



E-on Software Announces the Availability of its 2021.2 Release for VUE, PlantFactory and PlantCatalog Solutions

e-on software's 2021.2 release adds over 800 additional feature, performance and user experience enhancements including shader conversion for Redshift and RenderMan, Unreal Engine PlantFactory importer plugin tech preview, NVIDIA Omniverse Live sync and extensions, AMD denoiser for Path traced renders, new Clearcoat material properties, faster render times, and improved function graph workflow.

Paris, France – December 9, 2021 – E-on software, a leading global developer of software for the creation, animation, rendering, and integration of natural 3D environments in the computer graphics, VFX, architecture, and gaming industries, announced the immediate availability of the 2021.2 Release of its VUE, PlantFactory and PlantCatalog Exporter software.

A new free trial version is also available of its VUE and PlantFactory software which includes all the updates from the new release.

VUE What's new page: https://info.e-onsoftware.com/vue/new_features

PlantFactory What's new page: https://info.e-onsoftware.com/plantfactory/new_features

The full release note details are available online at: <https://info.e-onsoftware.com/release-notes>

Shader Conversion – Maxon Redshift

The VUE, PlantFactory and PlantCatalog integration plugins can now create materials for Redshift 3.0.46 and up. Redshift material creation is supported in Cinema 4D R23 and above and Maya 2020 and above.

The plugins offer a choice between materials with a regular alpha channel and materials that utilize Redshift's unique sprite node, which is highly recommended for best rendering performance.

This first technology preview already supports a vast majority of material properties. E-on software will continue to add even more properties and features, e.g., automatic Redshift proxy creation, as well as extend this feature towards more host applications and older Cinema 4D versions with future releases.



Shader Conversion – Pixar RenderMan

Renderman 24.1 and up is now supported by the VUE, PlantFactory and PlantCatalog integration plugins in Maya 2020 and above. In this first technology preview, simple materials will be converted into a PxrSurface with default material channels such as Diffuse / Albedo, Alpha or Normal.

More material properties and channels will be supported in upcoming releases, as the company continues to expand its material conversion systems.

PlantFactory and PlantCatalog Unreal Engine Integration Plugin Tech Preview

Like the PlantFactory integration plugins already available for 3ds Max, Maya, and Cinema4D, e-on software now ships a native Unreal Engine integration plugin, allowing artists to use the procedural power of PlantFactory vegetation directly inside Unreal Engine.

The plugin allows generating new variations, adjusting wind intensities, changing presets, or editing global parameters such as Maturity, Health and Season. Any published parameter will be accessible in the plugin. Native UE shaders are created at conversion time.

NVIDIA Omniverse Live Sync and Extensions

An Omniverse unidirectional Live Sync connector is now natively available in VUE, PlantFactory and PlantCatalog Exporter. Artists can make edits and see them update in Omniverse immediately.

VUE live syncs entire scenes to the Omniverse stage, including lights, non-procedural materials, skies, cameras, EcoSystem populations (hand-drawn or auto-populated) and any type of mesh object manipulation (move, scale, add, delete, etc.). PlantFactory and PlantCatalog Exporter sync any procedural vegetation geometry and shader modification.

Additionally, the new PlantFactory and PlantCatalog Omniverse extension plugins can send exported USD vegetation assets back to PlantFactory / PlantCatalog Exporter, recreate all parameters and presets that were saved during USD export and enable live editing in the app. Any content exported to Omniverse will thus always remain procedural and can be edited again at any time.

More information is available on the company's dedicated Omniverse page: <https://info.e-onsoftware.com/omniverse>

Interoperability and integration technology updates

The integration plugins are now supported in Autodesk 3ds Max 2022, Autodesk Maya 2022 Cinema4D S24 and R25. PlantFactory and PlantCatalog importer plugins are also available for Unreal Engine 4.24 to 4.27.



VUE Convert tools can now use Particle Flow (3ds Max) and Mash (Maya) to convert EcoSystem populations.

Other notable new features in VUE and PlantFactory 2021.2

In addition to the main features, e-on software has added over 800 other enhancements and fixes enhancements such as:

- All applications now natively support MacOS Monterey (running the apps on an M1 architecture still requires going through Rosetta 2 currently) and Windows 11.
- New PBR channel for Clearcoat, including Intensity, Tint, Roughness, IOR, Clearcoat Normal Map and flatten settings.
- Atmosphere rendering sped up by up to 10% and cloud rendering up to 20%
- Improved rendering performance for heightfield terrains by up to 30% for 8k terrains
- Up to 5x faster scene loading times
- Redesigned Nodes & Nodal Workflows in the function graph
- The AMD denoiser was added to the path tracer
- The denoising strength for all denoisers can be adjusted in the path tracer render settings
- New altitude graph input for clouds & new position modes for cloud materials
- Improved rendering of soft shadows on clouds
- Improved performance when painting EcoSystems
- PBR materials can now be fully baked, exported and converted to native materials in VUE standalone and in the convert tool in the plugin
- Customizable OpenGL colors for different EcoSystem populations
- Better OpenGL lighting, including auto-exposure and ambient light
- Reduced memory footprint for procedural terrains and faster render preparation
- Added support for animated PlantFactory conversion in Cinema 4D
- New Python functions and arguments for existing functions in the VUE Python API
- Displacement in the convert tools can now either be baked into the geometry or recreated as a native shader
- Spline stroke UV input node to apply material effects along the geometry of a spline while preserving aspect ratios
- Arnold procedurals / stand-ins / proxies now support animated EcoSystem items
- Highlights, reflection, and backlight baking is now supported in the convert tool
- New blending settings in PlantFactory
- Improved mesh topology through axis spline post processing settings
- New growth and placement modes for children
- New dependency and math nodes
- And a lot more

