

FERRARI CHALLENGE – THE INSIDE SCOOP

There are lots of people responsible for a game's success and System 3's *Ferrari Challenge* has created some excellent buzz for everyone involved in its creation.

As the game's developer, we're pretty excited about some of the features we added to make *Ferrari Challenge* like no other racing game ever. So yes, it's got a whole bunch of insanely fast red (and even other colors) Italian cars. And of course, it replicates the official Ferrari Challenge race experience exactly. And sure, there's even a famous race driver supervising the in-game handling of these explosive machines (we liked working with Bruno Senna a lot).

But what else is in there? When we started development we were sick of games with sterile, lifeless worlds and drone cars running around, so we came up with some features to liven things up a bit:

THE A.I. TOTALLY ROCKS

Artificial Intelligence is frequently a misnomer, as predictability usurps any semblance of smarts and you find yourself going head to head with a big, dumb machine. For racing games it all-too-frequently tends to be the same: the other cars follow a spline (an optimized racing arc) with absolute precision (spatial limitations notwithstanding) and you can pretty much tell what they're going to do on every lap. Pass once on the outside and stifle a yawn.

Not so on *Ferrari Challenge*. We designed an A.I. system that replicates how human drivers behave when they're racing for real: our A.I. cars jockey for position, cut each other off and generally create completely life-like mayhem all the way around the track. Most importantly, they compete not just against the player but against each other. So the first time you're driving a straightaway at 160 mph and you see a couple of cars in front of you crashing from sheer competitiveness – for a reason you have nothing to do with – you'll understand just how different *this* A.I. actually is.

Thanks to producer Mark Cale's contacts at Ferrari, we were able to work with real drivers to understand what they would do in a real race and the results are then fed through our behavioral modeling software and assigned to specific A.I. vehicles. It's all based on real-world racing behavior and, while artificial, it's certainly intelligent.

BETTER, WETTER RAIN

There's this guy who works in our Gateshead studio – total genius material. During pre-production for the game he was experimenting with the idea that, in the real world, rain has density and depth and deprives surfaces of friction. In short it changes everything. So why not in a game? In most titles it's treated more or less like a modified aesthetic and that's it, which frequently looks nice but doesn't add anything to the experience.

So this guy figures it out – what a raindrop represents, what its puddle looks like when it lands, how it changes a tire's grip on the road, how it slows acceleration and changes braking, pretty much anything you can think of from the real experience. That means the weather elements in *Ferrari Challenge* represent more than just a change in atmosphere; to succeed players need to learn the nuances of driving through puddles and braking earlier to maintain control. Everything a real Ferrari Challenge driver has to prepare for is represented in a way that's both realistically challenging and altogether fun.

To test the effect, park the car under a tree while it's raining and wait. You'll notice that eventually the water level on the track gets high enough that the leaves float away. Watch the water dry out on the racing line then feel the water drag as you go off the racing line to take advantage of the slipstream. It's all risk versus reward. And it's all exclusively Eutechnyx tech.

THE BEST ONLINE PLAY FOR A DRIVING GAME

At Eutechnyx we have a lot of faith in the future of online play. People naturally want to test their skill with any game in any genre against other people, preferably from all over the world. And while we've had online play featured in other titles in the past, we spent even more time on the process for *Ferrari Challenge*.

The result is an extremely realistic online racing system in which slower connections are still supported through an ingenious interpolation device. This system tracks anticipated maneuvers and when information packets are lost (which, until worldwide broadband systems improve, will invariably happen), reads past movements and continues with the race along those lines until the connection is restored. When we lose packets of data, we take notice of the racing line, braking points and physical parameters of the car – this allows us to interpolate between the last packet and the next packet we pick up, the result of which is that the cars don't jump around the track as is so often found in racing games. The data is read and, when necessary, blended to provide the most realistic experience possible.

HEY, THIS REALLY SOUNDS LIKE A FERRARI

For many companies the sound of a game is an afterthought and that's kind of a shame. If you look at the world's most interesting film makers, the sound is every bit as important as the visuals and Eutechnyx incorporates a deep level of detail to the sound capture and foley editing of every game.

For *Ferrari Challenge*, we recorded on a hub dyno with a real F430 Challenge car, putting it through the paces and strains of competition driving. The point was simple but the result effectively fundamental to Eutechnyx' development vision: the reason we do everything that we do is to make the worlds in our games come alive.

Ferrari Challenge: Trofeo Pirelli is in stores now, published by System 3 in Europe and Activision-Blizzard in the USA.

