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.
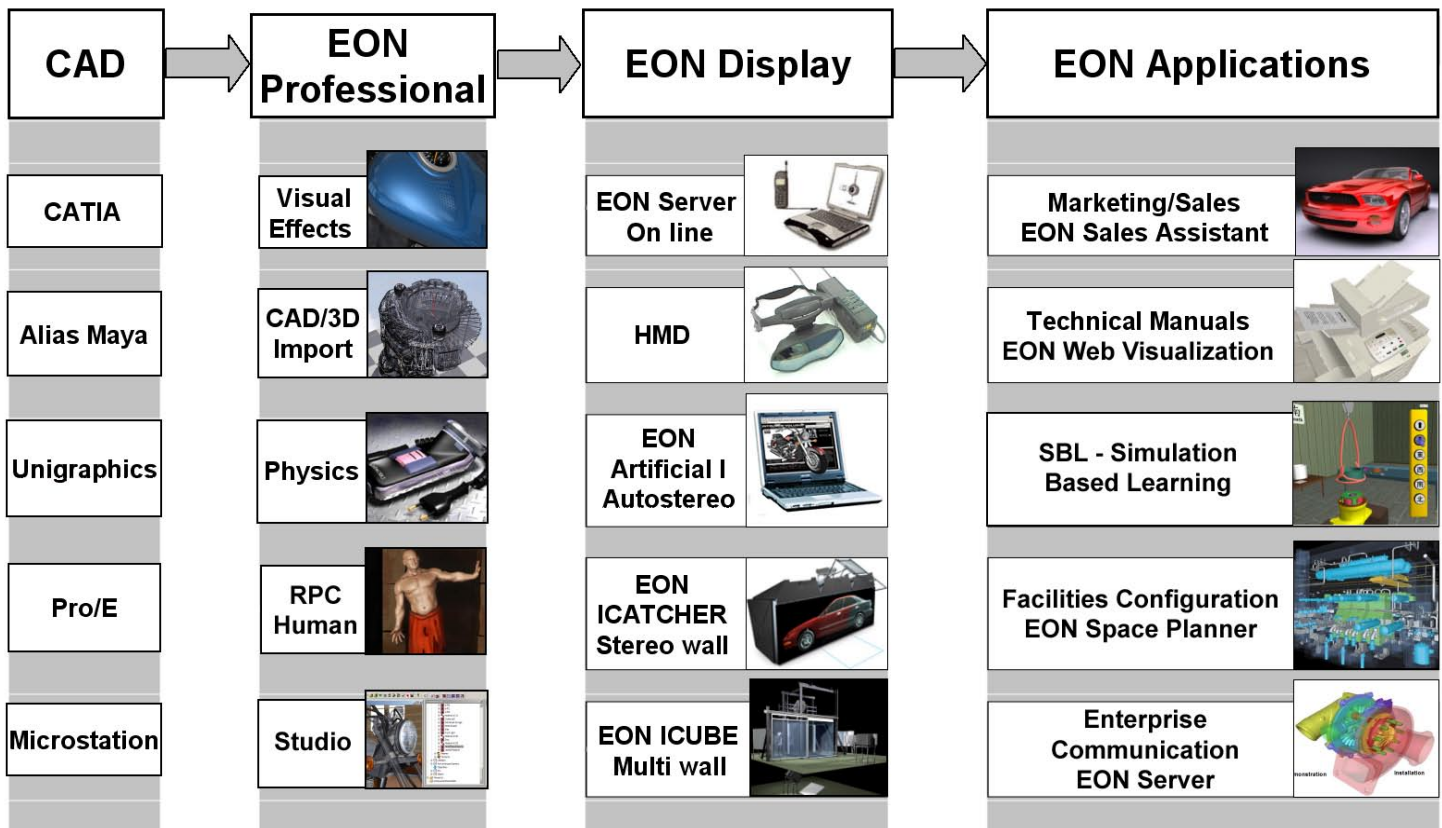
Key Features

- **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 100 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 RPC Human**, library of RPC humans with motion and native import for Real People format.
- **EON Studio**, an authoring tool for developing interactive 3D applications.
- **EON Raptor**, the ultimate 3ds max plug-in for fast viewing of large and complex content in real-time.

"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 communication, productivity, and existing business processes in the area of sales, marketing, training, support, technical documentation and collaborative visualization.

