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VUE xStream 2016:   Overview   xStream Integration   New in 2016   **Feature List**   Requirements & Pricing   Try   Buy Now!

Feature List

Compare Versions of VUE

Compare **VUE xStream 2016** with:

☐ Vue 9.5 Infinite   ☐ Vue 11.5 Infinite
☐ Vue 9.5 xStream   ☐ Vue 11.5 xStream

[Compare!]

☐ Vue 10 Infinite   ☐ VUE Infinite 2014.5
☐ Vue 10 xStream   ☐ VUE xStream 2014.5
☐ Vue 10.5 Infinite   ☐ VUE Infinite 2015
☐ Vue 10.5 xStream   ☐ VUE xStream 2015
☐ Vue 11 Infinite   ☑ VUE Infinite 2016
☐ Vue 11 xStream

☐ Only show differences

Lighting	VUE Infinite 2016	VUE xStream 2016
Global Illumination	•	•
Global Radiosity	•	•
Physically accurate Photometric sunlight model	•	•
Photometric model optimizations for dramatic increase in rendering speed	•	•
Fast in-depth computation of reciprocal object lighting for accurate indoor lighting	•	•
Radiosity engine optimized for...	Indoor or infinite scenery	Indoor or infinite scenery
Global ambiance	•	•
Ambient occlusion with user definable occlusion range	•	•
HDRI support	•	•
Photometric lighting produces physically plausible HDR outputs	•	•
Image based lighting	•	•
Background and environment mapping	•	•
Sub-Surface Scattering: Absorption	•	•
Sub-Surface Scattering: Multiple Internal Scattering	•	•
Sub-Surface Scattering depth parameter in the Material Editor	•	•
Modulate the Sub-Surface Scattering depth using a function graph	•	•
Easy GI single slider Global Illumination render quality setting	•	•
Illumination baking	•	•
Illumination baking quality adjustable on a global or per object basis (adjustable map resolution and quality boost)	•	•
Adjustment of Global light intensity	•	•
Indirect lighting can be ignored on specific objects	•	•
Influence of specific lights can be ignored from the Radiosity solution	•	•
Advanced control over the indirect lighting engine	•	•

Show illumination samples in final render	•	•
Separate map option for background, IBL and global reflection map channels	•	•
Shadow and volumetric light optimization for dramatic increase in rendering speed	•	•
Light gels with realistic projection modes	•	•
Adjustable light shadow density, negative lights	•	•
Enable diffuse and highlight on a per-light basis	•	•
Custom light intensity vs. distance profiles	•	•
Lights can affect specific objects only	•	•
Variable light color based on distance to light	•	•
Area light panel for soft, natural lighting	•	•
Higly optimized unbiased Area Light rendering algorithms minimizes noise	•	•
Light emitting objects	•	•
One-click conversion of objects into light sources	•	•
Fast, fake caustics in the shadows of transparent materials. Caustics realistically depend on the Index of Refraction	•	•
Accurate computation of caustics in the shadows of transparent objects	•	•
Realistic optional "spreading" of the light spectrum in caustics (rainbow-prism effect)	•	•
Per-light adjustment of the quality of soft shadows	•	•
Complete lens flare system	•	•
Controllable lens flares per light	•	•
Lens flare editor	•	•
Lens flare reflections editor	•	•
Polygonal reflections	•	•
Point light, Quadratic point light, Spotlight, Quadratic spotlight, Directional light	•	•
Turn Point Lights and Spot lights into Photometric lights	•	•
Photometric light color presets, with corresponding color temperature	•	•
Photometric Lights sorted by cathegory: Black body illuminants, Fluorescent lights, Gaseous lights, Non physical lights.	•	•
Natural light spectrum for Black body illuminants (such as Candle flame, Halogen, Sunlight etc)	•	•
Lens Glare effect simulates internal lens diffusion	•	•
Automatic synchronization of light position, color, orientation and intensity between Vue and host application	-	•
Use host application tools to adjust lights of Vue environment	-	•
Automatic synchronization of all types of lights, including area lights	-	•
Perfect blending of your 3D objects with Vue environment when rendering GI	-	•
Lights can be disabled with a single click	•	•
Accurate accounting of backlight when computing GI	•	•
Improved handling of highlights in GI by better accounting for the interaction of illumination with bumps at the surface of objects	•	•
Use IES distribution profiles on photometric lights	•	•
Included IES profiles	30	30
Load custom IES profiles	•	•
IES profile viewer allows previewing of light distribution	•	•
Light portals help rendering indoor scenes more efficiently	•	•
Create Light Portals from the Object Toolbar	•	•
Vue can automatically place Light Portals on meshes	•	•

Atmosphere	VUE Infinite 2016	VUE xStream 2016
Atmosphere presets	Over 160	Over 160
Ultra-realistic spectral atmosphere model	•	•

Spectral Atmospheres can use Photometric Lighting	•	•
Photometric Atmosphere lighting intensities match real world	•	•
Included Photometric Atmosphere presets	4	4
Convert any existing Spectral atmosphere into a photometric atmosphere	•	•
Vue automatically adjusts atmospheric settings when switching between non-photometric and photometric models	•	•
Choice of 4 different types of atmosphere models	•	•
Volumetric clouds, lights, materials (visible rays, with optional dust)	•	•
Spectral Volume Cloud layers for extremely realistic cloudscapes	•	•
Extremely detailed Spectral 3 cloud system (for cloud layers and MetaClouds)	•	•
Auto-scale clouds with altitude	•	•
Link Volumetric color of clouds to a function graph	•	•
Link Ambient color contribution from sun and sky to a function graph	•	•
Modulate Spectral clouds sharpness global setting with a user-defined function	•	•
Modulate Spectral clouds opacity with a user-defined function	With R3+ update	With R3+ update
Use local coordinates on cloud modulation	•	•
Access local coordinates for color settings on cloud modulation	With R3+ update	With R3+ update
Easily Load/Add Cloud Layers using a single button	•	•
Realistic cloud shadowing on objects as well as internal shadowing	•	•
Automatic detail refining for very close-up clouds	•	•
Cloud anisotropy setting for advanced control of internal light scattering	•	•
Fast indirect lighting in Spectral clouds	•	•
Create spherical cloud layers at the surface of your planets	•	•
Import real-world cloud density data to recreate existing cloudscapes	•	•
Add tornadoes using your favorite paint tool	•	•
Use animated planetary cloud density maps	•	•
God rays in clouds	•	•
Fly through clouds	•	•
Cloud layers near ground simulate fog	•	•
Realistic "peaking" of mountains through clouds	•	•
Create multiple layers of overlapping clouds	•	•
Efficient model for cross-shadowing of objects on clouds	•	•
MetaClouds individual cloud formations	•	•
Library of MetaCloud models	•	•
Predefined cloud shapes	Over 140	Over 140
Unlimited cloud layers	•	•
Customize the shape of MetaClouds	•	•
Customize the shape an look of full cloud layers through outputs in the Function Editor	•	•
Control cloud layers altitude to make them "go over" or circle certain objects	•	•
Stars, rainbows, ice rings...	•	•
Custom "deep space" star maps	•	•
Load images of distant constellations	•	•
Individual lights can illuminate spectral cloud layers and MetaClouds	•	•
Edit the Vue atmosphere directly from the interface of the host application	-	•
Render host application scenes inside Vue atmospheres – including spectral atmospheres	-	•
Position, scale and rotate cloud layers using the standard manipulation gizmos	•	•
Extract cloud layers portions	•	•
Extracted cloud portions can be moved to different locations in the scene uisng standard manipulation gizmos	•	•

	VUE Infinite 2016	VUE xStream 2016
Extracted cloud portions can be saved for future use	•	•
Extracted cloud portions are accessible in the host application	-	•
Button to randomize cloud patterns	•	•
Support for planets with arbitrarily large atmospheres	•	•
Cloud layer dummies can be groupped to facilitate cloud manipulation	•	•
Add or modify cloud layers through Python callbacks	•	•
Automatic Rain atmospheric effect	•	•
Automatic Snow atmospheric effect	•	•
The heaviness, shape, drop size, speed and falling angle of the precipitation is user controllable	•	•
Rain and snow impacts can control materials for water or snow coverage	•	•
Motion blur can be added on weather effects	•	•
Weather Effects are available for all types of atmospheres	•	•
Optional automatic sun softness computation, based on atmosphere parameters	•	•
"Improve Low Quality Consistency" parameter to better preview your atmosphere looks while rendering at a lower resolution	•	•
Optional Sun Visibility parameter for Spectral Atmospheres	With R3+ update	With R3+ update

EcoSystems	VUE Infinite 2016	VUE xStream 2016
EcoSystem patented technology to easily distribute millions of objects in scenes	•	•
Use preset EcoSystem materials to automatically populate your scenes with millions of objects	•	•
Create EcoSystems from multiple objects	•	•
Create entire forests of trees	•	•
Create forests of trees blowing in the wind	•	•
Scatter millions of animated objects	•	•
Mix EcoSystems with standard materials	•	•
Mix several EcoSystems together depending on environment (slope, altitude...)	•	•
Automatic placement of EcoSystem population according to a user defined SmartGraph density function (that can depend on position, altitude, slope...)	•	•
Advanced coloring control to vary the colors of the population over the EcoSystem	•	•
Accurate control over the orientation of the EcoSystem population	•	•
Accurate control over the size and variation in size of the EcoSystem population	•	•
Automatic decay of EcoSystem density near foreign objects	•	•
Optional size reduction and color decay at low EcoSystem densities	•	•
EcoPainter technology: paint instances directly onto objects	•	•
Add, remove and resize EcoSystem instances interactively	•	•
Select individual instances or groups of instances and move/rotate/resize them interactively	•	•
Paint size, color or density of EcoSystems using a pressure sensitive tablet	•	•
Convert EcoSystem instances to real objects for editing, move them back to the EcoSystem later	•	•
Paint EcoSystems as individual material layers or on a global basis	•	•
Paint EcoSystems using standard EcoSystem population rules	•	•
Adjust the population rules of the Global EcoSystem	Optional	Optional
Layered EcoSystems to control individual EcoSystem populations	•	•
Control "affinity" between EcoSystem layers	•	•
View EcoSystem instances directly inside the host application viewports	-	Billboards, bounding boxes or full geometry
Refresh dynamic EcoSystem population previews anytime with Preview button	•	•
Paint EcoSystems from all sides, in any view	•	•

