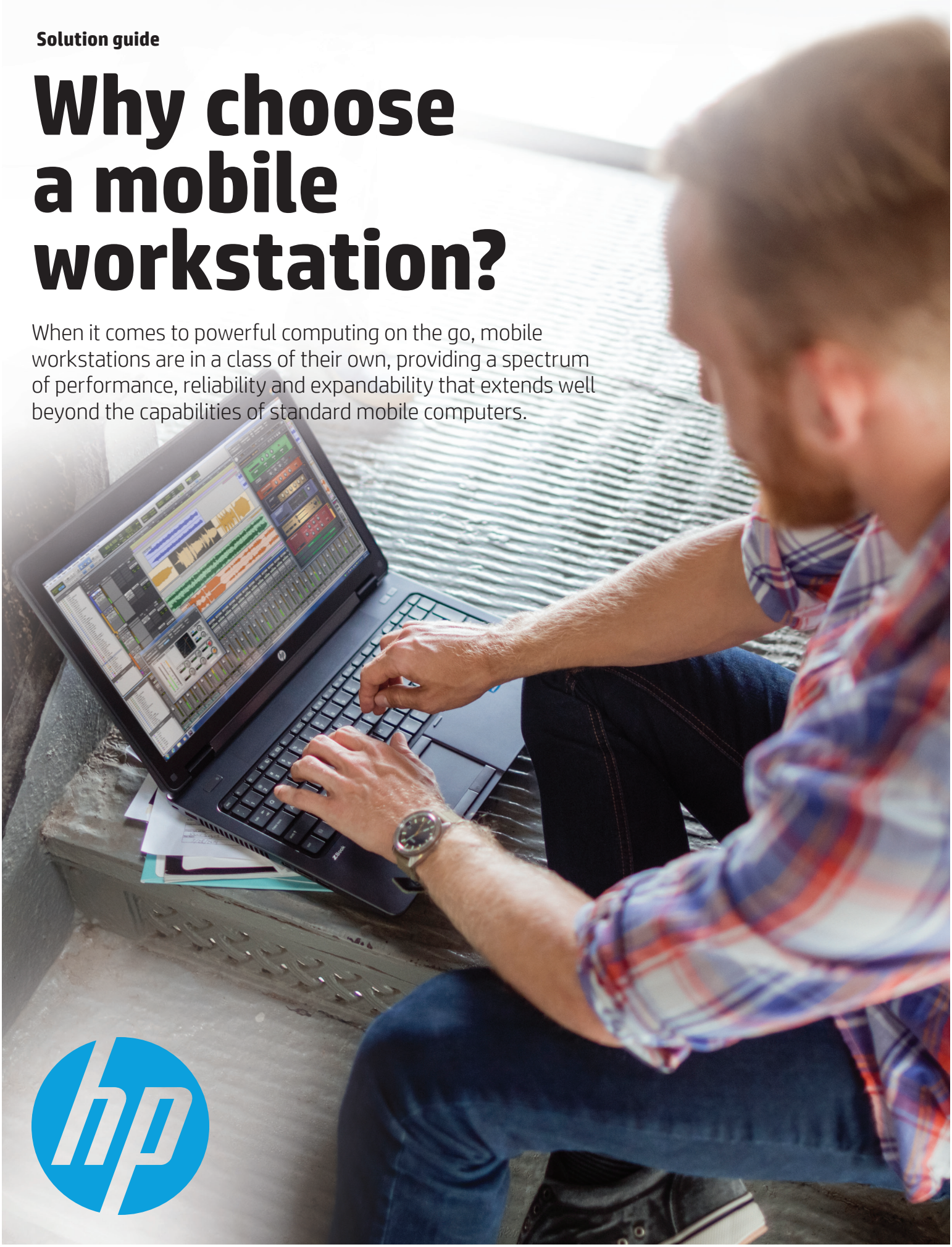
Solution guide

Why choose a mobile workstation?

When it comes to powerful computing on the go, mobile workstations are in a class of their own, providing a spectrum of performance, reliability and expandability that extends well beyond the capabilities of standard mobile computers.



HP recommends Windows.

