



RFACTOR₂—WE TEST THE BETA

PLUS

SIMIONI ON SENNA-SIM

GHIBAUDO ON GRALLY

CASILLO ON THE PAST

PROJECT C.A.R.S

iGP *iGPManager*



WIN! A copy of **GAME STOCK CAR** inside

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LxMartini



SERGIO'S
LOVELY
CHRISTMAS
PRESENT!

THE CUSP

Sim-racing, in its usual five-year cycle, is up for major renewal. ISI is about to release the beta of *rFactor2*, *iRacing* is about to mount their new tyre model on their open-wheelers, Ian Bell's SMS has already opened the door to their new project (and business model), and we hear that the chaps out in Vallelunga may have something really intriguing coming down the pipeline. But aside from the leap in quality and reality (yes, *rFactor2* is all we have hoped for, as Jon Denton will explain in these pages), the big change comes to us in the way our simulators will be delivered and paid for: no longer out of a box, and no longer a one-off payment, at least not for the big-3 in sim-racing development.

ISI's beta of *rFactor2* will cost you money. And *rFactor2*, if we understand it correctly, will cost you money on a yearly basis for online play. The days of buying a box and hoping somewhere along the line the developers may work on a patch is over; now, you lease content for a while, and then you renew based on what they're offering. A risky strategy? Perhaps; but it also shows the developers are confident they can deliver not only content and patches, but an experience you'll want to come back to, year-on-year. *iRacing*, of course, started this trend, and I recall speaking to a developer some years back who stated straight-out that everyone in the industry was watching how things went with the chaps in Boston. I suppose then that things went well because SMS have now also taken the pay-to-play route, only—this being Ian Bell—with a twist; not only do you get to pay to play the beta, and not only do you get to pay to be a beta-tester and general mule (the kind of thing that, ten years ago, would have caused revolutions on message boards), but you also get a potential financial reward at the end of it. Investing in your hobby, literally.

So what does it all mean? Perhaps we can infer from this that the sim-racing world has matured, come of age, and developers now know how to maximize profits and longevity in what will always be a niche backwoods in 'computer gaming'. It is, perhaps, also a realization that sim-racers are no longer that interested in the latest game; sim-racers tend to stick to what they believe offers them the most realistic experience of driving a real race car, and given that a new engine generally

runs on five-year cycles, sim-developers seem to have settled on a new, year-over-year subscription model, to fund not only the development of their current title—but that which will replace it in five years. We don't get a 'finished' game anymore; we get an 'in' on its development that will remain open-ended (because in its promise is our commitment) for—well, who knows? Presumably *rFactor2* could, like *iRacing* and *CARS*, be updated for another 1,000 years. A thousand years of beta-testing? The future is indeed not what it was ...

THE PAST

So what happened to AUTOSIMSPORT? Did you miss us? Didn't think so ... and there's your answer. So why are we back? Lord alone knows why I'm doing this again at 3AM. And Jon Denton, who talked me into it. That's just for the record.

THE FURY

See above.

THE PRESENTS

So it's Christmas—well just gone, anyway, if, as we had planned, you're reading this and it's 2011 still. As the sun sets over our seventh year, I can't help but be amazed at how quickly time has gone by. I still recall creating that first issue back in that cold December of 2004 ... and yet, in my life, so much has changed in that half-a-decade. A lot to be grateful for, and a lot to celebrate. I hope, looking back, you feel the same. If you don't, well, that's what next year is for! All of us here at AUTOSIMSPORT wish you all the best for the winter and we hope we'll see you in the spring with another triple edition. That's what I wrote back in 2009 for what turned out to be our last issue in over two years. I continued by saying, Merry Christmas and Happy New Year from Jon Denton, Bob Simmerman, Lou Magyar, Simon Croft, Fabrice, Magnus Tellborn, Sergio, Jiminee, and everyone who 'works' on this magazine. That sort of holds true, though I've not heard a word from the latter in ages, and hope, if he reads this, that he is well and that he shoot me an email sometime. Also, to finish, a welcome back to the world to Sergio, who has gone through hell and has come back to us alive and unchanged. We missed you, my friend, and thanks for the gift!

WIN!!!!!!!!!!!!!! A COPY OF

GAME 05

STOCK CAR

QUESTION: WHICH MULTIPLE CHAMPION IN STOCK CAR BRAZIL RACED FOR THE FITTIPALDI TEAM IN FORMULA ONE?

CORRECT ANSWERS WILL BE DRAWN FROM A VIRTUAL HAT! SEND REPLY TO HALEX.MARTINI@AUTOSIMSPORT.NETH.WINS.

The Chosen Ones

GET PREPPED FOR RFACTOR2 BETA

AutoSimSport

There is the usual bitching and whining on the forums about what ISI are doing with the beta release. So to clear up: you are being invited to pre-purchase rFactor2. If you choose to do so, you obviously get an 'in' with the beta. The beta process is expected to last for 6 months. If you pre-purchase, you will be given an 18 month subscription: 6 months of beta-testing, and a year of the final product. For that, you get all the new releases, and the following content immediately:

Single Player: Multi-player: Developer mode: Development Tools: Documentation for those tools (in the WIP state): Rain: Wet/Dry track transition: Dynamic track elements (Groove/Marbles): New Tyre Model, New physics: New Collision: HDR (with other Post FX to come): Access to beta updates and new/updated content as they become available.

In the USA, rF2 will sell for \$43.99. This will allow unlimited access to single player and mod development mode. It will also include one year access to an online account. Additional one year access to the online account can be purchased for \$12.99.

You can download content files now, and then the exe. when it is released in the next few days or even hours.

This is the car and track content from rF2. These are RFMOD files, which are the new content packaging format found in rF2.

—ISI1045-v10-1960sWorldClassRacing.rfmod.zip here:

<http://isiforums.net/f/attachment.php?attachmentid=333&d=1324606715>

—ISI1032-v10-RenaultMeganeTrophy.rfmod.zip here:

<http://isiforums.net/f/attachment.php?attachmentid=334&d=1324606744>

—ISI1044-v10-FormulaRenault35s.rfmod.zip here:

<http://isiforums.net/f/attachment.php?attachmentid=335&d=1324606765>

You will need a torrent file client to download. If you don't have one, feel free to await the HTTP mirrors.

KART RACING PRO DEMO

AutoSimSport

You can download the demo of this promising kart sim at this link:

<http://www.kartracing-pro.com/?page=downloads>



THE OLD GEEZER IN THE CORNER

The Bad

Yes, motor racing is dangerous. We know this, and it's part of what makes it, as Hemingway would have it, a true sport. Still, if you're anything like me, and you watch something like the Dan Wheldon accident, your first instinct is to shut the TV and hide from what you have seen. We are all suspended watching men play with their mortality, and when—as it must—one of these brave people sacrifice their lives for our amusement, we are left shamed, appalled, confused, hating the sport, and, in some ways, hating ourselves for being a part of this blood sport. And we are, as fans, a very real part of the sport. Yes, no doubt many of these guys would still find ways to risk their lives for their adrenaline kick, and yes they are the ones who made the decision to risk their lives for fame, glory, and riches. Yes, all of that ... and yet.

And yet motor racing is not the same with the safety net, is it? Which brings us to the debate about real and simulated; and we get to understand that the simulated remains the purest form of motor racing because it is skill, pure and simple, that will triumph. In the real world, skill is a factor, yes, but it is not determining. No. That Dan Wheldon accident has haunted me, really, because we all felt it was coming, didn't we? Even the drivers sensed it, I think. It was 1994 all over again, there was that ... that something in the air, that unquantifiable something that all motor racing fans sense in their bones. A collective fear, a collective acknowledgment that here, today, something awful is about to happen. And in that moment, we must separate the simulated from the real. The Senna biopic does a fine job of showing the strain of Senna's face just before he met his fate at Tamburello. Did he sense it, too, that day? I think so. Just as those guys in Las Vegas sensed danger. This should not surprise us, of course, for sensing danger is part of our DNA. No, what surprises us is not that men can sense impending danger—but that men, knowing this, will strap on their helmets, slide into the cockpit of their racing machines, and go tearing around a strip of oval at 380KM/H. That is what surprises us, what draws us to this sport and what, when the inevitable happens, appalls us most. It scares us too, doesn't it, to know that mortality is so fragile, so quickly taken?

And yet ... and yet. Subtract the fans from the sport. Subtract, as a result, the money and the fame and the glory. Subtract it all and what are you left? With a kid somewhere entranced with the sport and probably too young to even know about adrenaline, about fear. Guys like Wheldon started karting at 6, 7 years of age, before they realized what it was all about. And most—the majority—will never make it to Dan Wheldon's level; and of those who do, most—the majority—will walk away from the sport, rich, famous, and sated. So yes, it's right to be sickened by death, by such pointless death; but it's also right to celebrate his life, because he did what he wanted, and he did it well, and in the end it wasn't the sport that killed him; it was just his luck ran out. Just as Senna's did that day in May when his suspension, travelling 4 inches up or down, would have missed him entirely, and he would have walked away. Such is life; and such is motor racing, magnifying and amplifying our own existence in fractions.

The Ugly

What an odious thing Formula One has become. What a boring, soulless, deflating, dispiriting, mundane, fruitless, stale farce this once magnificent sport has descended into. Watching the last race of the season in Brazil, I began to wonder what it was that made it so bland. Was it the drivers, these mega-millionaires so transparently disinterested in their jobs and so devoted to the money for which they race? Was that what made the sport so awful? I kept thinking about Montreal, where some chap named Ice T decided to humiliate F1 fans by suggesting—with a sniggering Lewis Hamilton in the background—that the McLaren's steering wheel was worth more than most fans' homes. Yes, it may have been that moment when the truth of what F1 has become dawned on me. Or maybe it was when that video was hounded—literally hounded—off the internet by Bernie and his mob. Seriously, try and find that video, it is gone, banished. Why? Because it was a moment when the truth of F1 was exposed ... the moment when the true face of this sport revealed itself in all its mocking, sneering condescension, and we, the fans, were the object of that revulsion. And really, who can blame them for despising us, for we are indeed despicable, tuning in to such a contrived sport without any heart. A sport empty of emotion, devoid of passion, and dead of soul.

But this is the modern world, isn't it? Passion is suspect, indifference applauded, hard work mocked, cheating congratulated; the F1 fan is a nifty metaphor for what we have all become—we are the suckers on which the parasites feed and engorge themselves on our blood. F1 is about money. It isn't about sport, or racing, or competition; it's about men making as much moola from the suckers watching as they can. And in return what do we get? Scorn. And rightly so, because anyone who hasn't noticed how awful this sport is, anyone who keeps watching must surely deserve this condescension.

Rupert Murdoch will now be showing F1 races in the UK. It is, indeed, fitting that such a man should have found a soulmate in F1 racing. The cynicism of a man whose newspapers would tap and delete messages from a dying girl is the perfect fit for a sport that believes its fans are ripe only for derision.

With half the field now paying for their seats, a qualifying format that sees half the field not even bother churning a lap, passing made easier than overtaking granny on the slow-lane going down to the shops, an antipathetic world champion, races held on tracks where even the promise of free seats and hookers results in fields of empty bleachers, stewards purposefully making asinine decisions like bad football refs to 'spice up the show', all of it has contrived to bring F1 to the very zenith of its spiral to its rightful place on SKY Sports as the WWF of motor sport. Yes, Ice T is right to laugh at us.

Fromage Frei

Slidin the Sport into the Sim



COMMENT

Spadge Fromley is away



iGP MANAGER

CoverStory

Those of you old enough to remember AUTOSIMSPORT will recall the hacks on this magazine share a common fetish: A somewhat seedy love affair with management sims. It's been twelve years since Grand Prix World was released, Microprose's shining phallus to all things geek and gawk where men in large headgear get to mock F1 fans along with some bloke named Ice T (who?). Twelve years is a long time to wait, but in iGP we have finally discovered the makings of a nifty management sim destined to thrill and entertain for some time to come. Jack Basford was kind enough to sit down with us and give us a road map on the past and future of this excellent management sim now available at iGP's website.

The background of the page features a dark, stylized image of a Formula 1 race car. The car is primarily black with red accents on the chassis. It is surrounded by glowing blue and white energy-like trails that suggest speed and motion. In the upper right corner, the logo for 'iGP Manager' is displayed. The 'iGP' part of the logo is in a white, bold, sans-serif font, with a green vertical bar on the left side of the 'i'. The word 'Manager' is written in a white, italicized, sans-serif font to the right of 'iGP'.

iGP *Manager*

7/28 MALAYSIA L Otávio has a puncture. CHAT (1) SETTINGS

Rank	Driver	Time	Laps
7	I Casillas	1:36.73	0.4
8	J Gudjohnsen	1:36.71	0.4
9	G Taylor	1:36.85	0.5
10	B Gabris	1:37.13	0.2
11	J Petrović	1:37.06	0.3
12	B Castro	1:37.35	0.3
13	H Wong	1:37.56	0.4
14	S Sverrison	1:37.20	6.8
15	D Evans	1:37.99	0.2
16	C Sanchez	1:37.79	0.2
17	M Graceffa	1:37.83	3.5
18	S Ghanem	1:37.72	0.0
19	Z Anderson	1:37.70	0.0
20	C Collins	1:37.87	4.4
21	F Hauksson	1:37.73	2.9
22	E Mellis	1:38.30	0.5
23	V Makriev	1:38.06	0.1
24	M Chan	1:38.96	4.4
25	C Xú	1:57.38	30.3
26	J Nara	1:47.83	10.1
27	H Peres	1:49.10	62.6
28	L Otávio	1:48.88	1.5

Rank	Driver	Fuel	Temp	Pressure	Speed
1	P16 - C Sanchez	34L	-3.8	75%	-1.1
				53%	-8.4
2	P1 - J Flores	29L	-3.8	89%	-0.7
				50%	-8.7

D Evans
Bort Racing
189 KPH
5
THROTTLE
BRAKE
KERS

AUTOSIMSPORT: Can you give us a brief history of this sim?

JACK: The vast majority of the development of iGP Manager has just been me and Andrew Wiseman, though we've worked with various freelancers and advisers along the way, paying for their time out of our own pockets. I met Andrew playing Age of Empires years ago, and we always said we should do something together. One day, after months or even years without contact, our paths crossed at the right moment. It was really spontaneous actually, I just put the idea forward and we both agreed it would be something we'd be interested in, and that was that. Then we spent two, three years slaving away at our desks getting it done. The biggest reward for us would be to be work on this for another two, three years. We love the work and the freedom it brings, and that's why we're so motivated to get it right.

AUTOSIMSPORT: There have been F1 manager games in the past. Some good, most pap. What was the motivation for you to take on the challenge of entering this genre, and what separates iGP from its peers?



(ABOVE) NIGHT RACE IN 2D, PREVIOUS PAGE, DAY RACE IN 2D: LIVE ACTION IS ADDICTIVE FOLKS!

JACK: Being a petrol head and a web developer, it was a natural progression. I think the key difference is, we're ambitious and not afraid to think outside of the box. It's our goal to make the things you would normally mention wishfully to a friend actually happen.

On my own, I wouldn't be able to do that, but working with Andrew we cover all bases. Whereas I can build solid brands and web systems, and I'm bursting with ideas, I can't always make it happen on my own. For example, I couldn't build our simulator, Java applets or install, and set up a web server. That's stuff that Andrew does well, and together we compliment each other nicely.

With this initial release, we're scratching the surface of what is possible. Through the support of our users we want to gain enough momentum to continue making bigger innovations.

There's a reason others aren't going down the same path: it costs a lot more time and money. But we have the passion to pull through and get the job done.

AUTOSIMSPORT: iGP is, at its heart, a strategy game. These tend to require a lot of fiddling and tweaking to get the balance right. What areas have provided the greatest challenge in terms of striking a balance where success can be achieved by pursuing different strategies?

JACK: There wasn't really a toughest part, but this was one of the challenges we faced throughout the beta. We overcome it by always paying close attention to any feedback we get. I think listening to your users makes it a lot easier.

AUTOSIMSPORT: The game has had a fairly extensive testing program, something which is critical for a game of this nature. Have there been any surprising responses from the testers, and what have been the biggest game developments to come out of this process?

JACK: Testing actually went on for over a year, and we transformed the game completely during that time, sometimes rebuilding features from the ground-up several times over in response to feedback. Now, we've reached a very good place where the whole experience of managing a team is enjoyable.

AUTOSIMSPORT: F1 is an incredibly complex and intricate sport. Obviously simplifications have had to be made to make it workable within a gaming framework. What have been the biggest challenges in this respect, and what further complexity can players look forward to in the future?

JACK: We recruited several beta testers who loathe motor sport and think it's just cars going in circles! They know nothing of the technical side of the sport but were great for simplifying things and keeping it grounded. Once we reached a point where even they found the game enjoyable, we began to gradually layer-in complexity and technical information on top of that. I think this has resulted in a fundamentally easy to understand interface, but a technically rich game.

In terms of future features to look forward to, there are all of the flags and safety car situations which are a strategic goldmine. They will certainly spice up the racing from a managerial standpoint.

AUTOSIMSPORT: Which areas of iGP are you most proud of, and do you think are key to its success?

JACK: If the key to success is anything, it's building a strong overall package. Compliment that with a unique selling point like the live race engine, and I think it's a recipe for success, but no single aspect is a key that will magically unlock success on its own.

AUTOSIMSPORT: Have there been features you have wished to include but have found are either too complicated or simply haven't worked when it has come to the transition from theory to practice?

JACK: Of course ... we actually had/have plans for a third kind of subscription. But it had to be postponed because the development is quite a monumental task for a small development team like ours without much funding. I'll leave it to your imagination what that might be, and we're still working on it.

AUTOSIMSPORT: In terms of longevity, what do you think will keep players hooked and want to return for season after season?

JACK: iGP Manager is different things to different people, and that's the beauty of it. For some, it will be grouping together with colleagues for workplace battles, for others it will be meeting up with friends and racing casually, for others it will be the aspiration to top the hall of fame.

AUTOSIMSPORT: It is known that iGP is doing a lot of processing on the server side compared to other games of its ilk; running the races in real time as opposed to simply using look up tables to calculate results. Can you please give some details of what is being calculated and how, for example in terms of tyre temperature and wear, and fuel use, as well as car physics and interaction, overtaking, individual components, and so forth?

JACK: Races are simulated in real-time 24/7, with the status of every car, every driver, the environment, the track surface and the timing screens (personal bests and so on) all being updated with up to one millisecond precision.

Each part of the car is simulated in detail using a real-time physics simulation. For example, tyres alone are impacted by ambient temperature, how the car is being driven by the driver, friction levels between the tyre and road surface, the impact of temperature and friction on the deterioration of the rubber and so on.

The drivers evolve throughout a race too, with dynamic attention spans, energy and health. All of the driver skills are factored in to these calculations.