Dynamic EcoSystem population technology for potentially unlimited populations	•	•
Dynamic EcoSystem density adjustments for improved control of density on slopes	•	•
Easily control the intensity of the coloring applied to EcoSystem populations	•	•
Control the intensity of the EcoSystem coloring through the function graph	•	•
Multi-processor EcoSystem population	•	•
Ability to drag multiple objects from a browser into the EcoSystem population	•	•
EcoSystem 4 technology	•	•
Advanced flicker reduction algorithms	•	•
Advanced memory management algorithmsfor large dynamic EcoSystem populations	•	•
Render animated dynamic EcoSystem populations with smooth density variations	•	•
Individually control the phase (animation offset) of animated elements in your EcoSystem populations	•	•
Automatic addition of variations of animation phase to SoliGrowth based EcoSystems	•	•
Control the animation phase of any type of animated object, including pre-animated meshes	•	•
Control animation phase on a per SolidGrowth instance basis through the function graph	•	•
When loading an EcoSystem layer, the layer is automatically added to the underlying material instead of being loaded with a transparent sub-material	•	•
EcoSystems can be populated along a spline	•	•
Areas defined by Splines can be populated with EcoSystems	•	•
Splines can be used as EcoSystem masks	•	•
EcoSystem instances can be aligned dynamically along the spline direction	•	•
Control EcoSystem spline instances' orientation and variability	•	•
EcoSystem instances can be controlled based on the EcoSystem density so that instances can automatically lean out on low density areas	•	•
Stack EcoSystem instances on top of each other	•	•
EcoSystem stacking is accessible from the material editor	•	•
EcoSystem stacking is accessible from the EcoPainter	•	•
Maximum number of stacked instances is user definable	•	•
Invert the EcoSystem selection by a simple click of a button	•	•
Objects can be dropped onto EcoSystem instances using the Drop or Smart Drop options	•	•
EcoPainter settings (brush size, flow etc...) can be set on a per material basis	•	•
Instances color can be reverted directly from the EcoPainter dialog	•	•
VOB files created from a Dynamic Rock or a SolidGrowth plant will automatically generate variations when used in an EcoSystem	•	•
All standard EcoSystem configuration parameters can be used for particle instance population	•	•
Create your own EcoPainter brushes using a combination of Effectors	•	•
EcoSystem effectors brush collection (lean, rotate, raise, lower, move etc.)	•	•
EcoPanter brush tool presets	20	20
Rotate EcoSystem Brush effector	•	•
Standalone EcoPainter brush editor dialog	•	•
Publish specific EcoPainter brush parameters directly to the main EcoPainter dialog	•	•
EcoSystem Selection tool directly available in the EcoPainter tool	•	•
EcoSystem instance selection tool in the host application	-	in 3ds Max, Cinema4D and Softimage
EcoSystem Fast population technology to interactively edit EcoSystem populations	•	•
360° EcoSystems: EcoSystems can be populated from all directions including below objects	•	•
All standard population settings are applicable to 360° populations	•	•

	VUE Infinite 2016	VUE xStream 2016
EcoSystem Clumping lets you easily control how plants from the same species grow close to one-another	•	•
Amount slider lets you set the global intensity of the EcoSystem clumping effect	•	•
Size slider lets you set the global size of EcoSystem clumps	•	•
Small Item EcoSystem algorithms efficiently create and render vast EcoSystems of very small items (e.g. Gravel, grass...)	•	•
Small items EcoSystems algorithms improves both computation of Static and Dynamic EcoSystems	•	•
Quality setting in the EcoSystem Painter when using PlantFactory vegetation	•	•
Quality setting in the EcoSystem material editor when using PlantFactory vegetation	•	•
Integrated PlantFactory quality setting helps optimize rendering time and system memory resources	•	•
Add/Remove/Clear EcoSystem populations through Python callbacks	•	•
Access global EcoSystem through Python callbacks	•	•
Multi-threaded render initializations for EcoSystems	•	•
Select the number of PlantFactory plant variations to be used in your EcoSystem populations	With PlantFactory 2016+ species	With PlantFactory 2016+ species
Select specific PlantFactory plant variations to be used in your EcoSystem populations	•	•
Optimize memory consumption by using baked (static or dynamic) versions of PlantFactory species for your EcoSystem populations	•	•
Select individual pre-defined PlantFactory 2016+ species variations within the Plant Editor	•	•
Set multiple Global EcoSystem layers	•	•
Save Global EcoSystems as EcoSystem brush presets	•	•
Global EcoSystem brush presets included in content:	12	12
Use EcoPainter brush preset populations in your standard EcoSystem materials	•	•
Convert referenced assets in the scene to EcoSystem Instances to efficiently save memory	•	•

EcoParticles	VUE Infinite 2016	VUE xStream 2016
Complete particle system custom tailored for Digital Nature	•	•
EcoParticles can be added to any material (like a regular EcoSystem)	•	•
Speed, direction, collision properties and duration of life of the particles can be easily configured	•	•
EcoParticles can be influenced by external influences (wind, gravity etc.)	•	•
Effector objects can be added to influence EcoParticles locally or globally (e.g. to create effects such as tornadoes, jittering, attraction etc.)	•	•
Rich collection of function nodes to control EcoParticle behaviors	•	•
Control physical properties of particles, such as mass, velocity, gravity, collision, wind influence, elasticity, attachment forces and more	•	•
Make particles fall, collide, bounce and interact with external forces	•	•
Automatic collision maps allow the creation of material and particle effects that depend on collision history	•	•
Sub-particles can be emitted over the lifespan of each particle, upon collision or upon death of the particle	•	•
Animation specific EcoParticle parameters such as size variation, growth, opacity variation, velocity, flow and more	•	•
EcoParticle emitter presets	•	•
EcoParticles can be set to collide with Static EcoSystem instances	•	•

Vegetation	VUE Infinite 2016	VUE xStream 2016
Ultra-realistic SolidGrowth vegetation	175+ species	175+ species
Compatible with modified plant species	•	•

Easy-to-Use Plant Editor for plant customization	•	•
Resizable Plant Editor	•	•
Instantly create variations of existing plants	•	•
Plant Editor and Leaf Editor let you modify existing plants or create entirely new plant species	•	•
Create and save new plant species as stand-alone files for future use in your scenes	•	•
Support for SolidGrowth HD extremely detailed plant species	•	•
Native support for PlantFactory .tpf plant species	•	•
Edit PlantFactory plants published parameters directly within the Plant Editor	•	•
Open PlantFactory directly from the Plant Editor to fine tune your tpf specie	•	•
PlantFactory plants imported in .tpf automatically create variations	•	•
Health and Seasonality parameters for PlantFactory vegetation are animatable directly within the Plant Editor	•	•
Changing Health and Seasonality on TPF plants automatically creates Keyframes in the animation timeline	•	•
Advanced pre-computing of Global Illumination on PlantFactory billboard plants speeds up rendering by up to 20x	•	•
Improved Normal Mapping algorithms on PlantFactory vegetation dramatically boost overall plant rendering quality	•	•
Compatibility with PlantFactory lightweight preset technology	•	•
Access PlantFactory Mesh resolution directly from the Plant Editor	•	•
Access individual PlantFactory plant presets from the Plant Browser	•	•

Terrains	VUE Infinite 2016	VUE xStream 2016
Solid3D real-time terrain modeling	•	•
Sculpt terrains in all directions	•	•
Create overhangs and grottoes	•	•
Sculpt, inflate, free form and smooth brushes	•	•
Pinch, Plateau, Flatten and UniSlope brushes	•	•
User definable brush tip profile	•	•
Automatic subdivision of terrain geometry when sculpting	•	•
Adaptive subdivision adds polygons only where needed	•	•
Edit terrains in context (view entire scene in editor)	•	•
Option to view terrain clipping planes in editor	•	•
Option to display the terrain with a shiny surface to enhance details	•	•
Constrain painting and effects to clipping zone	•	•
Option to display the terrain in wireframe mode to view polygons	•	•
Create edition "zones" to modify procedural terrains locally	•	•
Create nested "zones" to build massive detail where needed	•	•
Convert a zone of a procedural terrain into another terrain	•	•
Zone extraction optionally creates a void in the source terrain	•	•
Paint material distributions at the surface of terrains	•	•
Paint material distributions with unlimited number of materials	•	•
Use material masks to constrain painting to existing distribution masks	•	•
Material distribution masks independent from material mapping mode	•	•
Import, view and edit distribution maps in the Terrain Editor	•	•
Terrain effects optionally affect material distribution map	•	•
Preset terrain styles	8	8
Updated Terrain styles in Terrain Editor	•	•
Erosion types as terrain Effects	9	9
Geological algorithms as terrain Effects	12	12

Glaciation, alluvium and dissolve erosion effects	•	•
HeightField terrain technology	•	•
HeightField nodes (Erosion, Slope, Convexity, Blur, Terrace and Auto-mapping)	•	•
Heightfield hydrological and thermal erosion presets (Generic, Mountains, Young mountains, Scattered Rock, Rivers, Very Eroded, Flow Channels etc...)	9	9
Access HeightField Erosion presets as terrain presets in the Terrain Editor	•	•
Layout nodes (Area demarcation, Spline Proximity etc)	•	•
Drive terain material presence with the Heightfield terrain's graph output, directly from within the Terrain Editor	•	•
Blend Terrain with Image automatically modifies the Heightfield Terrain function graph	With R2+ update	With R2+ update
Terrain presets included in content	42	42
Resample Terrain to update terrain resolution without changing its size within the scene.	With R2+ update	With R2+ update
Procedural terrains with infinite details	•	•
Infinite procedural terrains	•	•
Planetary terrain rendering	•	•
Flat, spherical and planetary procedural terrains	•	•
Switch between flat, spherical and planetary terrains (geometry may be affected)	•	•
Optimized render engine allows faster computation and rendering of infinite, spherical & planetary terrains	•	•
Combine image data with procedural functions using dedicated blending nodes	•	•
Ability to switch from one form of terrain to another easily	•	•
Skin terrains	•	•
Symmetrical terrains	•	•
Extract parts of procedural terrains into new terrains	•	•
View bitmap textures in terrain editor to sculpt from photo references	•	•
Pressure-sensitive tablet editing of terrains	•	•
Reset 2D and 3D painting independently	•	•
Customizable brush shape for terrain editing	•	•
Control distribution of materials on terrains from within the procedural terrain altitude function	•	•
Control procedural terrain altitudes based on relationships with other objects	•	•
The altitude of procedural terrains can be dynamically affected by other objects	•	•
Realistic procedural terrains thanks to dedicated natural effects noise nodes	•	•
Infinite and local procedural terrain style presets to easily create each-time-different terrains of the given style	•	•
Library of procedural terrain presets with associated materials	•	•
Create your own procedural terrain style presets	•	•
Efficient displacement mapping of infinitely detailed procedural terrains	•	•
Displacement mapping optimizations for dramatic increase in detail quality when using high amplitude displacement	•	•
Procedural terrain preview in function editor	•	•
Multi-processor procedural terrain construction	•	In standalone mode
Stratified terrains thanks to the recursive strata filters	•	•
Rocky mountain fractal	•	•
Full user control over Rocky mountain fractal patterns	•	•
Rocky mountain fractal can be used to drive material distributions	•	•
Decal and Smear terrain brushes	•	•
Retopologize terrains to optimize sculpting over vertical areas like cliffs	•	•
Lock material masks to prevent sculpting in the locked areas	•	•
Create standalone masks (not associated to a material) for precise sculpting/painting	•	•
Global Freeze mask can be used in combination with other masks	•	•

