

Eye-Opener!

Imagine: Racing against Lewis Hamilton, live, behind your desktop, on a perfectly laser-scanned version of Monza. Come November, you will no longer need to imagine, as science-fiction will meet reality courtesy of Andy Lüring, and the brilliant team behind iOpener Interactive Media ...



iOpener

I N T E R A C T I V E M E D I A

IVANASKEW



Get used to the logo because it will feature on virtually every sim and racing game you buy in years to come

iOpener is a young, dynamic organisation headquartered in Aachen, Germany, with an R&D office at the Delft University of Technology in Delft, the Netherlands. In 2007, iOpener successfully participated in the European Space Agency Business incubation initiative. Backed by a seasoned venture capitalist, iOpener is shaping up to be a leader in providing and facilitating Real-time data into games and the virtual world, through its patented technology; using satellite navigation technology. iOpener is constantly exploring new creative ways to use new technologies to improve the user/consumer experience in both the real and virtual worlds. The organisation brings together an international team of seasoned professionals with backgrounds in TV, Internet, Telecom, Marketing, and Gaming, and is ready for the era where the real world and virtual world integrate.”

With that out of the way, all that is left is for company CEO Andy Lürling to walk AUTOSIMSPORT through what must be one of the most intriguing projects we’ve seen designed for simulated-racing in quite some time.

Perhaps it’s because I’m old, but the idea that—in my cockpit at home—I can both race against, and simultaneously watch, the best drivers in the world doing it for real a half-a-world away and yet right there on my PC screen, is the stuff of science-fiction. And yet, if iOpener’s Andy Lürling is to be believed, this amazing reality is but a few months away. And he’s got the talent—and the finances—to prove it.



The Real-time concept relies on real series transmitting all their information to i-Opener’s servers which will then ‘broadcast’ them to the virtual driver ...

Their proof of concept has won Andy both the regional European Satellite Navigation Competition in 2006, and the 2007 Ernst & Young Best Business Case Award. In short, not only do they have a plan, but they have a product which has already caught the attention of those moneymen some call Venture Capitalists. For Andy, though, this is par for the course in a career that has already seen him co-found a cross-media company in his native Holland that focused on interactive concepts and innovative technical solutions for internet, mobile, digital TV, and online games, working for a host of blue-chip companies—everyone from Vodafone, ING, and even an interesting interactive joust with Heineken.



“The ultimate goal is to have the iOpener feature integrated in all race games, where both arcade and sim-racers will be able to race against real drivers.” —Andy Lürling

So how does it all work? Well, since we’re in the realm of science-fiction, you’re probably not surprised to hear that the answer is a combination of outer space and Galileo. No, not the guy who, under the threat of torture, finally admitted that the sun moved around the earth (and yet, he whispered to his daughter, “the earth, it moves”) but, rather, the satellite Galileo, which will be Europe’s very own global navigation satellite system providing an accurate global positioning service under civilian control (the current GPS technology is controlled by the U.S. Military, and can—as happened after 9-11—be turned off in a moment).

iOpener’s product, dubbed ‘Real-time Live Play’, works as follows: Real cars on-track are fitted with GPS receivers, and they send the live position of the cars to the racers at home who are racing against their graphical alter-egos—live. And with Galileo, we will be looking for an accuracy of around three centimeters, since iOpener will be using what is known as ‘differential GPS’ (DGPS) that beams GPS into stable bases from whence the position of the vehicle can be further refined. Once this signal has been received into the iOpener servers, the speed and position of the cars will be mapped. But that’s just the start: In order to further enhance the experience, iOpener will be using so-called ‘inertial measurement units’ that measure everything from the car’s yaw angle to its acceleration. Then, to finalise the deal, the cars will also be shooting their telemetry live—to iOpener’s servers—and then directly to your PC. What we have here is total integration between live and simulated, with the entire operation—that is, the collection of this multitude of information, and its transmission to your PC—taking between two-and-a-half and five seconds, about the same delay you experience when watching a ‘live’ race on your TV.

The concept itself, Andy says, came about while the team was watching a live Formula One race while simultaneously playing a PC sim: Why, they wondered, can’t we race against the pros live? Andy takes up the story from there: “A patent application was filed, and in 2005 the patent was granted. Additional patents applications were filed. With this concept, in 2006, iOpener was regional winner in the European Satellite Navigation competition, and, because of this, the European Space Agency let iOpener join in their incubation programme lead by Frank Salzgeber. The ESA provided knowledge and funds to iOpener, and with this, iOpener developed the proof of concept/technology. This was done with cooperation of Bleekemolen’s Raceplanet, and Circuitpark Zandvoort. The PoC was such a success that Venture Capitalists were standing in line (to test the product). In the end, in December 2007, iOpener chose Triangle Venture Capital Group. Currently, iOpener is developing the next generation of their technology (hardware and software), and is working towards a market introduction of their technology, expected in November of this year.”