A driver may lose his focus more often if he has a low focus attribute, and his health will decrease faster during a race with a low stamina attribute. He might not be so good off the

start line if he has poor composure and reaction times. I could go on, but I think that's enough for this answer!

AUTOSIMSPORT: On the same topic: what real-world data have you chosen to use and how close to reality is the experience? Did you find you had to tinker with data in order to create something 'playable', or have you tried to retain as much real-world information as you could: and also, could you perhaps give us an example, in terms of tyres perhaps?

JACK: We use a lot of real data to determine how our simulator operates. From location data to tyre data, fuel data or even weather data. It all comes from the real world, and is factored in to the simulation for the most authentic grand prix racing experience.

In a couple of places we've made things more fun than they would be if they were exactly like reality, such as KERS, which has been redesigned to work well in the context of an MMO game. But otherwise it is essentially a fully-fledged race simulator.

AUTOSIMSPORT: The drivers in the game—how crucial are they to success? In real F1 of course they have become perhaps twenty percent or less of the whole—is it the same here?

JACK: It's probably closer to sixty-forty in iGP Manager. The designers are still king, but the drivers can make a significant difference. There are more teams on the grid in iGP Manager than in reality, and that is also a factor in this. A step up in any area of the team can be reflected in the race.

AUTOSIMSPORT: The game seems 'simple' in terms of a winning strategy: get the best crew, get the best engines/tyres and drivers, and victory is guaranteed. Is this too simplistic a way to see the game and, if so, can you explain the subtleties? In other words, is the idea that all players land up with the best of everything and then fight each other on strategy front?

JACK: I can only urge you to race some of the guys in my league and see how simple it is! Even as a developer, they have me racking my brains to figure out how they get these tiny advantages. I'd say that's true to reality too, when you get to the peak of performance, then the smallest things can make a big difference.

AUTOSIMSPORT: Tying in with issues of longevity, you have announced your pricing structure for the game as being free to play, with a paid subscription unlocking 'premium content' (including the 2D race view—highly recommended and a lot of fun!). Can you please shed some light on what the premium content consists of, how you derived the pricing structure, and what you see as the long term benefits from being a paid subscriber?

JACK: We always wanted to make the game free to play, and we were very happy when we could finally make that a reality. We checked what all of the competition were doing, factored in our server costs, taxes and fees from payment processing, and got it down to the most reasonable level. If you subscribe for a year, it's just £3.49 per month. If you race once a day, it's less than half the price of some other sites which give you a non-live refreshing HTML page for a race. That in itself is quite a technical achievement.

As for the benefits of long-term subscriptions, they are also a commitment to future development. The advantage of sticking around for a while is that you will get to see all of the benefits that each quarterly patch brings. The gameplay is continually evolving, and if you like what you see today, then I would urge you to invest for tomorrow, because we are fully committed to developing iGP Manager for years to come.

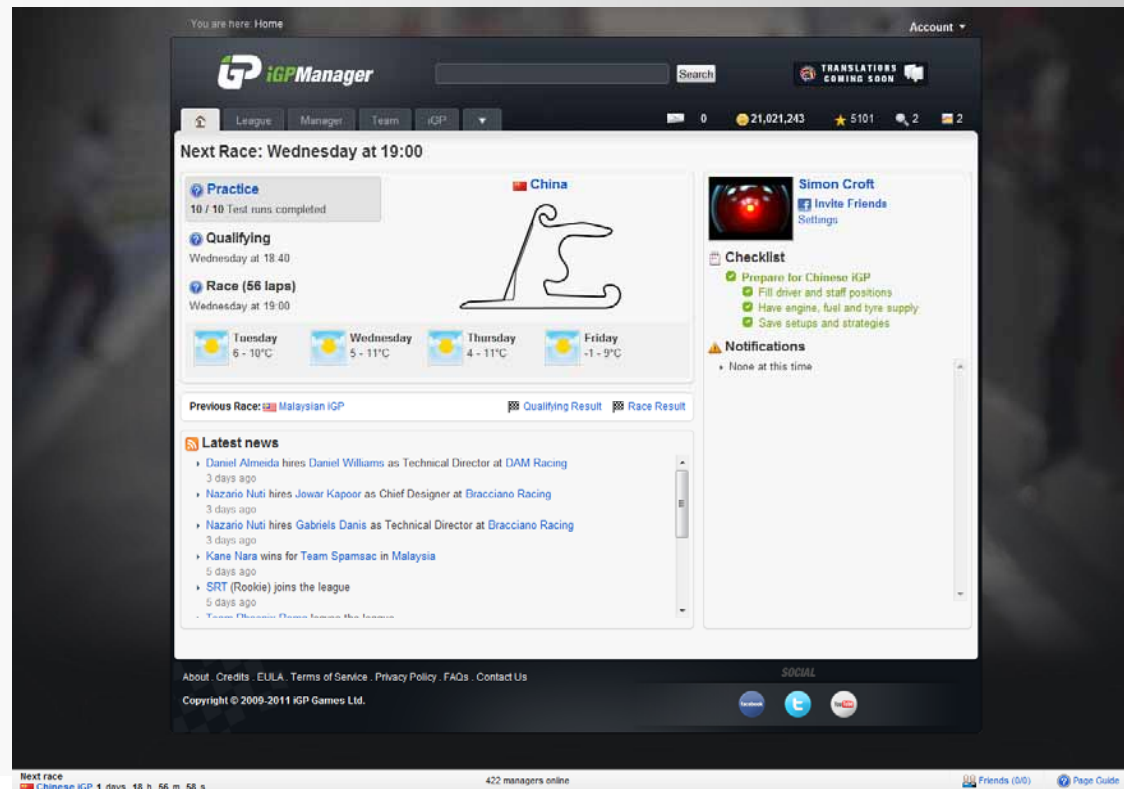
AUTOSIMSPORT: The game comes into its own within the league play, with players free to join an existing league, or create their own. Can you discuss the flexibility and options available within the leagues structure, and how you've gone about ensuring there is something to suit everybody?

JACK: With iGP Manager, we wanted to make it so that people on opposite sides of the globe both an identical experience, no time-zone favoritism. We value our users all over the world, and put their experience ahead of what might be convenient for us to develop. It would have been so much easier to demand that everyone race on a Tuesday at 5PM, or whatever, like pretty much every other game does. But that just wasn't going to cut it.

So we have a league system that is totally flexible. You can choose to race once a week, every day, or on selected days of the week and at a time you specify. You can choose the duration of the races, have one car or two cars per team, pick who you race against (local friends, family and colleagues, or people from all over the world). This means that everyone can find something for them, as we accommodate their schedule and lifestyle in to our leagues.

AUTOSIMSPORT: What is the key to success in the game? For those who are useless, how would you suggest they go about creating a team? What are the biggest things to focus on and what are the least important?

JACK: My biggest tip would be to stick at it if initially you aren't competitive. It's a very detailed system that rewards patient learning and persistent improvement. Learn from your mistakes and use them to better yourself and your team. Talk to others, find a group or a friend and learn from them.



Simon Croft Plays To Win

Beginning your iGP management career can be a little daunting. You start with a lot of questions, and many of the answers will only become apparent from the experience of a few ill-judged decisions. But likewise, pull off a master stroke, and the sense of reward can be immense.

You begin with what seems like a huge pot of money along with the backbone of a team. The first things to deal with are signing up drivers and acquiring sponsorship. Once these tasks are done, you can effectively compete in your first race. At this stage, you need to be careful in your choices. Rookies come at a cheaper price, but they lack experience and skill in many key areas. An old hand, meanwhile, will bring experience and potentially more to the table, but then you have higher wage demands, often inferior fitness, and you'll run the risk of sinking money and training into someone who may retire in a couple of seasons' time. Even the obvious balance of finding someone in the middle causes potential headaches: Mr or Mrs Average is always going to be average and unlikely to get you the race wins you so richly desire, while stop-gap drivers may end up being nothing but a drain on your valuable resources with little end gain.

You may also decide your suppliers (engine, fuel, and tyres) could be better, and if you choose, you can engage in negotiations for contracts with bigger and better companies. You may also wish to improve your current staff and facilities. Suddenly that large pot of money stops looking quite so big ...

Success in iGP, like many strategy games, can, on the surface, seem an obvious thing to achieve: buy-in the best components, sign up the best drivers and staff, and connect yourself with the biggest and best sponsors. The problem is, your finances won't make this quite so simple, and even if they did, how would this give you an edge over your fellow managers if they too can do the same? So you start getting a little greedy: ask for a bit more money from your potential sponsors, shave a few pennies off that offer to a top designer ... and before you know it, your inbox will be filled with contract rejections, and you have bad relationships with what you had hoped would be your future team.

Even when you manage to get your team in place, you then face issues of balancing the books across support staff, facilities, manufacturing, component design, training, and it won't be long before you begin to realise that you need to be a bit more shrewd; ultimately, you're going to have to take a few gambles. You'll have to risk pushing the engine through an extra race, you'll have to leave those sidepods at their current, dated design level and hope your new front wing will give you those vital fractions of a second you so need, you'll need to hope that your tired, suffering driver can manage another race without valuable physical training—you'll have to cross your fingers and hope the competition messes up and your choices pay off.

This is not even to mention the races themselves! Do you let one team member do the initial setup work thereby allowing your title contender to piggyback off of their hard work, or do you treat them as equals and hope they both reach a setup they are happy with? Do

both drivers get that new front wing, or do you give it to your struggling driver in the hope it will boost their performance while your other driver gets by on skill alone? Just how reliable are your race technician's fuel predictions for the next race; does he know best, or will your hunch, that you can skim a fraction of a litre off per lap, pay dividends? He says a two stop strategy is optimal, but you might suffer in qualifying and get stuck behind that slower driver from your title rival's team leaving their number one to drive off into the distance ...

And these are just the decision before a wheel is turned. If you choose to be there for the 2D races (optional, but highly recommended, and often hugely advantageous), the choices keep on coming, and so do the potential headaches. Whether you're frantically scribbling away on a piece of paper, tapping away on a calculator, or typing numbers into your custom made spreadsheets (or, if you're really sad like me, all three), you eventually have a number of a potentially race-defining decisions to make. Should you let your lead driver stay out a lap longer on his tired tyres and hope the second place driver encounters traffic on their out lap, or pull them in now and risk a longer second stint? Rain might be on the way, but one of your drivers is dropping seconds per lap stuck in a mid-field battle; should you get them in and onto fresh rubber and out into clean air to try and undercut those holding them up, or wait another lap to see if the ominous cloud turns to rain and avoid an extra stop? Qualifying didn't go to plan and your first stop is due in two laps' time; should you switch to hard tyres and fuel for a two-stop strategy, or stick to the planned three-stopper and pray for some good luck?

The answers don't come easily, though really this is a good thing and perhaps the biggest charm of iGP's in-game mechanics. A poor result or defeat to your closest rival can be painful and difficult to take, especially when it comes in the closing laps due to a bad decision on your part. But much like the bullish, hard-done-by real-world managers you hear in the post-race interviews on the TV, you outwardly make your excuses, defend your choices, and secretly vow to not make the same mistakes again. They got lucky and you were robbed, and let's just see what happens in the next round when you learn from your experiences and your new updates are ready ... Then, of course, when that success and joy does come your way, it doesn't matter what anyone else says or does. You didn't win because they messed up their strategy or got held up; you won because you made the right decisions and because you are the best. Of course, they then tell you just to wait until the next time ...

Whilst iGP undoubtedly simplifies the world of F1, nearly all of those choices and decision you can so easily call as an armchair F1 expert on a Sunday afternoon suddenly become very difficult and important. And often stressful.

I shall sign off with a little health warning: if I were an F1 manager, that carefully placed Red Bull drink flask (or whatever sponsorship related beverage container was on my desk) would be filled with alcohol: I've done about ten iGP races now, and the one time I didn't have alcohol within reach, I was a wreck!

AUTOSIMSPORT

rFactor2 beta

RFACTOR₂ BETA TEST

JONDENTON



In the distant future, when someone decides to step from their hover-car contemplating writing a book about sim-racing in the 21st Century, there will undoubtedly be a large chapter devoted to rFactor and its gMotor2 engine.

Back in 2005, the sim-racing market was sparse with three titles dominating the scene. GPL, even then almost a decade old, enjoyed a large following—particularly if you were into road-racing—while oval racers were a little better catered for with Papyrus' seminal NASCAR 2003. And then there was the sim that made SimBin, GTR.

Aside from that, there was only darkness, and it's ironic to recall that the community was never closer than in those grim days when all could unite behind a single sim—the one that no-one had ever made. When Papyrus went belly-up, and Crammond was sucked off the earth by a UFO, the darkness seemed complete.

Michigan-based ISI, back then, was but a blip on the sim-racing radar. Yes they had developed various F1-derived titles in the years before 2005, mostly for EA Sports, as well as the superb (and largely ignored) Sports Car GT, and yes, it was on their engine that GTR (both the mod and the

game in the box) was bolted, but it would have taken a brave man to suggest ISI was about to challenge the Kaemmer/Crammond stranglehold on the sim-racing community.

And then ISI released rFactor.

Fast forward to 2011, and it's remarkable what rFactor has become. Developed as an open framework that provided a playground for modders of all abilities to create content, rFactor maintains a healthy player base to this day along with a head-swimming library of mods delivering every race car and every race track any sim-racer could ever want (or dream of): Want to race 1979 F1 cars at a modern Thruxton? Caterhams around Monaco? Huge, lumbering UPS trucks around Melbourne GP circuit? You can do it all with rFactor. And that's not to mention the engine that was developed for rFactor (gMotor2) that has powered a plethora of other sims in the intervening years, everything from ARCA to Game Stock Car: Indeed, ISI's gMotor2 went on to become the ubiquitous sim engine, the Ford Cosworth of the sim-racing world.

The good times, though, were not to last. rFactor's longevity (and ISI's stroke of genius) was the engine's open nature, and the craft that it brought to modders' desktops. This, at first, unveiled an astonishing array of tracks and cars and series before, ever so gradually, the promise of utopia began sinking into a dystopia of mismatches, poorly rendered mods, a modding community who, by and large, refused to allow any oversight, and a tyre model that, though very accomplished on release, was soon overshadowed. But it was the lack of coherence in the structure of mod delivery that resulted in sim-racers' precious racing time being taken up by finding the right version of this track or that car. Anyone who was around rFactor in 2009 will have experienced that sense of frustration as they hunted the net in search of the 'right' version of a track (for which there existed perhaps a dozen versions made by a dozen modders) only to install and discover that it had been updated, and the update was available on a site that had gone down three months earlier. This, along with the notably varied quality on display in the mods, resulted in a growing exhaustion with rFactor, and many abandoned it to opt for more 'pick up and play' sims where mismatches never occurred, and racing was simply and cleanly delivered.

It was around then that we first heard mention of rFactor2, and as luck would have it, and as I tend to write about this sort of thing, I've been given the chance to try out the beta to ISI's latest and greatest, their first full-blown sim in half-a-decade and a beta that you will experience soon. So, let's dispense with this grinding and dull introduction and get cracking with the answer—is ISI back in the game with rFactor2?

Releasing a new sim these days is not the work of a moment; the marketplace is replete with a number of titles that do many things well. rFactor's USP has always been its sandbox framework, and the design brief for rFactor 2 (rF2) is to continue on this tried-and-tested model by offering an open framework where the community can put-out whatever content they want. But ISI have learnt their lessons too; they know they cannot restrict development or babysit content (that was a battle they—and the more sober elements in the community—lost



years ago) and, instead, have opted to embark on a modular design that you can see upon starting up the software where, before entering the sim, you are presented with a feature called 'Manage Mods'. From here, you can manage which mods are installed via 'packages'; mod files are now easily managed as one file that simply needs to be dropped into the package folder. This makes it far simpler to keep track of what is or is not installed, and means that you will no longer have the problem of the sim being broken by a mod since installation or uninstallation now takes place outside of the main core executable. Once into the sim, you can also manage mod installation and removal, as well as implement GUI customisations and modifications to in-sim aspects such as HUD elements. Whilst these elements could be modified in the original rFactor, within rF2 this kind of modification to the core sim is managed through a GUI interface, making this a wholly more user-friendly environment.

For this beta, I was given the chance to try out the three mods which will be the components that'll ship with the core build: Formula Renault 3.5 (a medium-to-high-speed single-seater), a Renault Megane Trophy Cup car (which is a heavier, rear-wheel drive hatchback), and the mod we've all been waiting for, the '1960s World Class Racing' pack which not only gives us some fine '60's racing machinery, but also comes packed with two



splendidly realised tracks from the era in Monaco and Spa-Francorchamps. This will form the backbone of the beta release.

Tim duly sent me the Formula Renault mod first, ensuring I didn't immediately drive the historic cars, which was either a wise move or a fiendish ploy since this gave me some time to try out the new tyre model that has been developed for rF2 on a recognisable car before doing what most of you will probably do first—fire up the Ford Cosworth (only) -powered 1960s single-seaters.

Getting strapped into the car feels similar to rFactor, and any seasoned player of ISI-based sims will immediately be familiar with their virtual surrounds. Controller setup, however, is much improved, and whilst I did some fiddling with steering lock and force feedback settings, it wasn't long before I was content with the wheel's feel in my hands.

Gone is any need for the RealFeel mod, replaced by some of the cleanest, most communicative force feedback I have experienced. Lacking the confusion of some sims,

the road is translated into your hands in a wholly convincing manner. The slick tyres of the Formula Renault provide an interesting starting point into the physics of rF2; where a road tyre will feel lacking in precision and be forgiving on the limit, a typical slick tyre, particularly on such a high-downforce car, is all about precision and directional stability. Loading up the front tyres on their stiff sidewalls into a turn allows you to feel this, and they stick on gentler slip angles, allowing the car to laser its way to apexes with minimal fuss. Be too aggressive with the steering, and the fronts can easily be overloaded, building up too much heat and minimising the precision in future corners as the tyres build up a waxy sheen that needs to be cooled in the upcoming corners. Hang on... that sounds like something I would write about real slick tyres ... It was then that I took a break and tried to work out why things felt a little off. The answer was the feel of this sim; the graphical style, the menus, the in-car menu-screen, all of it shouts ISI, and consequently my first response had been to drive it as if it were an rFactor-derived sim. Turns out that's not a wise

thing to do: Yes, the look of it is ISI, but under the hood is a whole new engine that demands a more realistic way of interaction.

Firing it up again, I began approaching the experience as one would driving an actual car rather than driving a sim, and instantly I was transported into that sweet, special spot that happens so rarely in sim-racing. The car feels so much more connected than before, direct and a part of your input; after a few fast laps, things began to switch to a more intuitive driving experience. Peering into the middle distance, my consciousness of the steering-wheel in front of me began to fade as the combination of tactile force feedback and a precise weapon of a motor car pushed me into a sim-racing trance. When was the last time that happened to me in a sim?