	VUE Infinite 2016	VUE xStream 2016
Extend terrain canvas option adds "more terrain" around your terrains	•	•
Automatic Terrain Zone creation when extending the canvas (to preserve the sculpting)	•	•
Contextual terrain brushes influenced by slope, altitude and orientation	•	•
Create custom terrain brushes	•	•
Organize your brushes and create libraries of your favorite ones	•	•
Preset brush settings can be easily overriden	•	•
Easily access your preset brushes with a single click	•	•
Optiomized sculpting automatically selects between 2D and 3D effects	•	•
Ability to restrict sculpting to 2D only	•	•
Terrain altitudes are consistent with actual terrain size	•	•
Randomize terrain fractals with a click of a button	•	•
Terrain Editor displays real-world units	•	•
Vector-quantization node to create procedural terrains with terraces	•	•
New Strata3D node ideal for creating realistic canyon walls and stratified rock formations	•	•
Custom 3D brush that lets you define a specific direction for the displacement applied to the terrain surface	•	•
Preview altitude, slope or orientation constraints direclty in the terrain editor	•	•
Brushes can act only on certain levels of details, while leaving others untouched.	•	•
Undo brush affects 3D painting in terrain editor	•	•
Non airbrush mode for 3D painting works like 2D effects	•	•
Brush map images can be inverted in the terrain editor	•	•
Terrain altitude color map can be mapped to the visible range of altitudes	•	•
Terrain effect buttons can be set to repeat a given number of times automatically	•	•
Optionaly enable/disable mask rotation when painting in Terrain Editor	•	•
Publishing parameters will refresh terrain geometry automatically	•	•
Level of Detail (LOD) is manually adjustable the for swifter painting in 3D	•	•
Limit the maximum amount of painting in the terrain editor.	•	•
Terrain alpha maps can be exported from within the Terrain Editor	•	•
Built in Road construction tool allows you to directly draw a road path on your terrains	•	•
Road are automatically textured with an asphalt material	•	•
Roads automatically carves or raises the terrain surface to adjust it to your path	•	•
Cyclic Noises and Fractals to generate patterns that repeat seamlessly, in space or time	•	•
The cycle rate of Cyclic Noises and Fractals can be controlled along each axis	•	•
Fully additive material layering system to preserve the orginal alpha presence of layers	•	•
New material layering system lets you paint multiple layers simultaneously and painting one layer no longer affects underlying layers	•	•
Layers are combined in the function graph using a 'Layer Painting' metanode	•	•
Terrain Fractal 2 node	•	•
Terrain Fractal 2 automatically improves variability of shapes with improved rough areas simulating rocks and cliffs	•	•
Optional Stratification can be applied to Terrain Fractal 2 node to benefit from the Terrain Fractl 2 node internal values	•	•
The presence of material layers (alpha channel) can be previewed in the terrain editor	•	•
The presence of material layers (alpha channel) can be used as a painting mask	•	•
A second UV Channel for 3D sculpted terrains allows precise control UV perturbation	•	•
Easily change the height of Infinite procedural terrains in the Terrain Editor	•	•
Create Terrains from an existing heightmap file through Python callbacks	•	•

Modeling	**VUE Infinite 2016**	**VUE xStream 2016**
Primitive and Boolean modeling	•	•

	VUE Infinite 2016	VUE xStream 2016
3D Text edition tool	•	•
Customizable text beveling, extrusion... and material effects	•	•
Import Postscript and Illustrator data into the text editor	•	•
Advanced memory management algorithms for handling large polygon meshes	•	•
True Metablobs organic modeling from all Vue Boolean primitives	•	•
Adjustable Metablob envelopes and contribution	•	•
Welding of multiple meshes into a single mesh	•	•
Random rock generator	•	•
Multiple planets (moon and other planets of the solar system)	•	•
Create background Planets with custom picture	•	•
Create billboards that always face the camera (with a 'force vertical' option)	•	•
HyperBlob technology	•	•
Apply standard displacement mapping to HyperBlobs	•	•
User defined level of subdivision on HyperBlobs with automatic intermediate LOD computation according to distance	•	•
Automatic "shaving" technology to delete all disconnected parts from the HyperBlob	•	•
Optional smart Catmull-Clark subdivision of quad-based geometry	•	•
Optional generic Loop subdivision of polygonal meshes	•	•
Control realtime preview and render time level of Catmull-Clark / Loop subdivision	•	•
Automatic mesh subdivision can be limited to a user defined value	•	•
Spline editable objects that can be used for EcoSystem effects, terrain effects, roads and object creation	•	•
Comprehensive spline toolkit that allows you to add, delete or move spline points or configure tangents	•	•
Splines can be automatically aligned at the surface of terrains	•	•
Extrude a defined geometry along a spline, and modify it using properties such as profile presets, profile dimensions, profile dimension ratio along the spline, material, twist (mode and limit), and more	•	•
Splines can engrave or emboss the surface of a terrain following a predefined path (e.g. to create road beds or raised highways)	•	•
Use local rotation gizmos on spline keys to roll your splines e.g to create leaning roads	•	•
Automatic path finder that calculates the optimum route in between your spline keys based on a realistic slope	•	•
user definable distance in between each spline key created with the path finder	•	•
Use spline resampling to automatically drop new spline keys onto the underlying surface, following the original spline path	•	•
Define broken tangents for each spline key	•	•
Add/remove/move spline points or modify spline effects through Python callbacks	•	•
Native Splines can be used as Vue Splines in integrated mode	-	•
Vue splines are automatically converted to native splines	-	•
Built in Road Construction toolkit	•	•
Standalone Rock library	70+ Species	70+ Species
Rock templates create a unique rock variation each time you generate a new rock	•	•
Rock technology compatible with the EcoSystem technology	•	•
Rock library availble directly in the EcoSystem population list	•	•
Rock library availble directly in the Ecopainter tool	•	•
Each rock type used in an EcoSystem automatically generates variations	•	•
Export Rocks to any standard 3D file format	•	•
Export baked HyperBlobs to any standard 3D file format	•	•

Rendering	VUE Infinite 2016	VUE xStream 2016

Stereoscopic Rendering for stills and animations	With R4+ update	With R4+ update
Stereoscopic Rendering User defined Interpupillary Distance	With R4+ update	With R4+ update
User defined Stereoscopic final image layout (top/bottom or left/right)	With R4+ update	With R4+ update
Stereoscopic Rendering Convergence modes for handling parallax:	With R4+ Update: Parallel, Converged and Off-axis	With R4+ Update: Parallel, Converged and Off-axis
Stereoscopic Rendering automatically recognized by Stereo-compliant platforms (such as Youtube) and can be played on stereo compliant devices such as Occulus Rift, HTC Vive, Nvidia 3DVision, Sony PSVR, Google DayDream, Google Carboard etc.	With R4+ update	With R4+ update
Hybrid GPU/CPU interactive Real-Time Path Traced preview in the main view	•	•
Path Tracer available as an offline render preset	•	•
Path Traced Spectral Cloud layers	With R3+ update	With R3+ update
Path Traced Soft Shadows	With R3+ update	With R3+ update
Path Traced Blurry Reflections/Refractions	With R3+ update	With R3+ update
Path Traced Translucent materials	With R3+ update	With R3+ update
Path Tracer support for 'Don't cast shadows' and 'Disable Indirect Lighting' material properties	With R3+ update	With R3+ update
Path Traced Normal Mapping	With R4+ update	With R4+ update
AVX optimizations for dramatic increase in rendering speed (requires an AVX compliant CPU)	Windows only	Windows only
Advanced radiosity algorithms that dramatically reduce low frequency blotches	•	•
Generate high-quality indoor and outdoor renders	•	•
Bucket rendering for lower memory requirements and improved spatial coherence when rendering	•	•
Indirect lighting calculation can be easily re-used between "tweak" renders	•	•
Option to update the Indirect lighting "on demand" only	•	•
Illumination Caching compute indirect lighting only once for an entire animation	•	•
Illumination Caching dynamically refines the indirect lighting solution	•	•
One-click displacement mapping	•	•
Dynamic render-time displacement to handle extremely large "displaced" polygon counts	•	•
Optional dynamic geometry smoothing to avoid sharp polygonal edges	•	•
Automatic camera exposure option compensates for the strong variations in illumination between noon and sunset	•	•
Natural film response	•	•
Post-render exposure control	•	•
Manually adjustable shutter speed, film speed and f-number settings when rendering with Photometric lighting	•	•
Post-render Color Channel editor	•	•
Adjust color curves separately or alltogether	•	•
Tone mapping options including Photographic Exposure, Linear Exposure, Reinhard and False color profiles	•	•
Tone Mapping options allow customization of profiles from Post-render and Camera Option dialogs	•	•
Automatic de-activation of Tone-Mapping when saving/exporting HDR pictures	With R3+ update	With R3+ update
Use an image or animation as a backdrop for your renders	•	•
Option to apply the effect of the atmosphere to the Camera Backdrop	•	•
Rendering Presets	OpenGL,Preview, final, broadcast,superior, ultra, Path Tracer, user settings	OpenGL,Preview, final, broadcast,superior, ultra, Path Tracer, user settings
Render size limitation	Limited by memory only	Limited by memory only
HDTV render preset	•	•

Pictures larger than screen resolution can be rendered to screen	•	•
Custom render size	•	•
Option to lock custom aspect ratios when selecting render resolution	•	•
Navigation inside the rendered picture using pan controls	•	•
Alpha and Z depth directly computed during the render process	•	•
Ray-traced depth of field	•	•
Realistic Hybrid 2.5D depth of field	•	•
FastHybrid depth of field technology	•	•
FastHybrid depth of field technology allows hidden object become visible through the blur	•	•
Ray-traced [soft] shadows	•	•
Advanced soft shadow computation to produce perfectly smooth soft shadows	•	•
Ray-traced [blurry] reflections and refractions	•	•
Blurry reflection and refraction settings for each material independently	•	•
Fake [blurry] reflections using reflection maps	•	•
AccuShadows shadow mapping technology for faster [soft] shadows	•	•
Multi pass rendering (separates renders into the different rendering components - shadow, diffuse, ambient, etc.)	•	•
Multi pass rendering components rendered in High Dynamic Range	•	•
Optimized handling of semi-transparent materials to prevent background color to bleed within object mask color data	With R4+ update	With R4+ update
Create separate pictures for Diffuse, Specular, Shadows, Ambient, Refractions, Reflections, Background, Indirect Lighting, Post-process...	•	•
Per layer, per object or per material multi-pass masks (fully anti-aliased)	Color and alpha	Color and alpha
Embed alpha channel for each mask pass (when the output format supports it)	With R4+ update	With R4+ update
Velocity pass in rendering buffer	•	•
Ambient Occlusion Pass	-	•
Create a separate color and alpha mask of clouds	•	•
Generate color and alpha masks for Global EcoSystem instances	•	•
Create layers for additional render information such as Z depth, object ID, material ID, global alpha mask, normal vectors...	•	•
Export all channels and masks into a convenient Photoshop PSD multi-channel, multi-mask file	•	•
Export multi-pass renders as a EXR 32 bit files with each pass stored in high dynamic range format.	•	•
EXR passes available in full floating point, 32-bit unsigned integer or 16-bit (half format) precision	•	•
Export all rendering passes as OpenEXR 2.0 32-bit multi-layer files	-	•
World Point Position pass available in the multipass options	•	•
Apply the render exposure (which combines the camera exposure and the automatic exposure) to relevant multi-pass layers	•	•
Full support of G-Buffer compositing information	•	•
Store all anti-aliasing and rendering channel samples on separate G-Buffer layers	•	•
Render occluded objects (on a per object or global basis) to render hidden parts of the scene	•	•
Render export as RLA or RPF for advanced compositing options	•	•
Exclude ground from Alpha map option	•	•
Objects can be easily hidden from render	•	•
Hide objects from render and disable lights by clicking their icon in World Browser	Optional	Optional
Hide objects from render through Python callbacks	•	•
Global and per-material reflection maps	•	•
Rendering in unlimited color depth	•	•
Optional details in render information panel	•	•

