

4.10.00

Official release

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With Phoenix FD 4.10 we focused on particles - Sources can now emit from any 3ds Max particle system, we sped up the particle preview and the Particle Shader and exposed its data for rendering by 3rd party render engines. We also did fixes and improvements to our new Active Bodies and Standalone Preview, as well as the usual round of other bugfixes and small improvements.

NEW	PRT I/O	Emit fluid from Phoenix PRTReader particles and Krakatoa PRTLoader particles in the Phoenix Sources
NEW	STANDALONE PREVIEW	GPU Preview for fire in the Standalone Preview
NEW	STANDALONE PREVIEW	Controls for the GPU Preview light direction
NEW	SDK	Now the Particle Shader exposes PhoenixVolumeShaderInterface and can be sampled in Fog mode using IPhoenixFDVolRendSampler
NEW	SDK	New IPhoenixFDParticleRendData interface for obtaining the particle rendering data of a Particle Shader in non-Fog modes
IMPROVED	FLIP SOLVER	Sped up FLIP particle resimulation with 10%, up to 20% on some scenes
IMPROVED	FLIP SOLVER	Do not offset the Foam particles vertically during simulation
IMPROVED	ACTIVE BODIES	Pop-up menu with density presets in the right-click properties of bodies
IMPROVED	PARTICLE SHADER	Sped up the particle collection rendering pre-process up to 5 times
IMPROVED	ISOSURFACE RENDERING	Expose the Sampler option for Isosurface rendering in the Liquid Simulator
IMPROVED	PREVIEW	Sped up loading of new frames for the Particle Preview with 20%
IMPROVED	CACHE I/O	Store velocity of Drag particles in their particle data instead of in the Grid Velocity. Added an Output Drag Particle Velocity option to Sources
IMPROVED	STANDALONE PREVIEW	Options to save a range of frames and a single frame
IMPROVED	STANDALONE PREVIEW	Text box for the loaded cache file info
IMPROVED	STANDALONE PREVIEW	By default name the saved image files the same way as the input cache files
IMPROVED	STANDALONE PREVIEW	Image saving to PNG files
IMPROVED	USER INTERFACE	Don't warn about the interacting forces if the Simulator is in Include List interaction mode
REMOVED	PARTICLE SHADER	Removed the Particle Shader Liquid Tint and Liquid Turbidity options
REMOVED	SOURCES	The 'Can Pick Simulators' option is now On by default and hidden from Sources and can be accessed only through script using 'pick_ph'
FIXED	FLIP SOLVER	When using Variable Viscosity, some particles were not behaving properly
FIXED	FLIP SOLVER	FLIP particles resimulation produced NaN-values with Simulate Air Effects
FIXED	GRID SOLVER	Failing to load cache for resimulation displayed an error message, but did not stop the resimulation
FIXED	SIMULATION GENERAL	During the first restore frame, bodies in the simulation had incorrect velocities

FIXED	ACTIVE BODIES	All modifiers keys were erased at simulation startup when the object was set as Active Body
FIXED	ACTIVE BODIES	Restoring an Active Body simulation broke the animation of the original objects
FIXED	ACTIVE BODIES	Active Bodies were falling slower with more Steps per Frame
FIXED	ACTIVE BODIES	Don't show per-node Phoenix properties on the Active Bodies center of mass helpers
FIXED	VOLUME SHADER	A Phoenix smoke volume inside a Mesh with Refraction Glossiness below 1.0 rendered blocky
FIXED	VOLUME SHADER	Random artifacts when rendering smoke using Volume Light Cache in Volumetric Geometry mode
FIXED	PARTICLE SHADER	Count Multiplier above 1 did not preserve the positions and sizes of the created particles in animation
FIXED	PARTICLE SHADER	Rendering a Particle Shader with Liquid Simulator selected used extra memory
FIXED	PARTICLE SHADER	Particle Shader in Points Mode rendered incorrectly using a 360 V-Ray Spherical Camera
FIXED	PARTICLE SHADER	Crash when attempting to render a Particle Shader with V-Ray GPU
FIXED	PARTICLE SHADER	Zooming In and Out during V-Ray IPR was not working correctly while Particle Shader pre-passes acquired the focus
FIXED	PARTICLE SHADER	The Velocity Render Element of a Particle Shader in Points mode was not affected by the Motion Blur Multiplier
FIXED	ISOSURFACE RENDERING	Crash when rendering in Isosurface mode using V-Ray Volume Scatter material
FIXED	TEXUVW	Source UVW variation using inherited UVW from Geometry was not consistent during simulation
FIXED	EXPRESSIONS	Crash when changing the tiling or offset of a texture selected in an expression
FIXED	MESHER	Crash rendering two Simulators when one uses the other as a Cutter and also its material has Distance Texture pointing to the other one
FIXED	OCEAN MESHER	Some Ocean Mesh normals pointed downwards with V-Ray Spherical camera and FOV over 180 degrees
FIXED	CACHE I/O	Enabling RGB Input smoothing for a Mesh which was shaded using RGB from a Grid Texture had no effect until changing the frame
FIXED	CACHE I/O	Handled some out-of-memory in case of saving Grid RGB to cache files or when blending cache files
FIXED	CACHE I/O	Could not use General Purpose Time Bend Resimulation when the base caches were VDB instead of AUR
FIXED	PRT I/O	The Phoenix particle Size was incorrect when exported to the Scale channel of PRT files
FIXED	GPU PREVIEW	The GPU Preview disappeared if the camera went inside it
FIXED	GPU PREVIEW	Crash with caches which had transformations with negative or fractional offsets, since Phoenix FD 3.99
FIXED	GPU PREVIEW	Randomly appearing colored artifacts with the GPU Preview when using Detail Reduction, since Phoenix FD 4.0
FIXED	GRID TEXTURE	The Grid Texture could pick Phoenix Particle System nodes
FIXED	STANDALONE PREVIEW	Crash when cancelling the first cache open dialog
FIXED	STANDALONE PREVIEW	If 'Enable GPU Preview' was turned on, the Standalone Preview didn't save files after pressing the "Save" button
FIXED	STANDALONE PREVIEW	Sometimes the Standalone Voxel Preview drew in slices the first time a cache was loaded
FIXED	CACHE CONVERTER	Cache Converter did output empty VDB files, since Phoenix FD 3.99
FIXED	3DS MAX INTEGRATION	Could not pick Particle Flow events in the Scene Interaction rollout - only the PF Source got added
FIXED	3DS MAX INTEGRATION	Switching between two different Grid, Ocean or Particle Textures in the old Material Editor did not update some of their GUI elements

