



Media Information
BMW Motorsport SIM Racing
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Realistic down to the smallest detail: how the virtual version of the BMW M4 GT4 came about.

- **In June, the BMW M customer racing car, the BMW M4 GT4 will make its virtual debut on the sim racing platform iRacing.**
- **Intensive collaboration with BMW Motorsport in development guarantees maximum realism.**
- **Rudolf Dittrich: “The iRacing developers now know as much about the car as our customer teams do.”**

Munich. After about half a year of intensive development work, the BMW M4 GT4 is set to make its virtual debut on the sim racing platform iRacing in June. To make sure that the BMW M customer racing car is as realistic as possible, iRacing developers are working as intensively with the BMW Motorsport engineers as if they were working on a real racing car. Maximum transparency is the key to an optimum result. We explain the journey of the BMW M4 GT4, from the signing of the licence agreement to being ready to race.

It's time in just a few days. The BMW M4 GT4 will be another current BMW racing car after the BMW M8 GTE to make its sim racing debut on the iRacing platform. When the users contest their first races in June, the iRacing developers and BMW Motorsport engineers will have a phase of intensive collaboration behind them. “I can't wait for it to get started,” said Kevin Bobbitt, Director of Marketing at iRacing, emphasising “The openness with which BMW Motorsport met us in this project is fantastic. The communication channels were very short, and you could tell by their involvement that this project is really important to them.”

For some time now, sim racing has been one of the pillars in the BMW Motorsport portfolio. Those responsible had identified the potential of virtual racing before it experienced a boom during the current break from real-world racing. “BMW Motorsport knows the difference between a standard racing game and a real racing simulation, and values it,” said Bobbitt. “A simulation as realistic as this also benefits the manufacturer, because many more people can test the cars and in the best-case scenario might even go on to buy one.”



As head of vehicle development, Rudolf Dittich is also responsible for the field of sim racing at BMW Motorsport. He confirms the strong customer focus behind the BMW M4 GT4 project. “We want to give our customer teams the opportunity to experience the BMW M4 GT4 virtually,” he said, explaining the advantages, “they can upload and use their own liveries with their own sponsors. Their drivers can also practice on their own in the current break. And potential new customers might even develop a taste for it and think about racing with a BMW M4 GT4 in real life.”

How the collaboration between BMW Motorsport and iRacing works.

Maximum authenticity requires the virtual car to be as close as possible to its real-life counterpart which was the joint mission of BMW Motorsport and iRacing. What do you need for that? “We need three things from the car: the laser scans, the CAD data and photos as a reference,” explained Brian Simpson, Senior Art Manager at iRacing. “The collaboration with BMW Motorsport was easy in that respect, because we got precisely the data that we needed. I didn’t have to start time-consuming research myself like for other cars, I could simply use the material I was provided with.”

Dittich explains the data transfer process: “Everything starts with the licence agreement, which is the basis for the transfer of confidential data. Then the developers receive two large data packages of several gigabytes each. Firstly the CAD data with all the specifications of the car parts. That is exactly the same data that a supplier gets from us to produce the real component. iRacing also scanned a real car, in this case the Turner Motorsport BMW M4 GT4. The second large data package contained all the information on driving dynamics. We use the same data set to do a lap time simulation or to operate our BMW Motorsport simulator, for example. This data includes damper curves, engine performance curves, axle kinematics, weight distribution, aerodynamic values: any figures that we had calculated for the car we passed on to iRacing.” Dittich’s conclusion of the collaboration is that “iRacing now know as much about the car as our customer teams do.”

Steve Reiss: “The initial feedback is very positive.”

The first impression is that this transparency has paid off. “The more real vehicle data we receive, the closer we get to the real driving dynamics. In the case of our BMW M4 GT4 the initial feedback from people who have driven the real car is very positive,” said Steve Reiss, Senior Vehicle Dynamics Engineer at iRacing.



It goes without saying that the driving dynamic plays the crucial role in user satisfaction, but even the most minute of details are important for realism. “First, our designers parse the data provided and use it to make the basic car. Once we’ve got that, it’s time for the details such as spinning wheels, displays and much more,” explained Simpson. “In that respect BMW Motorsport is incredible. They even sent us information on in which situations which lights on the steering wheel come on, and what information is displayed when, which buttons the driver presses when, and what happens when they do. I really enjoy working on those displays right down to the last detail.”

First major race event for the BMW M4 GT4 planned for 13th June.

At the end of a continuous development period of about six months, BMW Motorsport inspect the virtual car which is also no different from reality. “The idea is to inspect the virtual car in exactly the same way as a real car,” said Dittrich. “This ranges from the external appearance, through handling, to details such as cable routing in the interior, light or texture of the dashboard. After all, we are ultimately responsible for the virtual BMW M4 GT4 meeting all the requirements that we and our customers have for a real racing car.”

For virtual customers the H&R 3-hour race in the Digital Nürburgring Endurance Series powered by VCO on 13th June will be the first major event that they can contest in the BMW M4 GT4. As soon as the car is up for sale on iRacing, the sim racers – and the BMW customer teams involved in sim racing – can download it, kit it out with their personalised designs and test it thoroughly.

Live streams of the DNLS powered by VCO (Sat., 13:00hrs CEST):

Facebook: [b.mw/DNLS_FB](https://www.facebook.com/b.mw/DNLS_FB)

YouTube: [b.mw/DNLS_live_YT](https://www.youtube.com/b.mw/DNLS_live_YT)

Twitch: www.twitch.tv/bmwmotorsport

Live streams of the ABB Formula E Race at Home Challenge (Sat., 16:30hrs CEST):

Facebook: [b.mw/RaceAtHomeChallenge6FB](https://www.facebook.com/b.mw/RaceAtHomeChallenge6FB)

YouTube: [b.mw/RaceAtHomeChallenge6YT](https://www.youtube.com/b.mw/RaceAtHomeChallenge6YT)



Media Contact.

Benedikt Torka

Spokesperson BMW Motorsport SIM Racing

Phone: +49 (0)151 601 32455

E-mail: benedikt.torka@bmwgroup.com

Ingo Lehbrink

Spokesperson BMW Group Motorsport

Phone: +49 (0)176 – 203 402 24

E-mail: ingo.lehbrink@bmw.de

Benjamin Titz

Head of BMW Group Design, Innovations & Motorsports Communications

Phone: +49 (0)179 – 743 80 88

E-mail: benjamin.titz@bmw.de

Media Website.

<http://www.press.bmwgroup.com/global>

BMW Motorsport on the web.

Website: www.bmw-motorsport.com

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