

# EON Ultra™

Create Photo Realistic Experiences in Real-time

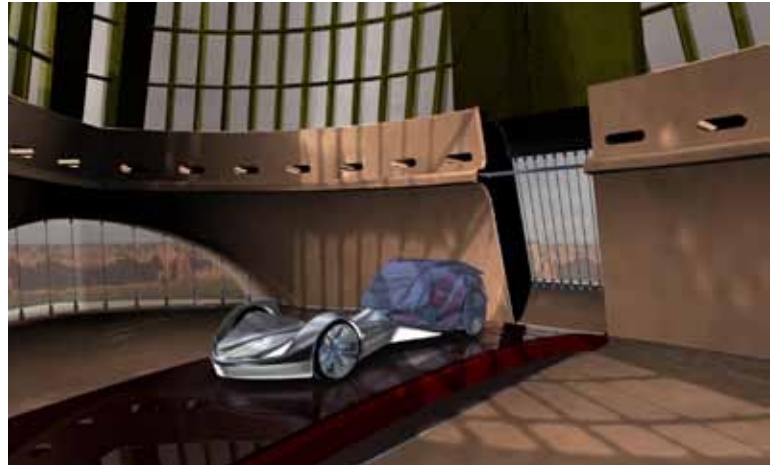


## Why use EON Ultra™?

Today's 3D rendering process is long and requires several iterations and costly renderings. Traditional animation tools require a very long set-up time. EON Ultra allows users to create photo realistic images, videos or real-time 3D simulations with a much better, faster and easier work-flow.

## Key advantages

EON Ultra users can through an interactive session and within minutes generate a full real-time photorealistic 3D environment. The high quality allows users to get a very clear idea of the final project.



Courtesy to Paul Howse, RCA Vehicle Design

*"Design London – a joint venture between the Royal College of Art and Imperial College London– is pioneering the use of Visualisation Technologies to transform the speed, quality and productivity of the design process. For Show RCA 2008, Design London has trained and supported final year students from RCA Vehicle Design to present their work in stereoscopic 3D using the new capabilities of EON Ultra."*

*Jair Munoz Bugarin, Project Manager, Design London*



Courtesy to Sergio Loureiro, RCA Vehicle Design

## What is EON Ultra?

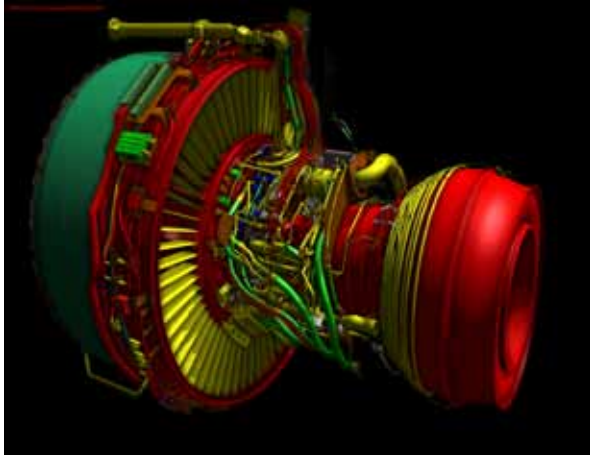
EON Ultra is a tool for fast rendering, visualization and finishing. One of the strengths is its ability to give real-time feedback especially on lights, materials and shaders.

By using drag and drop graphical user interface, the user sets up the lights, adds textures, shaders, global illumination effects, ambient occlusion etc and is able to see the results instantly. Even very complex models above one million polygons can render above 20 Hz. The software can run on a single computer with a good graphics card and does not require a rendering farm.

**EON Ultra** is the latest module built on top of EON Professional with stunning visual effects using a wide range of new CG shaders. Using technologies such as Screen Space Ambient Occlusion (SSAO) and Pre-computed Radiance Transfer (PRT) the user gets Global Illumination effects that takes realism to a new level.

# EON Ultra™

3D Real-time Photorealistic Environment within Minutes



## Key Features

### EON Ultra

- Real-time Plane reflection on any plane object.
- CgFX Support in EON, meaning that users can create shaders using tools like Mental Mill and CgFX composer to create shaders and then export them to CgFX format to be used directly in EON Ultra.
- Global Illumination (GI) using a combination of Screen Space Ambient Occlusion (SSAO) and Pre-computed Radiance Transfer (PRT).
- Precomputed Radiance Transfer (PRT) - rendering technique used to render a scene in real-time with complex lighting effects such as soft shadows, self-shadowing, sub-surface scattering.
- Screen Space Ambient Occlusion (SSAO) - real-time approximation of ambient occlusion that allows for better visual quality while not putting any constraints on how dynamic the scene can be.
- Improved image based lighting workflow for specular and diffuse environment map creation.
- Global Screenspace MultiPass support: Camera bloom, Lens flare, Depth of Field, Tone mapping.
- UltraHDR Material - pass the high-dynamic range values from an HDR image untouched into EON.



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