3.99.00

Beta release

Date – 17 September, 2019

Download – Build 3.99 BETA

New Voxel and Particle Tuners

Change each voxel and particle's properties during simulation, and use customizable conditions to delete particles.
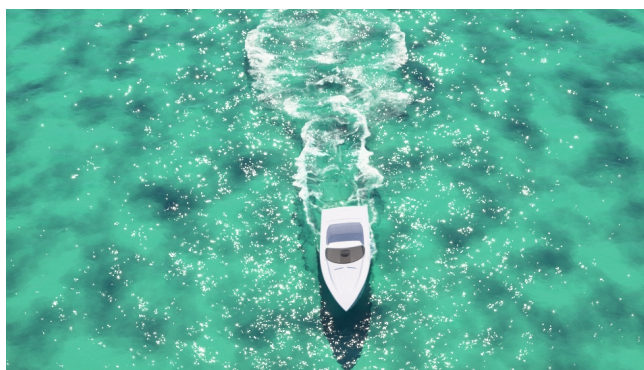
thinkingParticles Integration

We've added Phoenix operators for thinkingParticles and you can now emit fluid via Phoenix sources from thinkingParticles geometries.

Active Bodies

Float your objects over pools or wash them away in floods with basic rigid body simulation for Phoenix liquids.
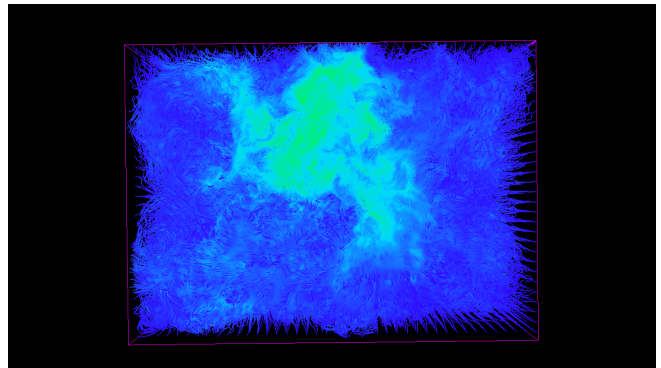
Tex UVW

Transport texture coordinates along fluids during simulation and use them for advanced render-time effects.

Standalone Cache Preview tool

Load AUR, VDB and F3D cache files, preview them and save image sequences.

Complete changelog:

NEW	**ACTIVE BODIES**	New rigid body solver node, interacting with the Liquid Simulator. No mutual interaction between rigid bodies yet
NEW	**PHOENIX FD**	New TexUVW channel for fire/smoke and liquid simulations, moving with the fluid and allowing for render-time texture mapping of surfaces and volume color and opacity, as well as for adding displaced detail moving with the fluid in all render modes
NEW	**VOXEL TUNER**	New node allowing to change any grid channel during simulation depending on conditions based on grid channel values, textures or distance to meshes
NEW	**PARTICLE TUNER**	New node allowing to change any particle channel or delete particles during simulation depending on conditions based on particle channel values
NEW	**THINKING PARTICLES**	Phoenix FD Birth, Sample and Force operators for thinkingParticles
NEW	**PREVIEW**	New Standalone Previewer tool for AUR, VDB and F3D cache files, much faster than the 3ds Max and Maya viewports and currently showing voxels and a new velocity streamline preview
NEW	**GRID SOLVER**	Simulate the RGB channel for Drag particles
NEW	**PRT I/O**	Register the PRT Reader path into the 3ds Max Asset Tracker for repathing, archiving, and asset transfer for distributed rendering with V-Ray Next
NEW	**SCRIPTING**	New <node>.getFrameInfo MAXScript function that retrieves the currently loaded frame info string
IMPROVED	**INSTALLATION**	Now Phoenix for V-Ray 3 and for V-Ray Next can load in 3ds Max and simulate without V-Ray installed, and can render with Scanline, Corona, Octane, etc. so Phoenix installers for Scanline are no longer needed
IMPROVED	**FLIP SOLVER**	Optimized Birth Volumes

