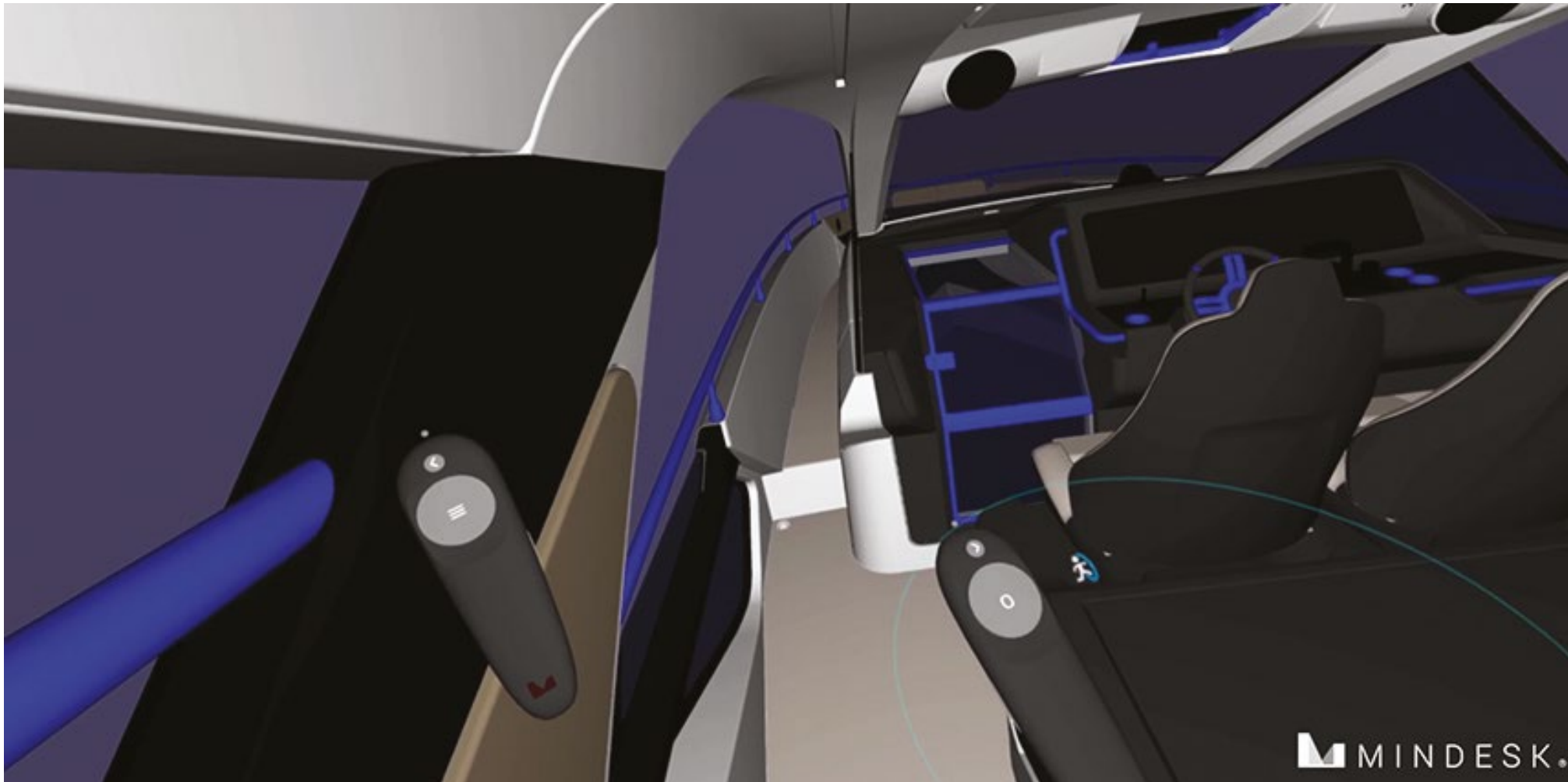


CASE STUDY
MINDESK



MINDESK FOSTERS REAL-TIME COLLABORATION WITH VIRTUAL REALITY

With Momentum Microsystems, the 3D design developer enables architects, designers, and engineers to create virtual computer-aided design (CAD) projects



MINDESK, A VECTION TECHNOLOGIES GROUP COMPANY, IS A CREATOR OF 3D DESIGN TOOLS.

