

Website:

Race Panel Changes

- Added a visual MPR indicator that is displayed between the car and the sessions box. This provides a quick and easy indication if you are racing up, down or equal to your license level.

- Added a track confirmation dialog to the race panel. It is displayed when you click on a registration link in the race panel and the track associated with the session is different from what is currently displayed in the race panel. This should help to avoid issues that happen when we approach race week cutovers where people register for sessions on different tracks than they expected.

Driver Stats

- The driver stats page now includes the checkbox Active Drivers, which will restrict the result set to currently active members.

Divisions

- The method by which the iRating ranges that define divisions are selected has been adjusted. The old method tried to ensure that a fairly consistent number of drivers would be placed into each division. The new method instead tries to balance the expectation that drivers within a division will be competitive with each other. With the new method, some divisions will have a fairly large number of drivers (generally the middle divisions), while some divisions will have relatively few drivers (generally the outer (low and high) divisions).

Hardcore Mode in Hosted Sessions

- The session host now has the ability to configure what driving aids will be allowed in their hosted session. On the "host a race" page you will see a new "Click here for more settings" link. This displays a popup where you can select either "Disallow all driving aids (but clutch assist OK)" or "Allow all driving aids". If driving aids are enabled the user will still need to enable the aids in-sim in order to activate them for the session.

Join a Race Page Reorganization

- This page has been reorganized to show your pending and rejected sessions at the bottom rather than top of the UI. Also, there is a new link that allows you to view your rejected sessions for the last 30

days rather than the default of 8 hours.

Hosted Sessions

- When you include a lone qualifier in your session you will now need to provide a duration in minutes as well as laps. This helps to avoid situations where the qualifier session terminates earlier than you may have expected. Another added benefit is that if you configure a 2 lap qualifier over 30 minutes you can now join at any point during the 30 minutes and run your 2 laps. Previously you needed to join right at the start of the qualifier.

- You can no longer specify the race duration by laps alone. You can specify either minutes or laps+minutes. As with lone qualifiers this is a measure to ensure that your session executes exactly as you expect it to. Previously, when you specified a duration in laps the system calculated a duration in minutes and in some cases the end result was not what you expected it to be.

- Fixed an issue with night racing and hosted sessions. If a user creates a hosted session with night mode enabled, then goes in to create another one by using last settings and changes the track to a non-night-mode track we will attempt to create a hosted session with night mode enabled on a track where it isn't supported and throw an error.

- Fixed an issue with fixed setups. The bug prevented the user from selecting a canned iracing setup unless they had already uploaded at least one custom setup for the relevant car.

- Changed lone qualifiers to allow 1 lap.

- Changed open practices to be as short as 5 minutes.

Miscellaneous

- Added a new menu item to the HOSTED nav menu that links out to the "Featured Leagues" page on oniracing.com.

- Added night race designation to series schedule page and the series schedule pdf.

- Added missing track config to open practice widget.
- Added Firefox 5 to the list of supported browsers.

Tournament Racing

- This feature is an extension to hosted racing. It enables you to run tournaments by linking together multiple hosted sessions. The results from one hosted session can be used to determine eligibility for subsequent rounds in the tournament.

- A tournament consists of an initial round followed by any number of preliminary rounds followed by a final round. Each tournament round can be configured to run on up to 10 servers. The initial round of a tournament is open to everybody unless the host provides a password (just like with regular hosted sessions).

- Eligibility for subsequent tournament rounds is controlled by the host. When setting up a subsequent round the host uses a grid builder to control who is eligible to compete and how the grids will be structured.

Creating a Tournament

- You can create a tournament by going to HOSTED --> Host a Tournament Race on the main navigation bar. You will be presented with the option to create a new tournament or continue an active tournament. You can create as many tournaments as you would like. When creating a new tournament, the name that you provide for the first round becomes the tournament name. You cannot schedule multiple rounds for a single tournament at the same time. In other words you can only continue a tournament if the last round of the tournament has completed.

- The user interface will be very familiar to people who have configured hosted sessions in the past. When setting up a tournament round other than the initial round you will see a new configuration section called "RACE FIELD + GRID CONFIGURATION" that has a link to the grid builder.

