3.2.5.0

Milestone 3.2.5
Enhancements

- **Implicit AOV type conversion:** You can now set AOV values with a different (but compatible) type than the type used to declare the AOV output. The values will be implicitly converted, following the same implicit conversion rules already used for shader network connections. For example, you can use AiAOVSetRGB() on an AOV that was declared as RGBA, which will result in an implicit alpha of 1.0. Previously this resulted in empty images that were puzzling for first time users. (trac#1831)
- **Ignore default values when writing to .ass:** This makes for a nice reduction in size for written .ass files. (trac#1840)
- **AOV sample clamping:** Sample clamping was already available for the main RGB (beauty) buffer, via options.AA_sample_clamp. This has now been extended to work for any generic AOV's of RGB/RGBA type, and can be enabled with the newoptions. AA_sample_clamp_affects_aovs. This is disabled by default. (trac#1848)
- **Exposure control in light sources:** We have added an exposure parameter to all light sources, which gives additional control over light intensity. The final light intensity is calculated according to the formula intensity * $2^{exposure}$. The default value is 0 for backwards compatibility. (trac#1851)
- **Added console colors to log messages:** Console log output will use ANSI color codes to mark warnings in yellow and errors in red, for easier debugging. Not available in Windows. (trac#1849)

API additions

- **Comparison operators for AtPoint2 and AtRGBA:** The == and != operators were missing. Note that as these operators were already implemented for AtRGB and AtVector. (trac#1844)

Bug fixes

#1850	NaN's in hair with volumetrics and min_pixel_width > 0
#1564	artifacts in volume importance sampling with linear light falloff
#1852	Filter NaN values in generic AOVs
#1845	allow motion-blurred spheres to have constant radius
#1843	Fix OIIO texture cache flush
#1842	Comparison operators in AtVector and AtRGB should be const
#1841	Multiple SSS lookups not working properly with sss_subpixel_cache
#1839	AiNodeSetPtr does not work on user data of type AI_TYPE_NODE
#1838	Opening an .ass.gz file from a procedural doesn't work