The company works with architects, designers and engineers enabling them to build CAD projects in multi-user virtual reality environments.

To bring these custom solutions to its clients, Mindesk, an HP OEM collaborator/customer, turned to Momentum Microsystems, an HP OEM integration collaborator, to provide award-winning HP Reverb G2 headsets. The relationship has enabled Mindesk to offer immersive, collective experiences globally without having to navigate distribution, to streamline logistics.





INDUSTRY:

Architecture, Engineering and Construction



OBJECTIVE:

A VR solution for real-time collaboration to save client time and resources



APPROACH:

Deploy HP Reverb G2 to seamlessly design, edit and improve CAD projects

The promise of real-time design

When a Mindesk customer—a luxury yacht designer—complained that his design didn’t appear accurate on a desktop monitor, Gabriele Sorrento, Director of Vection Technologies, joined him on the project with a VR headset.

“He said, ‘So my project is wrong, because I was expecting, from the desktop monitor, the boat to look much more elongated, much more slender,’” Sorrento recalls. “Based on the virtual reality experience, he changed the proportions.”

And when it was time to inaugurate the boat, the customer felt like he had already been there, given his VR exploration.

That in a nutshell is the central value of Mindesk’s offering—the ability to design in a virtual world in real time.

“It’s the possibility of entering your CAD project and removing the barrier of the monitor that limits the experience of your project,” Sorrento says. “If you’re a designer, it’s paramount for you to understand the size and ratios and the overall spatial look of your project. So virtual reality allows you to simulate the project as if it was built in a reduced scale or one to one scale.”

Mindesk takes away the misunderstandings and confusion of 2D drawings and sketches. Using a VR headset, project collaborators—teams and clients—can better understand the underpinnings of a design and offer feedback sooner than before.

Finding the right collaborators

To deliver its VR promise, a couple of years ago, Mindesk aligned with HP and Momentum Microsystems. Momentum Microsystems, an HP-centric shop, is known for its ability to apply expertise in systems integration and network systems engineering to help customers deploy complex software and hardware solutions. Momentum Micro also manages the integration, logistics and supply chain operations for its customers, ensuring Mindesk customers have a turnkey solution.

“We all became global collaborators,” says Sorrento. “Now we’re able to access the HP distribution line, which includes Momentum, and Momentum is helping us in delivering hardware for our customers. So, we can build custom solutions and integrated solutions with hardware and software. It’s like an out-of-the-box solution that we can deliver.”

“I THINK THE HP REVERB G2 IS VERY WELL POSITIONED TO BECOME A STANDARD, AT LEAST FOR THE ENTERPRISE MARKET. IT IS A VERY COMPELLING OFFERING.”

Gabriele Sorrento, Director, Vection Technologies Group



“HP HAS TRULY THE BEST PRODUCTS AND TECHNOLOGY ON THE MARKET, AND I LOVE WORKING WITH THEM.”

Danny Hamady, CEO, Momentum Microsystems

IT MATTERS:

Use HP Reverb G2 to create immersive experiences

Navigate the virtual world with ease

Switch from desktop to virtual reality effortlessly

BUSINESS MATTERS:

Save time and resources for clients

Engage multiple users on the same project

Help prevent design errors

Accelerate project timelines

ABOUT MINDESK

Mindesk was founded in 2016 in San Francisco by a group of Italian entrepreneurs. The company, now part of Vection Technologies Group, has developed a 3D design platform allowing users to draw a CAD project in virtual reality mode. Mindesk's technology links Autodesk Revit, McNeel Rhinoceros, Dassault Solidworks, and Epic Games Unreal Editor so that designers can easily work on their projects without exporting a 3D model.