- Once inside the grid builder the host first populates the race field with all of the drivers who will be eligible to complete. The typical use case is for the host to pull drivers from the prior round in the tournament. The host can choose to advance all drivers from the prior session or apply entry criteria (top N or top N%). The host can also add additional drivers by customer id. For this initial release it is only possible to pull drivers from the most recent tournament round for which there are results. We expect to expand this area with a "grid rule builder" that will allow you to configure F1 style gridding where you advance some drivers from the prior round, other drivers from 2 rounds ago etc.

- Once the race field is set, the host needs to assign drivers to each of the race servers. This will

establish the grid(s) for this round of the tournament. This can be done automatically by selecting a grid algorithm or by dragging drivers from the race field and dropping them onto the race server of choice. Once the drivers have been moved onto the race servers the host still has the flexibility to use the drag and drop method to change the grid order per server or move drivers between servers.

- The automatic grid algorithms first rank all of the drivers in the field. They look at the prior round in the tournament. If the prior round had a race component, the primary ranking will be done by race position in the prior round. If the prior round didn't have a race component, the primary ranking will be done by qualifier time from the prior round. iRating is used as a secondary ranking criteria if race position/qualifying time are not available.

- With this first release there are 7 supported grid algorithms:

1) Sequential - This algorithm loops through the drivers putting driver 1 on server 1 slot 1, driver 2 on server 1 slot 2 etc. until server 1 is full. When server 1 is full it moves on to server 2 and so on until we either run out of drivers or server slots. For further illustration consider a 6 driver field with 2 servers and 3 drivers per server. The grid would look as follows:

Server 1	Server 2
driver 1	driver 4
driver 2	driver 5
driver 3	driver 6

2) Sequential (inverted) - The list of drivers is inverted prior to applying the sequential algorithm described above.

3) Snake - This algorithm is used when gridding across multiple servers. For illustration consider a 6 driver race field with 2 servers and 3 drivers allowed per server. The grid would look as follows:

Server 1	Server 2
driver 1	driver 2
driver 4	driver 3
driver 5	driver 6

4) Snake (inverted) - This algorithm simply inverts the driver list prior to applying the snake algorithm

described above.

5) Top 8 Inverted - This is a modified sequential algorithm where the top 8 drivers in the list are inverted prior to applying the sequential algorithm described above.

6) Top 10 Inverted - This is also a modified sequential algorithm where the top 10 drivers in the list are inverted prior to applying the sequential algorithm described above.

7) Random - This algorithm randomly shuffles the driver list prior to applying the sequential algorithm above.

- When configuring a tournament round that is not the initial round but that does have a qualifier component, the system will use the qual times from the qualifier component to override the grid that was saved by the host. In this instance the grid builder determines which drivers will connect to which race servers but the grid order is not used.

Joining a Tournament Session

- Tournament sessions that are ready for joining are presented on the "HOSTED - Join a Race" page off of the main navigation bar. You will notice that the "F" column denoting fixed setups has been replaced with a tournament column that will show a trophy icon if the session is part of a tournament. Mousing over the session name will show the tournament name.

- When a tournament round is configured to run on multiple servers you will see multiple entries in the list. Each represents an individual race server. When joining the initial round of a tournament you can join whichever session has availability. When joining a subsequent round you will only be allowed into the session that you were assigned to by the host.

- When competing in the initial round of a tournament you are not allowed to join multiple sessions. In other words, if there was an initial round qualifier on 4 servers, you cannot withdraw from one server and join a different one to try and improve your time.

Viewing Tournament Results

- You can view tournament results by going to HOSTED --> Tournament Results on the main navigation bar. The filters on this page are essentially a subset of the filters on the hosted results page.

- You will see a list of tournaments that match your filter criteria. Each item in the list can be expanded to show a list of the tournament's rounds. Each round in the tournament can be expanded to show round details. The round details include a summary of the round as well as a listing of what drivers

advanced from this round to the next round, what drivers did not advance to the next round and the results for this round. The results for the round include a graphic display of the grids and finish positions with links out to the individual session results.

