



EON Professional™

An All Real-Time Experience

Why use EON Professional™?

Until now, companies have been mainly using text, pictures, animations and videos for their product content management. Although all these formats can be stored digitally, they lack the capability of user interaction with the product. Simply put, EON Professional creates digitized product replicas that are "smart", allowing companies to interactively and visually configure, demonstrate, plan and support their products. Once the digital replicas are created, companies can also use EON software tools to publish them either on a PC, CD, Internet or even a stereoscopic immersive large screen display.



Key Features

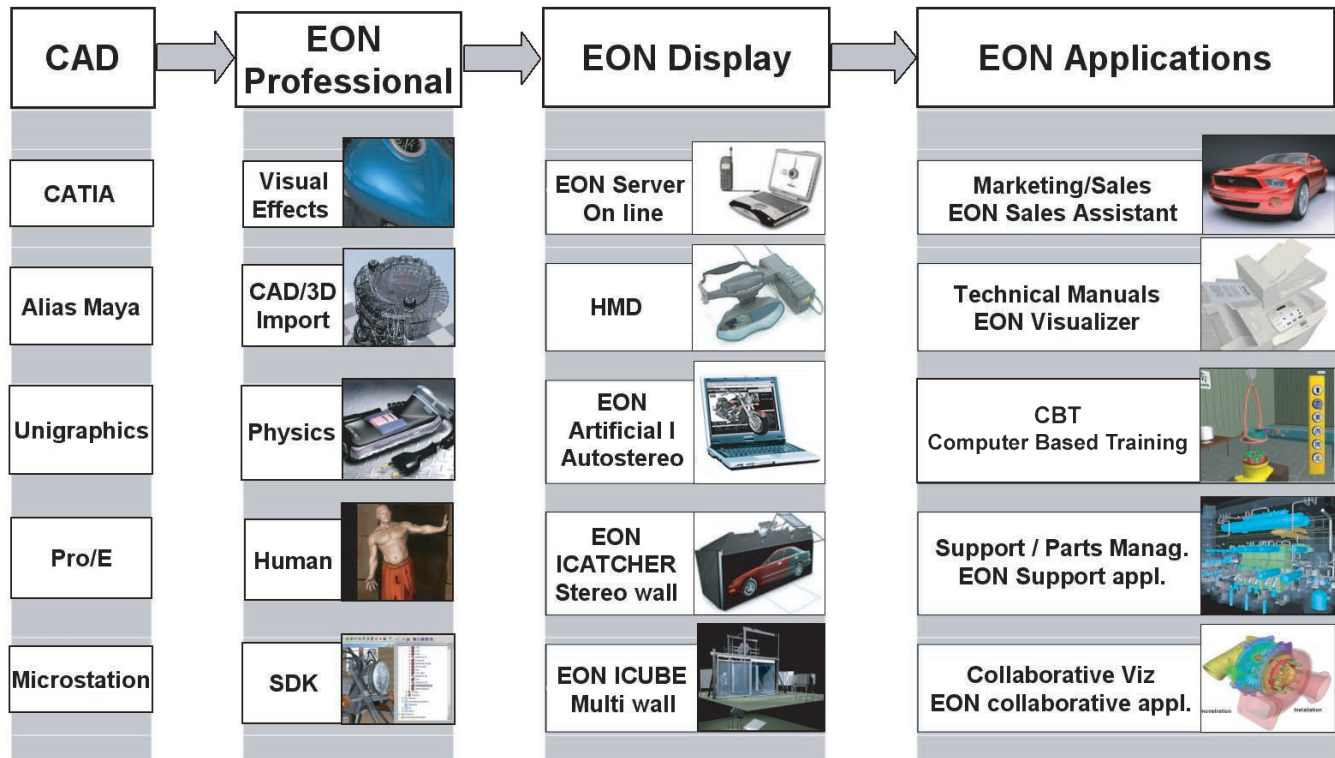
- **EON Visual Effects**, creates ultra-high quality and flexible shading by taking advantage of the latest Cg shader technology available on the latest generation of graphics cards programmable GPUs. Advanced materials include phong-shading, bumpmapping, darkmapping, cubical environment maps, HDR image-based lighting, leather, wood, fabric, NPR (non-photorealistic) hatch shading, and, furthermore, complete custom materials can be created using the generic CgMaterial node by writing your own Cg-programs.
- **EON CAD**, support for more than 120 3D/2D file formats including native support for CATIA, UG, Pro-E, STEP, Microstation, Alias and Maya.
- **EON Physics**, support for kinematics, mechanisms, new collision algorithm, gravity, friction and dynamics.
- **EON Human**, library of humans with motion and native import for Real People format.
- **EON SDK**, Software Development Kit with support for new visual node sets, many more samples and improved user documentation.

