

# Exhibit 5



---

**TECH**

# id co-founder Carmack pushes reality with Oculus VR

**Mike Snider** USA TODAY

Published 1:16 p.m. ET Feb. 3, 2014 | Updated 1:20 p.m. ET Feb. 3, 2014

---

## Story Highlights

Carmack co-founded id Software in 1991 with John Romero and others.

After 22 years with id%2C Carmack left to join Oculus VR.

Virtual reality%2C he says%2C has promise for entertainment and productivity.

---

Legendary *Doom* creator John Carmack had high hopes he could combine his passion for video game development and next-gen virtual reality hardware by straddling both worlds.

Real world concerns got in the way.

At id Software, Carmack helped stoke development of video games with pioneering mega-hits such as *Doom* and *Quake*. He began tinkering with virtual reality headsets about two years ago, after id released its latest game, *Rage*.

In August, Carmack signed on as chief technological officer at Oculus VR, splitting his time between id and Oculus — the southern California startup turning heads with a prototype virtual reality headset called Oculus Rift. By November, he'd left id to devote his full time to Oculus.

His plans to combine his two interests did not play out the way he had hoped, Carmack told USA TODAY. Until now, he has not spoken in depth about his departure from id.

Carmack had hoped that Oculus VR and ZeniMax Media, the parent company of id Software, would agree to allow games he worked on to appear on the Oculus Rift headset. Had the deal been consummated, *Wolfenstein: The New Order* — an upcoming sequel to *Wolfenstein 3D*.

---

an early id release — could have been part of the Oculus' tech demonstration that earned raves and awards at the recent Consumer Electronic Show.

*Doom 4* eventually would have been part of the deal, too, and playable on the VR headset. "It would have been a huge win," says Carmack, who was still full time at id when he proposed the deal. "It seemed like a sensible plan for me."

ZeniMax declined comment for this story.

Another outcome of an Oculus-ZeniMax deal? Carmack would not have left id in November and would have continued working at both companies. "I would have been content probably staying there working with the people and technology that I know and the work we were doing," he says.

"But they couldn't come together on that which made me really sad. It was just unfortunate," Carmack says. "When it became clear that I wasn't going to have the opportunity to do any work on VR while at id software, I decided to not renew my contract."

Carmack, 43, is now laser-focused on Oculus Rift pushing the VR envelope. Although Oculus VR is in Irvine, Calif., Carmack works out of the Dallas area, where id has been since 1992.

Virtual reality may have as big an impact as other technological advances Carmack has been part of. In addition to establishing first-person 3D games, id Software's titles also paved the way for the current online multiplayer gaming landscape and games such as *Halo* and *Call of Duty*. VR is an "experience people have wanted for decades," he says.

Carmack wasn't always so optimistic. After connecting with Oculus Rift creator Palmer Luckey on a 3D messaging forum, Luckey sent Carmack a prototype.

Carmack hot-glued a tracking sensor and duct-taped a ski goggle strap onto the prototype and tweaked a version of *Doom 3* so that it played on the headset. Since demonstrating that in private sessions at the 2012 Electronic Entertainment Expo in L.A, Carmack has improved the image quality and head tracking.

While the initial Oculus Rift consumer product will target PC gamers, future uses could include even word processing, email and *Minority Report*-like functions. "It could become something that is potentially usable by almost anybody that carries a mobile device," he says.

Carmack's ability to engineer ways to milk peak performance from complex systems fits

"John's early experiments with the Rift put Oculus on the map and helped create an amazing amount of momentum around virtual reality," Luckey, 21, said when Carmack joined the company.

The move helped stimulate Carmack, too. Programming for console and PC video games had become less interesting, he says, because "we have all the performance we ever dreamed about and then some."

In addition to pushing the technological envelope, id Software also changed the public perception of video game development. When it became publicized that he and id co-founder John Romero had each gotten Ferraris back in 1993 it was a signal that game designers could achieve rock star status.

While Romero played that part well, Carmack considered himself more of a "Mr. Spock" character. A Ferrari was logical, he says.

"It was great for me to go through all of my crazy Ferraris in my twenties. I think it was an inoculation against any kind of a midlife crisis," he says.."

Today, Carmack still drives a fast car, but it's a Porsche Cayenne SUV — a family vehicle for his wife and two sons, aged 4 and 9.

Leaving id is "bittersweet" he admits.

"We'd create majestic, wonderful things at the end that we have every right to be proud of," Carmack says.

"While Oculus is still kind of scary fast in terms of all the people coming on there is still the sense that a handful of us are going to crunch really hard and get something done by next Thursday."

---

## **'DOOM,' OTHER ID TITLES HELP PUSH GAME TECH**

John Carmack and id Software, the video game development company he co-founded, helped spur an evolution in games. At Oculus VR, Carmack hopes to take gaming to the next level of immersiveness with virtual reality.

"I really do think VR is now one of the most exciting things that can be done in this whole

games and everybody has seen the mobile transition, right now in the last five years. After you have been around for a while, you can notice some of the trends. It really feels like VR has the possibility to be something really huge."

Past developments led by Carmack and id:

**First-person 3D games.** id's *Wolfenstein 3D* game, released in 1991, is credited with ushering in first-person shooters. Before that most games were slow-moving with a top-down or 2D perspective. But it was 1993's *Doom* that really popularized the genre. Games in the *Doom* franchise and the subsequent *Quake* series sold tens of millions of copies. And the U.S. Marines even used modified versions of *Doom* for training simulations. (No surprise that the U.S. Navy is experimenting with the Oculus Rift headset.)

**Shareware.** The reason it's hard to track exact sales of id's early games is that they used to give the game away. Players could download the game free online and pay to unlock higher levels – a precursor of the modern-day app world.

**Multiplayer gaming.** *Doom* let players connect to play online head-to-head or in four-person networked contests, which pushed the adoption of multiplayer connectivity for games. Subsequent games such as *Quake*, which let 16 players compete at the same time, pushed multiplayer features to what we have today.

Follow Mike Snider on Twitter: @MikeSnider.