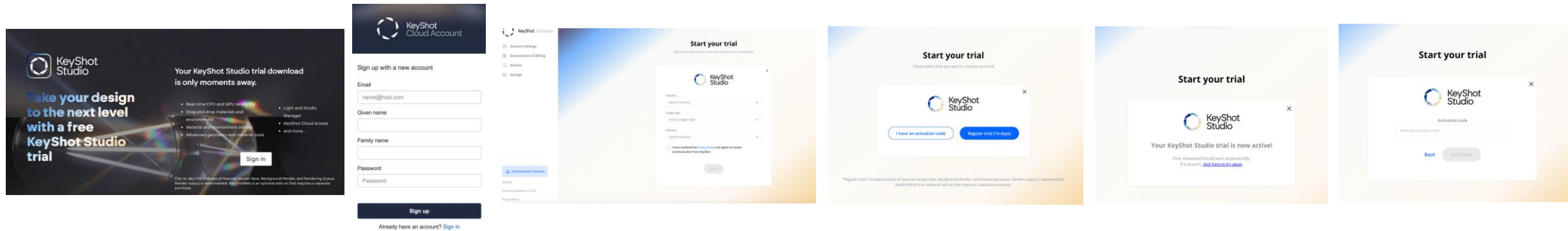
The new, improved flow is designed to help new users get faster to KeyShot Studio. Also, they get more information about the benefit of trial codes.

* Internal information only. Do not use for external communication (except for partners).

The image shows a web form titled "Start your trial" with the subtitle "Take our product out for a spin. But first we need a few details." The form is part of the KeyShot Studio interface, as indicated by the logo at the top. It contains three dropdown menus: "Country" with the placeholder "Select Country", "Usage type" with the placeholder "Select Usage Type", and "Industry" with the placeholder "Select Industry". Below these is a checkbox labeled "I have reviewed the [Privacy Policy](#) and agree to receive communication from KeyShot." At the bottom of the form is a "Next" button.

Account information in account page

Trials – Simplify trial activation (2025.2)



New trial flow

What's New in KeyShot Studio 2025.2