Panoramic rendering with adjustable rotation angle	•	•
Spherical panoramic rendering	•	•
Multi-processor panoramic rendering	•	In standalone mode
360 VR Panorama Render Option	With R2+ update	With R2+ update
Automatic (optional) leveling of Camera when rendering a 360 VR Panorama	With R2+ update	With R2+ update
360 VR Panorama automatically recognized by 360 compliant social platforms (e.g. Youtube or Facebook 360)	With R2+ update	With R2+ update
Stereoscopic 360 VR Panoramas	With R4+ update	With R4+ update
180 VR Panorama Render Option	With R4+ update	With R4+ update
180 VR Panorama automatically recognized by 180 compliant social platforms (e.g. Youtube or Facebook 360)	With R4+ update	With R4+ update
Stereoscopic 180 VR Panoramas	With R4+ update	With R4+ update
Rendering in all views (including orthogonal rendering)	•	•
Render in views can be set to a different quality than normal rendering	•	•
Stand alone renderer handles rendering while you work on the scene	•	•
Network rendering of animations	•	•
Network rendering of pictures	•	•
Rendering across hybrid network of computers (OS X and Windows)	•	•
Fail-safe HyperVue network rendering	•	•
Interactive Network Rendering	•	•
Advanced Caching technology to optimize responsiveness of network rendering	•	•
Number of render nodes (RenderCow) licenses included in product	5	5
Maximum number of render nodes	Unlimited (through RenderCow pack expansions)	Unlimited (through RenderCow pack expansions)
SmartCow automatic node detection and activation	•	•
Hotplug render nodes to add/remove nodes during render	MacOS X and Windows	MacOS X and Windows
NewCow automatic updating of render nodes	•	•
Rendercows can be paused directly from the tray icon	•	•
Customizable command-line render launching sequence	•	•
RenderNode optional stand alone renderer for integration in large render farms	•	•
RenderCows can be configured to use any number of cores	•	•
Rendercow CPU affinity is automatically synchronized with the Windows task manager	•	•
Render area can be temporarily disabled	•	•
You can lock the render area to avoid accidental modifications	•	•
Render blow-up option	•	•
Geometry anti-aliasing	•	•
User definable geometry anti-aliasing	Up to 1024 rays/pixel	Up to 1024 rays/pixel
HyperMipMap material anti-aliasing (including procedural materials)	•	•
User definable anti-aliasing strategies to optimize speed vs. Smoothness	•	•
Energy Conservative AntiAliasing	•	•
GPU anti-aliasing accelerates AA of thin polygon meshes	•	•
Advanced render memory management algorithms to allow the rendering of very large images	•	•
Post processing to adjust color, contrast, saturation, gamma...	•	•
Ability to load/save independent post-processing settings	•	•
Create custom render effects using user-defined python callbacks	•	•
Ability to resume an interrupted render	•	•
Control the rendering of Vue environments using the render settings of your 3D application	-	•
Render Vue content inside your 3D application	-	•

Render millions of EcoSystem plants or objects directly inside your 3D application	-	•
Perfect blending of the objects of your 3D application with the Vue environment	-	•
Mutual shadow casting of Vue objects on the objects of your 3D application, and vice-versa	-	•
Vue objects reflect the objects of your 3D application, and vice-versa	-	•
Perfect handling of transparency and refraction for the objects of your 3D application and Vue objects	-	•
Rendering compatible with V-Ray	-	3ds max and Maya
Rendering compatible with V-Ray 3	-	•
Rendering compatible with MentalRay standalone render nodes	-	•
Rendering compatible with MentalRay Distributed Bucket Rendering	-	•
Generate detailed network rendering logs	•	•
Real-life camera aberrations (cushioning and barreling)	•	•
Abort rendering on mouse-click in render area	Optional	Optional
Render in all compatible renderers with a single license	-	•
Option to disable the rendering of Vue sky and/or atmosphere (e.g. when using mr Sun&Sky)	-	•
Option to easily include/remove the Vue scene from a host application render	-	•
Render Vue atmosphere and elements alongside other host application volumetric plug-ins	-	•
Compatible with mr Daylight, mr Sun&Sky and mr Photographic Exposure	-	•
Compatible with V-Ray Sun and Sky	-	•
Easy-to-use camera mapping for retro projection of renders onto simplified geometry	•	•
The total amount of RAM allocated to displacement mapping is adjustable	•	•
Images can be saved to disk at regular (user definable) intervals during render	•	•
Dual destination render option (e.g. display to screen while rendering to disk)	•	•
Generate detailed log files during network rendering	•	•
Host application render settings can be automatically adjusted to match those of Vue	-	•
Generate render diagnosis buffers to optimize your renders and avoid bottlenecks	Optional	Optional
Display per-pixel render time, number of sub-rays, anti-aliasing samples, shadow rays, recursion, final gather samples, etc.	•	•
Render displacement on arbitrarily large terrains	•	•
Improved rendering of indirect lighting in preview mode	•	•
Automatic adjustment of render buckets to optimize rendering of small images on multi-core systems	•	•
Full input, output and display gamma control	•	•
Customize input gamma on a per-texture basis	•	•
Easily override default output gamma	•	•
Quick calibration tool to easily adjust the display gamma setting	•	•
Anti-aliased Z-depth buffer	Optional	Optional
Accurate accounting of cloud radiosity in indirect illumination	•	•
Relighting technology allows real-time adjustment of lights after rendering	•	•
Adjust contribution of sunlight without re-rendering	•	•
Adjust contribution of the Atmosphere without re-rendering	•	•
Advanced adaptive precision computation for the rendering of skymaps	•	•
Render algorithms for thin translucent and backlit materials with realistic shadows	•	•
Advanced flicker reduction algorithms	•	•
Advanced shadowing algorithms help remove undesired shadow artifacts on terrains and meshes	•	•
Advanced bicubic interpolation algorithms produce smooth gradients	•	•
Efficient Pause and Resume Render options with the stand alone Batch Renderer	•	•
Optional addition of an information strip under the rendered picture	•	•

	VUE Infinite 2016	VUE xStream 2016
Frame labeling can display information such as scene file name, render time, author, etc...	•	•
Mixed materials alpha channel can be edited	•	•
Edge-based anti-aliasing to complement the previous color-based anti-aliasing scheme	•	•
Edge-based anti-aliasing can be individually used and fine tuned using its Quality slider	•	•
Dramatic changes in the structure of internal scene processing allows for faster rendering	Up to 30% faster compared to Vue 10	Up to 30% faster compared to Vue 10
Improved statistical samples distribution allows for a quicker Depth of Field and Motion Blur computation	•	•
Physical Water shading engine	•	•
Set absorption and scattering parameters for body of water	•	•
Physical water shader produces photoreal underwater caustics	•	•
Underwater caustics focus can be adjusted to make them appear at maximum sharpness at specific depth	•	•
Easily create visible shafts for underwater lights	•	•
Physical transparency model that accurately reproduces how light interacts with particles of matter inside transparent materials	•	•
When rendering in radiosity, Vue warns you if there are luminous materials in the scene	•	•
Point lights can create dark shadows even in Environment Mapping mode.	•	•
Load a video or an image sequence to the environment map control in the Atmosphere editor.	•	•
Shadow parameters (cast shadows, receive shadows, only shadow, etc ...) can be controlled per-object.	•	•
Non Photo Realistic (NPR) presets	•	•
Non Photo Realistic (NPR) full edition	•	•
Vertical and Horizontal film offset	•	•
Render VUE content using any renderer (Such as Arnold, Vray RT, Octane, Renderman...) thanks to the xStream Convert tool	-	In 3dsMax, Maya and Cinema4D
Deeper Dynamic Range when using Spectral Atmospheres for HDR rendering	With R3+ update	With R3+ update
Set and get Color, Alpha and Depth channels saving locations through Python callbacks	With R3+ update	With R3+ update

Materials	VUE Infinite 2016	VUE xStream 2016
Material presets	Over 550	Over 550
Level(s) of material Edition	4	4
Basic material editor with possibility of importing images as textures and bump maps	•	•
Advanced procedural material creation/mixing	•	•
Advanced Material Editor	•	•
SmartGraph function Editor	•	•
Optimized Function Editor design improves efficiency while creating complex graphs	•	•
Function Editor can be displayed horizontally or using the old vertical design	•	•
Consistent unit system in Function Editor	•	•
Function Editor displays real-world units	•	•
Option to reset material to default with each creation	•	•
Control all material parameters via function graphs	•	•
Advanced SmartGraph input nodes: screen position, angle of incidence, distance to camera, distance on ray, depth in object, distance to object below, incident light angle, light direction, light color, reflected direction, etc	•	•
Time dependent noises (including animated 'Open Ocean' water node)	•	•
Math nodes in the Function Editor	48	48
Browse material hierarchy inside material editor, with direct access to sub-materials and layers	•	•
Sort Materials by names in the Material tab of the World Browser	•	•