The slicks, however, I found not the most forgiving of tyres (only natural on such a stiff car). But we know, from experience, where the problems with modern sims arise, and the car, at low speed, never felt too out of control; on the limit, over-exuberance was punished



with the odd spin here and there, but I didn't feel any sort of disconnect between result and provocation. The Renault Megane Trophy car, whilst being just the sort of car I would never touch in a sim, felt surprisingly communicative, too. Its slick tyres feel just as connected as the single-seater, and fiercely loquacious in their responses as you start to push the car into corners, its rear-end getting light on brakes and yawing on keen entries but being picked up with a smooth throttle application. Heavier cars like this often fail to feel connected in sims, feeling softer and floatier than they should, but this car feels like a race car on its grippy tyres and stiff suspension.

I was naturally keen to let Tim know how much I had enjoyed the experience and how, really, I was ready for something new. Something a little more challenging ...

Many of the 'old school' sim-racers grew up on GPL and have been seeking a replacement for that seminal sim ever since. Ultimately, though, GPL was about more than just the cars and tracks—it was the box, it was Steve Smith's manual, it was the self-enclosed world that seeped history and oily overalls. But having said all of that, there is still the little matter of the cars, and for some, historics will be all that matters in rF2. For them, the package for the soon-to-be-released beta contains a smattering of generically named (licences are still in the process of being procured) F1, F2 and F3 cars from the mid-to-late 1960s. Once booted up, the first thing I did was to remember that I am a superb driver and GPL veteran and despite Tim's warnings, I knew I'd have no problems leaping into the F1 cars and searing in some sizzling laptimes ...

I should begin by saying that adapting to these cars will not offer the same kind of 'this is f'cking' impossible' reaction we all got from the initial moments with GPL. The tyres give-up very little grip, it's true, but the delightful force feedback is still with us, and as a result, the spongy, cross-ply, treaded tyres can be felt through the wheel in much the same way as in other cars. This still leaves one forgetting quite how little grip and braking bite these cars had in comparison to their power output. Once one begins to brake early, though, and avoids using full-throttle even when it feels safe to do so, one can start stringing together the odd lap or two without spinning or drifting wide into some gravel. Unlike the days of GPL, the tyre modelling and feedback is so much more advanced, and that

means catching small slides and sometimes even big ones is intuitive and grin-inducing. The tyres respond to your input and—provided you calm down and treat the controls with respect—it won't be long before you find laptimes coming down and driving becoming a purely visceral experience. The trance comes back, and then the thing ran out of fuel.

The Formula Renault and Megane were tested at Mills Motorsports Park, a fictional track that shipped with rFactor and has been given a graphical overhaul for rF2; it's a fine test track but it does lack for flow, with too many fiddly second gear corners. It was time for me to branch out; it

was time to take to a track upon which these cars were destined to compete, and this meant one of the two historic tracks that will come with your beta. Monaco? Hmm, tight confines, no grip, 400BHP? Perhaps not. Despite feeling more comfortable with the car, I was still finding myself in the midst of some startling and unexpectedly lurid powerslides, and re-learning 1960s throttle-control would take a little longer, and probably needed a little more open space, than Monaco.

Spa, anyone?

Many will remember the full, eight-mile Spa-Francorchamps as quite a challenging and ultimately fast track with some not so challenging corners meshed-in with a few bits that literally scare the shit out of you. I remembered it as 'the easy one in GPL'. Oh dear.

Thus follows the transcript of my first runs at Spa in the historic F1s:

—Denton sets off, lights up rear tyres in pitlane, and smashes into a parked VW Beetle.

—Denton is away and into fourth gear on the Kemmel Straight when the car snaps on power oversteer, tips two wheels onto the grass, and proceeds to fly up the inside bank and spin into the trees, ending its trajectory with no wheels and on fire.

—Denton exits Les Combes and understeers wildly on the fast chicane at Haut de la Cote, proceeding down a bank and dies.

—Denton indulges in a dramatic tankslapper on the exit of Malmedy, spins at around 150MPH into some catch fencing, and comes to a serene rest in a field next to a cow. The cow remains nonplussed.

—Denton plunges off the road at the Masta kink which results in an aerial accident of grandiose proportions until a concrete post abruptly halts the car's progress.

—Denton almost completes an outlap but then pushes wide onto the grass at Blanchimont, coming to a rest in a mangled wreck with a horse laughing at him.

You get the idea. It was these numerous excursions, before achieving some semblance of competence, which allowed me to appreciate the sheer detail of the racing environment. One very notable thing about the way rF2 feels is that it is fast; the sensation of speed is considerable, the countryside tears past you at phenomenal velocity to the degree that your heart starts to race, made the more astonishing by the wheel that

churns and spits wildly in your hands. But when your smouldering wreckage comes to rest in, say, the doorway of a hotel in Stavelot, you begin to realise quite how beautiful this rendition of Spa is. Motion blur is superb, and that, added to this rich environment, facilitates a feeling of speed that is rather adrenaline-inducing as you squirt about in squirreling slides and counter-locks. Another piece of the fabric of rFactor 2 is experienced when you pull your roaring DFV into the pit and kill the engine; swallowed in the sudden silence, you become aware of the atmospheric ambient sounds that accompany the splendour. Whilst I felt that Mills was cluttered and had a rather airport-approach-path feel about it, Spa feels alive, like a place where you, in your insane metal cigar-tube, are not alone. Like a sim-racing Skyrim!

Meanwhile, back at Spa, more and more heavy and violent crashes made Denton note

more and more movable objects; hay bales, fence railings, cows that wander about chewing on grass, and all of it makes for a believable environment in which you can gently sink into and explore both in simulated reality and in your imagination. There you are, in this rich textured environment, trying to handle a car that feels so very alive as it skips over bumpy Belgian roads through villages and barns, focussing two hundred metres ahead, trying to stay alive, and you're thinking—this is brilliant ...

This dynamism doesn't just stop at the visual, either. As we all know and have been anticipating for some time, weather is a key ingredient to the rFactor2 universe, and it = functions to make the race circuit a living, breathing beast. Subtle changes to temperature, or the time of day shrouding

parts of the track in shadow, bring gentle changes to grip. As a pilot, you negotiate the grip instinctively, and the final result, the lap time, is no longer defined by those staples of sim-racing speed—setup and talent. Simple testing reveals that a grey day at 16C makes for lap times considerably slower than sunny days at 26C. No doubt each track has a sweet spot, but these changes to the circuit mean setups need to change along with those grip levels as the balance can easily be upset, making the process of racing in rF2 a constant learning process as each practice session counts towards understanding car and track. Not only do





you start to feel where the cambers and bumps make for the best lines, but you also start to sense how the track changes with the temperature, the wind direction, the time of day, and this is before it has even started to rain. One could easily dedicate hundreds of hours to running with just one track in various different conditions as the weather makes for alternating lines and speeds.

This, again, brings us an accuracy that steers us away from what we have learned in previous sims—that everything isn't just about having a great setup to set that definitive lap time. The dynamic nature of the track means that the personal best lap time you set in one 'sim day' may never be repeated, as the conditions on the next 'sim day' may never tie-up with your setup, just as it doesn't in real-life. One can hope that this helps to swing sim-racing away from its infatuation on 'killer setups' and world lap time rankings and becomes more about the driver adapting to conditions.

The more laps I completed in the F1 car, the more I began to feel at home in it, and the tyre model, allied to the superb force feedback, continued to astound me as I felt more and

more a part of the car. I built in some understeer to the setup to make for a car that was a little less lively, and really started to push. Then I started to run laps at Monaco, playing with the throttle in first and second gear, and finding myself in glorious slides and drifts through the principality. Delving into the tunnel on a cool morning, so dark I couldn't see the dashboard, I felt the yaw in the car as I powered through, and correcting instinctively to the oversteer, I felt the edge in the steering.

Two key areas have become something of a *bête noire* in most sims over recent years; the 'low speed issue', in which traditional Pacejka-based tyre models ran into trouble as speeds get lower, exhibiting curious loss of grip at very low speeds and, in some cases, lateral movement when stationary; and the other, more complicated issue that deals with what happens when the tyre loses grip and then regains it.

Anyone that has driven on-track or too fast on the road will have had this happen, and the common theme in racing sims for years now is that a tyre can feel as good as good can be up to the point that it breaks grip. What happens after that is a grey area, and the area in which all of the last generation of sims broke down. Many forum posts have been made stating things such as 'it's not right', and 'I spun out in a totally unrealistic way', and this is usually on the basis that, as drivers, experienced or otherwise, the feeling of 'losing' a car at speed and 'catching' it is a largely intuitive and instinctual process. Whilst it is

a truism that many an inexperienced driver will say similar things in real-life, the experienced racing driver will always seek answers to these questions, and those answers are usually out there in the telemetry.

In sims they aren't, and so people often tend to blame the physics modelling for being at fault. More often than not, this is actually the case. What astounded me in what was admittedly a relatively limited running of rF2 is that at no point did I feel as if I lost control of the car for no reason; spins, understeer moments, scary Spa-based 150MPH tankslappers, all had a basis in the vehicle and tyres responding to my control input in a feasible fashion. That, for me, makes me want to keep driving rF2 until the virtual fuel runs out. ISI have claimed rFactor2 will be a big step forward. In terms of physics and tyre modelling, I believe that their claims are born out by this beta—a beta that will become reality for many of you in the next few days.

AUTOSIMSPORT

Inside-line

An Academic **Sim**

Jon Denton assesses Ferrari Virtual Academy's 'Adrenaline Pack', Kunos Simulazioni's fully-licensed Formula One Ferrari sim add-on, and comes away compromised. But then, it is a Ferrari product after all...

JONDENTON

Ferrari Virtual Academy was a curious sim. Perhaps not really wanting to compete with the mainstream market, Ferrari opted to join forces with Kunos Simulazioni to create a special little nugget of racing-sim memorabilia that people almost definitely wouldn't be playing for years to come. And so to prove me right, they decided to offer us with a seasonal update, the so-called Adrenaline Pack.

What FVA's Adrenaline Pack gives us is a chance to drive this year's Ferrari F1 car, the F150th, bolting onto the 2010 version of FVA which gave us the far more competitive F60 (ed: with which Alonso should have won the World Championship had it not been for yet another Domenicali-inspired 'cazzata' from pitwall). Both cars are meticulously realised, both in sim terms and graphical terms, and can be driven across three laser-scanned circuits (depending on which tracks you shelled out for): Fiorano, Mugello, and the Nürburgring GP. Laptimes, as before, will be uploaded to a central server at Ferrari.com for entry into a competition that will give the winners all manner of things and stuff. This package also includes a more 'normal' car in the form of the Ferrari 458 Trofeo Cup, which will appeal to many as a more drivable vehicle. Whether the contest is important to you or not, the important thing to note here is that this sim, whilst derived from the very capable physics engine used in netKarPro V1.3, is a hotlap sim. There is no racing, no wheel-to-wheel, just you, the cars, and the tracks.

For some people this will be an immediate switch off, as there is limited appeal to running around a track on your own, and if you are 'most people', and have been driving racing sims long enough, you will know you are not fast enough to set the fastest lap of anyone the world over. Yes, you. So why buy this sim? A good question. The marketing decision not to include an option to race any of the cars on the beautifully realised tracks in the package makes little sense to me, and what will limit long-term interest even more is that each comes with a fixed setup, so even the tinkerers amongst us will not be sated.



WITH TRACTION CONTROL DISABLED, IT IS EASY TO GET THE TAIL WAGGING, BUT THE TORQUE CURVE, PEAKING AT THE TOP END OF THE REV RANGE, MEANS THAT A RELATIVELY GENTLE FOOT WILL SEE YOU RIGHT

For me, this sim represents the peak of what the netKarPro engine is capable of. F1 cars present a unique problem for sim developers: they are exceptionally fast, with minimal suspension movement, and very high torsional stiffness and that all combines to produce a large focus onto the tyres. Thus, any car this fast and stiff will highlight any problems with the tyre model. The tyre model in netKarPro is widely regarded as one of, if not the best, tyre model available commercially. So, the chance to drive such a gem is a feast for the senses; not only is this the first time a high performance, GT-class supercar has been modelled in this engine, but also the differing F1 cars, from 2010 and 2011 respectively, are showcasing very different tyres (Bridgestone and Pirelli respectively).

As many of you will know, the change from Bridgestone in 2010 to Pirelli in 2011 has been the talking point of the year in F1 circles, and FVA gives us the chance to feel that difference, with a sim that has been tested and approved by drivers such as Giancarlo Fisichella, Felipe Massa, and Fernando Alonso. So let's go back a bit and rephrase what we said: Yes, this is just a hotlap sim. But it also happens to be a unique a chance to compare yourself against F1 drivers in one of the most accurate commercial simulators of this generation. So let's get cracking.

First of all, I'd like to take the Ferrari 458 Trofeo Cup for a drive. This car, derived from the road-going version, is a stiffer, lighter race-bred GT car used in the European one-make 'Ferrari Challenge' series enjoyed by many a playboy. The car features a semi-automatic, seven-speed

paddle-shift gearbox mated with a 4.5 litre V8 pushing out 562 horsepower.

Pulling onto the track, my first thought was how comfortable and easy to drive this car is for such weighty specifications. With traction control disabled, it is easy to get the tail wagging, but the torque curve, peaking at the top end of the rev' range, means that a relatively gentle foot will see you right, and the deftness of the tyres' slip curve allows supple manipulation on the limit. This starts to become a joy as laptimes start being ignored in favor of controlled four-wheel drifts; though overheating the rears can become an issue, the tyres seem to cool very quickly. This 'feature' of the sim is based on the hotlap nature, and there is no damage if you go off, and minimal tyre wear.

Nonetheless, the more I lapped in this car the more I liked it, and subsequently found myself running lap after lap until the fuel tank was dry.

As the laps drew on, it was interesting how the car developed for me. I jumped into the car at Mugello initially, and was instantly missing braking points, taking brakes too deep, and carrying too much speed into corners. This oddly let me learn quite a bit about the car as I started to get a much better feel for its front end. Too much speed into a turn would easily overload the fronts and foster an almost terminal understeer, but more precision, and getting the car slowed in time, allowed me to start slicing into apexes. This felt like the forward weight transfer was causing a heavy dive at the front, as may be seen in a softer road-going car, so the development of style to a more smooth entry yielded notable benefits in times.

This link to a road car feel reminded me of a drive I took in real life in a Ferrari 360 Modena a few years back; the suspension is compliant but usable, with the front tyres being easily overloaded by too much entry enthusiasm, the back-end getting wayward with a heavy right foot, but nothing resulting in anything too 'uncatchable'. In the sim the tyres behave



superbly as they break grip, and then the subsequent return to grip as the moment recovers feels precise and natural.

So after a few laps of understeering, I started to balance it properly on entry and not overload the fronts, getting smoother and smoother as I went, and before I knew it I was having the car moving around gently around me in a delightful way. The final corner at Mugello, indeed, started to become something of an adventure in controlled four wheel drifts. I can't remember a sim where it felt so natural and easy to put a car into this condition and not fear that it would kamikaze into some insanely

exaggerated oversteer moment; modulating the throttle and making sure the rears didn't get too hot meant I could keep this up for lap-after-lap.

Under brakes, the 458 also feels absolutely superb. The way weight shifts on initial application, the way it feels as it squirms around, is well done, as it is in netkarPro V1.3, with the subtle touches of feedback through the steering wheel making for a clean and visceral experience. The only thing, and I will come back to it again, that took a while to adapt to in this car was judging turn-in grip levels, and how loaded the front tyres were, or whether indeed they were too

overloaded and would not turn. This is something I find quite common in cars with power steering, as the steering does not weigh-up sufficiently to feel the amount of grip available. This is usually the hardest thing to judge in any car, as one usually finds out when one takes the first 'bite' at the wheel. However, the steering in this 458 does not give enough feedback for my liking, which may well be a complaint I would find in a real-world 458.

Upon investigation and discussion with the guys at KS, it seems that this 'road car feel' that the Ferrari 458 has in this sim is something of a limitation of the engine. With the 458 Trofeo Cup we have a car that can generate 1.6 of lateral g-forces, and yet the feel is one of a road car: It does not always feel well connected to the road, and at times feels a bit 'floaty'.

Trying to balance the car between the setup and physics point of view was like lying in bed with a short blanket was how the KS team explained the process. You try to cover your head and your feet get uncovered, then you try to cover your feet and your chest gets uncovered. So when setting up the car, if you try to give it more front-end bite, you get too much oversteer, and vice versa. It's hard to find a sweet spot because the tyres themselves are a little unstable.

This is not an issue on light single-seaters (the main cars that netKarPro evolved with as a sim), and you don't feel it at all with the F1 cars in FVA. But as the weight and the inertia of the car rises, and the grip lowers, this issue surfaces, and the car can feel softer and less connected to the road than you would expect from a race car. This is not to say that the Ferrari 458 in FVA is not superb fun to drive, and would be a blast to race.

The KS team is all too aware of this limitation to the engine, and at present is moving forward with development of a completely new, ground-up rebuild of their physics engine to combat such problems. By focusing on the small details of the engine, one by one,

and addressing them at the base, they are hoping for a far better feeling in future titles (and yes, some big ones are already being worked on). netKarPro, admittedly, had many problems, but the fundamental driving 'feel' remains its strong point. With their new project, KS are taking this aspect to a whole new level. By starting out making a light car with 'road' tyres that generate around 1 to 1.2 of lateral g-forces, and getting this right as a benchmark, is the first priority of KS moving forward. Once a low grip car, road car, feels connected, then anything else, moving up the scale of overall grip, becomes easier and will feel better.

On to the F1 cars, and time for a comparison. Anyone who drove last year's FVA and the Ferrari F60 will have an idea how the car feels in this sim, and to my mind it remains the best example of a commercially available F1 simulator around. This physics engine feels made for this, and the nature of the experience in FVA closely approaches instinct as you push more and more in a car than can carry obscene amounts of speed through corner after corner. Catch a slide there, mount a kerb here, it feels like the link between you and the car is inseparable.

Where the two cars differ is in the tyres; the difference between the Bridgestones on the F60 and the Pirelli's on the F150th makes for a surprisingly different driving experience.

The Bridgestones are precise, and favor a smooth style as the driver needs to gently load them up on entry, avoid carrying brakes too deep, and not overload the fronts as the turn-in phase becomes a tight-rope moment. As balance transfers to the rears on exit, it can similarly be easy to overload them and face a big drop off in grip as you power out of a turn. This all adds-up to lend the Bridgestone tyres toward a precise style, with clean, balanced turn-in and smooth throttle application.

The Pirellis, in stark contrast, feel overall lower in grip, and very 'waxy' on the limit as they respond better to

being heavily loaded-up and considerably more forgiving when pushing outside the envelope. As a result, the driver can be much more aggressive with the Pirelli tyre, giving much firmer steering inputs as the tyre will take the 'abuse', though preferably via an earlier turn-in to allow for the lack of precision as the tyre loads up.