- The round details will change over time depending upon the status of the tournament. For example, we cannot show the results for a round that hasn't completed yet. Another example is that we can't show the list of drivers who advanced until the next round of the tournament has been configured.

Known Issues / Limitations with this release

- No multiclass support. You are limited to a single car type for each round in the tournament.

- The "USE LAST SETTINGS" and "RESET" buttons are not supported. We may forego the "USE LAST SETTINGS" button in favor of always initializing the host a race page with the configuration of the prior round of the tournament. This is to be determined.

- No CSV export of tournament results. You can go into each session individually and export those results.

- No filtering of tournament results based on content.

- It is possible to add the same driver to the grid twice. Until we address this be careful when dragging and dropping drivers on to the grid to be sure you aren't putting the same driver onto two different servers.

- There is a drag-and-drop issue with Chrome where the driver's name may not be visible until you begin to drag them.

- Initial round tournament results may not always correctly display the "advancing" and "not advancing" drivers.

- The only way to conclude a tournament is to create a round with the "Final round" designation. We intend to provide an additional mechanism that will allow you to conclude your tournament at any time. One instance where this would be useful is if you configure your final round but forget to configure it as the final round. For now if you run into this issue please contact customer support and we can manually adjust the tournament for you.

- The grid builder user interface is not as responsive as we would like, especially when generating a grid with a lot of drivers. We intend to improve the performance and also add a "please wait" message to make it obvious that the system is processing your request.

- There have been cases in testing where the "join a race" page will show that a session is full just after being created. This situation typically clears up on page refresh and the session becomes joinable.

Mutual Friends System

- The "Friends System" has been changed to a "Mutual Friend System". This is to facilitate the new website integrated chat system, as you can only chat with mutual friends. This means that you now must send a friend request to a member and they have to accept it before it will flag you as friends in the system. To facilitate this change we have moved all of your current friends into your "Studied" list and removed all friends from your account. We have increased the maximum number of studied members and friends to be 100 each. We are going to look at increasing this restriction in the near future.

- You can view your incoming and outgoing friend requests at the bottom of the My Racers page, which can be accessed in the navigation by going to MyRacing-> MyRacers. For the time being you will need to visit this page to see if you have any incoming requests. We are working on putting in a notification system to let you know when you have a new request, but it did not make this release.

- The helmet pop-ups on the site have been changed to facilitate these changes. The new options you may see are "Send Friend Request", "Revoke Friend Request", "Remove Friend" and "Accept Friend Request". If you choose "Remove Friend", it will remove the friendship flag from both member accounts.

- Once you are Mutual Friends with a member you will be able to use the integrated chat system to contact one another if you both meet the Integrated Chat requirements.

Racers Online

- We have adjusted the Racers Online count so that 10 min of inactivity (leaving the site) will remove them from the online list.

BETA FEATURE - Browser Integrated Text Chat

- We are providing browser integrated text chat as a BETA feature. This will allow all members to try it out, if they wish, and help provide any feedback or issues. This is an opt in feature, so to use it you must go to the General Tab on the Settings Panel (the settings panel is opened by clicking on the gear icon on the right hand side of the page under the race panel) and selecting "Enable Integrated Chat".

Integrated chat requirements:

- You must have your online status set as available (This setting is available on the general tab of the settings panel)

- You must have Integrated Chat Enabled (This setting is available on the general tab of the settings panel). After enabling or disabling this feature you must reload the browser page or change pages for the change to take effect.

- You must have a mutual friend who also meets criteria #1 and #2. (Only mutual friends can chat with one another, see *Mutual Friends System* in these release notes)

Items To Note:

- You do not need to have the Simulation Software installed to use the new chat feature. It is completely web-based. You will be able to tell if you are logged into the chat server if the little chat bubble on the footer of your browser is white. You can mouse over the chat bubble for a tooltip to see your online status.

- The chat feature will only work in one instance of a browser. For instance, if you have 3 Firefox windows opened to the iRacing member site, only one of those windows will have the chat enabled/available. The chat system is really made for only visiting the site in one browser version at a time, so visiting the site and attempting to use chat in both Internet Explorer and Firefox at the same time, for example, will lead to strange results (messages only going to one of the browsers) and is not supported.

