CHANGE LOGS:

Dynamic Track

- For a session with a "Fixed Sky" weather setting, the initialization of the track is now generated with the static specified weather, rather than using a dynamic sky before the start of the event. This should cause the temperature model to be very near equilibrium at the start of the session.
- This fixes an issue where setup builders were having an unpredictable environment at the start of the session.
  - The multi-layer track temperature model has been adjusted to slow down the rate at which heat conducts between the layers. The net result of this is that the track surface reacts slightly faster to changes.
  - The evaporation formula of water from soil has been adjusted so that the track surface will cool quicker but it will lose less water.

New Damage Model

- Updated how cars are removed from the world when towed or disconnected. Now, a car and all of its associated parts will be removed from the world together. This avoids some situations where parts from a wreck are left on the track even though the involved cars have been removed.
- Fixed an issue that could cause a crash when transitioning between sessions.
- Fixed an issue when calculating collision forces that could cause instability or crashes in limited circumstances.
- Fixed an issue where the incorrect amount of damage could be applied when it was being split between two colliding cars.
- Fixed an issue where damaged parts would continue to collide with cars on pit road.

Paint Shop

- A new sponsor, Sparco, has been added to the Paint Shop!

Virtual Reality

- Optimized the use-case of Virtual Reality (VR) with High Dynamic Range (HDR) and Anti-Aliasing (AA) when all enabled together.
- Eliminated several large render targets and some unnecessary copies and resolves of the rendered scene.

- The default pixel density settings for VR HMDs has been reduced from 120% or 130% (depending on the HMD model) to 100%. This means, by default, the Simulator will use the resolution recommended from the headset itself, unaltered, instead of scaling it larger.

- The affected settings are: "PixelsPerDisplayPixel" inside the "[Oculus Rift]" section, and "ResolutionScalePct" inside of the "[OpenVR]" section of the RendererDX11.ini file.

- This change is primarily due to the newer, higher resolution HMD displays, which do not benefit as much from the extra resolution. And, the extra scaling leads to a much larger video memory footprint and fill rate, both of which negatively affect performance, especially when combined with anti-aliasing and/or HDR rendering.

- The existing settings in the RendererDX11.ini file are not altered by this change, so we recommend that all VR customers should consider reducing these values manually to be as close to 100% as possible for best performance, or re-run the iRacing autoconfig utility, then adjust and carefully readjust as needed.

- Move where OpenVR and Rift VR runtime blocks the rendering thread so that it happens immediately after present() to reduce the rendering latency and improve pose prediction and frame timing.

- Fixed a pose prediction issue in the OpenVR support, related to pose prediction timing for the upcoming frame.

- The OpenVR SDK has been updated from 1.011 to 1.6.10.

- With this Patch release, the "R Timer" is reporting times that are lower than the actual values. This is due to some actions now happening outside of the window that the "R Timer" monitors. This is a known issue, and we plan on fixing it with the next update.

**Broadcasting Interface**

- Fixed an issue where post-processing effects (such as motion blur) were appearing incorrectly while using broadcasting mode.

**iRacing API**

- Special characters will now be stripped from the YAML CarClassShortName string.

**Steam API**

- The latest Steam API has been integrated.
CARS:

Audi R8 LMS GT3

- 2019 Season 4 GT3 Balance of Power Adjustment: Minimum weight has been increased by 10 kg.

Audi RS 3 LMS

- V7 tire compound has been adjusted slightly.
- Tires should reach peak operating conditions earlier in the run.
- Differential and rear brake valve adjustments can now be mapped to the steering wheel.

Chevrolet Monte Carlo SS

- Fixed an issue where the cockpit gauges were losing their lightmap when the car was damaged.

Dallara IR18

- Fixed an issue with the reflective properties of the Advanced Frontal Protection (AFP) device.
- Season setup for Charlotte Motor Speedway and Kentucky Speedway has been updated.

Lucas Oil Off Road Pro Trucks

- (Pro 2 Lite) - Engine cooling efficiency has been improved.

NASCAR Monster Energy Cup Chevrolet Camaro ZL1 - 2018

- Rear brake light decals have been updated.

NASCAR Xfinity Chevrolet Camaro - 2019

- Season setups have been updated.
NASCAR Xfinity Ford Mustang - 2019
- Season setups have been updated.

NASCAR Xfinity Toyota Supra
- Season setups have been updated.

Porsche 911 GT3 Cup Car (991)
- In-car engine sounds have been improved.
- Gear shift and compressor sounds have been improved.

Porsche 911 RSR
- 2019 Season 4 GTE Balance of Power Adjustment: Fuel consumption has been reduced slightly.

Radical SR8
- Season setup for Silverstone Circuit has been updated.

Skip Barber Formula 2000
- Fixed an issue where vehicle shadows were not displaying correctly.

TRACKS:

Charlotte Motor Speedway
- NEW TRACK CONFIG!
- - A new track config, Roval, has been added and enabled for use!
- - - This track config replaces the original track config named Roval; it has been renamed Roval - 2018.

- Gain-time checkpoints have been updated to prevent cutting sections of the infield.
- Flagman animations have been updated.
- Pavilion building glass color has been adjusted.

- A new loading screen background has been added.

**Circuit de Barcelona Catalunya**

- The yellow curbs at Turn 1 and Turn 11 no longer disappear at any rendering distance.

**Fairbury Speedway**

- Fixed an issue where cars could sometimes get snagged by the wall at Turn 4.

- Fixed an issue with visual popping of the start/finish booth.