Getting speed out of the two differing tyres is achieved via distinctive ends, making for fascinating laps as you learn what works for the two tyres. Swapping between the two cars therefore becomes tricky quickly too as, whilst the vehicles themselves are not radically different, the rubber they are wearing certainly is. The F60 requires a far gentler touch on the wheel than does the F150th, for which the same gentle touch is simply not aggressive enough to make the tyres perform; with not enough load, the Pirelli lacks grip. Comparatively, to be this heavy-handed in loading-up the tyres on the Bridgestone-shod F60, results only in the tyres being too heavily loaded too quickly and dropping off severely in grip.

From this, we can start not only to understand but to experience what we have heard from many F1 drivers concerning their tyres in the last couple of years. And this, really, is the best way to assess FVA: One of the best sims on the market for sheer driving, but with a lack of content and game modes, it has limited appeal. Driving for some fun laps for a while in each of the cars can be a worthwhile diversion, but I cannot see myself booting FVA up too often in a year's time just to do some fun laps. It's a shame in many ways, because if there was a relatively simple online racing component to this sim, it would become a long-lasting cult classic that could continue to have DLC added for years to come. Still, a better F1 racing sim doesn't exist commercially, and if you're at all curious to experience these ultimate machines, and don't have a few million to buy a seat, this is as good a place as any to try them out. As it stands, this will remain as a shining diamond that never quite reached its full potential.

Inside-line

continued



AUTOSIMSPORT

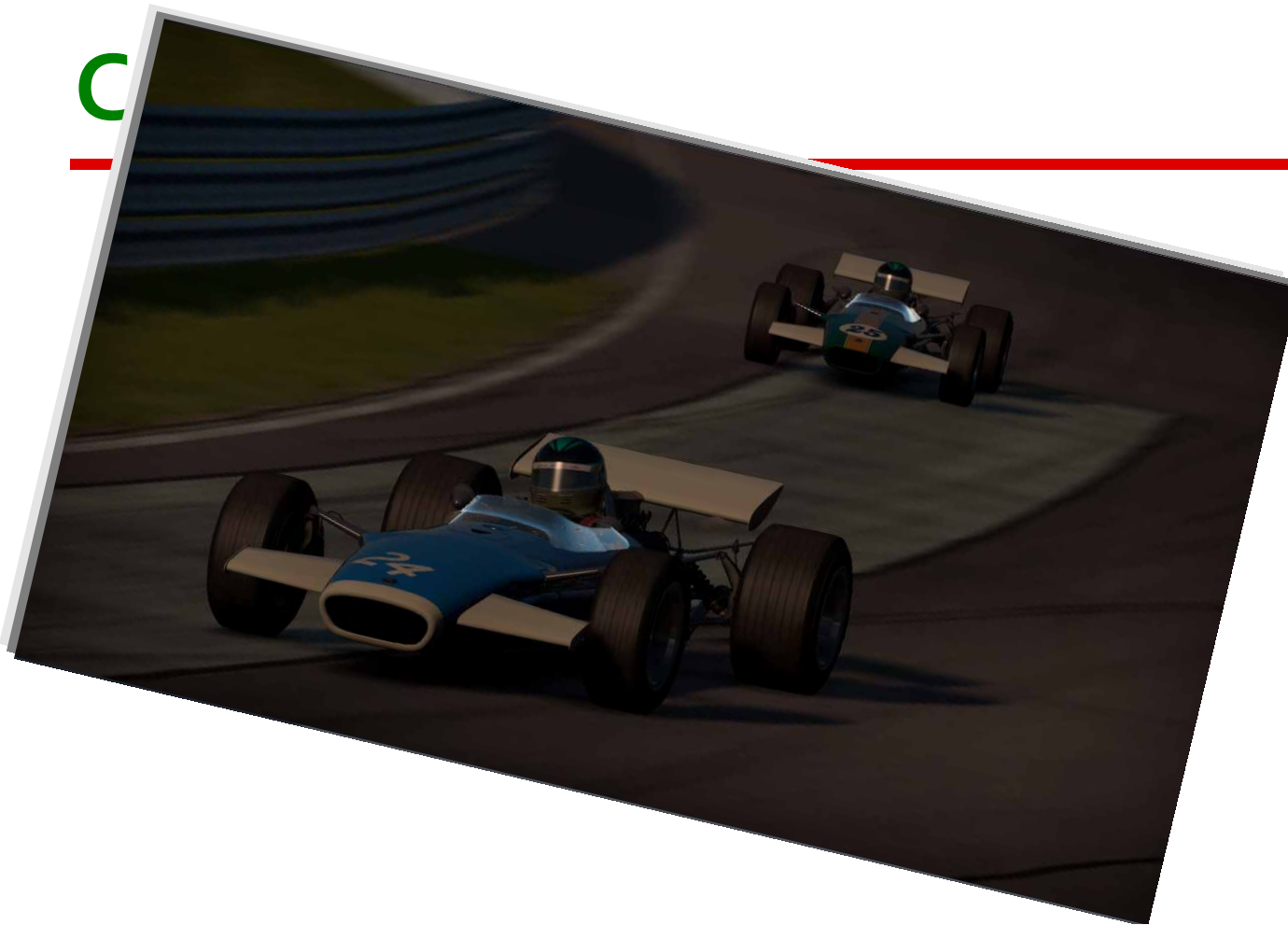
C.A.R.S

ANDREW TYLER



Recipe For Success?

Take one cup of the makers of GTR. Add a sampling of Shift and GTR2. Stir with revenue from the community. Add spices, let boil for a year, and salt to taste. Allow to cool and enjoy what could either be a collapsed soufflé or a feast of unrivaled proportions ...



Sim-racing is going through a period of adjustment. The days of paying \$40 for a colorful box with a disk in it that actually belongs to you (well, the disk itself at least) are long-gone, and the days of paying your \$40 and getting a link with a download that you can activate with a code are starting to look numbered, too. Sim-racing is adjusting to what a politician would call 'this harsh economic climate', and that, coupled by what is really a shift in cultural trends, means that, when it comes to financing the development of software in a niche genre on an increasingly niche platform, the search is on for new ideas.

Slightly Mad Studios has taken this notion of change to heart, and lead it down a most unexpected path with their latest sim, Project C.A.R.S. (CARS). Before delving into what

that's all about, though, it's worth taking a moment to consider where the other major sim-racing players are going during this transition. Generally speaking, their answer has been to adopt some form of a subscription model. At the extreme end is iRacing, funded by a not inconsiderable monthly membership fee which is then topped-up through selling add-on content. rFactor2 will have a one-time purchase price which will grant you a year's online access that will then be followed by a relatively nominal yearly subscription fee. Of course, ISI will, in all likelihood, also license their engine as they have done for a decade to third-party developers, which, considering they have released two sims since 2005, must be paying some of the bills. Simbin, meanwhile, has been releasing software through the more

traditional pay-once-and-download route, but they have been shoring things up by selling lots of smaller add-ons—eleven in total for RACE 07. Reiza Studios, meanwhile, who still sell their game from a download, generate additional funds by product-placing in-game.

The basic premise that ties all this together is that, in order to finance their livelihood and our hobby, the sim-racing developers can no longer count on traditional sales every two or three years at retail like in days past. It just doesn't cut it anymore, and this has a lot to do with the not insignificant amount of time and capital it takes to code a new engine, licensing fees for content, the size of the market and their none-too-savory habit of sticking to one sim, and those pesky modders who will generate all the content you could ever desire—for free. The result has seen each developer taking their own unique approach to this new reality. And what is the SMS approach? In a word—radical. They're making a free (as in beer), multi-platform sim that will be supported by a micro-transaction model, selling add-on cars and tracks piecemeal. But that's not the radical part—the radical part is how they're funding development.

As I neglected to mention before, CARS is an acronym for Community Assisted Racing Simulation (and not, fortunately, the actual name of the final project). You see, the trouble with developing software for a living—and this is particularly true of video game software—is that you normally have to do all the actual work before you get paid: Imagine if, at your job, you were only paid every two years for the previous two years' work, and the amount you were paid was based on not only how well you performed, but also—and perhaps even more importantly—how popular you were.

Obviously things can't actually work this way in the real-world. You need investors to front you based on the belief that you'll eventually make substantially more money than they lent you. And since we're talking enough money to pay

the salaries of dozens of professionals, rent a space for them to work in, hardware and software for them to work with, and a bit of cash for licensing, these investors have to be endowed with pretty deep pockets. Moreover, they probably aren't in it for the love of the craft, but for cold hard cash. In short, they need to be damn sure they'll be paid back (and then some), or they'll find somewhere else to invest their money: and investing money in sim-racing is like investing money in that art-film directed by that

shooter to a futuristic jet-powered super-turbo power-up arcade racing game featuring Monster Energy Drinks' Xtr3m3 great taste. Deep down though, one gets the sense they don't really want to do that: They want to create racing sims.

Unfortunately for all of us, racing sims don't really sell that well. I've heard figures (probably wrong, but ballpark) that indicate GTR2, one of the best and most beloved racing sims of all time and with a metacritic score of 90, sold

who are clamoring for their cut. When blood and guts explosion games with lower critical acclaim are making \$1 billion in just two weeks, it's not difficult to see why investors willing to support the development of a sim-racing title are hard to come by, particularly those who won't be sticking their finger in the pot all the time and proclaiming it needs more super-turbo power-ups.

That leaves SMS in a delicate position: they need investors with deep pockets, and in our 'new economic reality', capital is as scarce as an investment banker's ethics. So instead, SMS has come up with a rather ingenious business model: What happens if your consumer-base can be tapped to fund your new game before it's actually made? What happens if you go to your base and say—you want a hardcore racing sim, give us money and ideas, and we will code the game you want, and, oh by the way, you will be due your cut in sales when the game is released?

An intriguing idea. But there are a few niggles that will need sorting. For instance, what happens when ten thousand small investors all stick their fingers in the pot and proclaim, each in a different way, that it's not quite right for them? And who will triumph—the sim-racer who wants realism, or the investor who wants a return? Naturally if you dumped twenty bucks into the project, you'll swing one way—if you shoved twenty thousand, though, your concerns will probably be a tad different.

The CARS website makes some pretty impressive claims about what it will feature, including a career mode that will see you start in karts and progress through 'Rally, Touring Cars, Open-Wheel, GT, Le Mans, and many more.' Features planned include dynamic time of day, weather effects, co-op as driver and co-driver, team management, and a 'social network'-style interface for matchmaking, event organization, and content distribution. It also mentions a 'revolutionary new PIT-2-CAR radio' system, which sounds interesting. In short, SMS has some pretty bold plans for CARS.



Lithuanian professor of semiotics. But in SMS, the investor is assured of a highly talented bunch of steely pros who could do a good job of anything, from creating a hardcore racing simulation to a twitchy first-person modern military

in the neighborhood of 100,000 copies. That's, at best, about \$4 million in sales. Sounds like a fair amount until you take out taxes, wages and costs for its entire production cycle, marketing costs, and all sorts of parasitical entities



Of course, no definitive statements can be made about the quality of the simulation that CARS will become. At the time of writing, build 121 is the latest alpha release made available to contributors, and potential contributors should know that the current version doesn't really have any of these features, though they will—according to the plan—be introduced incrementally as the final product nears completion. What you would get right now is pretty rough albeit promising. The fundamentals are there—the physics and graphics engine are mostly fully functional. There is an impressive stable of cars, some of which are officially licensed reproductions, others fictional, badge-swap jobs, closely based on their real-life counterparts.

If you like open wheel racing, there is the Leonus F68 (Lotus 49B), F77 (Lotus 79), and F86 (Lotus 98T). Modern

single-seater fans get the Formula B (which seems to be somewhere between Formula Renault 3.5 and GP2). Touring cars are covered by the Assano X4 (Audi A4 DTM), and prototype pilots get the Assano LM11 (Audi R10 TDI) as well as two Racer (Radical) variants. Oh, and a racing kart. All of these fictional cars, except for their liveries and badges, are nearly identical to their real world counterparts.

Since the initial release, SMS has been working the licensing angle too. Officially-licensed cars currently include two variants of the Ariel Atom with its notorious power-to-weight ratio, two (soon to be three) Caterhams that are similarly light and not wanting for power, and, finally, the irresponsibly fast Gumpert Apollo for when you feel the urge to drive an expensive supercar. And, of course, there is always the possibility that previously mentioned unlicensed

mirror-universe cars will step through the looking glass when and if SMS can negotiate the deal.

The tracks currently included are a similar mix of official and unofficial reproductions of real world venues. I won't bore you with their AKAs; you get Imola, Watkins Glen, Spa, Chesterfield, and Summerton (both kart tracks), and an officially licensed version of Bathurst. These all range from nearly complete, like Imola and Watkins Glen and the kart tracks, to various stages of completion (missing textures and trackside objects, and so forth). With each new build release, these progress (surprisingly quickly) toward completion.

Game modes are a somewhat limited at this point. You can do practice sessions, run hot laps in time-trial mode (now featuring a worldwide leaderboard), and race against very noticeably incomplete, but no longer totally broken, AI drivers. There is, as yet, no career mode, or any form of multiplayer aside from the leaderboard.

Since you're reading AUTOSIMSPORT, you probably share the opinion that the only thing that really matters is under the hood, and I'm not going to indulge in several paragraphs debating whether or not CARS is a true sim as I did for Shift. It is, in fact, a true sim, and doesn't pull any punches. So, that's sorted then. ... Yes, if only it were that simple. ... Having said that, we are spared the whole sim/arcade dichotomy argument, which means we can fast-forward to the more important question: how good a sim is it? I should begin by pointing out that it isn't done yet, it's not even a beta so you couldn't even say it's almost done. Odds are, however, that the physics engine is not going to see any dramatic, fundamental changes. Tweaks and enhancements without a doubt, but it won't undergo any radical paradigm shifts—I say this because the physics engine is actually quite mature. The suspension model is licensed from ISI and is much the same as that found in rFactor and other ISI-derived sims. This is no bad thing as the physics governing the elements of a car's suspension are well understood and have been for a long time. The



models describe reality so closely that to introduce more complexity would probably be self-defeating. Chassis flex is not currently modeled, which for most cars would fall into that 'more complexity' catchall, though this isn't true in the case of karts where the chassis is the suspension.

Fortunately, unlike rFactor mods, SMS has all the source code to play with, so there aren't any wild approximations and substitutions. In fact, they've managed to implement the kart handling in CARS fairly well, and the karts do allow

us to comparison shop. As a pure kart simulation, it can't compete with titles built from scratch for that purpose like the excellent Kart Racing Pro by PiBoSoft. That said, I'm not holding my breath for a definitive kart simulator. That will probably remain the realm of the specialist given how radically different kart physics are from car physics.

So where were we? Oh yes, saying that having a decent suspension model nowadays is pretty standard across all sims. Likewise, the powertrain model is good—no goofy

approximations of turbochargers here, that's built in. None of that is surprising. No, the real meat of the current and next generation of sims is in the tyre model. Pacjeka models and interpolating between values in lookup tables of slip curves? C'est très passé. Anyone who's anyone wouldn't be caught dead doing that anymore.

SMS has not been the sort to shy away from fashion. As such, CARS uses the in vogue brush model for its tyre simulation. Since a little name dropping goes along with good fashion sense, it's worth pointing out that the SMS tyre model was developed by Eero Piitulainen, well known for his brilliant work on the physics in Richard Burns Rally and the ill-fated Driver's Republic. Unfortunately, Eero hasn't worked for SMS for a while now (here's hoping he left notes in the margin!), but nevertheless, it seems as if his work has not been for nought. While we're dropping names, everybody's favorite racing engineer, Doug Arnao, is back as one of the experts fashioning the individual cars' physics—the same Arnao whose name dates all the way back to GPL on which he was a consultant and beta tester.

Anyways, back to the subject at hand—rubber. The state of sim-racing tyre modeling is poised at the gate, about to leap into whatever metaphor you feel like using. Kaemmer has his much-discussed New Tire Model, which is positively superb (when it's working right), Stefano Casillo has been ahead of the curve for a while with NetkarPro and will soon probably tie that curve in a knot with his upcoming Asetto Corsa, and ISI are just days away from releasing the rFactor2 beta with a brand new model which is, and I quote a breathless (or possibly drunk) Jon Denton, 'like re-learning the world again' (or maybe that's what he said, it depends if our egomaniacal editor decided to leave that on the cutting room floor).

Sorry, I got off track again (this really is an exciting year for sim-racing); my point is that CARS is going to have a bit of stiff competition and, if you're wondering, yes, it will hold

down its own against the best, even in its current guise. If you've played Shift2 on its hardest setting, you'll have a pretty good feel for what the tyre model is like, but just not quite as forgiving of leaden feet. Tyre wear and true heat cycles have not been fully implemented yet, so that important aspect remains to be seen. The tyres, though, do have a good progressive feel, and always respond predictably to steering input. I was never caught out by surprise spins and the finger of God never came down out of the clouds to flick my rear end out in a slow corner, and we know that Bell has long been an advocate of 'simple' physics—that is, that real cars are not, by and large, incomprehensible beasts but machines capable of being driven, even at dangerous speed, by pretty-much anyone—maybe just not as fast as a pro.

On the topic of feel, the force feedback implementation in CARS has been changing rapidly and dramatically for the better and for the worse from week-to-week and build-to-build. Initially I suffered from terrible input lag (or possibly graphics engine lag, but same difference), at least 250ms worth, which made CARS unplayable. It was sickening and repulsive, and I felt ashamed for SMS for having produced such trash.

The second public build, however, fixed all that entirely for me. Ever since, there has been no lag whatsoever. This is a complex problem and is maddeningly system-configuration dependent, and there are still people who suffer with lag even after it was fixed for me. SMS has, however, shown a keen interest in tracking down and killing this vile problem that has plagued their engine since the first Shift, and I am wholly confident that it will soon be solved for the small minority of users who still suffer with it.

When it's working properly, the force feedback itself is ... okay, for now. It works, but is still fundamentally similar to the force feedback implementation from the Shift games, which itself is similar (though much improved) to the force feedback in GTR2 and rFactor, which in turn is, without



putting too fine a point on it, quaintly outdated. Though the comparison to rFactor and GTR2 isn't really fair—the force feedback does everything it's supposed to do and doesn't come across as canned or unrealistic—but just isn't as communicative on my G27 as other sims like iRacing and, particularly, Netkar Pro. CARS' force feedback's state of rapid flux, however, indicates that SMS aren't really all that happy with it either, so I fully expect it to seriously and rapidly improve. As subjective a thing as force feedback is, I'd give the current iteration in CARS a C+ ... passable, but nothing to really be proud of either.

So on the whole, the bottom line when it comes to the physics in CARS is that, (again) as things stand now, it isn't revolutionizing anything, but it easily holds its own and will probably continue to do so even when the competition

unleash their latest technology and sim-racing makes the greatest leap forward since Mao went for a hike.