Layered material system	•	•
Change material name and scale directly in the material editor when using layered materials	•	•
Add names and comments to SmartGraph nodes	•	•
Individual access to identical material zones	•	•
Change material settings for several materials simultaneously	•	•
Stack layers according to alpha, slope, altitude and orientation	•	•
Alpha (non refractive) transparency channel	•	•
Color and alpha map editor	•	•
Rendering of Poser characters using the Poser shading tree	•	In standalone mode
Perfect blending of lighting and GI with Poser shading tree	•	In standalone mode
Optional texture mip-mapping	•	•
Global control over the level of mip-mapping	•	•
16 bit texture support	•	•
Materials can be mixed seamlessly	•	•
Mixed material can be set to react to environment properties (slope, altitude and orientation...)	•	•
Mixed materials can react to environment and alpha controls	•	•
Material mapping modes (World and Object mapping)	standard, cylindrical, spherical, parametric	standard, cylindrical, spherical, parametric
Easy access to all materials in scene	•	•
Direct access to all materials inside multi-material objects	•	•
Direct access to all texture maps and imported objects	•	•
World Browser option to show only the materials of the selected objects	•	•
World Browser option to show only the materials names	•	•
World Browser option to hide materials of EcoSystem Specimens	•	•
Rotoscoping (Use animations as texture maps)	•	•
Forbid animation option in Material Editor	•	•
Detailed function output observer	•	•
Detailed node previews in function editor	•	•
Baking of procedural materials as texture maps	•	•
Adjustable maximum ray depth and Total Internal Reflections	•	•
Anti-aliasing can be disabled for given materials	•	•
Receive shadows material option	•	•
Shadow only material option	•	•
Backlight option (for one-sided materials only) for realistic backlighting of opaque materials	•	•
Mixed/Layered materials displayed as hierarchies in World Browser	•	•
Material layers can be hidden/shown directly from the World Browser	•	•
Volumetric materials	•	•
Volumetric materials with internal volumetric color and shading	•	•
Hypertextures	•	•
Luminous and Glowing materials	•	•
Easy highlighting of sub-materials and layers to visualize the influence of each material in the final render	•	•
Ability to map textures only once, controllable independently for each axis	•	•
Vue procedural materials and EcoSystems render perfectly inside your 3D application	-	•
Control materials based on the properties of other objects	•	•
Highly realistic natural material effects thanks to dedicated noise and coloring nodes	•	•
Easily control bump or displacement amplitude based on slope	•	•
Option to re-evaluate contribution of materials based on displaced surfaces	•	•

"Foam" output in Open Ocean node to easily control the distribution of foam on water surfaces	•	•
Separate bump and displacement channels	•	•
Constrained displacement (horizontal, vertical, etc)	•	•
Ability to control the direction of displacement through the material graph	•	•
Displacement smoothing to eliminate noisy displacement artifacts	•	•
Normal mapping	•	•
Recursive strata and constrained strata filters for stratified effects	•	•
Direct access to the alpha channel in the Advanced Material editor	•	•
Per material texture anti-aliasing quality boost	•	•
Per material simplification of sub-ray effect calculation	•	•
Planetary mapping node with ability to set location of origin (latitude and longitude)	•	•
Material mapping can be absolute, relative to sea, by object or by material	•	•
Sea level input node in graphs	•	•
External dependency inputs can provide dimensions in real-world units	•	•
Multi-materials let you change all the materials of an object in one single operation	•	•
Drag-drop and copy-paste multi-materials between objects	•	•
Move groups of keypoints in the color map and filter editors	•	•
Invert entire color maps or filters	•	•
Copy paste keypoints in color maps or filters	•	•
Control the hue, saturation and brightness of entire color maps or groups of keypoints	•	•
Improved HLS node that outputs steamlined data with other image editing applications	•	•
Assign colors to graph nodes for improved readability	•	•
Mixed materials can be used as layers	•	•
Button to randomize material fractals	•	•
Altitude node produces altitudes in the range of -1 to 1 on each object	•	•
Material Editor displays real-world units	•	•
Interactive texture placement tool that allows the accurate positionning of textures onto objects	•	•
Interactive texture placement tool allows scaling and rotation of textures maps onto objects	•	•
Right-Clicking on the EcoSystem list allows access to the materials used by the species	•	•
Ability to create matte shadow materials	•	•
Ability to create reflection materials	•	•
Matte Shadow and Reflection materials generate all necessary information for compositing of shadows and reflections on real world footage	•	•
Materials can be made visible only to primary and shadow Rays (i.e. no reflections/refractions)	•	•
Altitude node handles Object height unit	•	•
Select the mapping mode for all Projected Texture Maps independantly from general material mapping mode	•	•
Select the mapping mode for Projected Animation Map nodes independantly from general material mapping mode	•	•
Improved mapping of materials in world and parametric coordinates and in OpenGL preview	•	•
Bake the environment mapping result into a material layer of the Terrain Editor, to touch it up using the painting brushes	•	•
Control the strength of normal maps	•	•
Dynamic rock templates contain unique, parametrically defined materials that are completely user controllable	•	•
Easily adjustable Color, bump, highlights, and EcoSystem variations in Parametric Rock materials	•	•

Rock convexity material node allows for precise customization of the rock based on its inherent geometry	•	•
Image combiner node allows to combine several projected texture maps	•	•
New Image Sampler and Multi-Image Sampler nodes	•	•
Terrain Color Pattern node produces smooth and rough variation of colors similar to the distribution of rocks on a sedimentary soil.	•	•
Material layers can be shared throughout the scene	•	•
Shared materials can be easily associated to any other material in the scene to easily create global effects such as a layer of snow	•	•
Modifications applied to a shared material layer are automaticaly carried over to all materials that share this layer	•	•
Switching Material layers keeps the original environment settings	•	•
Natural Grain color production mode automatically produces realistic color variations for terrains, ground and other natural elements of the scene	•	•
Access more Natural Grain parameters from the Color Production output in the Function Editor	•	•
Set Reflective Materials to be more or less sensitive to the light's angle of incidence (e.g. to create metallic car paint)	•	•
Render thin, one-sided surfaces (e.g. window glass), with reflectivity depending on the viewing angle BUT without refraction	•	•
Double-sided materials let you define two different materials: one per side of each face	•	•
Set the minimal reflectivity of a material at a given viewing angle	•	•
Grouped Materials allow you to store many materials (layers) in one single material file	•	•
Add global alpha and environment properties to Grouped Materials	•	•

Animation	VUE Infinite 2016	VUE xStream 2016
Animation output resolution	Limited by memory only	Limited by memory only
Camera animation	•	•
Animate objects, materials, atmospheres, clouds, waves...	•	•
Import animated Poser characters	•	In standalone mode
Intuitive Animation wizard for easy animation setup	•	•
OpenGL rendering of animations for quick proofing	•	•
Dynamic Motion Reaction™ easy secondary movement setup	•	•
Option to ignore time spline when computing motion (e.g. to look forward even when moving back)	•	•
Customizable Dynamic Motion Reaction effects	•	•
Easy setup of cloud movement using direction and speed of movement controls	•	•
Rigged Mesh support	•	•
Control animation phase on pre-animated mesh EcoSystems through the function graph	•	•
Full support for Inverse Kinematics	•	•
Animated post-processing effects	•	•
Camera switcher lets you switch cameras during render (ideal for storyboarding)	•	•
Spin and vibration effects	•	•
Twinkling stars	•	•
Automatic synchronization of cameras and lights	With 3DS Max, Cinema 4D, Maya, LightWave & Softimage XSI	With 3DS Max, Cinema 4D, Maya, LightWave & Softimage XSI
Synchronization data incorporated into scene for easy retrieval	•	•
Save synchronization data to file for manual loading into Vue	•	•
Animation export as AfterEffects	•	•
Import motion tracking information	•	•
Dynamic Motion blur anti-aliasing reduction	•	•

Timeline with animation preview	•	•
Easily change the duration of an entire animation	•	•
Allow clipping of time slider to animation duration	•	•
Animation properties in the Timeline	•	•
Spline time control	•	•
Field interlacing, non-square pixels, flicker reduction	•	•
Enhanced time spline editor	•	•
Indirect lighting evaluation mode that reduces pulsation effects	•	•
Automatic keyframe creation	•	•
Auto-keyframing can be disabled	•	•
Copy-pasting of animation keyframes	•	•
Keyframes can be created for single properties only	•	•
Ability to add property keyframes by double-clicking in the property timeline	•	•
Ability to add property keyframes by double-clicking in the animation curves	•	•
Graph display of animated parameter values in Timeline	•	•
Accurate control over tangents and tension of animated parameters curves	•	•
High precision animation curve control	•	•
Access to individual coordinates in animation graph	•	•
Step, linear and smooth interpolation modes	•	•
Automatic ease-in/ease-out keyframe option	•	•
Animate rotation using quaternions or Euler angles	•	•
Action safe and title safe frames and field grids (user configurable)	•	•
Motion-blur on animated mesh deformations	•	•
Fast Hybrid 2.5D™ motion blur	•	•
Accurate dithered motion blur	•	•
Adjustable and animatable amount of motion blur	•	•
Separate animation channel for camera exposure	•	•
Automatic simulation of breeze on plants	•	•
Strong wind effects defined on individual plants or groups of plants	•	•
Advanced breeze customization with OpenGL preview	•	•
Animated wind intensity and direction	•	•
Omni and directional ventilators for local modifications of plants	•	•
Ventilators can be made to influence EcoSystems	•	•
Plant geometry key framing for spectacular animated life cycles	•	•
Ability to mark objects as never becoming animated	•	•
Object linking and tracking - forward dynamics	•	•
"Scene graph" approach allows advanced relationships between objects	•	•
Access and control object properties using SmartGraph	•	•
Save and reload entire object graphs in a single file	•	•
Object graphs can express dimensions in real-world units	•	•
Object graph parameters can be published for access at top interface level	•	•
Direct access to published object graph parameters at top interface level	•	•
Published object graph parameters can be animated directly in the TimeLine	•	•
Option to show materials in the Timeline	•	•
Published material parameters can be animated directly in the TimeLine	•	•
Loose forward dynamics for "real world" linking and tracking	•	•
"PID" and "Delay" controllers in SmartGraph for improved realism in object interactions	•	•
Option to output temporary images when network rendering an animation as independent frames	•	•

Optional display of time code on frames (on a separate layer when rendering as multi-pass)	•	•
Automatically hide time code when rendering to final or better	•	•
Option to disable or customize padding of frame files	•	•
Time display as	SMPTE, frame #, time	SMPTE, frame #, time
Optional automatic illumination baking of meshes	•	•
Motion blur on tree deformation	•	•
Separate animation range and render range	•	•
Use the animation tools of your 3D application to move around the Vue environment	-	•
EcoSystem populations can be made to evolve over time	•	•
Create custom rigged mesh animations	•	•
Animate cloud layers using the standard animation tools	•	•
All cloud material settings can be animated in the Material editor (density, cloud modulation, etc...)	•	•
Control animation phase on EcoSystems made of any kind of animated objects	•	•
Compatible with MDD animated file format	•	•
Refreshing of MDD Geometry can be disabled to avoid slowdowns while scrubbing through the animation	•	•
Manage object animation functions through Python Callbacks	•	•

User Interface	VUE Infinite 2016	VUE xStream 2016
Group/Ungroup related dialogs together to save space and customize your interface at will	•	•
Automatically re-open grouped/tabbed subdialogs when re-opening master dialogs (Terrain Editor, Material Editor, Function Graph …)	•	•
Function Editor and Terrain Editor sub-parts can be re-organized	•	•
World Browser and Object Properties tabs can be re-organized	•	•
Use up to 16 viewports	With R2+ update	With R2+ update
Fully dockable user interface allows you to create the workspace that best suits your workflow	•	•
Totally redesigned content browser	•	•
Search content in your collection using the search tool	•	•
Productive, uncluttered interface layout	•	•
Neutral interface with stylized design	•	•
Customizable interface colors via presets	•	•
Fully customizable interface colors	•	•
Automatic adjustment of interface shortcuts and colors to mimic other 3D applications in your toolkit	•	•
Updated navigation shortcut to recent other 3D applications	•	•
Adjustable panning, rotation, etc shortcuts in editors	•	•
Re-posing of Poser meshes directly inside Vue	•	In standalone mode
Direct re-posing of rigged meshes	•	•
Access polygon mesh options for Rigged meshes	•	•
Rig mesh reposing can use Inverse Kinematics solver	•	•
Support for mesh morphs	•	•
Select and manipulate bones directly in views	•	•
Manipulate bones numerically using the Skeleton editor	•	•
Support for wired helpers	•	•
Highly optimized mesh skinning for fast refresh during animation scrubbing	•	•
Efficient memory management: multiple instances of identical objects are stored only once in memory	•	•

