



## ARE YOU READY?

Get VR Ready with the world's most comprehensive virtual reality portfolio from HP.<sup>1</sup> From the world's highest resolution head-mounted display<sup>2</sup> to a free-roam experience solution that doubles as a compact desktop, HP delivers tomorrow's technology today.



## DRIVING TODAY'S TECHNOLOGY FOR TOMORROW'S BUSINESS

We believe the confluence of key technologies emerging today will fundamentally change how people & organizations can reach unprecedented levels of individual and organizational well-being, performance, and efficacy to drive **tangible, positive results in real-world settings**. With a clear vision to not only take a piece of the XR market, but to drive technology & solutions together, HP is positioned to be the thought

leader and deliverer of innovative XR solutions. **HP brings XR, machine learning, and AI technologies together** to break down the divide between the digital and physical world. With robust security and the highest standards of privacy protection, we will seamlessly couple human-machine interfaces by capturing the human condition to drive better outcomes, control, and experiences.



#### TRENDS:

## CHANGE HAPPENS

Customer needs are evolving as business, culture, and technology evolves. HP focuses on the power of design, freedom of security, and meaningful collaboration to help businesses adapt to changes - and opportunity. HP frames changes in the way people work in terms of workforce, workplace,

and workstyles. HP delivers holistic customer experiences; evaluating how all hardware, firmware, OS, and applications work together for the benefit of the user. This thinking guides HP's innovation agenda and helps customers build their own Office of the Future with design, security, and collaboration.

#### BUSINESS MATTERS:

## SECURITY & MANAGEABILITY

A PC decision is a security decision. HP's VR Ready portfolio features Z by HP product lines, with security anchored in the hardware and spanning the OS, applications, and even web browsers - all to protect your devices, data, and identity from ever-evolving security

threats. And, with HP Device as a Service (DaaS), you can improve device reliability and performance, increase user productivity, and reduce the workload for IT when HP puts its unified endpoint management expertise and actionable analytics to work for you.

## EVERY COMPANY HAS A REASON TO USE VR

HP takes a focused approach to lead VR-for-enterprise, driving adoption in healthcare, education, product development, architecture/engineering/construction (AEC), training, and location-based entertainment (LBE). Across these core industries, VR provides tangible ROI, from cost-savings to improved customer engagement.

### Healthcare

VR enables healthcare providers to deliver consistent, updated personnel training, and improved patient experiences. Healthcare applications of VR include medical training, athletic rehabilitation, pain management, and mental health treatment. We work closely with industry-leading software pioneers, to make sure what we offer is best-in-class.

### LBE

LBE is the VR experience with which consumers are most familiar. LBE VR leaves little to the imagination, enabling participants to be a part of realistic experiences like riding a rollercoaster or touring Rocky Mountain National Park. Filmmakers are also experimenting with VR, from creating supplemental VR experiences for feature films like *How to Train Your Dragon*, to producing entire cinematic works in VR. The latter is becoming common on the film festival circuit: at the 2018 TriBeCa Film Festival, both *HERO* and *The Jack Project* are VR projects powered by the HP VR Backpack.

### AEC & Product Development

The world of AEC & product development will be forever changed thanks to VR's ability to significantly shorten design & development cycles. A design team can create plans and prototypes in

VR, adjust based on team feedback and simulations - all before producing a physical product. Automotive manufacturers have been quick to see the advantages of the technology, using 3D sketching tools to build car models in a VR environment or integrating VR into showrooms to offer potential car buyers a more seamless way to explore their options. Architects find VR design reviews a compelling medium for customer experiences - with true-to-scale environments, you can truly get a realistic sense of the design.

### Training

VR has become an incredible training tool across many different industries. Participatory learning has been proven more effective than passive methods - such as reading for comprehension - across skill sets. Training soldiers or first responders can be dangerous and cost-prohibitive; high-risk virtual training scenarios save time, money, and lives. Industrial manufacturing employees can be holistically trained in immersive environments rather than on the shop floor. VR developers can create and interact with complex simulations while maintaining total VR immersion in any situation.

### Education

Multiple studies suggest retention rates skyrocket when students participate in immersive learning. VR offers hands-on, experiential learning while providing schools and universities cost-friendly alternatives to building and maintaining expensive facilities, such as science labs. With the ability to go inside, students gain deeper, more meaningful perspectives into historical events, cultural movements, and scientific principles.



# EXPERIENCE TRUE IMMERSION WITH HP VR ACCESSORIES



## HP REVERB VR HEADSET PROFESSIONAL EDITION

Meet the new benchmark in Commercial VR, HP's game-changing, grounds-up design HMD with staggering optical clarity.

Innovation worn lightly in an all-new design that's more streamlined and more wearable, offering deep immersion.

Double the resolution<sup>3</sup> with 9.3 Megapixels combined panel resolutions.

Adjustable straps for a custom fit and features a removable and wipeable leather faceplate.