Though everybody always says that physics are all important, and that graphics are of, at best, secondary importance, graphics quality is not to be underestimated as an important aspect of a hardcore simulation. The graphics are, after all, how the physics are mostly conveyed to the driver of a simulation. Having said that, CARS is easily, and by a country mile, the best looking racing simulation ever made. In fact, it's probably among the best looking PC games available. It has all the latest whizz-bang DirectX 11 effects (if your system is up to it), but best of all, it doesn't skull-fuck you with them the way 'next gen' games have a loathsome way of doing these days (I apologize for my language, but I really

couldn't come up with a better way to convey that). All of the fancy lighting, shadowing and post-processing are used to make the scenery look as if viewed through an actual eyeball, and not like a car commercial (Forza, I'm looking at you) or a music video (Jesus, Codemasters!).

The car models get this treatment too, and are detailed enough so that I could tell you what size wrench and which screwdrivers I'd need to disassemble the gearbox by just having a close look at the screen. They really are incredibly beautiful and, from the right angle, I'd probably be genuinely hard-pressed to distinguish between the in-game model and a photograph of the real thing. The graphics are that good. Being an alpha, they too come with some technical hiccups here and there, but nothing to really take offense at (at least, that's been my experience). You'll need some heavy metal to crank everything up to the max, and as things stand right now, there isn't a lot of scalability for low-end computers, but that will likely improve with time.

Right, now that you have an understanding of where we are with CARS (and whether you want to invest in this alpha, or the rFactor beta, or the iRacing gamma), we can come back to the subject of the community, and the whole 'community assisted development' thing. As mentioned, in order to get access to the builds, you'll need to part with some dosh. A modest sum gets you access to monthly builds, a reasonable sum gets you access to weekly builds, and it scales up from there. More money grants you more leeway to bend the developer's ear. Though there exists the possibility of getting your money back once CARS hits the retail world, and possibly even making a bit extra, I really wouldn't recommend looking at this as an investment in the more traditional sense (as SMS plainly states on their website), even though the highest level membership, or 'Toolpack' as SMS calls them (yes, I know), is real investment kind of money, about \$33,000USD. But since you haven't paid for this magazine,



and since you're probably, like most sim-racers, discerning shall we say, it's worth restating the point that your investment, paltry as it may be, will not make you rich: what it will do is demonstrate your confidence in Slightly Mad Studio's ability to create a truly great sim, to support your hobby, and provide SMS with the funding to create a sim you really want them to make, rather than an arcade-derived semi-sim with an annoying jerkoff babbling about God knows what on the soundtrack. Your investment will, in short, allow you to access the message board and tell them what you want. They probably won't listen to one guy who paid \$30 of course, but if that guy happens to

have a really good idea, that idea could end up in the final product. It's true that if you visit the CARS forums at their portal at Weapons of Mass Destruct ... I mean World of Mass Development (the NSA has probably taken an interest in my Google searches lately, '+cars +London +build +wmd +release'), you'll see some of the same old bickering and boneheaded ideas being repeated ad nauseum, but this time the developers are actually paid to listen. And not even our erstwhile editor has been given his money back for the sole purpose of shutting him up ... some, I imagine, would probably pay just for that.

AUTOSIMSPORT

Side-by-side

An Hour With **Stefano Casillo**

JONDENTON



Hey, Jon ... if we have to do that thing today it has to be before Napoli's match in the Champions League ...

Sorry, forgot to get in touch, I've been crazy today!

It's okay, we can reschedule.

No, no. No, let's start—if I'm correct, things started with namie 0.9.4, right, and we are now on what, 1.3.1984?—no, wait, that last number is wrong—

I'm not sure about the last number either—but namie was 0.9.9. Before that there were eight releases ... long story ...

Did they go public? I think the first one I drove was 0.9.8, at Newbury, there was a FRenault, Mini, and the Toyota Supra badass thing—

Yes—

Those were the days!

They all were public ...

Shit okay, so I missed loads then! What time is this footie? I'm trying to think how we work this. I don't really know the release versions or dates. I can dig with what I have. The main stuff I have is where I have written articles in the past. I know for nKPro I did preview interviews, then you gave me an early build with one car which I wrote about, then the release came around—there is obviously loads of stuff that never got released too, and the BRD years ...

Well the netKar free stuff is all from 2002 to 2003—it started some days after 9/11.

Then 2005 was nKPro. It came out while I was on holiday. 1.01, just in time for my divorce!

No, April 2006.

Ah, that's right. I got the beta in September 2005 from you, and we did some races with Marco and Simone.

We announced it at the end of 2004, yes, that's about right

And my divorce started in April '06, hence I remember it! Joyous times!

I hope I never have to discover that joy ...

What was it that made you start up the idea of a racing sim after 9/11? Bored with Quantel? {Quantel design and manufacture digital production equipment for broadcast

television and motion picture industries, headquartered in Newbury, Berkshire—Ed}

No, not bored. I always had some kind of gaming project going in my own time ... a racing sim was one of the things I thought I could actually do from start to finish.

I seem to remember some Tennis sim, no?

Yes, that was right before starting with netKar, also a space sim! Usually those are the things I get into. But the racing sim idea was cool because the community at the time was awesome. I like unique things.

Frontier: Elite 2, now where was the sequel to that, eh! So would you say you are a keen driver? At the time you had a Mini?

The Mini at the time was very unique ... also working as C++ dev in UK gave me a pretty decent pay so I could afford it ... too bad I didn't have time to enjoy it.

Did you ever think about racing?

I never had the financial background to get even into karting. It's not something that people in the south of Italy really do.

Where are you from, exactly?

Napoli. Which in English is Naples!

My Italian teacher says that people from the south are very pessimistic, and he is one of them!

Nah, I don't think pessimistic is the right word ... I would say people from south tend to think about life as something already written: of course I don't consider myself the typical man of the south considering my history of constantly jumping into the unknown ...

You moved to the UK to pursue a career as a developer in C++; was there a plan to work for a large company, or did you have no plans when arriving here?

I moved there because I got this job offer from Quantel. It wasn't a game company as I wanted, but after visiting the place I loved the environment there—I loved Newbury. Coming from a messy noisy city like Napoli, that looked like a fairy tale town.

Yes, very quiet and peaceful.

Alessandro and Aris left pretty early so it was me, Simone, and a guy who can't be named. The idea was to take namie and make it into a solid sim: that was the original plan. Then we started what we call the 'Taliban process' in which we tried to make the sim as realistic as possible, not only on the physics side, but also with respect to the entire approach to the product. So HUD-style graphics were abolished—want to know your position in the race?—learn to read the pit board when you pass. Full mode was in ... what were we thinking?



I saw lots of guys at lunch in the canteen, they were not the twenty-something developers just looking to make a move, it was full of grown-up engineers; it felt like a good company to be in for a long time.

But your real dream was to be in game development? Or did you foresee at the time growing old there?

Yes it was, but I felt I couldn't get into it. In Italy I was rejected after interviews with Milestone and Ubisoft. I got very close with ISI, but there is no real game

development in Italy. And the stuff Quantel does is as cool as games.

Yes, true. Certainly from a technical point of view. So, when you started to develop stuff in your spare time, did you ever think it would go anywhere, or was it just a hobby? As in, was it a desire to find a way to a different career, to get noticed, or was it just an outlet?

No, it was just for me really. I never thought it would end up like this ten years later.

So you started to push stuff out to the public: was netKar the first game you went public with, or did netTennis go online?

It was ... maybe still is, on sourceforge.net. Open source was quite big at the time. 2001 was supposed to be the year of Linux on the desktop (this is an old joke that slashdot.org readers will understand), but there was no community for tennis games.

Back then very few games had much community around them, online was a relatively new thing.

For race sims, Drivingitalia was huge. So it was very natural to go that way, and I was already part of that community as a gamer.

Was DI the birthplace of netKar, or did it go out on sourceforge too?

It was on DI for netKar. I never had the idea to go open source.

And you said, you were around on DI for a while, were you racing online before netKar came along?

Yes, with VROC a lot.

So the first version went out, what was the initial reaction? And what did it entail in terms of cars and tracks and online?

It was really nice. I think the first version had the Supra and the original Newbury track which I modeled in 3D myself ... The reaction was immediately very positive. The netKar free development has been supported with positive karma from the community.

Did Newbury have the racecourse building back then?

Yes sort of! It had my house at the back of the last hairpin, too!

Were there online leagues and sessions right away? I seem to remember most of the coverage on DI was in Italian back then, and there was no English forum, so the audience was mainly Italian I suppose?

No, there was no multiplayer until 0.9.9 namie: that is why namie is what most people know. But the history of

that release is crazy because I hit the last 'compile' while a worker was pulling out the plug of my PC because I was leaving my house to go to live in Tokyo. I sent the stuff to Aris Vasilakos and he had to sort out the mess and close a release that became 0.9.9 namie.

Ah, so Aris coming in again now is like competing the circle. Totally.

The early days saw netKar as just a hotlapping sim—versions 0.1–8 I mean. How did you develop the tyre model and vehicle dynamics? Any background in engineering, or was it a case of lots of books to read?

Lots of books. I lasted thirty days at university—schools are not for me. It took me seven years to get out of highschool, instead of the standard five. I just couldn't be bothered.

So there must have been quite a deep interest in vehicle physics? Learning this stuff is no walk in the park. I presume you followed F1 racing and motor sports for a long time?

Yes, but most of all there was the love for Dave Kaemmer's work from Indy 500 to GPL—not to forget IndyCar Racing.

And Crammond?

Of course, him too. I remember trying REVS on my C64—'wow you can spin!'

I had it on BBC Micro. My Dad could never understand how I could spend so much time on it!

I come from a family that had a passion for F1 and Ferrari. On Sunday it was race day, early lunch and then watch the race.

Good times, some things never change.

I remember my parents didn't have the courage to tell me Gilles was dead because I was crazy for him.

I was a little too young, Senna was my hero, sadly I watched him go.

I remember: with time I stopped being a Ferrari fan, I could never bring myself to cheer for Schumacher!

Yes, I have only recently, with Alonso, re-found a love for Ferrari.

Also 'cause I loved Alesi—I loved Raikkonen, too. I was in London when he won, it was amazing, sorry BRD guys ...

Kimi was one of the biggest talents of the last decade. Such a shame he gave up caring.

Yes, so true, such a character, but my wife likes him too much, so I'm glad he's not appearing on TV that often anymore.

So as you sent out namie, 0.9.9, the first online version of netKar, you moved to Tokyo, was this work related, or life?

Both, really. Such a big change has to be about life, but Quantel made it happen so it was the easy way in.

You worked for them in Japan?

Yes. They have offices in Tokyo, but they don't do development there, so my job was quite different.

Namie brought us a raft of new cars to try too; was this when it opened-up to a wider audience as well?

I think so. There was a car for everybody—

And the English forums opened at DI—

Yes, and there were websites like racesimcentral that always followed netKar. Maybe at that time it was the center of the sim-racing community ... that and the West Brothers!

West Forums in 2001 was big news! Yeah, and High Gear, back in the day. I think that was where I heard of it from. Looking for something other than GPL. Viper Racing was fun but not really good enough.

Yes, you're right, High Gear was where I started out, and met some people that are still friends today, crazy to think—it's a shame new sim drivers can't experience that community feeling.

It's difficult to understand what has gone away really. Those of us there in the beginning are all much older now. Younger people have grown up with the internet. I seem to remember peoples' online personas just had more respect for each other back then. So was all the positive karma coming in, or was there much in the way of moaners?

After all, the entire netKarPro project was funded using my savings from Japan, so no money available for licenses. I guess the last two weeks before we started the pre-order thing for nKPro I was also out of food ... just plain rice for two weeks! That's living on a sim-racing project.



It was always good with netKar namie. Of course people started to get sore at me because I had to disappear.

This halted development I assume. We had namie for, what, four years before nKPro? What was going on?

Well, work in Tokyo was just too much to even consider having the time to develop netKar; then when netKarPro started, it took much-much longer than I expected to get it done.

Were you still in Tokyo when you started work on Pro?

No, I moved to Italy and started here.

In Trieste.

Yes.

A nice quiet town, miles to walk for bread. Must have been a big change from the madness of Tokyo?

Absolutely! And I was really living in the middle of nowhere: it was very, very hard to adapt to that lifestyle after the glamorous days in Tokyo, and that was a huge problem for the development of netKarPro.

How so? Surely software development likes quietness?

Yes, but I kept thinking it was a mistake to leave Tokyo, and my job there—it got pretty dark and depressing at times.

Did you know people in Trieste? Or was it a big step into solitude?

I knew Alessandro Piemontesi, who was in the team and helped me move out there, but then he ended up leaving the team, and most of it was because of my dark moods, so I lost many months in this constantly drunk state ...

You mentioned the team: this is a bit of an unknown for me. Who is the team? I know Marco has been around through thick and thin, was he there at the beginning?

Marco was the first person I asked to join the team developing netKarPro along with Alessandro and Aris who also ended up leaving. So we asked Simone to join, and the three of us have been pretty much the core. Aris is back, now, and we have more graphics guys around that we use, support, administration ...

And who does what, broadly (I guess you all do a bit of everything to some extent)?

It's starting to resemble a software house, even if many of us are not physically in Rome: Marco is mostly in contact with graphics artists, checking their work schedule, and making sure that we'll have that track or that car ready for that deadline, and that it looks as our content should look. Most of his work is hidden to netKarPro users at the moment, but he is Kunos Simulazioni for all our customers on the professional side. Simone is our track modeller guy, but he also modelled the Vintage for netKar which is pretty good for a first time effort.

And he works in Vallelunga, too. I guess the way technology is now, you don't need to be in an office, unless you need to whip people!

True. But face-to-face discussion is always clear. It's so easy to get the wrong impression by using voice chat or, even worse, text chat: Aris will be now in charge of car development—so basically I will sit on the beach and swim.

It sounds good—you have earned it!

Not really. I'll have more time to code and fix bugs, and I can make physics dev' much deeper because Aris will be able to put that into effect into the cars.

Okay, going back to the dark days of Trieste. When things started to lighten up, it was you, Marco, Alessandro, and Aris. Then Simone came on board. What was the thought process with netKarPro? At the time the sim-racing market was still quite bereft of any 'killer' titles. What did you want to achieve with it?

Alessandro and Aris left pretty early so it was me, Simone, and a guy who can't be named. The idea was to take namie and make it into a solid sim: that was the original plan. Then we started what we call the 'taliban process' in which we tried to make the sim as realistic as possible, not only on the physics side, but also with respect to the entire approach to the product. So HUD-style graphics were abolished—want to know your position in the race?—learn to read the pit board when you pass. Full mode was in ... what were we thinking?

We had lots of harsh meetings about the Perrari option, yes. Let's say I won the argument ... but history shows I was wrong because netKar sales went much better once cars like the 500 and the Vintage appeared, so if you're doing a new sim, don't rely on minor single-seaters ... I love single-seaters, but many don't. People seem to want something that handles more like a car they understand.



Well, you were thinking brilliantly! That giant pit board is still easier than a real one! But yes, the lack of an option to change it was maybe a little harsh.

Yes, but honestly, I enjoy racing online now. I can see where my friends are, what lap times everybody is doing real-time, and so on: as a developer we should try to bring the fun of racing to the PC, not just the frustrations of it!

Maybe, but when I race in real life, I don't have that, I don't have the time to think about that. You know the car in front of you, and hopefully the one behind is too far back to see, but yes, you have a point there—I am a Nazi with these things though ...

I understand you ...

So the plan was to go with ultra-realism, to push what had come before with GPL. I guess around then we had GTR on the market from Simbin, too. The main core of the community wanted realism, I think, back then: it wasn't until they got it that they realised they didn't like it!

The idea was that nothing could top nKP—if you were serious about sim-racing, you would have to go to nKP, no compromises!

What was the decision to go down the single-seater-only angle?

Differentiation, and the fact that you could stay true to reality without having to come up with a Ferrari G360. After all, the entire netKarPro project was funded using my savings from Japan, so no money available for licenses. I guess the last two weeks before we started the pre-order thing for nKPro I was also out of food ... just plain rice for two weeks! That's living on a sim-racing project.

And did you consider the Ferrari or Boyota Supra option?

We had lots of harsh meetings about the Ferrari option, yes. Let's say I won the argument ... but history shows I was wrong because netKar sales went much better once cars like the 500 and the Vintage appeared, so if you're doing a new sim, don't rely on minor single-seaters ... I love single seaters,

but many don't. People seem to want something that handles more like a car they understand.

This surprises me. The VW Jetta FWD shitheap is the most popular car in iRacing. I bet Kaemmer never saw that one coming ...

I love single-seaters ... the only car I really love in nKPro is the 1800.

The 1800 and the KS2, I love the KS2 so very much.

I think if you don't have a F1, any single-seater is seen as a surrogate of that.

And if you do have an F1, it's too hard to setup, and to drive at top pace.

Let's just say it's not very inspiring to drive.

Was there any thought to go to F1, or to scale the single-seater ladder higher? Why was the F3 the top end?

We thought there would be more people who wanted to race cars like the F3 because it's a good car for online racing. I always thought F1 is too extreme—even the KS2 for that matter—the speed deltas are just too high.

Overtaking becomes very hard.

But you get addicted to the speed. After working on Ferrari Virtual Academy, it was hard to go back driving the 500! And that's why we thought, let's do the KS2.

It's true: I skipped from the KS2 to the F2000 over the weekend, and it was like slomo. Tell me a bit about the tracks in nKPro. How 'designed' were they? All named after towns in Italy, of course—do you think they reflect the feel of the areas they represent, or were they names out of a hat?

They do, actually. Aviano is a NATO base with F15 and F16 taking off, and it feels as if you're flying a fighter jet somehow—it fits.

It feels open yes, like an airfield circuit, the light feels that way.

Prato ... I have no idea why it's called Prato ... I think I was watching some news about that, and there you have it. Aosta, well ... what else? It's in the Alps!

I wish it was real and I could go there, it's beautiful! So getting back to namie—you started to adapt the engine, how much more advanced did things start to get?

How I wish I didn't do it! But it's too easy to say that now. The major difference was the implementation of the shader technology. Also, the entire car data structure changed—it went from a 'code-driven' approach in namie, where every car was a totally separated entity implemented into a .dll, to a more traditional data-driven approach where the code stays the same and the car is defined by a data file.

The physics become more defined in a 'world', and the objects within it set their parameters?

Yes, and the process was better. We started to have tools to implement tyres, car suspensions and so on: now people can see a small part of that with the koflite, but the real netKar is all the other tools behind it that allow the physics level to be where we want them.

The tyres developed so much further too. nKPro was the first sim to really give a feel of the lifecycle of the tyre, even visibly. Were you working with tyre manufacturers to get the data for this, or was it based more on theory?