- The chat is disabled on certain pages of the site including the My Account section and the Shopping Cart Checkout pages. Additionally, when you join an online session your browser goes to a page that has a continue link on it. This page does not have chat enabled and it does not make any additional web traffic while you are racing, that way you will not be receiving messages while you are in an event. Another good reason for only using one browser window for visiting the member site.

- You should be able to embed links in your chat messages. Emoticons are not supported however.

To start a chat with a mutual friend:

- Mouse over the "myRacers Online" area in the footer of the site. If any of your friends are available to chat they will have a white "chat bubble icon" next to their name. If you click on the chat bubble a chat box will appear at the bottom of the page where you can start a conversation with them

To clear message history with a user:

- When you change pages on the site your chat history should be maintained in the chat boxes that you have left open.

- If you have long message history with a friend and it is causing any site issues, you can have the system clear the chat history for that conversation by completely closing the chat window with that user. The next message from the user will start a new message thread.

If you start having issues:

- Please report them in the "Feedback"->"Problem Reporting" Forum Thread.

- Don't forget that you can always completely disable this feature, by going to the General Tab of the Settings Panel and selecting "Disable Integrated Chat".

Awards

- For this release we've added a new set of awards. Like the first set, most of these will not be retroactive so you can go get them now!

New awards include:

- Hard Charger Awards - Start in the bottom 10% of grid, finish in top 10% of grid with no incidents in an official race with grid size of at least 10.

- Polesitter Awards - Start an official race from the 1st spot on the grid for your car class.

- World Traveler - Drive at every track in an open practice, hosted session, time trial, or race.

- Jack of All Trades - Drive in every car in an open practice, hosted session, time trial, or race.

- Club Contributor - Win points for your club.

- Club President - Win the most points for your club in a season.

- iRating Awards - Awarded the first time you cross each of 2000, 3000, 4000, 5000, 6000, 7000, 8000, and 9000 iRating.

- Overachiever - Win an oval race that counts toward your MPR while having the best iRating in the field.

- Cruise Control - Win a road race that counts toward your MPR while having the best iRating in the field.

- We have also fixed up the Clean Race and Safe Driver awards. They now both require that a driver scores championship points and completes 50% of the laps the class winner completes, rounded down, in a field of at least 10 drivers in your class. Anyone who accidentally earned these awards previously will have them removed so you can try for them again.

Simulation:

New Tire Model

The new tires are now on the three top oval vehicles: the Cup car, Nationwide car, and Truck (Nascar A, B, and C series). They are also now on the Skip Barber Formula car, as well as the two new cars, the Ford GT and the Acura LMP car. The new tires continue to be developed, and we will be rolling out more cars with the new tires as we are able. Setups for cars other than the Skip Barber car will need to be adjusted—we have included some new baseline setups with the affected cars.

The tires are a bit more forgiving than in the preview release of the Nationwide car. Low pressures are no longer necessarily the way to go for the fastest laps. If your car feels unstable under braking, try moving the brake bias more forward (higher front bias percentage), since we've found that many of the road cars seem to have too rearward of a brake bias on the new tires if using the old setting.

Cars with NTM: Chevrolet Impala, Chevrolet Impala Class B, Chevrolet Silverado, Formula Skip Barber 2000, HPD ARX-01c, Ford GT.

Graphics

- Fixed a bug where shadow volumes were sometimes not rendered for an object when shadow maps are enabled and preferred, but the object is set to only render shadow volumes.

- Worked around an issue where massive distortion could occur in the side monitors of a 3-monitor setup when the camera has a lot of zoom (very small FOV) and the side monitors form a large angle (> 45 deg) from the center monitor's plane. When a TV camera has a lot of zoom, the eye dist has to be pushed very far away from the center screen so that the monitor's FOV matches the real world FOV from that distance. However, unless you moved your head then to that far away spot, the distortion

would be visible. To reduce this distortion, the angle of the side monitors is now reduced from their current angle down to 10 deg as the eye dist pushes away from the center screen. Although this results in different distortions, they are minor compared to the original issue. To override this new behavior (if necessary for some reason), in renderer.ini, under [MonitorSetup], set Min3ViewZoomDistortion=0. It is otherwise enabled by default.