2160 x 2160 panel resolution per eye  
114-degree field of view  
90Hz refresh rate\*  
2-in-1 cables for VR setup options  
Support for WMR & SteamVR ecosystems



## HTC VIVE™ PRO WITH ADVANTAGE+ SERVICE PACK

Give life to virtual realities with the HTC Vive™ Pro Full Kit, which include the robust commercial HTC Advantage+ Service Pack.<sup>4</sup>

Make graphics, text, and textures look perfectly crisp and clear with the super-rich colors and details on the dual-OLED displays.

Access commercial warranty and support services with the included Advantage+ Service Pack.<sup>4</sup>

Minimize real-world distractions with environmental noise cancellation.

1440 x 1600 panel resolution per eye  
110-degree field of view  
1.7 lbs. (771g) weight  
2x lighthouses  
2-year commercial use limited warranty

\*To enable full 90Hz performance, a DisplayPort™ 1.3 or later connection is required with the graphics solution provided by the PC.



# DISCOVER THE FREEDOM OF HP'S VR READY MOBILE LINE-UP



## HP ZBOOK 15 G6 MOBILE WORKSTATION

With up to four million configurations available, HP's best-selling ZBook is now VR Ready,\* so you can add immersive technology to your workflow.

Render the most demanding projects and experience virtual immersion thanks to VR Ready NVIDIA® Quadro® graphics.

Advanced airflow design with 30% better thermals keeps parts cool for the long haul.

Protect your work with industry-leading security features and with RAID 1, you can maintain a backup copy of all your files.

Windows 10 Pro 64<sup>8</sup>  
Intel® Core™ i7<sup>9</sup>  
NVIDIA® Quadro® RTX 3000  
16 GB DDR4 Memory  
512 GB PCIe® SSD Storage<sup>10</sup>



## HP ZBOOK 17 G6 MOBILE WORKSTATION

Get the performance of a desktop with the freedom of a laptop with the world's most powerful mobile workstation.<sup>5</sup>

HP's most expandable laptop, no tools required. With up to 50 million different configurations, customize to meet any demand.

Do more at once with the next-gen 6-core Intel® processors.

With 20% better thermals gen over gen, redesigned cooling fans dissipate performance sapping heat.

Windows 10 Pro 64<sup>8</sup>  
Intel® Core™ i7/i9 or Xeon®  
NVIDIA® Quadro® RTX 4000/5000  
16 GB DDR4 Memory  
512 GB PCIe® SSD Storage<sup>10</sup>



## HP VR BACKPACK

Meet the world's most powerful wearable PC - optimized for free-roam experiences<sup>6</sup> that doubles as a compact desktop workstation.

Fly through VR workloads with 28%<sup>7</sup> better performance for super smooth frame rates and ultra-fast render times.

The perfect pair, the HP VR Backpack drives the HP Reverb Pro at its full resolution.

With improved ergonomics, battery management, and ease of movement, it's the most natural, comfortable free-roam VR experience yet.

Windows 10 Pro 64<sup>8</sup>  
Intel® Core™ i7<sup>9</sup>  
NVIDIA® GeForce® RTX 2080  
32 GB DDR4 Memory  
512 GB PCIe® SSD M.2 Storage<sup>10</sup>

\*DX12 capable graphics are the minimum GPU required to drive the HP Reverb VR Headset - Professional Edition at full resolution, currently unavailable on the HP ZBook 15.



# SECURITY COMES STANDARD ON Z BY HP VR READY DESKTOP WORKSTATIONS



## HP Z1 ENTRY TOWER G5

## HP Z2 TOWER G4

## HP Z4 G4

## HP Z6 G4

## HP Z8 G4

From entry CAD to VR content consumption, our most affordable Z desktop offers world-class performance certified for pro software. Go beyond a business PC with Z.

Experience server-grade power in a desktop with impressive expandability featuring the latest Intel® Core™ or Xeon® processors in our redesigned proprietary motherboard.

Our most popular Z desktop workhorse accelerates a wide range of pro apps and gives you more standard features and space to expand than any other single-processor Z desktop.

A future-proof powerhouse that scales easily over time, thanks to full expansion capabilities - from single or dual processors and multiple graphics cards to massive storage options.

Extreme power to run the most complex simulations and process huge amounts of data with world-class workstation components, including the highest memory capacity available.<sup>11</sup>

Get truly immersive experiences with a desktop optimized for leading VR engines, like Unity and Unreal Engine.

Windows 10 Pro<sup>®</sup> with advanced security, collaboration and connectivity helps you power through your day.

Move between single-threaded tasks like 3D CAD to multi-threaded tasks like rendering and simulation seamlessly.

Get breakthrough performance for photorealistic design, modeling and content creation done in real-time.

Say goodbye to bottlenecks and get optimal performance in storage-bound applications.