Automatic object instantiation	•	•
Interactive alignment tool	•	•
Accurate alignment and drop operations	•	•
Quick color selection tool with customizable color presets	•	•
Improved low saturated colors in the Color Selector for more natural colors	•	•
Custom previews can be used to represent saved items	•	•
Perspective camera view	•	•
Frame selected objects menu command can be applied to the perspective camera	•	In standalone mode
Duplicate the Perspective camera to a new camera object through a command in the Display menu	•	In standalone mode
Secure Active Camera option lets you change point of view without affecting the render camera	•	•
Easily set the render camera to match the perspective view using the Copy to Camera option in the Perspective View and Camera Control Center	•	•
Easily switch back and forth between Main Camera and Perspective views	•	•
Add Camera menu option in the Objects menu	•	•
Drag items (e.g. objects, materials...) into your scene from the non-modal browsers	•	•
Unified light editor	•	•
Place an image in the background of the OpenGL views for reference	•	•
Change axis conventions	•	•
Change order of rotations	•	•
Change the size of the animation preview in the Timeline	•	•
Merge scenes	•	•
Repeat last operation to create an array (extend or subdivide)	•	•
Alt + move object creates a copy of the object	•	•
Customizable view navigation shortcuts	•	•
Gizmo object manipulators (optional)	•	•
Adjustable gizmo size	•	•
Spherical abstraction gizmos	•	•
Dynamic spherical terrain unwrapping allows easy object placement	•	•
Local, global, camera and parent manipulation modes	•	•
Multiple object renaming	•	•
View option menu commands with optional shortcuts	•	•
Gizmo option menu commands with optional shortcuts	•	•
Animation option menu commands with optional shortcuts	•	•
Quick Render option menu commands with optional shortcuts	•	•
Fully multi-threaded interface for fast response	•	•
One view/4 view layout	•	•
Real-time scene preview	•	•
Multi-threaded Render Scene Preview, uses the same render engine as the main renderer for faster and more precise previews	•	•
World Browser scene management	•	•
Internal optimization in the World Browser allows massive performance gain for large scenes containing hundreds of materials	•	•
World Browser scene management accessible in xStream in integrated mode	-	•
Direct access to Vue objects and materials through intgrated World Browser	-	•
Organize objects in layers	Unlimited layers	Unlimited layers
Enhanced World Browser with direct access to materials, texture maps and imported objects for efficient management of complex projects	•	•
Display material hierarchies with direct access to sub-materials	•	•
Easy replacement of textures throughout the entire scene	•	•

Library tab in World Browser shows all objects used several times	•	•
Easily modify all instances of a reference object using the Library tab	•	•
Scatter-replicate tool	•	•
Scatter replicate tool creates variations of plants, terrains, rocks...	•	•
Replication tool with configurable position/size/orientation offset	•	•
Random scattering and replication of objects	•	•
Automatic instantiation of scattered/replicated objects	•	•
Optimized Extrapolation/Interpolation commands by creating references instead of hard copies	•	•
Summary of materials to quickly access all materials in the scene	•	•
Resizable material summary	•	•
Material Summary shows all materials on several rows	•	•
Material previews can be resized in the Material Summary	•	•
Drop button to easily set objects on the surface of underlying objects	•	•
Smart drop rests the dropped object on the surface of the underlying object	•	•
Undo-Redo	Multiple undo-redo	Multiple undo-redo
Centralized Undo-Redo include editor-specific operations	•	•
Ability to reorganize the view panes	•	•
Resizable viewports	•	•
Dockable Timeline	•	•
Access to all G-Buffer channels and layers in interface	•	•
Save individual G-Buffer channels directly from the interface	•	•
Access to all render passes and masks	•	•
Access to vertical and horizontal camera fields of view	•	•
Trackball-type camera operations and advanced camera management grouped into Camera Control Center	•	•
Split Camera Control Panel: Scene preview and Camera Controls	•	•
Dock each part of the Camera Control Panel independantly	•	•
Each camera possesses a target object for easier aiming and setting of focus point	•	•
Camera targets can be linked to other objects in the scene (e.g. to automatically keep that object in focus)	•	•
All cameras can appear on screen	•	•
Camera group manager in World Browser	•	•
Resizable World Browser and Scene Preview	•	•
Sort objects by size, name or type	•	•
Lock or hide entire layers	•	•
Lock or hide entire layers from the World Browser or from a menu command	•	•
Lock or hide independent objects in the World Browser	•	•
Python scripting	•	•
Run Cornucopia3D third party Python scripts	•	•
Compatible with Python version	2.7	2.7
Directly access frequently used scripts	•	•
Python console for direct input of Python commands	•	•
Python functions to add, modify and remove EcoSystem instances	•	•
Python nodes that can execute Python code inside graphs, with user definable inputs and outputs	•	•
Picture printing with user definable DPI resolution	•	•
User-definable startup scene	•	•
Welcome dialog	•	•
Consistent Real-world unit system throughout the entire application (Material Editor, Terrain Editor, Function Editor...)	•	•

Real units for object sizes	•	•
Display measurements as real-world units (metric or Imperial)	•	•
Coherent display of real-world units	•	•
Set internal units to change the overall scale of scenes	•	•
Centered or relative to opposite corner object resizing	•	•
Mesh splitting by material	•	•
Object decimation for faster scene setup	•	•
Spotlight view through for accurate aiming (OpenGL only)	•	•
Full-screen mode	•	•
List of default folders when searching for texture maps	•	•
Option to recursively search for texture maps in texture folders	•	•
Optional independent panning and zooming of views	•	•
Non-modal object editors	•	•
Objects can be locked or hidden individually in OpenGL views	•	•
Baking of objects to polygons (including Boolean operations)	•	•
Incorporation of texture maps in scenes	•	•
User-definable keyboard shortcuts	•	•
Use the "Windows" keyboard keys for shortcuts	•	•
Use the "Command" and "Control" keyboard keys on MacOS for triggers and shortcuts	•	•
Emulate right button click through "Control+LMB" shortcut	•	•
"Only show active layer" preview option	•	•
Object replacement by other objects	•	•
When replacing plants, use the geometry of the replaced plants to generate the new plants	•	•
Automatic detection and creation of new browser collections	•	•
Ability to lock browser collections to avoid accidental modifications	•	•
Cloud layers can be easily hidden/restored	•	•
Linear and angular snapping grids when moving and rotating objects	•	•
Customizable linear and angular grid snapping when moving and rotating objects	•	•
Multiple scene file backup tool	•	•
Macro recording and playback to automate repetitive tasks	•	•
Easily access frequently used macros using Macro QuickLaunch dialog	•	•
Easily access recently created macros	•	•
Content files accessible from all system accounts	•	•
Easily change the location of your content folder after installation	•	•
Rename individual render passes (e.g. "Maple Tree 527" -> "Hero Tree")	•	•
Disable/bypass Visual Browsers completely (e.g. when browsing images)	•	•
Intelligent re-titling of files when saving under new filename	•	•
Use preset MetaNodes to easily assemble elaborate SmartGraph graphs	•	•
Group parts of SmartGraph graphs as MetaNodes	•	•
"Publish" specific MetaNode parameters for easy access from the level above	•	•
Build your own MetaNodes library of commonly used graph snippets	•	•
Create custom interfaces by publishing function graph parameters	•	•
Control published function graph parameters at top interface level	•	•
Ability to fix the altitude of the camera above the ground	•	•
Freeze all camera attributes (including animation key frames)	•	•
Press "Ctrl" to slow down the controls in the Camera Control Center	•	•
Dedicated water editor to easily create and adjust infinite water planes	•	•
Go from still to stormy waters with a single slider	•	•
Easily add true displacement to the water surface	•	•

Customize the look of water surfaces using the MetaWater materials	•	•
Automatic scale matching between Vue and host application elements	-	•
Vue interface fully integrated in the host application	-	•
Vue commands accessible via icons in interface (Max, Maya, Cinema 4D and Softimage)	-	•
Non-modal dialogs in host application	-	•
Manipulate Vue elements using host application manipulators	-	•
Animate Vue elements using host application tools (including scripting tools)	-	•
Create and edit Vue objects, plants, terrains, etc. directly from the host application	-	•
Switch from host application to Vue standalone for editing Vue scene, then update Vue scene in host application when done	-	•
View Vue elements in host application using OpenGL or Direct3D	-	•
Have Vue elements interact with host application elements (e.g. add 3DS Max fur to a Vue terrain)	-	•
Simplified customization of integrated Vue xStream render quality settings	-	•
Interactively paint EcoSystems on objects (including host application objects) using host application tools	-	3DS Max, Cinema4D and Softimage XSI
EcoPainter brush size visible in host application	-	3DS Max and Cinema4D
EcoSystem Painting in host application is done through the entire brush to allow a precise control upon painted instances	-	3DS Max and Cinema4D
Optional complex native geometry synchronization to accelerate painting on any given object	-	3ds Max
Optionally adjust lights in Vue and host application independently	-	•
Automatic matching of shadow density between Vue and the host applications (Max, Maya, Cinema 4D and Softimage)	-	•
Ability to adjust brightness of Vue radiosity to better match that of host application	-	•
Run several instances of Vue simultaneously	•	•
Support for 3Dconnexion tracking devices (SpaceNavigator, SpaceExplorer, etc)	•	•
Automatic renaming of Standalone- and HyperVue-generated frames if overwriting	•	•
Automatic renaming of RenderNode-generated frames if overwriting	•	•
Global EcoSystem visible as proxy object in World Browser	•	In standalone mode
Select and delete Global EcoSystem instances with one click	•	In standalone mode
Format specific options accessible through a special button in Save file box, and no longer prompted for each time	•	•
Adjustable separator in Timeline to change width of animated items list	•	•
Material preview option which displays materials mapped onto a small terrain object	•	•
Name of atmosphere appears in Atmosphere editor caption	•	•
Name of edited function appears in Function editor caption	•	•
Access sea level directly through the xStream interface	-	•
High fidelity procedural terrain previewing in host application	-	•
Visual motion browser lets you select rig poses or animations visually	•	•
Preview motions/poses before applying them	•	•
Typical motions directly accessible from skeleton rig editor	•	•
Customizable camera altitude locking (above terrains, above other objects, etc)	•	•
Default views are automatically adjusted according to internal units	•	•
Automatic Smart-Saving technology that saves your scene in the background	•	In standalone mode
User defined Auto-Save time intervals	•	In standalone mode
Auto saved backup files are accessible directly through the application menu	•	In standalone mode
Push-button scene snapshot technology	•	In standalone mode
Scene snapshots are no longer deleted automatically when the maximum number of auto-saved files is reached	•	•
User-triggered scene snapshots are differentiated from Vue's AutoSave file in the "Revert to Snapshot" menu	•	•