Tyre modelling is a constant process for me. It's very, very hard because even testing the real thing is hard. NetKarPro went through four tyre models in five years.

Four tyre models before release? But what was the approximate time you started work on Pro?

No, four tyre models since the release of nKP: 1.0 to 1.0.2 is based on Pacejka, 1.0.3 is based on a model called 'similarity model', 1.1 is based on the brush model, 1.2 is based on a new tyre model I was working on for a new software and it was so good that I thought, I can't keep this on my HD, this has to go in netKar straight away.

I know Pacejka, and I have heard about brush, what is similarity?

Similarity is a simplified Pacejka developed by him and Milliken.

And the latest build does feel so very good, too, though it is surprising to hear this because the closeness between the models in different circumstances is quite remarkable.

Yes, there was one single change in the equation for the final 1.3 that made it better; that was supposed to be our 'next gen' tyre model, now it's gone so I have to come up with something 'next next gen'!

There is always more to learn. As far as I can tell people are still learning when it comes to tyres in real life, let alone sims. The early releases with Pacejka had those problems at very low speed, if I recall—I remember the early models felt very good in some situations and a bit strange in others.

Which is the nature of the beast if you work with a curve-fitting empirical model.

It breaks down the closer to zero you get?

Yes, because you always have the velocity appearing in something like $X=Y/V$ so as V goes to zero. X goes to indefinite ...

And the world implodes—

And people die and the ones who survive flame on the forums and ask PayPal for refunds!

So the brush model is used in a few other places I think. I did not know nKPro ever used it, I think we had an interview with the guys who did VGP3 telling us it was revolutionary: Amazing in the world of sim-racing quite how many things have been a revolution!

Differences are very subtle right now. I mean, think ten years ago, the difference between an arcade and a sim was huge: now you fire up GT5 and it feels very, very good.

So this development was to be a big step, but at which point did you put a cap on what you were doing? Surely you could go on forever, adding more and more features, or developing physics more and more and never release anything? It was 2004 or so before you let AUTOSIMSPORT have a go with a test mule-build, at

Newbury with a carbon effect FTarget. How close was this to something you felt happy with? And presumably you had had other people try it out before that? Racing drivers? Or just close friends?

The driving experience in netKar was always something all the guys felt very solid about: going from one tyre model to another just shows me that, at the end of the day, we're not that far off. Things don't really change that much: there are things in physics I keep coming back to; tyres and differentials are my favourite to work on when I have some time available, but lately I feel like I am pretty much exactly where I want it to be, so I end up experimenting with something different. The first release of netKar was so bad because we didn't have a real beta testing team: things got much better once we started working with Jaap Vagenvoort on the 1.0.3 release, and with the RSR guys for the latest releases.

Well, and me, Alex, and Bob for a short while! Was it just the three of you testing in the early releases then?

Yes, as crazy as it sounds, that was the case ...

Only so many configs or situations can come up ...

I think we were very naïve in thinking, well after all, it's still netKar namie on steroids, and if it doesn't work, people will support us

as they did since back in 2002. That of course wasn't the case ...

I think the public suddenly changes when you ask them to pay for something.

It's true—and mostly right too, it was just a bit weird for us to become ... Microsoft in a day! Everybody hated us and wanted a piece of us ...

Yes, this was when suddenly it all changed for netKar didn't it?

Tune in to the next issue to read the second part of the story of netKar with Stefano Casillo ...

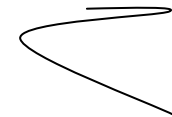


Toolbox

Odd'n'Ends

So which sim will capture the lion's share of the market in 2012? Can anyone dethrone iRacing? We make it up as we go along and nominate a winner! And while we do that, we are going—if screenies are any indication—to have the fascinating spectacle of Kaemmer vs. Casillo vs. ISI, all of them sporting late 1960s F1 cars ...

AUTOSIMSPORT





ASSETTO CORSA

DEVELOPER: KUNOS SIMULAZIONI

RELEASE: SOMETIME IN 2012

PEDIGREE: NETKARPRO'S TROUBLED DEVELOPMENT ENDED IN THE LATE SUMMER OF THIS YEAR ON A HIGH, BUT BY THEN MOST OF ITS FANS HAD LONG ABANDONED THE PROJECT FOR OTHER SIMS. SO WILL ASSETTO CORSA SUFFER FROM THE SAME LACK OF DEVELOPMENT? NO. KUNOS SIMULAZIONI HAS MATURED, THEY'VE HIRED STAFF, AND THEY'VE RELEASED TWO TOP-NOTCH SIMS SINCE THE NETKARPRO DISASTER—FERRARI VIRTUAL ACADEMY, AND THE ADRENALINE PACK FOR THAT SIM. THOSE WERE FERRARI LICENSED, AND THEY WERE AS SLICK AS ANY MAJOR SIM-PRODUCT RELEASED THIS CENTURY.

PROS: TYRE MODEL, SIMULATION, 'FEEL' AND ATMOSPHERE, PHYSICS, IS WHAT THESE GUYS DO BETTER THAN ANYONE ELSE.

CONS: LICENSING, AND ONLINE. THE ONE AREA KUNOS HAS NEVER BEEN ABLE TO SOLVE IS THE MULTIPLAYER COMPONENT TO THEIR SIMS. EVEN FERRARI VIRTUAL ACADEMY HAD NO ONLINE FEATURE. IF THEY SOLVE THIS, AND THROW IN SOME LICENSED CARS AND TRACKS (WHICH MAY WELL BE THE CASE FROM WHAT WE HEAR), KUNOS SIMULAZIONI IS GOING TO BE IN THE HUNT, ESPECIALLY IN THE EUROPEAN MARKET THAT HAS NEVER FULLY EMBRACED IRACING.

ODDS ON BEING THE SIM OF 2012: 4/1



RFACTOR2

DEVELOPER: IMAGE SPACE INC.

RELEASE: BETA IN NEXT FEW DAYS

PEDIGREE: ISI HAS BEEN CREATING RACE SIMS SINCE 1999. RFACTOR—AND ITS GMOTOR2 ENGINE—HAVE BEEN AROUND SINCE 2005, AND IT SHOWS. SEVEN YEARS IS A LONG TIME IN SIM-RACING DEVELOPMENT. BETWEEN THEN AND NOW, THEY HAVE RELEASED ONLY ONE OTHER COMMERCIAL PRODUCT, SUPERLEAGUE FORMULA, BACK IN 2009. IN THE MEANTIME, THEIR ENGINE HAS POWERED DOZENS OF SIMS IN THAT PERIOD. RFACTOR2, THOUGH, PROMISES A MAJOR STEP FORWARD IN TERMS OF SIMULATION, AND ATMOSPHERE, SOMETHING THAT ISI HAS NEVER COME CLOSE TO GETTING RIGHT.

PROS: ISI'S MULTIPLAYER COMPONENT IS TOP NOTCH, AND HAS BEEN SINCE 2005. MODDING WILL MAKE RFACTOR2 ACCESSIBLE TO VIRTUALLY EVERY FAN OF EVERY SERIES ON EARTH.

CONS: PHYSICS AND ATMOSPHERE. RFACTOR HAS BEEN OUTSTRIPPED COMPREHENSIVELY BY THE COMPETITION IN TERMS OF TYRE MODELLING AND PHYSICS. ISI HAS A BIT OF CATCHING UP TO DO; WHICH IS NOT TO SAY THEY CAN'T AND WON'T. EARLY INDICATION IS THEY WILL AND HAVE. THE FEEL OF ISI SIMS, TOO, HAS ALWAYS BEEN A TAD UNINSPIRING AND ONLY TIME WILL TELL IF THEY'VE MANAGED TO BRING SOME 'SOUL' INTO THEIR SIM.

ODDS ON BEING THE SIM OF 2012: 2/1



PROJECT C.A.R.S:

DEVELOPER: SLIGHTLY MAD STUDIOS

RELEASE: CURRENT

PEDIGREE: IAN BELL HAS BEEN AROUND SINCE NOAH: HE WAS BEHIND THE 'MOD OF THE CENTURY', THE GTR MOD FOR ISI'S F1 2002 SIM ON WHICH SIMBIN BASED THEIR FIRST SIM, GTR. AFTER THE SPLIT, BELL WENT THROUGH A ROUGH PATCH BEFORE RISING FROM THE ASHES WITH THE EA OFFERINGS SHIFT AND SHIFT 2. HE'S NOW BACK WITH CARS, WHICH, FROM A BUSINESS-MODEL, HAS NEVER BEEN SEEN BEFORE IN SIM-RACING. BASICALLY, NOT ONLY DOES YOUR MONEY GET YOU AN IN ON THE DEVELOPMENT, BUT, DEPENDING ON CARS' SUCCESS, COULD ALSO MAKE YOU A BIT OF MONEY..

PROS: GTR2 REMAINS A SEMINAL SIM, AND BELL HAS A PROVEN TRACK RECORD OF CREATING SOLID SIMS WITH SOLID HOOKS. IF ISI IS THE SPIELBERG OF SIM-RACING, AND IF KUNOS IS FELLINI, SLIGHTLY MAD STUDIOS IS JERRY BRUCKHEIMER: THEY KNOW THEIR MARKET, AND THEY KNOW HOW TO GET BUMS ON SEATS.

CONS: SMS DON'T HAVE A RESIDENT GENIUS. IF THEIR INTENTION IS TO GO UP AGAINST ISI/KUNOS/KAEMMER IN A PHYSICS FIGHT, THEY'LL PROBABLY LOSE TO AT LEAST ONE OF THOSE ENTITIES. IT REMAINS TO BE SEEN IF, AS WE ARE LED TO BELIEVE, IAN BELL AND CREW CAN CREATE AN INHOUSE ENGINE TO RIVAL THE BEST IN THE BUSINESS.

ODDS ON BEING THE SIM OF 2012: 6/1

GTR3

DEVELOPER: SIMBIN STUDIOS

RELEASE: 2012

PEDIGREE: SIMBIN RELEASED RACE07 IN 2007 (YES, OKAY); SINCE THEN THEY HAVE RELEASED ELEVEN ADD-ON PACKS. IN-BETWEEN MILKING THAT TITLE, THEY RELEASED SOME NICHE SIMS SUCH AS VOLVO: THE GAME, AND RACE PRO FOR THE XBOX. GENERAL AGREEMENT IS THAT THEY HAVE NEVER GOT CLOSE TO RECREATING THE MAGIC OF GTR2 AND GT LEGENDS. BUT FOR 2012 THEY ARE SCHEDULED TO RELEASE THE THIRD INSTALLMENT OF THE GAME THAT MADE THEIR REPUTATION. IT'S RUMOURED TO FEATURE THEIR OWN PHYSICS ENGINE, BUT CAN THEY RECREATE THE ASTONISHING GTR2?

PROS: SIMBIN HAVE BEEN AROUND FOR A LONG TIME, AND THEY'RE A KNOWN QUANTITY IN THE SIM-RACING WORLD; THEY HAVE A LOYAL FOLLOWING, TOO, AND IN THE GTR SERIES THEY HAVE A MARQUEE TITLE.

CONS: SIMBIN'S FORM SINCE THE SPLIT WITH BELL AND BLIMEY STUDIOS HAS BEEN PATCHY AT BEST. GTR3 IS A MOMENTOUS DECISION FOR SIMBIN; GET IT RIGHT, AND THEY'RE RIGHT BACK IN THE GAME. GET IT WRONG, AND THEY COULD RUBBISH THEIR MOST PRIZED ASSET. THEY HAVE A LOT RIDING ON THIS ENTRY.

ODDS ON BEING THE SIM OF 2012: 12/1

Dirty & Loose



Dirt

SIMONCROFT

photo credit:
Typ932 via wikipedia

Since its release all the way back in 2004, Richard Burns Rally has become a firm favourite within sim-racing circles. Indeed, whilst at one time calling it 'the GPL of rallying' seemed high praise, with the stream of strong sim releases over the years and GPL having been thoroughly usurped, it now seems almost something of an insult. It's a good thing for rallying fans that RBR set the bar so high too, because since its release, there has been little else to excite sim fans of the loose stuff. A large part of RBR's longevity and continuing appeal, like many sims, lies beyond the quality of the core release and is owed to modders who have continued to provide new content and features.

But now, thanks to some of those aforementioned modders, there is finally something new for rally-sim fans to look forward to. Could RBR's crown finally begin to slip?



PAOLO GHIBAUDO

SIMON: Could you please introduce yourself, and the other people involved in gRally, and tell us how you got involved in sim racing?

PAOLO: Let's start from the last part of the question. I approached the sim-racing world with games like Grand Prix and the NASCAR Series from Papyrus. Then I completely lost all the contact with this world and starting playing rally sims, even if they were simply arcade. At the end of 2004, I came back to Papyrus's world with NASCAR Racing 2003.

Later, thanks to the collaboration of some friends, I started the RBR-Online project that really gave me a lot of satisfaction. RBR-Online was the beginning of a new way of thinking and approaching the rally sim-world. gRally is the natural evolution of this. I started the project with Stefano 'GenlyAI' Balzani, one of the most appreciated drivers in the Italian sim-racing world since the Grand Prix Legends era, who is working with me on the physics, and Luca 'mulder' Giraldi, who is looking after the graphics.



gRALLY IN DEVELOPMENT: ABOVE, SHADOWS, NEXT PAGE, MULTISPLINE IN ACTION

SIMON: You are known in the community for your involvement in the RBR-modding scene. At what point did you decide to make the jump from modding RBR to starting a new project, and what were the main motivations for this move?

PAOLO: The concept of gRally—or, we can say, of a sim rally—is something I dreamt of doing a long time ago. But it was simply a dream. Then I decided to make the dream come true. This decision was taken when I started having troubles with the updates of RBR-Online, due to the fact that the core of the program was 'old' and because it was difficult to make everything work properly with different PCs and configurations.

SIMON: Could you please introduce the gRally project and give a brief outline of what your plans are, and what your aims are for the project?

PAOLO: Well, at the current stage, the idea that we're working on is to develop a rally sim that allows us to recreate the atmosphere of true rallies, with the cars that built the history of this sport. Cars that were absolutely hard to drive, cars that had no-electronic

support, in a time where the special stages were long and tough, with different surfaces and grip conditions. ... But we would like to take this opportunity also to make people aware of what rallying once was, so we're looking forward to creating a meeting point between the gameplay and the knowledge, writing in-depth articles that introduce the cars, the rallies, the drivers.

Coming back to the game, we can honestly say that the work still to be done is really a lot and is difficult, but doing it as a hobby, without the pressure to release it within a certain date, is making everything easier and more fun.

SIMON: You clearly have quite a passion for rallying; can you tell us where this passion originated, and your opinion on the current state of rallying?

PAOLO: My passion for rallying started when I was young because I lived in a place that was very close to a fantastic special stage where my father brought me to see the cars and drivers close up. Step-by-step I fell in love with this sport. The reason why is that I think that driving such powerful cars on normal roads, roads that you usually drive with your car daily, offers a unique sensation. If we talk about speed and high performance, we think about F1. But you have to consider that despite the fact that the speeds are not so high in rallying, you're driving on very narrow roads, with rocks on one side and—very often—nothing on the other ...

Nowadays, rallying has lost a lot of the appeal it had in the past. Just have a look at the on-board camera from the A Group car, when drivers were forced to use an H-gearbox, when you had to press the clutch pedal, when you had to do a lot of things that today are automatically done by the car. Now it's like driving a F1 on bad roads ...

These are some of the reasons why I decided with gRally to bring that era back, when you were waiting—freezing—for the car at Turini {Monte Carlo rally—Ed}, when you were walking for hours just to see the drivers create some magic in the hairpins. ...

SIMON: It sounds as though you have your eyes set very much on the glory days of rallying rather than today's somewhat anaemic, clinical approach to the sport. Different people have their own ideas of exactly which were rally's golden years though; could you specify which period it is that you are targeting, and consequently which cars are the 'must haves' for you to include?

PAOLO: Currently gRally is targeting the '70s, the period that was immediately before the introduction of Group B. Talking about cars, we're developing the Fiat 131 Abarth. We have already gained permission from them to use the car in gRally, a good starting point.

SIMON: Does this looking to the past mean we can look forward to some historic stages and events, as well as machinery?

PAOLO: Absolutely. I think that we will include special stages like the Col du Turini with its twenty kilometre stage, or other famous special stages. What we're really looking forward to recreating is the environment and the 'technical' characteristics of those kind of rallies which has been completely lost in the current version of the sport.



SIMON: What has been the starting point for gRally in terms of the program and code itself; is it being built completely from the ground up? Does it incorporate an existing graphics engine?

PAOLO: I started to code from the scratch, both for the physics and the graphics. In the last few weeks I'm getting inspired by some graphic libraries in order to improve the performance and the overall look and feel of the simulator.

SIMON: You mentioned troubles continuing to update RBR's dated core; was this an issue of difficulty in trying to integrate new features within the existing framework of RBR, and/or were there serious limitations within RBR's code that meant the progress you wished to make was no longer plausible?

PAOLO: We can say both things. RBR-Online was—we can say—something that we can compare to a virus for the original game, in the sense that the program was reading the memory of the game and was changing and updating them. On some PCs, this was not causing problems, but on others it was. This forced us to renounce some features, such as the possibility to keep the damage between the special stages. For a plugin this was easy, for a program not at all.

SIMON: Following from that, whilst RBR is certainly showing its age in some respects, it is also still undoubtedly the benchmark for loose surface physics simulation and capturing

many of the challenges contained within the sport of rallying. Where do you see gRally improving on RBR's achievements?

PAOLO: I'm not developing gRally as a new chapter of Richard Burns Rally. This amazing simulator has been a milestone for rally sims, despite the fact that the modding took out some limits of the physical engine. I will be proud if someone, someday, will compare gRally to Richard Burns Rally!

SIMON: I understand your respect for RBR, and it would be either a very brave or very stupid developer to claim to blow it out of the water. Having said that, beyond the mentioned issue of carrying damage between special stages, are there other specific things you wished to be able to implement that were not possible, that you aim for us to see in gRally?

PAOLO: We can say that RBR, thanks to the different communities that grew up, takes the benefit of a certain amount of features that were not present when the game was distributed, such as night mod, HDR, H-gear plugin, online mode ... Obviously gRally will have all these features from the beginning, in particular with regards the online, since we were born as a team to allow you to have a rally-sim in online mode. So, we keep our goal.

SIMON: Apart from a brief Tweet alluding to a very impressive sampling rate for the physics engine, there have been very few details released about the inner working of gRally. Could you give us some technical details about the tyre model and suspension modelling?

PAOLO: The details we're communicating outside are few because we're hard-coding the physics, and some days we're making significant steps forward, but sometimes we've to re-think completely what we've just developed. For the time being, gRally is able to fully simulate a car, and it's already possible to drive it on a road. In the last few days I've been coding the engine that is behind the collision of the tyres with the road; comparing to RBR, it's not using the 3D for the collision, but a certain number of splines that defines the characteristics of the road. Something very similar to Grand Prix Legends or, more recently, iRacing.