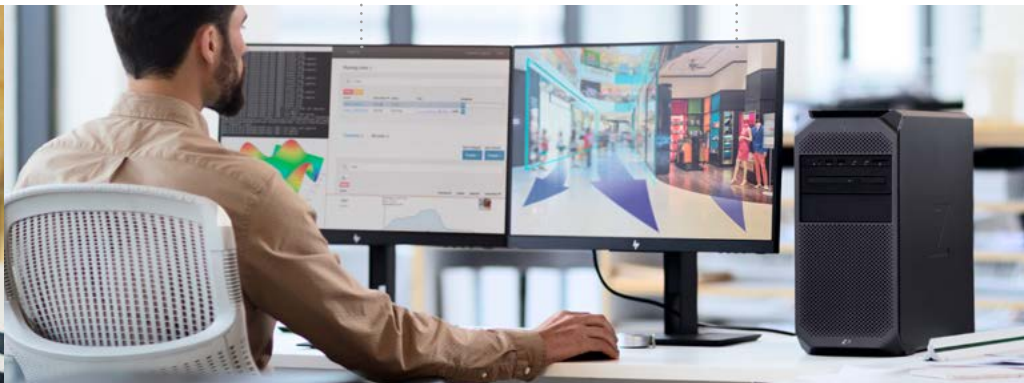
Windows 10 Pro 64<sup>®</sup>  
Intel® Core™ i7<sup>9</sup>  
NVIDIA® GeForce® RTX 2070/2080  
16 GB DDR4 Memory  
512 GB PCIe® SSD M.2 Storage<sup>10</sup>

Windows 10 Pro 64<sup>®</sup>  
Intel® Core™ i7<sup>9</sup>  
AMD Radeon™ Pro WX 7100  
16 GB DDR4 Memory  
HP Z Turbo Drive M.2 512 GB Storage<sup>10</sup>

Windows 10 Pro 64<sup>®</sup>  
Intel® Core™ i9<sup>9</sup>  
NVIDIA® Quadro® RTX 5000  
32 GB DDR4 Memory  
HP Z Turbo Drive M.2 512 GB Storage<sup>10</sup>

Windows 10 Pro 64<sup>®</sup>  
Intel® Xeon®  
NVIDIA® Quadro® RTX 5000  
64 GB DDR4 Memory  
HP Z Turbo Drive M.2 512 GB Storage<sup>10</sup>

Windows 10 Pro 64<sup>®</sup>  
Intel® Xeon®  
NVIDIA® Quadro® RTX 6000  
128 GB DDR4 Memory  
HP Z Turbo Drive M.2 512 GB Storage<sup>10</sup>



## EVOLVE YOUR WORKFLOW

In 2017, HP entered the VR landscape as a major player with the revolutionary HP Z VR Backpack PC G1 and emerged as an industry leader in 2019 with the unveiling of the game-changing, grounds-up design of the HP Reverb VR Headset – Pro Edition. Today, we're on a trajectory to become not only a leader in hardware, but in VR solutions. HP is driving end-to-end VR adoption in enterprise – from content creation to consumption.

To address the need for VR content development & deployment, we recently rolled out our **HP VR ISV Program**, a collaborative initiative that pairs industry-leading VR solutions with HP's powerful VR Ready portfolio. HP is building a convenient, one-stop VR shop with a **global infrastructure** that offers customers peace of mind with reliable, replicable solutions.



# 80+

The number of years that HP has led the way in innovation & engineering, from an audio oscillator to the world's most powerful wearable PC<sup>13</sup>



## VR TECHNOLOGIES THAT UNLOCK HUMAN POTENTIAL

LEARN MORE

PRODUCT SPECIFICATIONS SHOWN ARE A STARTING POINT FOR CONFIGURING YOUR VR READY MACHINE. RECOMMENDATIONS MAY VARY GREATLY DEPENDING ON YOUR SPECIFIC USE CASE.

LEARN MORE AT [HP.COM/GO/VR](http://HP.COM/GO/VR) OR WORK WITH A LOCAL HP SALES REP.

### DISCLAIMERS

1. Based on non-gaming VR ready PCs and accessories as of April 2019.
2. Based on HP's internal analysis of companies that have shipped greater than 50,000 VR tethered headsets. Resolution based on panel pixel count as of March 2019.
3. Compared to HP Windows Mixed Reality Headset - Professional Edition.
4. For complete commercial HTC Advantage+ Service Pack details, see [https://dl.vive.com/TOC/VIVEPRO\\_AdvantagePlus\\_TAC\\_USA\\_English.pdf](https://dl.vive.com/TOC/VIVEPRO_AdvantagePlus_TAC_USA_English.pdf)
5. Based on HP's internal analysis of ISV-certified mobile workstations as of October 2018; power based on maximum processor, graphics, memory, and power supply.
6. Based on wearable backpack VR PCs as of March 26, 2019; power based on processor, graphics, memory, and power supply.
7. Based on 3DMark 11 internal testing, compared to the HP Z VR Backpack Gen 1.
8. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>
9. Your product does not support Windows 8 or Windows 7. In accordance with Microsoft's support policy, HP does not support the Windows 8 or 7 operating system on products configured with Intel® and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on <http://support.hp.com>.
10. For hard drives and solid state drives, GB = 1 billion bytes, TB = 1 trillion bytes. Actual formatted capacity is less. Up to 16GB (for Windows 7) and 36GB (for Windows 8.1/10) or system disk is reserved for the system recovery software.
11. Based on workstations as of September 25, 2017; power based on processor, graphics, memory, and power supply.

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