"EON Professional brings together the most realistic real-time Visual Effects I have seen in the market with a great physics engine and realistic humans. Finally, I can bring products, environments and characters to life. EON Professional sets a new standard for Virtual Reality and will be a must for all advanced VR developers."

Dennis Cafiero, Visualization Specialist

Advanced Visualization Development & Innovative Applications

EON Professional is improving revenue, productivity, and existing business processes in the area of sales, marketing, training, support, technical documentation and collaborative visualization.



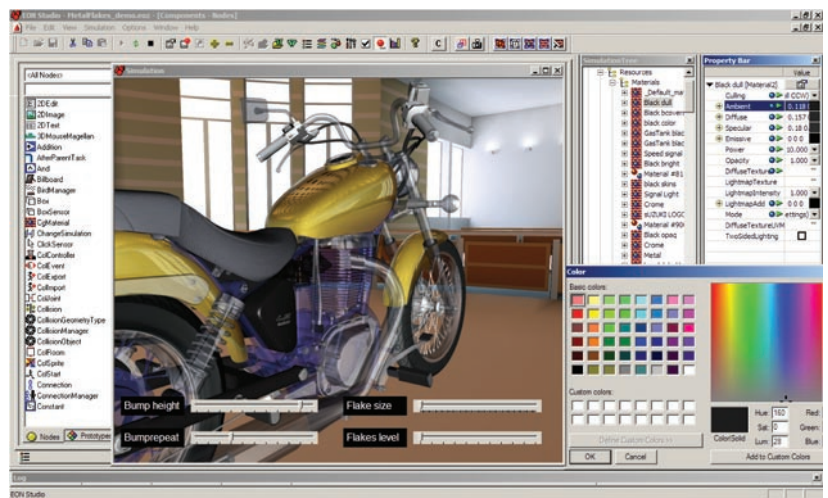
EON Visual Effects Module

For visually demanding applications such as design review and sales and marketing, this software package enables new levels of realism using the real-time Visual Effects module based on Cg scripting.

Cg enables cinematic interactive computing by facilitating the development of real-time photo realistic effects on the PC. Using a library of real-time shaders and visual effects with easy-to-use interface, programmers can write directly to the graphics hardware, enabling rapid development of stunning graphical effects.

Shaders included in this library are; phong-shading, bumpmapping, darkmapping, cubical environment maps, HDR image-based lighting, leather, wood, glass, water, fabric, and NPR (non-photorealistic) hatch shading.

With EON Professional's support for Cg scripting, programmers can develop their own shaders using the Cg scripting language directly inside EON's user-friendly-interface.



"We are truly impressed with the quality of the Suzuki Motorcycle, ATV and Scooter products that are digitally produced with EON software. Just when we think it can't get any better, it does!"

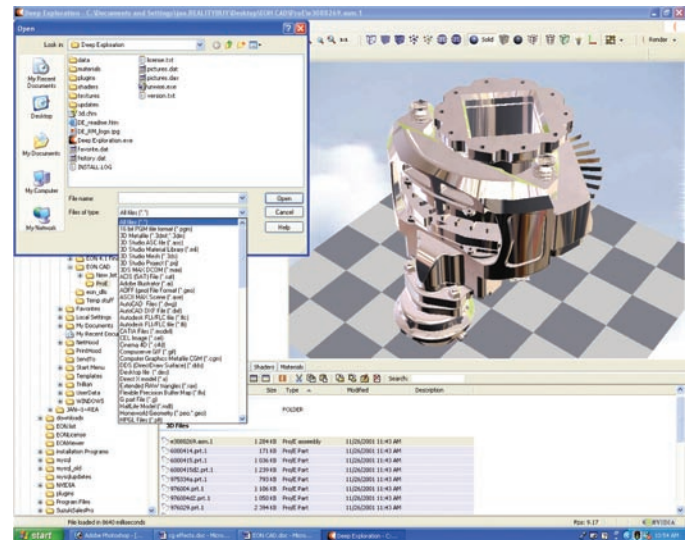
Steve Bortolamedi, Suzuki Dealer Network Manager