For the tyre model, I'm currently using a Pacejka model, even if I'm already thinking of a new way to manage them, in particular to handle the different combinations between the tyre compound and the type of terrain. The very high frame-rate of the physical engine is due to the fact that we're still at the very beginning, but this makes me confident for the next and future upgrades.

SIMON: Using a spline-based collision model for the surface sounds an interesting choice for a rally sim. In GPL this approach allowed for a relatively low density mesh to provide a nice, smooth driving surface, whilst iRacing obviously make a big thing of their highly-detailed and accurate tracks, bumps and all. In RBR track modding, it has been seen that there are limitations to the minimum size of polygons that the engine can properly handle interactions with, causing some difficulties in modelling certain aspects of surface details.

Being quite aware the development is in the early stages and things can, and will, change, could you please explain the decision to use a spline-based approach? Is it to overcome specific issues, or are there general reasons for taking this direction?

PAOLO: One of the basic assumption when we thought about gRally was to keep the 3D separate from the collision in order to have the best precision and feeling possible with the car, even with few polygons, despite the fact that this kind of assumption requires nearly a double effort for the development of the stages because, when you've finished creating the 3D, you need to recreate the collisions. Another thing, for the future, is to leave room to create gRally 2.0 with an important feature: the creation of random stages, so as to create championships with rallies that are different one from another to replicate reality.

SIMON: It's relatively simple to create a racing car simulator on a track: with one car and ten tracks four or five kilometres long, you can organize the championships, and people are happy. But with rally it's different. People are looking forward to having ten rallies with ten different special stages each. One hundred special stages of ten kilometres will require a massive amount of work. For the time being, the automatic random stages are just a dream but after some testing, I'm really confident about the possibility to implement this kind of feature.

SIMON: I know in the past renowned rFactor modder Niels Heusinkveld has experimented with loose surfaces with rF's Pacejka-like tyre model, and has seemed quite happy with the results. Have you experimented much yet with simulating different surfaces with the Pacejka model, or are things not quite at that point yet? If so, how do you feel about the initial results?

PAOLO: rFactor, from what I know, is not using a Pacejka model, but its own. For the time being, with Pacejka the variables are difficult to manage. While it's easy to create a normal tyre, it's very difficult to create one that you want, that is, giving different feedback for different kinds of ground.

SIMON: With the '70s being the (at least initial) focus of gRally, do you see the engine being able to handle turbos, 4WD, modern suspension configurations, either initially or in due time?

PAOLO: All the gRally code has been developed in a very strict mode. In this way, the changes of suspension, transmissions, and engines is, like in real life, something that you can handle as a single item. Basically, you can remove one transmission and replace it with another one. I've already started simulating a simple car to build. ... Next steps are to improve the code and start working on some tuning ...

SIMON: A long way off, but what are your plans for gRally's release model; is this planned as a commercial release, a free hobby project, or something in between the two with a free version and perhaps licensing the technology out?

PAOLO: It's too early to get into this kind of topic but the idea, if everything will move as we're planning, is to allow people to play for free offline, while we're considering pay-to-play for the online.

SIMON: Continuing on this theme, have you thought ahead at all to modders and the attitude you will take to community-produced content?

PAOLO: The modding world is the key of the success; if you look at projects like rFactor, GTR, and RBR itself, the support that came from the modding world, that brought the gameplay to very high levels, {was crucial}. So, yes, modders will have the chance to give their contribution to the game.

SIMON: Looking ahead, which aspects of gRally do you foresee being particularly difficult or posing the biggest challenges?

PAOLO: This is a topic I'm already working on. I'm currently handling the surface management, with particular regards of the dirt surfaces, where you need to consider not only the contact between the surface and the tyre, but the deformation of the surface itself. This is a key point for us, because the soul of rally is in the mud.

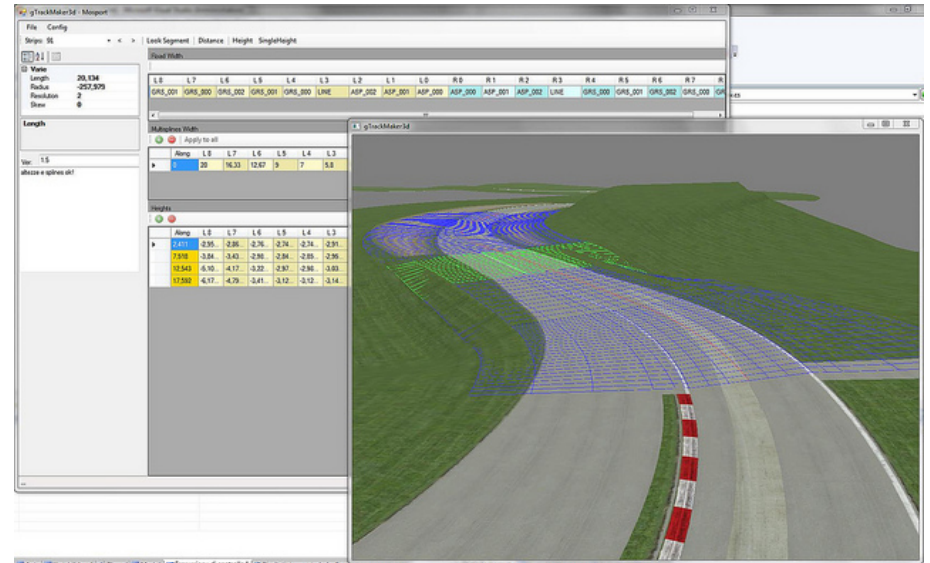
SIMON: Obviously quite early to perhaps be able to answer this, but where do you see limitations existing in what you're capable of doing with gRally? Are there any particular steps or measures you are putting in place already to guarantee that long stages or other desirable features will be 'doable' in the long run?

PAOLO: No, not for the time being. With regards to the hardware, the game is currently already developed to support more than one single controller, and three different screens with separated rendering. For the stages, the spirit of gRally is this one: long stages, very tough, with poor grip, and that you can drive also by night.

SIMON: Again I appreciate that a lot of these things will be a long way off, but will you be looking into exploiting things like GPU-based physics? Are you hoping to include features such as dynamic stages, road surface deformation, clean-swept lines, time of day, weather, and are there any such features you would really love to see included?

PAOLO: On the GPU-based physics I've not been looking at this, yet. So I cannot say anything about that. While for the dynamic stages, yes. Regarding the time of the day, there is no problem at all (as you can see from this video). Regarding the weather, there will be no problem either, because this is another key feature of rallying. Stages that start in the early morning and {those that begin} ten hours later have different light conditions ... it's rallying. And we will handle it.

SIMON: Are you looking for other people to join the team, be it involved with content creation, research or any other area, or are there other ways that people who are interested and wish to support you can help at this point in time?



TRACK EDITOR (ABOVE): WITH THIS PROGRAM YOU CAN CREATE THE COLLISION SPLINES TO DRIVE ON

PAOLO: I'm currently looking for someone able to model, not to create stages or cars, but to create objects to test collisions or this kind of thing. But, for the time being, we're okay with the team we have.

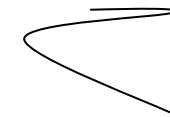
SIMON: Finally, bit of a personal fixation this one, but do you foresee gRally being able to handle closed circuits and car-car action (thinking very specifically of my personal favourite: Rallycross)

PAOLO: I'm currently testing the collisions on Mosport, so we've this in mind. But we're looking forward to creating a bridge between the rally-sim community and the racing-sim community. I think that enjoyment whilst driving is something that every simmer is looking for, otherwise you can't explain the success of games like Live for Speed... For this reason we're thinking a 'module' of the game that will allow this. Think about driving on ice with many cars around you ... something like Andros Trophee ...

You can see the youtube video mentioned in this article here:

<http://youtu.be/8VdxqCHzdTE>

...



'Developing The Simulators We Ourselves Always Wished For'



With the announcement that Reiza Studios have secured a licensing agreement to produce an official Senna simulator, Renato Simioni has clearly broken into the big time. We caught up with the Brazilian to talk Senna, Brazilian stock car racing, and what it's like to go from modding rFactor to a full-blown Senna tribute ...



AUTOSIMSPORT: I When last we spoke, you had just formed your studio and were heavily involved in negotiations concerning licenses for your first commercial venture, Game Stock Car. Now that it's released and you have your first commercial credit, how does you feel from a professional point of view? We here at AUTOSIMSPORT see you as our 'creation', of course, given that we love self-indulgence, and given that we followed you all the way from modding the GP79 mod for rFactor through working at SimBin to finally creating your own studio. It's been half a decade that we have known each other—tell us about the highs and lows.

RENATO: It's been a great ride—I certainly would not have guessed things would have played out the way it did way back then! Through sim-racing, life has taken a complete detour from its previous path. It has had its share of ups and downs along the way for sure, and it is still very trying, but I wouldn't have it any other way. It's my dream job and also a special privilege to do it alongside a team of very talented people.

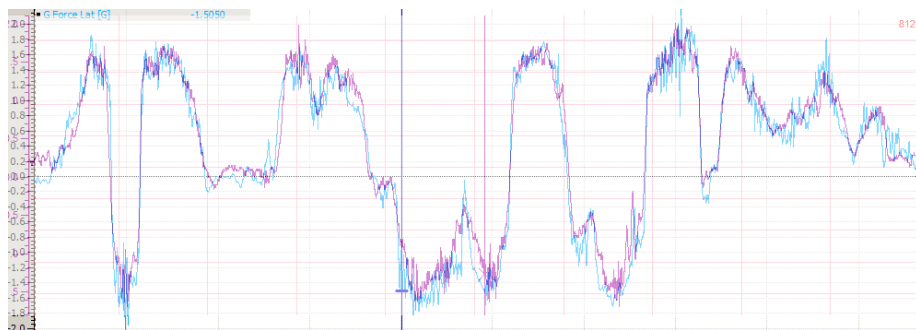
AUTOSIMSPORT: I hope it doesn't sound like a put-down because it's not intended as such but ... you are primarily known as the man who can bleed the final drop of blood from ISI's now ageing physics engine. And GSC really does feel as if you've extracted every last pint of performance from that engine. Indeed, the general consensus at AUTOSIMSPORT is that the gMotor2 engine cannot be better used—this really is its high-point. Can you talk a little about the development of GSC in terms of its physics and the challenges?

RENATO: The main challenge was indeed trying to build a worthy product on what is a great but admittedly ageing game engine, which for Reiza was the only way to start. At the same time, we were confident there was still untapped potential in the rFactor engine which we could explore and build something interesting with.

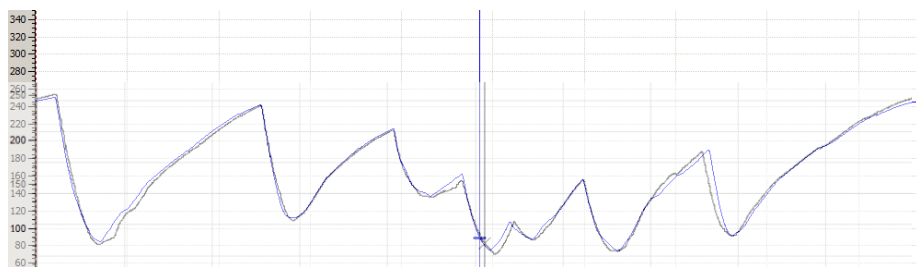
We focused on getting the basis right, producing high-quality content that felt solid across the board—physics, sounds, AI, rich and accurate track modelling, consistent visuals, plus multiplayer, of course, which was already granted by the engine itself. If you get that basis right, you have an immersive and fun experience, and one that I believe is essentially what a really good sim needs to deliver. We dug really deep in all those development fronts.

Obviously we couldn't dig as deep toward giving the game a whole new dressing or introduce any fresh set of bells and whistles, which has its limiting effect. Those that give it a good go, though, usually find that beyond the superficial impressions and some inherent limitations, the end-game has depth, and brings something really enjoyable to the sim-table.

AUTOSIMSPORT: GSC came out to good reviews. How were the sales? And how are you coping with the post-publishing blues?



GSC VS REAL-LIFE BRAZILIAN STOCK CAR LAYOVER TELEMETARY AT INTERLAGOS (ABOVE) AND, BELOW, SPEED OVERLAY, AGAIN AT INTERLAGOS



RENATO: GSC has been doing very well. Obviously given it's a game based on a mostly regional series and not featuring the last word in graphics technology, the reach was always going to be restricted. We're doing well within expectations.

Reception has actually been more positive than we anticipated—we've won a couple of awards, and generally made a pretty good impression. Within the community I think people for the most part realize what we were aiming for and appreciate the integrity of the product, which validates our approach. Obviously we did not have a huge budget to play

with, yet the fact that GSC still managed to stir a positive reaction from the community and turned up as a reasonable success serves as evidence that we are on the right track.

AUTOSIMSPORT: This being an 'official' title, can you discuss the relationship between you and the teams and drivers in that series in terms of input for the sim—and in terms of them using this as a training tool?

RENATO: It's actually been one of the high points of this project. Since there was no real culture for this kind of product coming from Brazil, it was hard to get any kind of support, and getting us through the door with the company who runs the series (Vicar) took some time. Licencing agreements and all the associated permissions from the brands and names involved were not finalized until very late in production, which was an extra strain. To their credit they eventually really bought into the project and backed us up one hundred percent.

Also worth noting that many of the series' drivers are also avid sim-racers who we've known for some time, and as we progressed they really got involved and played a very important role. Today, many in the Brazilian racing community are fans of GSC and really committed to it, including a couple of F1 drivers, so there's been real good validation there.

AUTOSIMSPORT: Looking forward a little: Can a small development house survive simply through sales of its simulators? Or do you find you need to supplement that with other activities? In that regard, are you actively working with the Brazilian stock car crowd at present?

RENATO: Probably not. In our case, raising extra revenue through in-game advertising has been very important, along with other, smaller deals we can and need to do in order to complement our budget. In the case of Game Stock Car, it's always been a series with a strong marketing mentality, so we tried to play along and managed deals with four of the series' main sponsors (Esso, Mobil Super, Goodyear, and Chevrolet). Integrating this kind of IGA works very well with racing games as it not only represents a revenue boost for the developer, but also it's a very seamless form of IGA for the player which actually adds to environment of the game. In GSC most of the sponsor ads are placed exactly as and where they were in the actual races. That works really well and it's a concept that we will try to stick to in future projects.

AUTOSIMSPORT: What's the future for Reiza Studios? Knowing you as I do, I know you've always been aware of the sim-racing scene and suspect you now want to move away from gmotor2 ... does this mean hopping onto ISI's new engine ... or does it entail developing your own with the excellent Niels at the helm?



STOCKCAR DRIVER VALDENO BRITO IN A GSC STAND AT LAST YEAR'S CURITIBA RACE WITH SIMIONI (ABOVE) AND, BELOW, SIMIONI WITH NC PRESIDENT CLAUDIO MACEDO AT BRASIL GAME SHOW (WHERE GSC WON THE GAME OF THE YEAR AWARD).



RENATO: We are still studying what the best way to go is in the long term; there are some good prospects and possibilities which we plan to explore, but naturally developing a really competitive game engine requires sizeable investment and time and we want to be confident with what we're doing and not putting ourselves through a blind alley. In the meantime, if there is a great platform which we can license, that already provides most of the features we want and need, and feel we can develop great products in their own right with it, there is no real rush to change strategy—that will probably be the case for the immediate future.

AUTOSIMSPORT: Looking at the sim-racing scene today, what are your thoughts? Growing, expanding, slowing? And do you feel we are on a cusp of a whole new generation with ISI about to release rFactor2, Kaemmer's new tyre model, and Ian Bell's CARS? What are you looking forward to?

RENATO: I think racing games in general have become a stronger genre over the last decade, and it's more mature. Sim-racing benefits from that to some extent. Sim-racing has always had a very small community, though, and I feel it's also more diluted now than it once was, for a variety of reasons. It's certainly fertile ground now with several exciting projects and developments coming up, which bodes well for the future. The other side of the coin is that I don't believe we'll have a large enough market to accommodate all the new ventures along with the seasoned players, so it will be interesting to see who can make it on the long run.

As a sim-racer, I tend to feel a couple of the main players have painted themselves into a tricky corner, but I wouldn't underestimate the talent involved with either operation. Developments to NetkarPro should be very interesting, too, but the one I really look forward to is still rFactor 2. The planned features are pretty groundbreaking, and if done right as ISI knows how to, it should be the best all-round platform for a while. It will then depend on what gets done with it.

One thing I personally miss from the current sim-racing scene, though, is the presence of any role-playing value, which used to be very important. The content is usually diverse, bit all over the place with no core focus—you're often racing cars on tracks that really don't belong together, which in my opinion leads to a certain lack of soul. It's all about quantity in an attempt to provide something for everyone, but the resulting experience is almost inevitably shallow and fails to completely capture the imagination.



And it's pretty much all about the multiplayer experience nowadays which, of course, is paramount, but even that can feel kind of flat if you don't have any kind of heritage to draw from—some more in-depth association with a real series and real drivers which I feel is important. Sticking with racing sims, even something bare like Crammond's GP series or GPL which really didn't have any super-elaborate campaign features, there was something to working your way through a full championship season against the AI, which you really don't see anymore in modern sims. Well, except perhaps Codemasters' F1 games, but the experience there, which could be rich, is somewhat damaged by other factors. There are mods, but they're seldom complete packages and never whole in production standards. That is a void we certainly aim to fill with our game designs.

AUTOSIMSPORT: Naturally the big news is your link with the Senna Institute and the promise of a 'Senna sim' to come end of 2012. The Senna Institute, of course, is an NGO run by Ayrton's sister (they also publish the excellent Senninha comics!) for the advancement of anti-poverty programs in Brazil. Can you explain how this all came about in as much detail as you are permitted?

RENATO: From the very beginning we had plans of a project involving Senna and his era of racing; it has a magical allure to it, and the material to make up an awesome sim. We quickly changed direction as it was clear we had neither the resources nor the experience required to pull off a project of such scope and gravitas. So we drew a plan to build ourselves up to it, and soon after the release of GSC the moment was right for an approach. We got the opportunity to present our plan, they liked

it, and we got the deal. Senna has grown into becoming such an icon that it brings great pride in being associated with him; at the same time, we feel a major sense of responsibility to do it justice. Everyone in the team has a special feeling about this era of racing, so it makes it very special and personal project. In my case, I was drawn into motor racing by Senna at a very early age, so it's no exaggeration to say there's a passion involved that has shaped a good deal of my adult life. So while actual production is only just starting, it could be said that this project has been in development for a very long time.

AUTOSIMSPORT: Can you tell us a little about what we can expect with this simulator? You are, as far as I can tell, building your own physics engine to run this, is that correct? Are we looking at a simulator? And what kind of product are you looking to create?