ABOUT MOMENTUM MICROSYSTEMS

Momentum Microsystems Inc. has been a leading provider of integrated turnkey computing solutions for more than three decades. The company serves and partners with medical original equipment manufacturers, independent software vendors, manufacturers and logistics service providers. Momentum prides itself on its ability to apply expertise in systems integration and network systems engineering to help customers deploy complex software and hardware solutions.

The HP Reverb G2 headset is the VR device of choice for Mindesk.

"It's lightweight and good quality at a reasonable price," says Sorrento, who recommends the HP Reverb G2 to Mindesk customers. "I think the HP Reverb G2 is very well positioned to become a standard, at least for the enterprise market. It is a very compelling offering."

Equipped with industry-leading lenses and speakers designed by Valve, the HP Reverb G2 headset provides high-quality resolution and fully immersive spatial audio. It offers realistic visuals, more details with four cameras built into the headset, and no external sensors.

"HP has truly the best products and technology on the market, and I love working with them," says Danny Hamady, CEO of Momentum Microsystems.

Through Momentum Microsystems, Mindesk can fulfill customer orders in the U.S. and around the world.

"Now, when our customers grow, they don't need to create an IT integration department," Hamady says. "We do all of this so when they have orders or close deals, we take care of everything else for them."

Momentum Microsystems recently helped Mindesk complete an order for a professor at the Chinese University of Hong Kong who was implementing a virtual reality curriculum in his class.

"We delivered 20 VR units for this class through Momentum Microsystems," Sorrento says. "They are helping us with logistics with international delivery, which is something that as a software company, we're very happy to not have to handle. It makes operations smoother for us."

A flexible distribution channel is important to Mindesk. Relying on collaborators like Momentum has been convenient and mutually beneficial.

"For us, it simplifies things a lot," Sorrento says.

Virtual reality future

Mindesk's operations will increase as more designers see the value of working in a virtual world. Sorrento likens the transition to 3D to the shift from paper to a computer.

"You don't fully understand the value of this until you experience it, and you immerse yourself into it," Sorrento says. "You suddenly realize that what took hours to figure out complex designs previously now takes minutes—and is so intuitive."



CUSTOMER AT A GLANCE



APPLICATION:

Deploy HP Reverb G2 headsets for customers involved in CAD projects to engage users collaboratively, save time and money.



HARDWARE:

- HP Reverb G2
- HP ZBook Studio



Virtual reality—with devices like the HP Reverb G2—accelerates the iterative improvements on a project. Errors can be avoided as well. In certain industries, prototype costs also can be reduced.

“This means that you can make your prototype much faster, but also you can involve people in distant places,” Sorrento says. “And in our remote workforce scenario, this will revolutionize how projects are developed.”

Sorrento looks forward to unearthing new use cases as Mindesk moves ahead, whether it is in the automotive industry or understanding how sound engineers might potentially deploy virtual reality. For example, 3D visualization of how sound might propagate a room could offer deeper insights to a sound engineer.

“One of the most interesting aspects is discovering new use cases—use cases that we didn't imagine—but also being conscious of the enabling factor,” Sorrento says. “A key factor for the industrial transformation is that these technologies are enabling people to decentralize their work, to digitize their operations. Basically, being able to have a remote physical presence, having an object developed in a digital world. Those are huge changes that will impact the face of industry in the coming years.”



“MOMENTUM MICROSYSTEMS IS HELPING US WITH LOGISTICS WITH INTERNATIONAL DELIVERY, WHICH IS SOMETHING THAT AS A SOFTWARE COMPANY, WE'RE VERY HAPPY TO NOT HAVE TO HANDLE. IT MAKES OPERATIONS SMOOTHER FOR US.”

Gabriele Sorrento, Director, Vection Technologies Group

LET US HELP YOU CREATE SOME AMAZING BUSINESS SOLUTIONS TODAY

CONTACT US



reddot winner 2021

© Copyright 2022 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

4AAB-1320ENW, June 2022