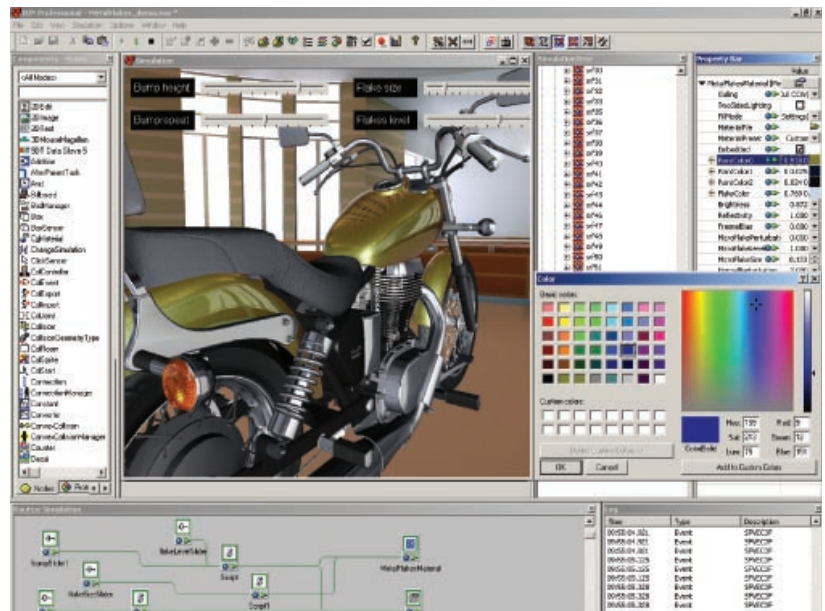| CAD	EON Professional	EON Display	EON Applications
CATIA	Visual Effects	EON Server On line	Marketing/Sales EON Sales Assistant
Alias Maya	CAD/3D Import	HMD	Technical Manuals EON Web Visualization
Unigraphics	Physics	EON Artificial I Autostereo	SBL - Simulation Based Learning
Pro/E	RPC Human	EON ICATCHER Stereo wall	Facilities Configuration EON Space Planner
Microstation	Studio	EON ICUBE Multi wall	Enterprise Communication EON Server

EON Visual Effects Module

For visually demanding applications such as design review, 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 into 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 scripting 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!"
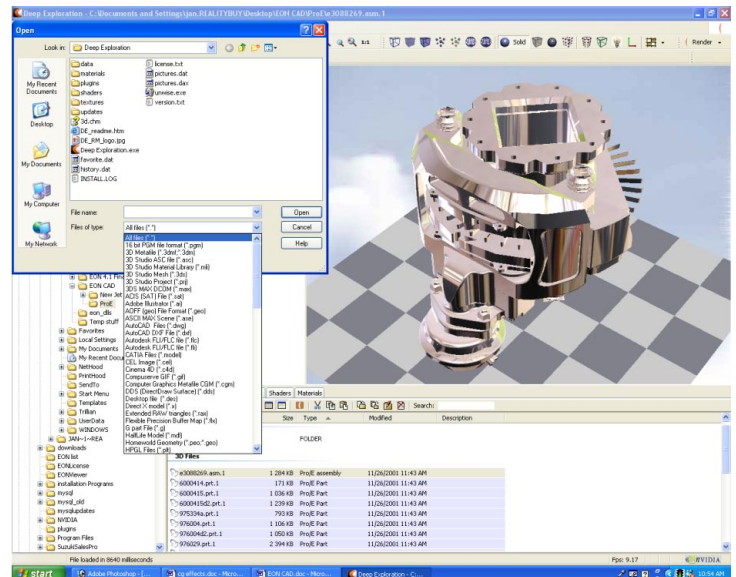
Steve Bortolamedi, Suzuki Dealer Network Manager
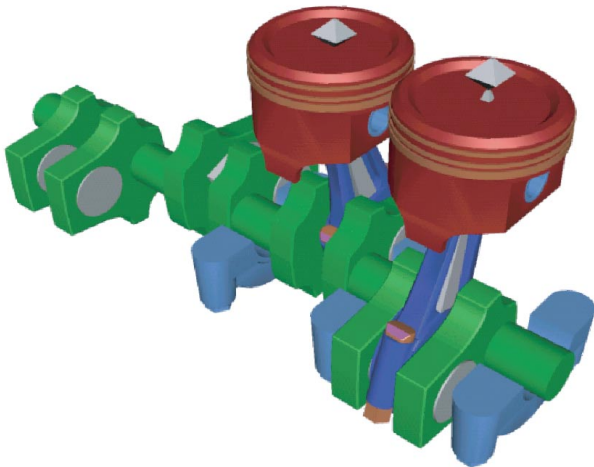
Industrial Strength Virtual Reality

EON CAD Module

For industrial users, EON Professional comes with an advanced CAD and 3D data exchange module for simple and fast optimization and coversion 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 extentions 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 Simulation Based Learning, support and training, EON Professional is the premiere choice of simulation-based-solutions. The 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 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 RPC Human Module

The RPC 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 RPC Human has a seamless interface to the Real People libraries from Archvision.

EON Studio™

EON Studio is the basic authoring tool that allows users of all experience levels to build simple interactive product content quickly and easily with no programming experience required.

"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

EON Raptor™

EON Raptor is the ultimate plug-in for Autodesk 3ds max for fast real-time viewing of large and complex models and rapid creation of interactive content for the Internet and standalone applications. You can create interactive content without any programming skills and publish it to the Internet in minutes. The publishing online is FREE of charge.

EON Customers:

- Atlas Copco
- Bechtel
- Boeing
- Bombardier
- Exxon Mobil
- GE Healthcare
- HON/Allsteel
- Honywell
- Intel
- Lexus
- Peterbilt
- Parsons Brinkerhoff
- Subaru
- Suzuki
- Tetra pak
- Toyota
- Whirlpool

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