The proof of concept, which was so successful, was both simple, and, by all accounts, quite brilliant. The team set up their hardware and software at the legendary Dutch circuit of Zandvoort in 2007. Bleekemolen’s Raceplanet Porsches were then equipped with iOpener’s experimental hardware, while, up in the tower, their own (basic, by Andy’s account) software was set up so that those in the tower could race against those on the real track—live. All of this was created using iOpener’s patented technology. (A video of this is available at the iOpener website.)

Futurist Eye-Opener!

continued



Real cars on-track are fitted with GPS receivers that send the live position of the cars to virtual racers racing against the graphical alter-egos—live. DGPS—that beams GPS into stable bases from whence the position of the vehicle can be further refined—will see the cars beamed to within 3cms



The proof of concept saw the team set up their patented tech' at the legendary Dutch circuit of Zandvoort Porsches were then equipped with iOpener's experimental hardware, while, up in the tower, their own software was set up so that those in the tower could race against those on the real track—live.

However, eliciting any kind of technical information from Andy is met with a—'sorry, can't really tell you at this stage'. What he will divulge, however, is the scope of the project: That is, this is not limited only to motor-racing simulation, but also, "For other game genres, for example, flight simulators, and other markets such as educational training simulators."

As for the motor-racing side of things, Andy explains that, "Our technology is shown in games as a feature, and you can play this with your keyboard, mouse, joystick, and so forth. But of course," he adds, "using a steering wheel, and/or simulator will give the most immersive experience. We are in discussion with motor-racing series and brands, but I can't mention names yet."

What Andy can confirm, however, is that this technology will be made available for lease to third party developers—so that, in a year or two, you may just find your next PS3 *Gran Turismo* outing featuring this technology. In the meantime, however, iOpener continue working on its own software, primarily in the sphere of Artificial Intelligence. That is, what happens, for instance, when you outbrake yourself and go flying into Lewis Hamilton's rear-end at Turn One? Clearly the 'real' Hamilton won't be affected—yet (this is the realm of fantasy, not science-fiction!)—but, in order for the sim to be touted as realistic (or, indeed, even a 'game'), virtual Lewis (who is, you follow, also the real Hamilton) will need to react according to events in your own personal game.

Andy is, of course, reluctant to go into any technical details this close to release, but what he does say is quite tantalizing: "The gamer will play a game as just any game only knowing (and receiving some info) that he is playing against the real professionals. In future versions, the real experience will be even improved."

Naturally the success of this technology, for sim-racers, will depend on whether any of our developers take this feature on board: Consider, for instance, if we had laser-scanned tracks accurate to a millimeter or two, along with perfectly replicated Formula One cars, and the ability to race at the very same time as the real guys are racing, with their positions beamed into our race-rigs and screens to a few centimeters' worth of accuracy.

Andy and the team at iOpener look at this project as something beyond a curiosity: They see its application becoming standard fare in the future of motor-racing sims, something that, in a year or two, we will take not so much for granted, as much as *de rigueur*, something along the lines of realistic tracks and so forth. "The ultimate goal is to have the iOpener feature integrated in all race games, where both arcade and sim-racers will be able to race against real drivers. We believe, and some of the game publishers and developers, as well as race associations tend to agree with us, that in a few years, games will not be Triple A games anymore if our feature is not integrated."

The way the service will be bought is, Andy explains, multi-faceted, and depends entirely on the sim or game involved: "Our feature may be integrated in some, or will be for free for others, while others will feature a one-off purchase, and yet others with micro-transactions."

So, I ask, is it possible that, in a year or so from now, we will be able to watch a race—live—while, at the same instant, *race* in that race? That is, instead of watching races as we do now, we can actually watch a race as an actual competitor in that race?

Andy smiles: "Might well be ... but I would say more in two or three years."

You can see more detail—including some illuminating videos and documentaries—at the iOpener website, under the 'News' section.



A video featuring iOpener's technology (above)—more videos and details of this fascinating project can be found at iOpener's website under the 'News' section ... (click to play)