Depth Of Field Effect

- A depth-of-field effect may now be enabled during replays via the replay options screen (see the lower right corner of the replay options screen for the new "depth of field effect" check box, which will require a restart to take effect). WARNING: Enabling this effect will consume a large chunk of video memory for all of the off-screen render targets required to accomplish the effect. This effect also requires pixel shaders to be enabled.

- When the effect is enabled, each camera's depth of field is calculated using equations from optics which take into account the camera's focal length, aperture, and current focus setting. The focal length of each camera is determined via its current field-of-view. Telephoto style shots (with a very narrow field of view) require long focal lengths and help best show off the effect. Camera apertures are adjustable via the camera tool (CTRL-F12), and are specified as a fraction of the lens' focal length. The first entries in the aperture drop list, f/1.0, f/1.4, f/1.0, f/2.4, etc., result in the largest apertures. To maximize the blur effects make the aperture large (a zoomed in camera and a low f-number such as f/1.4). To eliminate any focus related blurs from the shot make the aperture small (a wide field of view and/or a high f-number in the aperture drop list). Pre-existing camera sets default to f/8.0.

- By default most of the replay cameras will auto-focus on the "focus car". To manually set the focus elsewhere check the "Man. Focus" checkbox and use the focus slider to manually adjust the focus.

- The effect breaks down a bit when things near the camera are very out of focus and very blurry and cause things that should be in focus behind them to visibly blur - this is due to a quality vs. performance tradeoff, but generally this tradeoff works out ok (as a starting point). This issue doesn't occur when the focus is close to the camera and distant objects are out of focus.

Sound

- Reduced the number of crash sounds we generate and randomly select a sound to attempt to make crashes sound better.

- When mixing stereo sounds to mono (such as listening to the engine sound in some on-car cameras), we no longer mix the left and right channels, now we just play the right channel to eliminate cross cancelation of the low frequency engine sounds.

- Fixed a bug where setting numSoundStreams to anything but -1 resulted in only 16 streams being

created.

Spotter

- Cleaned up spotter and reduced the chances of getting phantom 3-wide calls

Steering Wheel Configuration

- The sim can now recognize steering wheels that have up to 1080 degrees of rotation.
- Improved detection of game pad (hint: move your sticks slower!)
- Added support for mapping the throttle/brake to a button.
- Converted force strength to a range of 0 to 40.
- Enabled a force feedback damping slider. Setting 0 damping will give the cleanest force feedback experience.
- Notify customers that pedals must be pressed slowly to be detected (we need 4 unique samples to detect a pedal)
- Removed brake force curve calibration.
- Cleaned up code to reduce chances of Fanatech wheels locking up.
- Fixed bug with F430 wheels.

Driver Aids

- Additional assistance is available to help you get your favorite car around the track. You can now enable more driver aids in the Options configuration.
- The Racing Line driver aid shows a colorized racing line around the track that is colored red for braking zones, through to green for acceleration zones.

- Brake Assistance prevents you from locking up your brakes.
- Throttle Assistance prevents you from spinning your wheels.
- Driver aids can be enabled or disabled for an online hosted session by the session owner.
- iRacing Rookie series allow driver aids, but series of Class D and above do not allow any driver aids.

Garage

- Setup values that are close to the limit of their allowed range will change to a yellow color.

Tech Inspection

- Fixed some bugs with tech inspection. No longer tech inspect when already in a race. No longer lock players out of race if they are in the garage at the start of a race.

Telemetry

- Move telemetry icon so it no longer conflicts with the split time window.
- Hitting 'm' on the keyboard will mark a bit in the telemetry file. Useful for marking interesting events for later review.
- Improved the mapping between the G27 shift lights and the in car lights. Also improved the telemetry as a side effect.

Black Box

- The F3 Relative black box should now show far more consistent time deltas to other cars as you drive around a lap.