While HP EliteBook 800 series Notebooks can provide you with excellent value, HP ZBook Mobile Workstations deliver superb performance, outstanding reliability and wide-ranging scalability as well as a range of screen sizes to fit various needs.

HP ZBook Mobile Workstations are designed for the demands of users who work with professional and technical applications, large and complex datasets or intricate 3D models.

HP EliteBook 800 series Notebook	HP ZBook Mobile Workstations*
Form factors • 14.0-inch diagonal • 15.6-inch diagonal	**Form factors** • 15.6-inch diagonal • 17.0-inch diagonal
Operating systems[1,2] • Windows 10 Pro 64 • Windows 8.1 Pro 64 • Windows 7 Professional 64 (available through downgrade rights from Windows 10 Pro 64) • Ubuntu Linux • FreeDOS 2.0	**Operating systems[1,2]** • Windows 10 Pro 64 • Windows 10 Home 64 • Windows 7 Professional 64 (available through downgrade rights from Windows 10 Pro) • Windows 7 Professional 64 • FreeDOS 2.0
Performance • Intel® Core™ i3, i5, i7 processors • Up to 16 GB non-ECC memory[3] • Up to 500 GB storage[4]	**Performance** • Intel® Core™ i3, i5, i7 processors • Intel® Xeon® quad-core processor[5] • Up to 64 GB ECC memory[3] • Up to 4 TB storage[4] • Two Thunderbolt™ 3[15] (supporting DP 1.2, USB 3.1 Gen 2, PCIe) • Up to dual HP Z Turbo Drive G2 (NVMe PCIe SSD) for accelerated storage performance • Support for up to UHD display options • HP DreamColor[11,12] panel option
Reliability • MIL-STD-810G testing[6] • HP DuraCase • HP DuraKeys • Precision stamped full magnesium alloy chassis • Chemically strengthened glass touchpad • Cast titanium alloy display latch	**Reliability** All the reliability features in the HP EliteBook 800 series Notebook plus: • More MIL-STD-810G testing[6] • Rigorous ISV testing and certifications • Productivity-boosting software tools such as HP Performance Advisor and HP Remote Graphics Software preloaded
Graphics AMD Radeon™ graphics	**Graphics** ISV-certified, workstation-caliber AMD FirePro™ or NVIDIA® Quadro® professional graphics
Warranty 1/1/0 or 3/3/0 support; on site service is extra	**Warranty** 3/3/3 or 3/3/0 support**

* Many workstation technologies are selectable options. Specifications can vary by workstation platform.

** Varies by region

HP recommends Windows.

HP ZBooks help you spend less time waiting and more time creating with industry-leading processing, graphics and innovative technologies.

Take performance to new extremes

Leave the performance bottleneck behind with HP ZBooks. With industry-leading processing, storage, graphics, and system management components HP has engineered a total system approach to define new levels of overall performance.

Intel Processor Technology

High-performance Intel® Xeon® processors are validated and tested by Intel and HP for demanding workstation applications. Besides supporting greater reliability with ECC memory, Intel® Xeon® processors offer up to 29% performance gains over equivalent Intel® Core™ processors on the HP Entry Workstations.[7]

Storage solutions to meet your needs

High-performance storage solutions are required for demanding workflows. HP ZBooks offer high reliability and performance with storage capacities up to 4 TB. With 2.5" and M.2 storage bay options, you can choose from SATA HDD, SATA SSD, and NVMe PCIe SSD options.

The HP Z Turbo Drive G2 is a remarkably affordable and innovative NVMe PCIe-based SSD storage solution. It revolutionizes how your HP ZBook handles large files—significantly reducing boot up, calculation and graphics response times (even with 4K video). To learn more, see **hp.com/go/zturbo.**

Leading-edge professional graphics

100,000 hours of testing per year over a wide range of graphics cards, simulating real-world customer workloads, as well as stress tests that far exceed typical usage, translate into higher quality drivers that customers trust. Strong relationships with NVIDIA® and AMD help us quickly resolve any issues. That's how we give you HP ZBook graphics solutions that feature optimized thermal and power design, wide-ranging application certification and a three-year limited warranty.