IMPROVED	**FLIP SOLVER**	Apply the Initial Vel. Rand. option not just to newborn Splash, but to splitting splash particles as well
IMPROVED	**SOURCES**	Emit from instanced thinkingParticles meshes when Prt Shape is set to Use Particle Shape
IMPROVED	**SOURCES**	Emit from thinkingParticles meshes which are different per each particle when Prt Shape is set to Use Particle Shape
IMPROVED	**VOLUMETRIC SHADER**	Optimized rendering of tens or hundreds of Simulators in Volumetric render mode
IMPROVED	**PARTICLE SHADER**	Speed up and improve CPU utilization for Optimizing Particle Congestion with large cache files
IMPROVED	**RENDER CURVES**	Copy-paste support for render gradients and curves
IMPROVED	**CACHE I/O**	Sped up Grid RGB channel saving to compressed AUR cache files up to 8 times
IMPROVED	**CACHE I/O**	Save and load Grid Viscosity from VDBs created by Phoenix
IMPROVED	**CACHE I/O**	Sped up loading of VDB caches by reading their min-max channel ranges from metadata instead of calculating them
IMPROVED	**CACHE I/O**	Added cache info to VDB caches describing which version of Phoenix FD was used during simulation
IMPROVED	**CACHE I/O**	Hidden script option to disable the preset popup when loading Field3D or OpenVDB caches - inDontOfferPresets
IMPROVED	**PRT I/O**	Sped up export of PRT files up to 5 times
IMPROVED	**PRT I/O**	Allowed use of # in the PRT Reader for specifying sequences just like cache paths in the Simulator work
IMPROVED	**PREVIEW**	Don't reset the preview Detail Reduction on loading a new cache sequence in 3ds Max
IMPROVED	**USER INTERFACE**	Renamed "Use Light Cache" to "Volume Light Cache" so it's not confused with V-Ray's Light Cache
IMPROVED	**USER INTERFACE**	Enabled Motion Velocity in Sources by default for new scenes
IMPROVED	**USER INTERFACE**	Changed Mapper's Initializer option to off by default for new scenes
IMPROVED	**SDK**	Renamed aura_ver.h to phoenix_ver.h
IMPROVED	**SDK**	Removed grid and particle channel defines from aurinterface.h
REMOVED	**PHOENIX FD**	Dropped support for 3ds Max 2014
FIXED	**SCENE BODY INTERACTION**	Hang during simulation if interacting with geometries with zero-area triangles
FIXED	**GRID SOLVER**	Random hang when stopping a fire/smoke simulation affected by a force and starting it again
FIXED	**GRID SOLVER**	Some voxels lose velocity and freeze using Massive Vorticity
FIXED	**SOURCES**	Creating Discharge Modifiers or changing their curves did not support undo/redo
FIXED	**VOLUMETRIC SHADER**	Crash with caches over 2.1 billion voxels with Phoenix Light Cache, since Phoenix FD 3.12
FIXED	**PARTICLE SHADER**	Reflections of excluded area lights still showed up on a Particle Shader's Bubbles/Splashes
FIXED	**MESHER**	Phoenix Mesh mode with a 2D scalar Displacement map rendered with artifacts
FIXED	**MESHER**	The Simulator's Velocity Render Element was not rendered in some frames in any of the Mesh modes with Render Cutter
FIXED	**OCEAN MESHER**	Enabling the Underwater Goggles option had no effect since Phoenix FD 3.12
FIXED	**OCEAN MESHER**	Orthographic viewport did not render Ocean Mesh correctly with Phoenix for Scanline

FIXED   **CACHE I/O**   Simulating the Fire/Smoke Temperature channel to VDB incorrectly showed the minimum data range as 0, instead of 300

FIXED   **CACHE I/O**   Drag particles exported to VDB could not render with motion blur even with exported grid velocity

FIXED   **PREVIEW**   Jittering Preview with Detail reduction and Adaptive grid

FIXED   **BODY FORCE**   Crash when simulating using a Body Force node without an object, since Phoenix FD 3.13

FIXED   **PATH FOLLOW**   Modifier-Based Space Warps over a Spline caused the Path Follow force to work incorrectly

FIXED   **MAPPER**   Mapper's Initializer option was not working with Liquid simulators

FIXED   **GRID TEXTURE**   Grid Texture applied to thinkingParticles did not get updated correctly when rendering a sequence

FIXED   **PARTICLE TEXTURE**   Crash when simulating using a Mapper with a Particle Texture, while the same Particle Texture was also used in a material

FIXED   **FOAM TEXTURE**   Wrong Mapping of the Foam Texture when the Ocean texture used tiling other than 1.0 in World XYZ with 'Use the original non-displaced vertices'

FIXED   **3DS MAX INTEGRATION**   Crash when simulating with Cascade Simulator enabled but no Simulator chosen

FIXED   **3DS MAX INTEGRATION**   Adding an X-Ref Scene or X-Ref Object broke the Output path of existing Simulators in the current scene if it contained a macro

FIXED   **VRSCENES**   Empty grids filled with density using the opacity curve rendered with different density between 3ds Max and exporting to VRscene