



EON Reality Launches EON 7.0 Virtual Reality Enterprise Suite

Technical Data Update Sheet

The new EON 7.0 update includes enhanced versions of EON Studio, EON Professional, EON Ultra, EON CAD and EON Raptor product solutions. Try EON 7.0 at EON Reality's brand new support site, www.eonreality.com/support.



Controlling and editing real-time pixel-based lights using EON Light Editor

The following are some of EON 7.0 key updates:

- **Completely rewritten light system** which uses the programmable pipeline in the graphics card to give you more lights than what can be handled by the standard OpenGL light system. It also allows you to create more sophisticated shader-based materials and visual effects.
- **A new shader-based material** (ShaderMaterial) has been created to fully support this new lighting system, so that you can create highly realistic and advanced materials that support visual effects such as multiple shadows.
- Many of the **visual effects** that we have introduced in EON Ultra 2009 are now **also available in the EON Icub** and other multi-wall immersive systems.
- **A new physics system** based on the Nvidia PhysX engine has been introduced, that replaces the old Dynamics nodes in EON Professional. Currently, some fundamental features are implemented, like character controller, rigid body and fluid. EON Standard Edition has basic kinematics nodes while EON Professional has more advanced dynamics nodes. Nvidia PhysX System Software is required to use physics in EON, download it at: http://www.nvidia.com/object/physx_9.09.1112.html.
- **A LightEditor prototype** - will help you lighten the scene in a much faster and efficient way. There are 4 different types of light to choose from: Ambient, Directional, Point, and Spot.

- **Smoke and fire effects** can be visualized by using the new Particle Material together with the new physics system in EON Ultra.

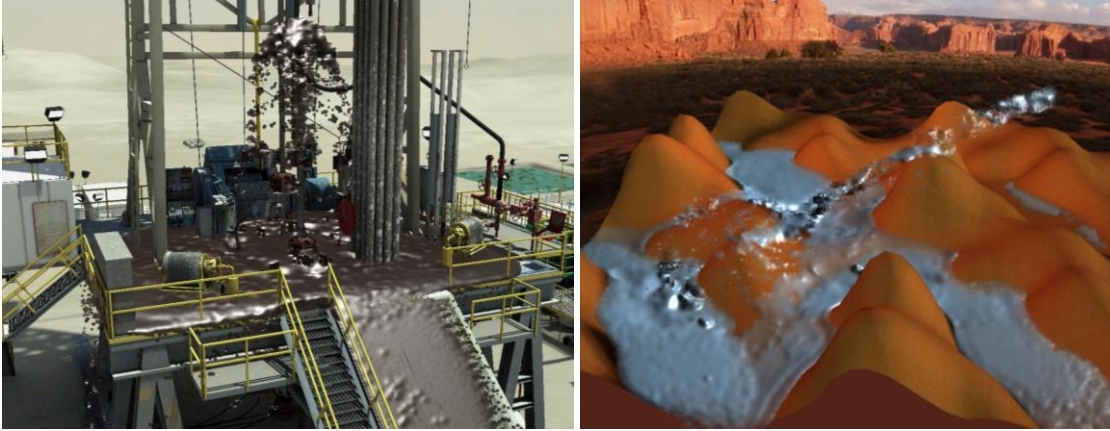


Smoke and fire simulated with up 65 000 particles individually interacting with each other, dynamic rigid bodies and the environment.

- **EON Viewer can be installed as "per-user"**, meaning it can be installed by a user without administrator level access to the computer. An installation of this type is only visible and available to the user who installed it.
- One of the new things with **EON 7.0** is that it **can be installed in parallel with any old version of EON without a problem**. This means that you can have the two versions installed simultaneously without effecting each other and you will not get the infamously dll dependency problem we have had for years.

Some of the new features of EON 7.0 are:

- We have a new and rewritten pixel bases lighting system with an easy to use **Light Editor**. Now you can achieve very good visual quality without need for texture baking.
- Support for Nvidia's PhysX engine. With this new physics engine we can start using **real-time rigid body dynamics** for real and it has a tremendous potential since Nvidia is continuing to develop more features. The new physics engine is a lot **more stable** than the previous one and can handle larger scenes without crashing. If you are using an Nvidia card you can also take advantage of **hardware acceleration** for complicated physics simulations.
- Physics doesn't only give you rigid body dynamics; it also supports **real-time particle systems**. Currently we support three types of particle systems; **Fluids, Fire and Smoke**. All three doesn't only look good, it will also collide with other objects. This means that you can for example lead smoke or fluids through a pipe. This can be extremely useful for our larger projects in Oil & Gas and Nuclear.



Real-Fluids used to simulate oil leak in a Middle Eastern drilling rig.

- We have also **cleaned up the code** and removed old nodes and components that are not used anymore with a result of a much smaller EON Viewer size. The size went down for more than 20MB to around 7MB.
- New is also that we have **only one installer for all EON Software** from EON Studio, EON Professional, and EON Icube to EON Ultra etc. The license decides what modules should be active. This way it is easier for people to try a new module and when you want to upgrade you just need to get a new license. We have also removed all content and placed that in a separate download/DVD. This way we get a very small installation file of only 250MB for all software (except EON Raptor and EON CAD).