HP Performance Advisor

Get the most out of your ZBook from day one. With HP Performance Advisor pre-installed on every HP ZBook, you can spend more time working, processing and designing and less time troubleshooting IT. This exclusive HP software wizard helps configure, customize and optimize your system for each new application and driver you install. To learn more, see **hp.com/go/performanceadvisor.**

HP Remote Graphics Software

Feel the freedom of working remotely while still accessing the high-performance 3D or media-rich applications you count on. With HP Remote Graphics Software (RGS) standard on every HP ZBook, you can take your graphics-intensive workstation application wherever you go. From the remote worker to the road warrior, get complete access to the power of your workstation from any computer in any location. Collaborate with colleagues around the office or around the world. And with advanced touch recognition features on HP RGS 7 you can easily do real work with workstation-class applications on the ZBook 15u and ZBook Studio or a tablet. To learn more, see **hp.com/go/rgs.**

Thunderbolt™ 3

Connect to a multitude of devices through a single port with the versatile Thunderbolt™ 3. You can connect via Thunderbolt, DisplayPort 1.2, USB 3.1, and PCIe. Power two 4K displays @ 60 Hz, daisy chain up to 6 devices, and transfer data at speeds up to 40 Gb/s—double that of previous generation Thunderbolt. The possibilities are endless. HP ZBook Studio, ZBook 15 G3 and ZBook 17 G3 offer dual Thunderbolt™ 3 ports.

Performance on display

HP ZBooks come with a variety of display choices from FHD up to UHD/4K resolutions. UHD/4K panels offer extremely high resolution (3840 x 2160) for maximum screen real estate and vibrant, clear pictures. The HP ZBook 15u and HP ZBook Studio offer touch options.

HP DreamColor Technology

Take color accuracy to the next level and achieve maximum impact with the HP DreamColor Display. Designed by color professionals and digital content creators, HP DreamColor is the power tool they use to produce trusted results. Featuring a palette of over one billion colors, you'll get precise color accuracy and predictable color across your entire digital workflow.

HP recommends Windows.

Ultimately, our intense focus on reliability gives you greater peace of mind when running professional applications on the HP ZBook. You know that you have a system that is designed, tested, and proven for the work you do.

115,000
hours of testing

Mission-critical reliability

We understand your work is critical and system down time or failure is not an option. HP ZBooks are designed and tested to comprehensively address reliability in all its forms, so you can rest assured your workstation will keep up in the most demanding environments.

Business-rugged design

HP ZBooks are designed to stand up to the rigors of users who are constantly on the go. HP uses third party vendors to test the ZBooks to military standards for drop, vibration, dust, temperature, and altitude.[6]

Tested beyond industry standards

HP knows you challenge your workstations every day, so HP does too. HP Z Workstation engineers conduct 115,000 hours of rigorous testing to ensure world-class reliability. In brutal three-axis testing—where frequency, voltage, and temperature are varied—our engineers push the limits of processors, memory, and other system parts. This three-axis testing uses proprietary tools and techniques, and stresses components in ways that help detect potential design or component weaknesses that would otherwise go unnoticed. In some cases, rigorous qualification enables us to find issues that have been previously overlooked by our component vendors. We have strong relationships and influence with these vendors, which enable us to obtain and integrate improved components into our systems, many of which are unique to HP Z Workstations.

ECC memory for data integrity

Memory errors can happen anywhere, anytime—with consequences as disastrous as a system crash in the middle of a critical operation.

Error Correction Code (ECC) memory detects and corrects soft errors in the memory system on the fly, preserving the integrity of your data. HP offers ECC memory on our workstations so your mission-critical applications can run smoothly with minimized memory errors.

Safe and secure

HP offers a variety of scalable hardware, software, and BIOS-based security features to help you defend your organization against viruses and other threats. These integrated security features safeguard what matters to you the most—your data, device and identity.

- An optional fingerprint reader and integrated Smart Card Reader help keep your identity secure.
- HP SureStart goes to work at startup—making sure your ZBook is protected from malicious or unanticipated malware attacks. It's designed to automatically restore the BIOS within 30 seconds if it is ever attacked or corrupted.
- Secure Erase enables you to permanently destroy data on your hard drive in preparation for your system disposal or redeployment.