Race Control

- Servers now load up car specific lap speeds and timing for each track, so the Gained Time rule should be much more correct in it's assessments of how much time you should give up for cutting a corner.
- Fixed a bug that could possibly cause Could not connect to server errors, or the loss of one pit stall in full sessions.

Collisions

- Improved the efficiency of the track surface collision computations by about a factor of 2. Tight curbs like the final chicane at Spa should not overwhelm the CPU as much as before. There is potential for further improvements in this area in future releases.
- Fixed a bug in the collision system that has been causing all the axle explosions on the new Chevrolet Impala B, and many of the times a car gets stuck in a wall. Note that you *can* still get stuck in walls in certain situations, but this is much less of a problem than previously.

Updater

- The iRacingUpdater.exe has been tweaked to work more reliably for people who have difficulties during the update process. The initial update will still cause problems because the new updater must be installed using the old updater, but future updates should be a lot more seamless.

Miscellaneous

- Camera car number hotkey selection now supports leading zeros.
- Fixed a bug where you could stall the motor and not be able to restart it if you locked up your rear wheels while braking with the pit lane speed limiter activated.
- Fixed a bug that could possibly cause "Could not connect to server" errors, or the loss of one pit stall in full sessions.

Tracks

- Many tracks have had been updated with live timing boards.

- All the NASCAR and several US road course tracks have been visited by the iRacing blimp.

IndianapolisMotorSpeedway

- New Indy Oval configuration added. This configuration is the same as the standard oval except the pit road speed limit starts at a later point.

Charlotte Motor Speedway

- Many visual updates to bring the track up to date.

Iowa Speedway

- Now available!

Suzuka International Racing Course

- Now available!

Cars

HPD ARX-01c

- Now available!

Ford GT

- Now available!

- The Ford GT is a tough car to get the handling balance right on. This is really based on the fact that it is a flat bottomed car, that's forced to run a high ride height. 55mm is the minimum ride height per the ACO Rulebook. Now with the front and rear at minimum, you'd lose a lot of front downforce, so you

really want to have the car running close to 10mm of rake as a starting point with all setups. One thing to remember when driving and setting up this car is that to get front downforce (DF), you REALLY need to close up the distance between the splitter and the ground. With a min ride height of 55, the only way to do this is to get weight transfer from braking, whether it's from lifting off the gas, or actively applying the brakes. Both will cause a downforce shift towards the front! HOWEVER, bottoming the splitter WILL cause the front DF to spike and then rebound will and cause all kinds of handling issues. Try to set the car up so that the splitter comes close to the ground, but doesn't actually HIT the ground under braking. We have found a front bumpstop gap of 13-19mm works fairly well, though running stiffer springs, you may not need them that close.

- This is an AERO car first and foremost, so the low speed handling may be compromised by the choice of springs that will hold it up at high speed and high downforce settings! Depending on the nature of the circuit, you may want the car to trim itself out at high speed, so you'd run stiffer front springs, and softer rears. But if it's a high downforce circuit, you may want to reverse that balance so you can get the nose down on the ground in the braking zones, to help move the aero balance forward so the car turns-in well. Using damper rebound to help hold the nose down may work, but can reduce suspension compliance. It's a tough car to make work well, and will reward a patient driver with good speed and decent handling. Those that expect it to turn well without altering the aero balance may find it to drive like a truck!

Chevrolet Impala

- Updated to Dave's new tire model.
- The car itself is fully updated with improved suspension, aerodynamics, garage settings.

Chevrolet Impala B

- Updated to the latest version of Dave's new tire model.
- The car itself is fully updated with improved suspension, aerodynamics, garage settings.

Chevrolet Silverado

- Updated to Dave's new tire model.
- The car itself is fully updated with improved suspension, aerodynamics, garage settings.

Formula Skip Barber 2000

- Updated to Dave's new tire model.
- Halve front ride height adjustment range.

Dallara IndyCar

- Collision spheres moved downward to match wear plank on bottom of car.

Riley Daytona Prototype

- Increase susceptibility to aero damage and coolant leaks (due to feedback from Grand Am series impact observations)

Williams FW31

- Fuel mixture adjustment is now available, and is mappable to a new fuel mixture control.