Set VUE to automatically create a Scene Snapshot after each render	•	•
Scene snapshot preview in OS browser is automatically created after the render	•	•
Non destructive texture resizing in the Link tab of the World Browser	•	In standalone mode
Option to restore full size version of downsampled images	•	In standalone mode
Option to dump all texture maps to a specific folder	•	•
Double-click texture map in World Browser to view at full resolution (using external viewer)	•	In standalone mode
Choose a specific external image viewer from the Operations tab of the Options dialog.	•	In standalone mode
Missing textures are identified as broken links	•	In standalone mode
Automatic range adaptation in Function Graph	•	•
Slopes can be expressed in the -180°;180° range	•	•
Manually adjustable EcoSystem population threshold before triggering a warning	•	•
Freely move layers up and down in the World Browser (even if they are closed)	•	In standalone mode
Edit fields automatically expand to accomodate large numbers when editing	•	•
Edit fields display rounded values (but retain original values)	•	•
Ruler indicating the scale in each viewport	•	In standalone mode
Abitilty to orbit and pan the camera simultaneously	•	•
When nothing is selected in the scene, orbiting is done around the object in front of the camera	•	•
Brush picture is visible when painting with a pinned mask in Terrain Editor	•	•
Move Infinite terrains using the manipulation gizmos	•	•
Import settings are preserved when importing multiple objects of the same type	•	In standalone mode
"From main View" aspect ratio in render options to render to screen using the same aspect ratio as the main view	•	•
Select the slot into which a material snapshot will be saved	•	•
The scatter/replicate dialog now remembers previously entered parameters, which can easily be restored	•	•
Save a render area as a full sized image, so that it can be easily overlayed in post	•	•
Render area include alpha info if the format permits	•	•
The aspect ratio can now be set on a per camera basis inside a single Vue scene	•	•
When changing the aspect ration in an animated scene that contains cameras with various aspect rations, Vue will offer to automatically switch all cameras used in the animation to the new aspect ratio	•	•
EcoPainter dialog can now be folded to a more compact version	•	•
Optimize EcoPainter dialog display using unfoldable sections	•	•
Resize the EcoPainter Dialog	•	•
Easily replace any texture file with another file simply by renaming the filename in Library tab of the World Browser	•	•
The RenderCow dialog shows the IP address it is using in the About menu	•	•
Change the priority of pending batch rendering tasks	•	•
Drag and drop bitmaps directly into the 4 views and in the material editor	•	•
Object preview identifies pre-animated meshes by displaying a corresponding icon	•	•
Render Stack with comparison tools	•	•
Resize the Render Stack to fit the selected render	•	•
Render Stack can be set to store in a global or per-scene stack	•	•
Stacking of your renders is done automatically or on demand	•	•
Stacked renders are stored with alpha, depth, relighting and diagnosis passes	•	•
Stacked renders are stored with G-Buffer and Multi-pass passes	•	•
The size of the stack on your hard drive is fully controllable	•	•
Interactively pan and zoom in and out of the render in the render display dialog- even as it is being computed	•	•
Easily compare different versions of a render using the render comparison tool	•	•

	VUE Infinite 2016	VUE xStream 2016
It is possible to Zoom in and out while comparing two renders	•	•
Difference tool to show differences between 2 renders	•	•
Difference Boost tool to dynamically exagerate differences	•	•
Ability to create Lightweight Clones of your renders to compare different post-processing options	•	•
Cloning process only duplicates all post-processing options (including Relighting information) while remaining non destructive for other buffers	•	•
Each render in the stack can be removed individually	•	•
The Automatic stacking of renders can be optionally disabled when rendering an area	•	•
The Automatic stacking of renders can be optionally disabled when rendering in preview mode.	•	•
Merge Render Areas in a final render directly from the Render Stack	•	•
Apply previous camera settings to the current camera from the Render Stack	•	•
Flip renders horizontally within the Render Stack to evaluate composition and other aspects of your renders	•	•
Easily name renders in the Render Stack	•	•
Move the render display dialog while Vue is rendering	•	•
Replace multiple objects simultaneously	•	•
Drag-drop objects into a scene drops the object at the position of the mouse cursor	•	•
Copy/cut/paste/delete cameras like other objects, through the world browser	•	•
Set shortcuts to move the camera along the horizontal or vertical axis in the OpenGL view, when using Main camera view	•	•
Set shortcuts to move the camera along the horizontal or vertical axis in the OpenGL view, when using Perspective view	•	•
All Vue cameras present in the scene can be imported to the host application	-	•
Save/reload camera as .Vob files	•	•
The Vue sun can be tied to any directional light from the native scene in the host application.	-	•
Enable or disable dialogs to popup or set callbacks with dedicated Python functions	•	•
Set physical position of sun in sky according to date, time and location on Earth	•	•
Select location on Earth using list of predefined cities, by lattitude/longitude or simply by pin-pointing the location on a map	•	•
Menu items show icons or thumbnails for better clarity	•	•
Easily identify Recent scenes and Snapshots (manual or auto-saved) using thumbnails directly in the menu	•	•
Colored axis coordinate (X,Y,Z) input fields helps you to immediately visualize the directions of the coordinates of the selected object	•	•
Improved display of Material Editor Tabs to directly show which channels are used	•	•
Easier access and edition of multi-material thanks to sub-menu hierarchy display.	With R2+ update	With R2+ update
Edit multiple nodes in the Function Editor in one go	•	•
Interactive slider changes option affects the mouse wheel for more dynamic visual display of your modifications in real-time.	With R2+ update	With R2+ update
Compatible with HiDPI screens	•	•
Improved 4K/HiDPI display compatibility	With R4+ update	With R4+ update
Scenes and assets thumbnail previews in Windows Explorer	•	•
Major performance/responsiveness/stability improvements	With R3+ update	With R3+ update
Higher quality display in Render Scene preview for soft shadows	With R3+ update	With R3+ update
Better handling of editor window manipulations	With R3+ update	With R3+ update
Change software language directly from Option menu	With R3+ update	With R3+ update
Better responsiveness and faster computation of Procedural Terrain within the Terrain Editor	With R4+ update	With R4+ update

Real-Time Preview	**VUE Infinite 2016**	**VUE xStream 2016**

High-speed OpenGL real-time preview engine	•	In standalone mode
Choice of 3 OpenGL engines: shader based, fixed pipeline and software provide optimal quality/compatibility options	•	In standalone mode
Shader-based OpenGL engine maximizes efficiency and visual accuracy on high-end GPUs	•	In standalone mode
Completely threaded OpenGL architecture makes the best of multi-core systems	•	In standalone mode
Fully customizable OpenGL previewing options	•	In standalone mode
Realistic OpenGL preview of plants, planets, lens-flares, texture map atmosphere... with instant and detailed feedback	•	In standalone mode
Dual-resolution OpenGL preview for faster response	•	In standalone mode
Preview specular highlights in real time	•	In standalone mode
OpenGL preview of EcoSystem instances as billboards, boxes or full geometry	•	In standalone mode
Preview EcoSystem instances as shaded billboards	•	In standalone mode
Optimized previewing of EcoSystems billboards	•	In standalone mode
Faster EcoSystem previewing in 3ds Max	-	•
User definable radius around the camera in which EcoSystem instances appear at full resolution	•	In standalone mode
Dynamically populated EcoSystems around the camera can be viewed in viewports	•	In standalone mode
Control minimum size and maximum number of dynamic EcoSystem instances previewed	•	In standalone mode
Dynamic filtering of EcoSystem shaded billboards to improve accuracy and reduce flickering in realtime preview	•	In standalone mode
Adjust EcoSystem display quality on individual population elements	•	In standalone mode
Control displaying at full quality of EcoSystem instances near the camera on individual population elements	•	In standalone mode
Limit overall EcoSystem instance preview quality with a single command for faster navigation in complex projects	•	In standalone mode
Textured OpenGL preview	•	In standalone mode
OpenGL Preview of Boolean operations	•	In standalone mode
OpenGL Preview of Metablobs	•	In standalone mode
Threaded previewing of procedural terrains with dynamic LOD	•	In standalone mode
Normal Mapping accurately displayed in OpenGL Preview	•	In standalone mode
Anti-aliased real-time OpenGL preview	•	In standalone mode
Automatic selection of preview color based on procedural material color	•	In standalone mode
Show objects as box, wireframe, shaded or smooth shaded	•	In standalone mode
Axis preview in viewports	•	In standalone mode
OpenGL and rendered plant preview in Plant Editor	•	In standalone mode
Automatic caching of shaded billboard data for faster vegetation preview	•	In standalone mode
Sky preview with clouds	•	In standalone mode
Realistic MetaCloud preview	•	In standalone mode
Realistic sun shadows	•	In standalone mode
High accuracy of realtime OpenGL sun shadows	•	In standalone mode
Colored EcoSystem instance preview	•	In standalone mode
Dynamic plant display optimization	•	In standalone mode
Decimated object preview for faster previewing	•	In standalone mode
Minimum setting for preview frame rate (dynamic preview simplification to maintain frame rate)	•	In standalone mode
Control over OpenGL clipping planes	•	In standalone mode
Selected objects appear with a red wireframe	Optional	In standalone mode
Parts of selected objects that use the current material appear highlighted	Optional	In standalone mode
Selection wireframe always appears on top of other objects that are in front	Optional	In standalone mode
Selected objects are "ghosted" in red	•	In standalone mode

Selection wireframe color is user definable	•	In standalone mode
Highlighted material selection wireframe color is user definable	•	In standalone mode
Bone highlight color is user definable	•	In standalone mode
High quality texture and terrain previewing	•	In standalone mode
View the Vue environment inside the viewports of your 3D application	-	•
Rendered images can be displayed in the background of all viewports	•	In standalone mode
Camera mapping preview in real time preview	•	In standalone mode
OpenGL viewports reflect camera exposure and gamma settings	Optional	Optional in standalone mode
Planes are visible from all sides in the OpenGL views	•	•
Accurate OpenGL display of materials in world coordinates	•	•
Status bar can display poly count, free system resources, and used GPU resources	•	•
Ability to hide all layers in the World Browser	•	•
Ability to copy-paste objects into hidden or locked layers	•	•
Manual deletion of empty layers in World Browser	•	•
Easily restore default installation folders at install time	•	•
Optimized Full Quality Near Camera option for faster high quality previewing	•	•
Optimized handling of complex group hierarchies	•	•
Adaptive grid level that changes scale with the level of zoom	•	In standalone mode
More detailed grid display/division options	•	In standalone mode
Gradual movement of the camera away from objects when using mousewheel	•	In standalone mode
Mouse zoom towards point under pointer	•	In standalone mode
Mouse wheel automatically zooms view beneath mouse pointer	•	•
Nudge step proportional to zooming level	•	In standalone mode
Optional updating of animated mesh geometry when scrubbing animations	•	In standalone mode
Button in the Terrain Editor to refresh the OpenGL preview of terrains in the host application.	-	•
Turn on and off various settings of the atmosphere preview (such as lens flares, planets, clouds, etc) directly via the application menu	•	In standalone mode
Set an animation preview to loop	•	In standalone mode
Support for Nitrous display driver in 3dsMax	-	in integrated mode
Scroll through scrollable areas using mouse wheel	•	•
Default OpenGL engine set to Shader 4	•	•