⁽¹⁾ Export and Integration Plugins are only available in Professional and Enterprise solutions

Availability

The new update is available for download as a free software update for all registered users of the company's VUE, PlantFactory and PlantCatalog solutions. Users will find the software update download links on their [user account](#) page (under the Software Center tab)

The 2021.2 trial versions are also immediately available at no cost from <https://info.e-onsoftware.com/try>.

All VUE and PlantFactory software titles are available in English, French and German and perform under all versions of Windows 8, Windows 10 and Windows 11(64 bit only), and Mac Intel (64 bit) for MacOS 10.14 to MacOS 12.

Supporting resources

VUE and PlantFactory 2021.2 presentation videos:

- Converting VUE scenes to Redshift in Cinema 4D: https://youtu.be/KI_IL6PBAAs
- Creating Redshift materials for PlantFactory and PlantCatalog plants in Cinema 4D: <https://youtu.be/AcUn1UrDUKA>
- Converting VUE scenes to Redshift in Maya: https://youtu.be/Fhlx_T9z4rU
- Creating Redshift materials for PlantFactory and PlantCatalog plants in Maya: https://youtu.be/UMf_coFVTCY
- Converting VUE scenes to RenderMan in Maya: <https://youtu.be/YaWrSK16Lfo>
- Creating RenderMan materials for PlantFactory and PlantCatalog plants in Maya: <https://youtu.be/qjeaCjhfnRs>
- VUE scene live sync to NVIDIA Omniverse: <https://youtu.be/T-RjtY5s4pI>
- PlantFactory and PlantCatalog integration with Omniverse: <https://youtu.be/wfPOZ0B1jsU>
- PlantFactory (& PlantCatalog) integration plugin for Unreal Engine 4: <https://youtu.be/6Rkzcx0ln2o>
- Better topology with axis controls in PlantFactory: <https://youtu.be/ztGM3XDLzBo>
- Workflow improvements in the VUE Function Editor: <https://youtu.be/cNHG9k2uFnM>
- PlantFactory quick tip: Improved graph workflows: https://youtu.be/uQHgOvD_OsM
- Setting up clearcoat properties in PBR materials in VUE: <https://youtu.be/NcJIIwSt488>
- PlantFactory quick tip: Improving blending transitions with complex geometry: <https://youtu.be/OwPMm8L9TNg>

More information on VUE: <https://info.e-onsoftware.com/vue>

More information on PlantFactory: <https://info.e-onsoftware.com/plantfactory>

More information on PlantCatalog: <https://info.e-onsoftware.com/plantcatalog>



Video demonstrations for all available species in the PlantCatalog collection can be viewed on the company's dedicated [YouTube playlist](#).

About e-on software

E-on software is the leading developer of solutions for the creation, animation, rendering and integration of natural 3D environments (VUE, PlantFactory and PlantCatalog). E-on software products are used worldwide by the film, television, architecture, game, science, educational and entertainment industries.

E-on software products were used in feature films such as "Dr. Strange," "Kubo and the 2 Strings," "Jupiter Ascending," "Minions," "Guardians of the Galaxy," "The Croods," "Dragons 1&2," "Hunger Games," "Hugo," "Tintin," "Super 8," "Thor," "Avatar," "Clash of the Titans," "Sucker Punch," "Despicable Me 1&2," "The Wolf Man," "2012," "Lovely Bones," "GI Joe – The Rise of the Cobra," "Land of the Lost," "Terminator 4," "The Curious Case of Benjamin Button," "Indiana Jones 4," "Monster Vs Aliens," "Australia," "The Spiderwick Chronicles," "KungFu Panda," "Pirates of the Caribbean 2" and TV series such as "Spartacus," "Smallville," "Battlestar Gallactica," "Caprica," "Stargate Atlantis," "Stargate Continuum," "The Vampire Diaries" and more. Read more on these stories in e-on software's Spotlights section: <https://info.e-onsoftware.com/meetourusers>

E-on software was founded on the premise that powerful graphics tools should never get in the way of the designer's creativity. By investing significant resources in research and development, e-on software is able to deliver cutting-edge, user friendly technologies that produce stunning digital nature scenery.

In 2015, e-on software was acquired by Bentley Systems and now operates as an internal venture subsidiary.

E-on software is based in Paris, France. For more information visit <http://www.e-onsoftware.com>.

About Bentley Systems

Bentley Systems (Nasdaq: BSY) is the infrastructure engineering software company. We provide innovative software to advance the world's infrastructure – sustaining both the global economy and environment. Our industry-leading software solutions are used by professionals, and organizations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, mining, and industrial facilities. Our offerings include MicroStation-based applications for modeling and simulation, ProjectWise for project delivery, AssetWise for asset and network performance, Seequent's leading geosciences software portfolio, and the iTwin platform for infrastructure digital twins. Bentley Systems employs more than 4,000 colleagues and generates annual revenues of more than \$800 million in 172 countries.



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