RENATO: We're still working on the game design, but basically the idea, once again, is to work in stages, start with a platform and build upon it. The initial release will probably be a very straightforward sim based on some specific year, going absolutely nuts on the details and focusing one hundred percent in reproducing the history and experience of that given season—sans some obvious licensing limitations. Think of the approach to the GP 1979 mod with the bar set exponentially higher, and production standards to rival that of any other racing game developer. That's what we're aiming for.

AUTOSIMSPORT: What else is Reiza Studios developing? Are you looking at other projects, and can we expect anything from you before the Senna sim?

RENATO: For the last two years we have been working on Project Tupi, basically an ensemble of related projects covering some of the main Brazilian racing series. GSC and its DLCs were the initial offspring of this project. We also have a new game in the pipeline, which will be based on Brazilian Formula Truck series, a similar design to GSC but a completely different racing experience which I personally feel is some of the best fun to be had in a sim. Something to look forward to.

We have some other talks going for smaller projects which might see the light of day before the project featuring Senna does, and should help us fund it in case no-one pops in to help us pick up the tab of what is a major production.

We are building a solid base locally with some strong partnerships and look forward to making a more international impression in the next couple of years. All the while sticking to what Reiza really is about, which is developing the sims we ourselves always wished for.





Archive



RFACTOR REVEALED



Back in July 2005, AUTOSIMSPORT revealed rFactor to its readers in the first of its numerous world exclusives ... does it feel like almost 7 years have passed? Enjoy the trip down memory lane with us ... Back then Lou Magyar's LAN party at his house was sponsored by Red Bull ... that was before they downsized, of course, and decided to sponsor their own team in F1 instead!

AUTOSIMSPORT

rFactor Spectacular!

Lou Magyar reviews the first ever rFactor LAN at the 6th Annual USGP/LAN Party Weekend and gets some early impressions from eager sim-racers...

Over what proved to be a somewhat disappointing USGP weekend, a small gathering of the faithful trekked to the 6th annual USGP LAN party, hosted by Lou and Karol Magyar. There was a contingent of regulars, and several first-timers in attendance. All in all, the LAN was attended by 24 sim racers. Several in attendance are ranked among the best in the USA and the world. One came from as far away as Finland. Aside from the USGP itself, the weekend's events were a smashing hit. LAN attendees were treated to the first ever LAN multi-player test of the highly anticipated rFactor from Image Space Incorporated, the makers of Formula 1 Challenge and NASCAR Thunder, both released by EA Sports. Everyone in attendance committed to returning to the USGP LAN, if even only for the LAN itself. If Tony George decides to tell Bernie and Max where to get off, the LAN party will still go on!

To get the party started, Image Space Inc (ISI), and Red Bull both provided sponsorship. To the best of my knowledge, this is the first-ever time that a private sim-racing LAN party has had corporate sponsorship. In addition to unlimited copies of the special rFactor release, ISI provided financial backing to help with LAN party logistics. Red Bull, eager to get a foothold in the gaming community, provided liquid refreshment, financial backing, a 'can' cooler, and 8 passes to the F1 after-party for LAN attendees *(to which your enraged*

Ed, wanting to smack anyone remotely associated with F1, was promptly banned from attending!).

Many thanks to Gjon Camaj of ISI and Ryan Fitzpatrick of Red Bull for their help in making the 6th annual USGP LAN Party so much of a success.



As mentioned, Gjon Camaj from ISI, created a special version of their soon-to-be-released rFactor just for the USGP LAN. This special version included the "Open Wheel Challenge" cars. The OWCs, as they're called in rFactor, consisted of a lower level Formula car, on par with a Formula Saab, or Formula Ford, and a top level Formula car,

on a scale with modern F1 cars.

The rTrainer, or 'rFactor Academy Racer', as the lower level car is called, is a treat to race. The basic car starts out with a 1600CC, 115Bhp @ 6500 RPM engine, skinny treaded street tires and analog gauges. Upgrades are available to increase the engine to a 2000CC with horsepower at 140 @ 7000 RPM, and slick tires as well as an LCD dash panel. This car handles very realistically. 4-wheel drifting, drafting, and everything you would expect. There are currently 12 different versions from which to choose. There are subtle differences in configuration and livery for each, yet all have identical performance characteristics. The racing with these cars is extremely close and more fun than you can imagine.

The rFactor Formula car represents the pinnacle of motor racing in rFactor. This beast is an 800+ horsepower open wheeled racer that mimics modern-day Formula 1 racers. The first time you get into the rFactor Formula Racer it practically scares you. This car *feels* as fast as it looks. Other racing sims that have modern-day F1 cars just can't compare to the sense of speed that the rFactor car provides. From the sound of the clag when you have an off, to the buffeting of your 'helmet' as you reach top speed on the straights, to the grip that the downforce provides as you turn-in to the corner, this car just *feels* fast. There were no upgrades available for the rFactor Formula

rFactor Spectacular!

car in the special LAN version.

All of the cars in the LAN version (rFactor V903) are fully adjustable. The setup screens are easy to manage and configure. Everything is quickly accessible and simple to change. There is an overall 'quick setup'

screen that lets you set up 4 different parameters of the car. The BASIC tab lets you select downforce for speed or grip; gearing bias for acceleration or speed; balance for oversteer or understeer; and ride for soft or stiff. These four basic settings are universally available no matter which car you choose, regardless of car class.

For more sophisticated setup configuration, there are also gearing, engine, aerodynamic, weight distribution, steering ratio, brake bias, differential settings, fully configurable suspension, and more. Many of these same parameters, which are typically adjustable in a real race car can also be changed on-the-fly while in-car with rFactor. Also, the amount of fuel at start can be simply altered, thus allowing a racer the ability to configure the race strategy. You can choose the number of pit stops you want to make from

'none' to 3 stops, and select the amount of fuel you want for each stop. With this arrangement, it is possible to set up for a full length Grand Prix with a low fuel first stint, and a heavy fuel middle stint, if you like.

Installation of the special demo version was a simple matter of copying the files to a special folder and registering online with special information provided by ISI. The entire process took less than 2 minutes for each client to go live. The registration process is painless and simple. None of the machines at the LAN had any problem registering the software. A total of 12 rFactor capable clients were set up – it turns out that 12 is the current (pun intended) limit of the circuits in my garage with 450 watt power supplies standard in most PC's these days. In years past, I was able to host as many as 16 to 18 clients without problem. Red Bull got wind of my power availability issue and has offered to help solve it next year by providing a generator for us to use.

Racing action began Thursday with a few clients who arrived early, and by Friday evening, the LAN was in full swing. There were machines of all configurations, everything from laptops to 3+ gigahertz monsters. During part of the evening on both Thursday and Friday, some attempts were made to run the classic sim Grand Prix Legends by Sierra/Papyrus. We all know and love GPL. Despite our passion for GPL, though, rFactor quickly eclipsed GPL as the 'sim to run'.

Once attendees got a taste of rFactor, it was extremely difficult to get a GPL race going. The only time you could see GPL was on the client or two that didn't have the hardware to run rFactor. These clients were only used by those jonesing to race, but unable to pry someone else off a wheel to get a chance at rFactor. To say that rFactor dominated the LAN would be an understatement. The LAN



quickly became an rFactor-only event. Racing continued well into the night on Friday and Saturday nights. Those who didn't bring their PCs had to wait for a chance to race... and it was usually a long wait. No one really wanted to give up their rFactor seat. Everyone who showed up without their PC regretted not bringing it along.

In prior years, the LAN had migrated somewhat toward a NASCAR Racing 2003 (and its mods – mostly TPTCC) event. GPL and NR2003 were split equally for seat time. Many of the VOR guys who have been regularly making the trip to the LAN could not make it this year. I suspect however, that should they have made it, NR2003/TPTCC would not have had much screen time at all. A.S.'s very own Alex Martini could be seen pounding off the curbs for hour upon hour, this only after having forcibly pried Jonathan Davis from his BRD wheel. Once a sim racer got into a seat, it was, to say the least, difficult to get him out of it. *{Well Eric Sheehan running around naked did scare a few away!-Ed}*

If the overwhelming popularity of rFactor at the LAN is any indication of how it will be received upon its final release, which is imminent, then rFactor is guaranteed to be an instant success. rFactor's netcode is rock-solid. Its immersion is exceptional. Its realism, both graphically and from a physics point of view, are astounding. Its gameplay will entertain everyone from the green sim gamers to the hardcore sim racing purists. rFactor, in this writer's opinion, will eclipse the popularity of most, if not all of the sims currently available or in the works, including our beloved GPL. On a level of complexity and realism with GPL, but on a platform nearly 10 years more advanced, rFactor is simply as close as it gets to being there.

rFactor Spectacular!

Here are just a few of the comments that first-timers provided after the LAN weekend:

"rFactor is finally what GPL-heads have been waiting for for almost a decade—if this thing is rock solid online, we'll all be playing this for a very long time to come—and btw, rfactor is the **best sim** I have ever seen—it will blow everything away. It is astoundingly fantastically amazingly magnificent. The sim we've been waiting for since GPL."
—Alex Martini, *FILSCA co-founder*

"I didn't think it was going to happen, but I was so impressed with those freakin trainers, the way you could slide them through turns and stuff. Awesome. If the 400 GPL tracks could be converted, I'd switch, without a thought."
—Jack Sankey, *LAN Attendee*

"**Awesome.** Awesome awesome awesome. Good feel overall, exciting driving, fast, scary. Everything a sim needs. AAAAAAND, my old 1.5GHz Athlon with 256MB ram and a \$90 video card can do it (radeon 9600PRO 256MB) with no hiccups. It's smoother looking than GPL! And shinier!"
—Jack Sankey, *LAN Attendee*

"...it felt **great** and I'm eagerly awaiting its release."
—Marko Räsänen, *LAN Attendee*

"Being only a novice, the first time I sat down, the first thing I noticed was the graphics and the drivability of the car, and its rapid acceleration. After a little while I became accustom to the *feel* of the car. The **best sim** I have ever driven."
—Bernie, *LAN Attendee*

"Definitely **fun**. F1 cars give a very good impression of speed."
—Ravi Sharma, *LAN Attendee*"It's the best feeling, most realistic sim I have driven. The car never did anything that I wouldn't expect a real car to do. The behavior of the car at low speeds and over curbs has none of the problems I've noticed in previous ISI sims and GTR...The transition from day to night is also very impressive with the track lights flickering on. The time of day changes are a great addition...Everything worked flawlessly...**Definitely a sim worth buying.**"
—Jonathan Davis, *LAN Regular, 7th Worldwide GPL Monster Rank*

Look for rFactor very soon as a direct download from [ISI](#).



Lou's lan party

AUTOSIMSPORT

The Dent

Vodka Diaries

Jon Denton on nationalism ...

JONDENTON



Sim-racing has changed. Not in every way, in many ways it is just the same as it was years ago, we're still within a generation of racing sims that have ruled the roost for over five years, and people still like a good moan on practically every forum out there. However, what is novel is sim-racing's new nationalistic fervour.

With foundations of development studios in certain countries, we are starting to see sims dedicated to racing series that have little interest to non-indigenous players. Reiza Studios have recently released Game Stock Car, featuring a fine simulation of the Brazilian National stock car series, a series most people outside of Brazil may never have heard of. Simbin's major release in 2011 covered the Swedish Touring Car Championship, backing up 2009's Volvo: the Game as two titles that will have limited interest outside of Scandinavia. And who can forget 2009's excellent Turismo Carretera from 2Pez featuring insanely fast Argentinian stock cars? Most of you, I will wager.

None of this should come as a big surprise, these sims are developed for their core market, and as an outsider, it is hard to truly get into, say, a sim focussed on a Brazilian series I know nothing about beyond a brief enjoyable drive. When a sim offers me the chance to battle hard, conduct heavy testing, and setup work towards an ultimate goal of battling AI drivers I have never heard of for the dubious claim of having won a championship that is little known to me, I'm afraid it's unlikely to inspire me to put in the hours.

Similarly, in multiplayer focussed sims, such as iRacing and netKarPro, there is a distinct national feel to the vehicles and championships represented. In netKarPro's base package, there are a series of tracks that, whilst fictional, bleed Italy from their visual style. The lighting, the way the kerbs are painted, the smooth, well-maintained tracks, all give the player a feeling of Italy (with the exception of the oddly different Newbury). There is also, it should be said since you're no doubt thinking it, a very Italian feel to the sim on the whole. That's not to say that it's endemically broken, but it does have a passionate, Italian artistry to it, and for many years, some parts of it looked great while not working much at all. This left some alienated by its ways, and others embracing it for its foibles. It's no surprise that the main core of people playing netKarPro online these days are based in Central Europe.

iRacing, similarly, feels American. This is to say that the customer service is superb, the quality of service impeccable, and the amount of rules to abide by considerable. In the early days, there was a heavy focus on oval racing and national American series, and whilst in recent times they are branching out into European tracks and racing series, as well as Australian and Japanese, there is an overall American feeling to the way everything works. This works well for the many subscribers, and for some people it is a source of annoyance. Suffice to say that,

without knowing the numbers, I would guess that most subscribers to the service come from North America.

Does this kind of fragmentation mean that sim-racing will never truly be a global hobby? The chances are that this is the case. If a global release took place for a Brazilian stock car sim, and some manner of online tournament were to be conducted, unless there was a prize of \$700 million dollars, I cannot imagine a huge uptake of racers outside of South America indulging.

What surprises me, as a resident of the United Kingdom, is that there is no local development house working on anything for this fair isle. Britain is famous for its motor sports industry; of the twelve Formula One teams, nine are based in the UK, as well as many lower formula teams. Many racers from around the world come to the UK to forge their careers in lower formulae, with British Formula 3, Formula Ford, and Formula TKM championships being renowned as some of the finest in the world for young drivers, a talent pool from which the UK-based teams often fish for the next sparkling thing. As well as this, the focus of suppliers, services, and manufacturers to the industry in the UK is phenomenal, meaning some of the best engineering staff in the world flock to this country to build their careers. So why are there no British feeling sims out there?

Developers such as Slightly Mad Studios, based in London, are renowned for titles such as Need for Speed: Shift which, published worldwide, have an open feel to them, feeling almost American. Much like how Yamauchi's Gran Turismo series does not reflect Japan's national identity in the way that many titles from Nintendo do, many of SMS's titles are focussed on global appeal, leaving us with nothing that we can claim is as British as, say, mushy peas.

This problem has been reported in other areas of the video game industry, with titles such as Grand Theft Auto IV enjoying huge global appeal, and yet how many players are aware that it was coded in, of all places, Scotland. Why is it that Britain does not want to celebrate its national identity in these arts?

One thought springs to mind. Having conducted many tests in various cars on tracks in the UK, and having had to put on fireproof Long Johns often enough to compete in kart races during any month other than July, I can conclude that to give any sim a fundamentally British feel would mean that every race would be a grey, miserable, windy and cold affair. There would have to be a 'Look at sky and put finger in air every five minutes running up to the race' feature, and outside of the sim, there would have to be an overly-complicated and wordy menu system that laughs at you when you get it wrong.

Perhaps it's best to keep things as they are then ...

Magnus Opus

Feeling The Heat ...

Magnus, who has spent the last two years becoming a Country and Western singer, has noticed something curious about the sim-racing community: Despite out constant squabbles, there is no sign of racism or bigotry in the community ...

MAGNUSTELLBOM



Merry Christmas and happy New Year. I wish you all peace on earth and a safe and happy life. Well that's bloody likely isn't it? I mean, with the general state of things in the world today, we'll probably see more fighting, depression, recession, and financial havoc than ever before. We keep squabbling about money, religion, whose country is best, who killed who and why and was it sanctioned by the person in charge. Heck, even I am trying hard to keep things civil between me and my next door neighbor when it comes to the use of fireworks in combination with whiskey and tequila that crazy sumabitch. And if we can't keep it civil on that level and over such petty things, how can one expect to keep from going to war over whose mighty being in the sky is the one with the most power and dignity? Well we can't and that's why I wish for those things that started this column though I should confess to having little hope that any of us will see any of it come true. Expect in one place ...

The sim-racing community has, for several years now, been able to keep it rather civil. Oh alright, there are times when a couple of people don't agree, and they start a flamewar all over the forums, but in general, these things are kept gently in line. People attack what is said or written rather than the person saying or writing it. We've all seen it at one time or another and the cause can be anything from a supposedly stolen paint scheme to the posting of exclusive news on the wrong site. But what is unique about the sim-racing community is that it never enters into the issue of religion, skin color, economics, or nationality. No one cares who you pray to or whether you pray, no one cares if you make €20.000 or €2.000.000 a year. No one cares if your skin is red with yellow dots and a blue streak from the right ankle to the left ear. And when it comes to nationality, a site or a league wears its multi-culturality with a sense of pride. Interesting to say the least.

When it comes to sim-racing, it just doesn't matter. What matters is that no one cheats or gets out of line according to the rules set up by the league admin. When you want to participate in a new league, I bet the first thing you do is to read the rules for that particular league, don't you? Of course you do, 'cause you got a reputation to think about. You don't want to be that one person who is kicked and banned because of misbehavior on the track. You don't want to be that one person who is recognized as a wrecker and a bad sportsman. Fact is, sim-racing has solved the matter of world peace by just posting a few simple rules all over the place. The rule is (with some variations), 'No one cares what color your religion is and what country your politics come from and in what way you earned the money to buy that sim-rig, so keep it to yourself from the bleeding beginning'.

And that, as they say, is all she said. Sim-racing might look like the ultimate nerd hobby, it might look like adults spending time on a video game like some overgrown kid who should know better, but when push comes to shove, we've all done more for world peace than the United Nations. Fact is, I'm fairly sure that I would open my real-life door and let in most of those I've raced and argued with in the world of sim-racing. Even those I don't always agree with. I would

even let in the editor of this magazine and offer him a cup of coffee or a beer, should he show up, and that is saying a lot.

So ... as every rant should have a conclusion, here it comes. I wish you all a happy new sim-racing year. And I also wish that you all take a bit of the sim-racing community with you, out in the real world. Put it out there! Say, I don't care about your religion, your country, your politics or your money, so please keep that to yourself. I do however care for the person behind and underneath all that, and that person I think I can talk to in a civilized way, and even buy that person a coffee on a rainy afternoon. Keep it up for long enough and it'll spread, I'm sure of it. Keep sim-racing going, and create world peace at the same time. Not a bad idea!

Happy New Year!

**AUTOSIMSPORT
WISHES ALL ITS
READERS
A MERRY CHRISTMAS
AND NEW YEAR: SEE
YOU, PERHAPS, IN
THE SPRING**

Chequered Flag

Missed The Cut

rFactor2 & C.A.R.S



Chequered Flag

continued



Chequered Flag

continued



Chequered Flag

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Chequered Flag

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Chequered Flag

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