Import/Export	VUE Infinite 2016	VUE xStream 2016
Static Poser scene import	•	In standalone mode
Support for Poser dynamic clothes and hair	•	In standalone mode
Animated Poser scene import	•	In standalone mode
Support for multiple Poser SDKs	•	In standalone mode
Maximum supported Poser version	Poser Pro 11 (SR1) and Poser Pro GameDev	Poser Pro 11 (SR1) and Poser Pro GameDev In standalone mode
Option to limit the resolution of your character's bitmaps during import	•	In standalone mode
Convert objects from Max into Vue format (requires 3DS Max)	•	•
Unrigged objects are exported from Max as standard Vue meshes	•	•
Compatible with Cornucopia3D cost-effective locked content	•	•
Cornucopia3D items are identified in the Visual Browsers using a small icon	•	•
Cornucopia3D content display options in Visual Browsers: "All", "Best Selection" or "None"	•	•
Import options dialog to control imported object position and sizing	•	•
When loading objects, option to automatically drop them to the ground	•	•

Motion tracking import	MatchMover (RZML, RZ3), Boujou & SynthEyes (MS)	MatchMover (RZML, RZ3), Boujou & SynthEyes (MS)
Import and Export Camera data as FBX	-	•
Import and Export Camera data as Nuke .CHAN	-	•
2D Import	BMP, BUM, DEM, EXR, GIF, HDR, IFF, Jpeg, PCX, Pict, PNG, PSD, RLA, RPF, TGA, TGD, Tiff, Vistapro DEM	BMP, BUM, DEM, EXR, GIF, HDR, IFF, Jpeg, PCX, Pict, PNG, PSD, RLA, RPF, TGA, TGD, Tiff, Vistapro DEM
Animated 2D import	Sequence of pictures, MOV (Macintosh only), AVI (Windows only)	Sequence of pictures, MOV (Macintosh only), AVI (Windows only)
Use FFMPEG library to load/save animations	•	•
Vector data import	Postscript and Illustrator up to 3.2	Postscript and Illustrator up to 3.2
Exposure and contrast controls in HDRI images	•	•
Textured model imports as	3DS, 3DMF, COB, DAE, DEM, DXF, LWO, OBJ, PZ3, PZZ, RAW, SHD, VRML, MDD, DTED, SDTS/DDF, GeoTIFF	3DS, 3DMF, COB, DAE, DEM, DXF, LWO, OBJ, PZ3, PZZ, RAW, SHD, VRML, MDD, FBX (Ascii and Binary), DTED, SDTS/DDF, GeoTIFF
Import PlantFactory 3D Plants as	.TPF, .VOB	.TPF, .VOB, .FBX
Textured and animated Collada file import	•	•
Support for rigged Collada meshes	•	•
Daz Collada import supports morph targets	•	•
Collada IK information is automatically imported when converting characters to Vue's rigged mesh format	•	•
2D Export	Tiff, TGA, Pict, BMP, GIF, EPX, PSD, Jpeg, PNG, PCX, IFF, RLA, RPF	Tiff, TGA, Pict, BMP, GIF, EPX, PSD, Jpeg, PNG, PCX, IFF, RLA, RPF
Save high dynamic range images	•	•
Export 48 bit color images	•	•
High Dynamic Range 2D Export	HDR, EXR	HDR, EXR
32 bit resolution, floating point EXR import and export	•	•
Embed alpha information in Tiff and PNG formats	•	•
Object export (with textures)	•	•
Optimized object and texture map exports	•	•
Textured object export as	3DS, C4D, COB, DXF, LWO, OBJ	3DS, C4D, COB, DXF, LWO, OBJ
Scene export	3DS, LWS	3DS, LWS
Sky exports as sky-boxes or sky-domes	•	•
Multi-threaded sky map export dramatically speed up the export process	•	•
Camera animation export (e.g. to After Effects)	Maya MA	Maya MA
Object animation export (motion, orientation, size)	3DS, MOT	3DS, MOT
User-definable mesh and texture map resolution for exports	•	•
Automatic re-importing of externally modified texture maps and 3D objects	•	•
Objects can be marked as not being exportable	•	•
Advanced unwrap algorithms for low-distortion UV mapping	•	•
Advanced vertex merging algorithms allow fast and smooth exporting of terrain meshes	•	•
Multiple UV layers support	up to 4 layers	up to 4 layers
Multiple UV layers can be accessed via the function graph	•	•
Save a deformed mesh (without animation) by simply selecting and saving the sub-object	•	•

	VUE Infinite 2016	VUE xStream 2016
Import a 2D vector graphic file to create Vue splines	•	•
Automatic creation of multiple splines if the imoprted 2D vector graphic defines multiple curves	•	•
Import geometry from Zbrush using the GoZ standard	•	•
Export any goemetry as tris from VUE directly to Zbrush using the GoZ standard	•	•
Export terrains as quads from VUE directly to Zbrush using the GoZ standard	•	•
Import scenes, objects, camera paths and synchronization data as Alembic (ABC) files.	•	•
Import all objects included in an Alembic File	•	•
Import instantiated objects from Alembic	•	•
Exort scenes, objects and camera paths as Alembic (ABC) files.	•	•
Alembic supported version	Up to 1.7.3 with R4+ update	Up to 1.7.3 with R4+ update
Export geometry and materials as Ptex (PTX)	-	•
Ptex supported version	-	Up to 2.1.28
Multi-threaded map export dramatically speed up the export process	•	•
Import geo-located terrains as DTED, SDTS/DDF, and GeoTIFF	•	•
Export VUE scenes to LumenRT	•	•
Automatic detection of global scale factor (from file format and source software) when importing scenes or assets	•	•
Export original maps for meshes with Uvs	•	•
OpenGL export preview directly from within VUE's interface (to check how your geometry/materials will look like in your target application)	-	In standalone mode
Render an Export Preview	-	•
Export EcoSystem populations as Alembic	-	•
Export EcoSystem populations as FBX, including texture maps	-	•
Set specific export quality per EcoSystem Specimen	-	•
Export textured objects as FBX	-	•
Export objects as Collada	•	•
Export full scenes as FBX (including EcoSystem populations and sky maps)	-	•
Export full scenes as Alembic (including EcoSystem populations)	-	•
Optional export of texture maps available when exporting in Alembic	•	•
Convert VUE integrated scenes to native objects	-	In 3dsMax, Maya and Cinema4D
Customize geometry and material map options when converting to native objects	-	In 3dsMax, Maya and Cinema4D
Convert EcoSystems to native objects	-	In 3dsMax, Maya and Cinema4D
Revert converted assets to VUE objects	-	In 3dsMax, Maya and Cinema4D

System Resource Management	VUE Infinite 2016	VUE xStream 2016
Robust threading architecture	•	•
Texture virtualization allows rendering with extremely high resolution texture maps	•	•
Geometry virtualization allows rendering of polygon-intensive objects	•	•
"Purge Memory" command to cleanup memory and reduce fragmentation	•	•
Automatic memory monitoring system attempts to preserve scene integrity after memory allocation failures	•	•
Optional compatibility mode minimizes hardware compatibility issues	•	•
Degraded display mode (dynamic simplification of OpenGL preview when resources become critically low)	•	•
Optional limit on OpenGL polygon count	•	•

	VUE Infinite 2016	VUE xStream 2016
Automatic suspension of mesh simplification, Boolean/Metablob preview and background draw threads when system resources become critically low	•	•
Automatic software updating (optional)	•	•
Video-board compatibility checking	•	•
Automatic checking of OpenGL driver compatibility	•	•
Option to clear OpenGL data before rendering	•	•
Embedded error-reporting feature to help reduce time-to-fix	•	•
User definable maximum video board memory usage	•	•
Automatic configuration of OpenGL options for optimized previewing on your video board / driver	•	In standalone mode
OpenGL monitoring system that will continuously check OpenGL activity and video resource usage, and will attempt to intercept any OpenGL driver issues before they happen	•	In standalone mode
OpenGL monitoring system automatically backs up your scene before issueing a warning when the system detects that the OpenGL driver is misbehaving	•	In standalone mode
Updates are downloaded in the background	•	In standalone mode
Up to 4x faster scene saving	With R3+ update	With R3+ update
Up to 2x smaller file size	With R3+ update	With R3+ update
3 scene saving modes: Default, Consolidated Archive, Network Rendering	With R3+ update	With R3+ update
Selection of OpenCL devices for Path Tracing: All Available Devices, GPU Devices Only, or CPU Devices Only	With R4+ update	With R4+ update
Support for CPUs with more than 64 cores	With R4+ update: On Windows	With R4+ update: On Windows

Miscellaneous	VUE Infinite 2016	VUE xStream 2016
Multi-processor rendering	Unlimited number of CPUs	Unlimited number of CPUs
Hundreds of preset atmospheres, objects, materials...	•	•
Terrainscapes preset terrain material library	•	•
64 bit version optimized for Windows and Mac OS X Cocoa	•	•
Floating licenses	With optional License Server	With optional License Server
Licenses can be used as floating licenses when installed in the optional License Server	•	•
License Server can run as a service	•	•
Automatic detection of License Server	•	•
License valid for commercial use	•	•
Sample scene showing a similar setup of a building in the different host applications	-	•
RenderNodes can be set to only render a portion of a picture	•	•
The scene render size can be overwritten directly via a RenderNode command line	•	•
Rendernodes can be set to render the GI Prepass only	•	•
Rendernodes can load a pre-computed GI Prepass	•	•
Command line options to set color/alpha/depth passes for both stills and animations rendering	With R3+ update	With R3+ update
Adjust the time after which the beep sounds when rendering completes	•	•
Improved accuracy of the evaluation of remaining render time in HyperVue	•	•
Automatic activation system avoids juggling with multiple forms and serial numbers - requires an internet connection during activation	•	•
Automatic activation system requires an e-on user account	•	•
Compatible with MacOS 10.10 (Yosemite)	•	•
Compatible with MacOS 10.12 (Sierra)	•	•
Download Extra Content on the fly from the Sample Scene/Object browser	•	•
Content provided with the software is stored in system-wide folder instead of User specific location (usefull when multiple users use the same computer)	•	•

	Online Wiki or included PDF Manual	Online Wiki or included PDF Manual
Inline help		
Direct access to Wiki or PDF using Help key (set your preference between Wiki and PDF in User Preferences)	•	•
PDF Manual	1237 pages	1237 pages
Media	Application: ~1.4 GB zip file - Extra Content downloadable on the fly	Application: ~1.4 GB zip file - Extra Content downloadable on the fly

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