Engineered BIOS

HP BIOS helps hardware compatibility and increases workstation reliability by reducing power consumption through preset sleep states, adjustable fan speeds that maximize operating efficiency, and power management features.

Independent Software Vendor (ISV) certification

HP supports an extensive list of application partners and works closely with many software vendors to ensure that these applications work smoothly and flawlessly on HP ZBooks in all possible configurations. HP also provides a test suite to graphics vendors, to help increase the reliability and stability of industry-standard graphics products. Learn more about how HP's relationships power you.

HP recommends Windows.

30+ years in the industry

Why choose an HP ZBook?

HP Z Workstations have been on the market for over 30 years. Designed from the inside out to fulfill the needs of our customers, HP Z Workstations deliver high performance and reliability with the latest innovation and industry-leading technologies.

HP ZBook 15u
Thin. Powerful. Affordable.

Enjoy workstation performance in a low cost, compact package. HP created the world's first workstation Ultrabook™[8] and we improve it with each generation. This 15.6" diagonal form factor is the perfect combination of mobility and cost.

HP ZBook Studio
World's first quad core workstation Ultrabook™[9]

We put desktop workstation performance in a sleek new body to unleash the ultimate mobile workstation. At just 18mm thin, 4.4 lbs.[10] and an optional 4K DreamColor display, you can take your studio on the road with you.

HP ZBook 15
Portable Powerhouse

Creativity knows no limits on HP's thin and light next generation ZBook 15, the world's best-selling mobile workstation.[11] Offering a powerful blend of mobility and robust configurability, it's the perfect mix of style, features, and portability.

HP ZBook 17
HP's ultimate in mobile performance

The HP ZBook 17 offers HP's ultimate in power plus portability with a 17.3-inch diagonal screen, massive scalability and configurability, and all the latest power-packed features.

Memory, storage and graphics that meet your needs

	Available operating systems[1,2]	Maximum memory[3]	Maximum storage[4]	Maximum graphics
ZBook 15u G3	Windows 10 Professional Windows 7 Professional FreeDOS	32 GB	1.5 TB	AMD FirePro™ W4190M
ZBook Studio	Windows 10 Professional Windows 7 Professional FreeDOS	32 GB	2 TB	HP ZBook Studio special edition: NVIDIA® Quadro® M1000M with 4 GB dedicated GDDR5 graphics memory (Extra 2 GB of graphics memory provides enhanced application performance with larger graphics datasets).
ZBook 15 G3	Windows 10 Professional Windows 7 Professional FreeDOS	64 GB	3 TB	NVIDIA® Quadro® M2000M AMD FirePro™ W5170M
ZBook 17 G3	Windows 10 Professional Windows 7 Professional FreeDOS	64 GB	4 TB	NVIDIA® Quadro® M5000M AMD FirePro™ W6150M

HP recommends Windows.

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update 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 microsoft.com
2. This system is preinstalled with Windows 7 Professional software and also comes with a license and media for Windows 10 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.
3. Maximum memory capacities assume Windows 64-bit operating systems. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.
4. For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7) of system and up to 30 GB (for Windows 8) disk is reserved for system recovery software.
5. Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
6. Testing was not intended to demonstrate fitness for Department of Defense contracts requirements or for military use. Test results are not a guarantee of future performance under these test conditions.
7. Results based on the SPECapc benchmarks for DS SolidWorks 2013 and the Cinebench 11.5 CPU benchmark test; comparing an HP Z230 Tower Workstation with an Intel® Core™ i5-4690 processor to an HP Z230 Tower Workstation with an Intel® Xeon® E3-1241 v3 Processor. All other system configurations were selected to be as equal as possible.
8. Not all configurations qualify as an Ultrabook™.
9. Based on HP's internal analysis of all mobile workstation models from any vendors with >200 thousand unit annual sales as of October 29, 2015, having Quad-core CPU's, with Intel's Ultrabook Certification.
10. Weight will vary by configuration.
11. Source: IDC WW WS Historical Tracker 2015Q1 – 05.06.15

For more information visit
hp.com/go/zbooks

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