NEW INTERACTIVE PREVIEW ENGINE INSIDE MAXWELL RENDER

Next Limit is pleased to announce that a major new feature for it's acclaimed rendering technology, Maxwell Render, has been on show for the first time this week at the Siggraph event in Los Angeles.

The team at Next Limit have developed their own Interactive Engine for Maxwell Render which provides instant preview results while setting up a scene. And while other render solutions providing GPU-based interactive previews force the user to buy expensive graphics cards to achieve the desired results, the Maxwell Render interactive engine is CPU based, and no special hardware is needed.

This latest new development continues Next Limit´s strategy to build on Maxwell Render´s position as the leader in render quality with innovative solutions, and continue to improve the workflow and interaction between user and render output.

A video showing the new interactive engine can be found at:
http://www.youtube.com/watch?v=hHyrROqAiZM

The questions and answers below provide more detail about the new interactive preview, and how it will work with existing Maxwell Render features. Next Limit will be releasing more information about the availability of the new interactive preview soon.

MAXWELL RENDER´s NEW INTERACTIVE PREVIEW ENGINE – SOME FACTS

In a few words, what is this?

It is our new interactive engine. The goal of this new feature is to provide a much more intuitive and efficient workflow, dramatically reducing setup times and learning curve, and improving the user experience. Under the hood this render engine is a hybrid of the Maxwell Render v2 core technology - plus other optimization algorithms we have been working on.

Do users need any specific graphic hardware to run it?

No. Any system capable of running Maxwell Render v2 can be used with the new interactive engine. Although this engine uses the GPU for certain tasks, it is mostly CPU based so no special graphic hardware is required.

So is it using CUDA?

No. While CUDA is a very powerful technology, especially promising in the rendering area, we consider that for a renderer like Maxwell Render it is still not good to force customers to spend money on dedicated hardware that might be expensive and could be obsolete soon, given the high speed of changes in this area. We do not want to tie customers to specific hardware vendors when there is no standard in this area yet. OpenCL looks like a very interesting option for the future, but the fact is that it still needs time to evolve into any kind of standard used in complex development cycles. For simple renderers, GPUs can be extremely fast, but for a state of the art raytracer like Maxwell Render that can work with large geometries under any kind of complex lighting environment, using multilayered materials, generating several render channels, etc. etc. modern CPUs are able to provide similar performance, even better in some cases, as shown in the videos of this new engine.

Of course at Next Limit, we pay a lot of attention to any movement in this sector, and maybe in future all the render engines in the market will be GPU based. However, we believe that today it is still too premature to get users to spend money on specific hardware that in general does not give the final high-quality results in less time compared with a CPU. We can't let the user choose between options when there is no single path yet. Of course the situation could change, but it is our responsibility to look into all the different options and find out which ones fit better with Maxwell Render.

What are the limitations of this new preview engine? Is it biased? Does it provide a different set of parameters that users have to learn? Can users use normal Maxwell materials...?

The same as the Maxwell Render v2 core render engine, the interactive engine is unbiased, so in the end it converges to the same solution as the normal core engine. The main difference is that it provides a much faster preview than the normal engine so it is perfect for scene setups. For complex indirect lighting, caustics etc. the normal engine might provide better performance. As Siggraph attendees have seen this week, the new preview engine works with normal scenes of any size (some of the demos have scenes of 2 million triangles) and with any kind of material. The render options are also the same used in the normal engine.

Will it be shipped as an standalone application?

No. One thing is clear to us at Next Limit, the main point of an interactive preview engine is to provide the user a way of tweaking the scene quickly, getting an immediate response when a parameter is changed. We do not see the point of making it a standalone application because it would completely break the interactivity it is designed to provide. This way users wanting to change something in their host platform will immediately see the changes reflected in the viewer. The power of this feature would be dramatically reduced if the user has to re-export

the scene from his favorite platform every time a geometry changes. That's why we have completely integrated this interactive engine into Maxwell Studio and we are working in integrating it into the Maxwell Render plugins as well.

How much will the new interactive preview feature cost?

It will be free for Maxwell Render v2 customers.

When will the new interactive preview feature be available ?

The new feature is being demo-ed to the public for the first time at Siggraph. The main development is finished, and is currently being tested, and we expect to release it as an update to Maxwell Render v2 in the next couple of months.