# 3.00.02

*Official* release

**Date –** Jan. 10, 2017

## New Features

### PhoenixFD

- Added menu for submission of simulations via Thinkbox Deadline and Backburner
- Add script functions that execute the Quick Setup creation routines

### Simulation

- Liquid resimulation with adaptive grid
- Birth confine geometry for Foam, Splash and Mist

### I/O

- Export simulations to OpenVDB

## Modified Features

### Simulation

- Option to select which channels and particle systems will be deleted using Clear Inside
- Cascade simulation of Liquids now mutually excludes both simulators from interacting
- Added warnings when the velocity channels for grid and particles are missing in a Cascade simulation
- Show warning when more than one sources share same object as emitter

### Rendering

- Support V-Ray's per-object motion blur duration override
- Support for motion blur Interval Center for Volumetrics
- Improved curve and gradient control interaction
- Ability to use Displacement Fade Near Geom in Mesh render mode
- Abort rendering with Defscanline when a fire/smoke or particle pre-process is cancelled

### Turbulence

- Added a list with grid and particle channels to be affected

## Deprecated Features

### PhoenixFD

- Sample scenes are no longer shipped with the installation, and are instead available on the docs site

## Bug Fixes

### PhoenixFD

- Animated Quick Setups behave wrongly when the Default Key Tangents are set to Smooth
- Wrong simulation when Gasoline explosion preset is applied after Candle preset, on the same object
- Too high wave velocity for the Ocean Quick Setup preset

- Sources using VRayHDRI maps will not emit until the map is rendered or viewed in the Material Editor
- Slow creating and deleting of many lights from the scene in the presence of a Phoenix simulator
- Exporting a VRScene with Simulator or Particle Shader calculates light and particle pre-passes
- Stop throwing a warning when simulating liquids with an unrelated fire source present in the scene and fire with unrelated liquid source

## Simulation

- Crash when simulating more than 178 million liquid particles
- Liquid disappears when it hits a jammed wall
- Liquid passes through static thin geometry and foam and splash can be born through such walls
- Bubbles stick to simulator's positive walls with the Beer Quick Setup preset
- Allowed the wetmap to stick to the simulator's jammed walls
- Wetmap does not fully cover geometries which are rotated and non-uniformly scaled
- Initial Fillup ignores the per-object wetting and always creates wetmap over objects
- Initial Fillup without gravity still creates velocities in a liquid grid
- Excessive Foam production on the simulator borders with Initial Fillup
- Wave Force artifacts when interacting with open walls of the simulator
- Asymmetric reflection of Liquids from positive and negative jammed walls
- Clear Inside does not work with Resimulation of Fire/Smoke
- Starting resimulation from a frame when the grid has already adapted causes wrong grid position
- Changing Space in Discharge Modifier while simulating crashes 3ds Max
- Crash when simulating with 3ds Max Wind and using PFlow
- Very slow simulation with many scene objects outside the simulator's box
- Extremely slow texture sampling of a source using maps that are in use by PFlow as well
- Mapped RGB channel is not working with Volume emit modes of sources
- Surface Force sources ignore the Polygon ID
- FLIP Liquid sources don't support mapping of the Liquid and Particle discharge
- Body force pulls the fluid to one side when using edged geometry
- Initial Liquid Fill of intersecting geometry in Non-Solid mode will produce artifacts
- Changing steps per frame during Liquid simulation leads to a crash

## Rendering

- Bubble highlight jitters in animation when using dome light or opposing point or area lights
- Missing illumination on bubbles in Volumetric Mode with BF+LC and V-Ray Adaptive Lights
- Crash when the Particle Shader's Count Multiplier is very high
- Ocean displacement scaling takes extremely long to render when it wasn't updated in the material editor
- Ocean Rendering hangs at low altitude when the container is far away
- Crash using particle-based Mesh smoothing on a mesh with zero-area triangles
- Emissive lights are calculated in V-Ray RT even when the Fire channel does not exist
- V-Ray RT won't render smoke shaded by Smoke channel
- Scene saved with the old curves in Simple Smoke mode always has inactive transparency curve
- Geometry behind simulator occludes render elements
- Bucket artifacts with a moving grid using Phoenix Light Cache together with motion blur
- Crash when previewing or rendering a cache where the particle ID channel cannot be uncompressed

## Preview

- Scrubbing the timeline with animated Direct Cache index leads to 3ds Max crash
- Crash when playing animation with Time Bend Controls mode set to Loop
- Interface lag when previewing a missing frame from a very long cache sequence
- Lights that were in the scene before creating a new Phoenix simulator are added to its exclude list

## I/O

- Broken *.aur cache files are created when a single channel of the simulation exceeds 2 gigabytes