Industrial Strength Virtual Reality

EON CAD Module

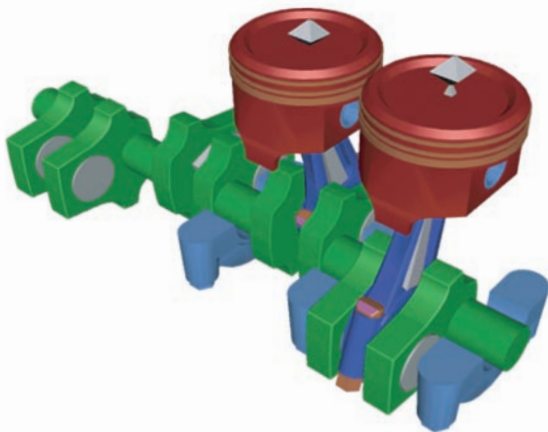
For industrial users, EON Professional comes with an advanced CAD and 3D data exchange module for simple and fast optimization and conversion to native EON formats. Among the over thirty supported formats in the base module are AutoCAD, CADKEY, IGES, Maya, 3ds max, LightWave, SOFTIMAGE 3D and SolidWorks. In addition, users can benefit from features such as key-frame support, automated normal correction, welding of vertices, geometry/surface reduction, and infinite variable adjustable tessellation while UV mapping and textures are maintained.

EON CAD is developed in co-operation with Right Hemisphere and builds on the successful Deep Exploration product, Polytools and CoreCAD modules together with proprietary EON technology. Also, add-on native CAD extensions are available including MicroStation, CATIA, Alias, Unigraphics, Pro/E and STEP with direct translation to EON's native EOZ or EOP formats including batch conversion.



"With EON Professional it will be possible to work directly with the native CAD data that already exist in the design department to create visually stunning sales and design applications."

Francisco Rodriguez, Project Manager,
Sales PRO Content Development



EON Physics Module

For applications demanding a strict replication of real world physics such as support and training, EON Professional is the premiere choice of simulation-based-solutions. The new Physics and Behavior modules are perfect for developers who want to inject lifelike physics into their applications. The EON Professional Physics module provides access to features like gravity, mass, friction, kinematics and physical constraints between objects.

The Physics module is built on the successful Vortex physics engine that is a powerful dynamics engine, based on fundamental Newtonian physics. It also includes a new robust collision detection algorithm with significant speed improvements as well as a high-fidelity vehicle dynamics engine.



"Having quality graphics and a good physics engine compels a simulation to not just look real, but act real as well."

Bob Ferris, President VirTra Systems

These features speed up development, replacing tedious animation creation and algorithm implementation by artists and programmers. Like all EON software, the EON Professional Physics module has an easy to use interface allowing for non-programmers to create advanced physical behaviors.



EON Professional™

The Future for New Feature Development

EON Human Module

The Human module enables architects, developers, engineers and city planners to add a new level of realism with active human objects while reviewing their designs. It also facilitates training of manufacturing, emergency and security personnel providing close-up virtual human library models. EON Human has a seamless interface to the Real People libraries from Archvision.



EON SDK Module

For users in the high-end visualization area, EON Professional comes with a completely enhanced EON SDK module including a new interface and ease of use as well as new and improved documentation and examples. For commercial developer partners, as well as for academic users, this will ease the development of new features as well as interfacing or porting to various hardware systems.

"Incorporating the new Human module features into our existing and future passenger flow simulations will greatly increase their realism, which of course greatly increase their credibility."

Carl A. Johnsson, Bechtel Engineering
Visualization Group Supervisor



"Penn's Center for Human Modeling and Simulation uses the EON Reality SDK for prototyping virtual reality applications and expects the EON Professional generation SDK to provide enhanced tools for virtual human interactions."

Norm Badler, Director, University of Pennsylvania

EON Customers:

- Bechtel
- Boeing
- HON/Allsteel
- Kodak
- Komatsu
- Maytag
- Office Depot
- PB World
- Renault
- Sauder
- Subaru
- Suzuki



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