FAQ

HP ZBook G3
Mobile Workstations

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General

What are HP ZBook G3 Mobile Workstations?
HP ZBook G3 Mobile Workstations are HP's newest family of revolutionary, next-generation mobile workstation solutions designed for the most demanding technical and creative professionals. Combining a new re-imagined industrial design, world-class engineering, robust tools and visual collaboration solutions, the HP ZBook G3 Mobile Workstation family—the ZBook 15u G3, ZBook Studio G3, ZBook 15 G3, ZBook 17 G3, and ZBook Dock with Thunderbolt™ 3—takes performance, innovation, and reliability to the next level to help give you and your business a competitive edge.

The HP ZBook G3 Mobile Workstations build on the strength and success of the HP Z Workstation and ZBook Mobile Workstation family. Work confidently and accomplish more with HP Mobile Workstations designed around 30 years of HP Z DNA with extensive ISV certification, expanded MIL-STD 810G testing—15 individual tests, and 115,000 hours in HP's Total Test Process.

HP ZBook 15u G3: Thin, Powerful, Affordable.
• Enjoy workstation performance in a low cost, compact package. The HP ZBook 15u, with its 15.6" diagonal display, is the perfect combination of mobility and cost.

• Inspiration can strike any time—be ready with a mobile workstation that starts at 4.18 lbs, 19.9 mm thin and offers an optional touch screen, integrated numeric keypad, and impressive battery life.

• If it's value in a lightweight design you want, look no further. This workstation can be configured with up to 32 GB memory,[9] AMD FirePro™ professional graphics, HP Z Turbo Drive G2[4], 1.5 TB[10] of total storage, and a FHD touch display.[4]

HP ZBook Studio G3: Looks stunning. Works wonders.
• Conquer the workday with the world's first quad core workstation Ultrabook™ [1] offering the perfect combination of brains and beauty. The iconic 15.6" diagonal HP ZBook Studio revolutionizes the design language of mobile workstations.

• Make a bold statement with innovative style and performance. Starting at just 4.4 lbs and 18 mm thin, the HP ZBook Studio is a meticulously-designed performance machine.

• Get looks and performance with Intel® Xeon® processor[2] options, including quad core options, dual 1 TB HP Z Turbo Drive G2[4] for up to 2 TB[10] of total storage, up to 32 GB ECC memory,[9] dual Thunderbolt™ 3, and optional HP DreamColor UHD or FHD touch displays.[4, 8]

HP ZBook 15 G3: Portable powerhouse.
• Work without limits on the 3rd generation of the world's best-selling mobile workstation. Combine mobility and robust configurability to create the perfect mix of style, features and portability in a thin, light, 15.6" diagonal form factor.

• HP's most popular mobile workstation has been redesigned, inside and out. Now 27% thinner and 7% lighter than the previous generation, it offers 100% more wow—it's designed to impress and perform.

• Configure the HP ZBook 15 with Intel® Xeon® processor[2] options, up to 64 GB ECC memory,[9] dual 1 TB HP Z Turbo Drive G2[4] for up to 3 TB[10] of total storage, dual Thunderbolt™ 3, and optional HP DreamColor UHD or FHD touch displays.[4,8]

HP ZBook 17 G3: The ultimate in mobile performance.
• Wish you could take your desktop workstation on the road with you? The HP ZBook 17 offers HP's ultimate in power plus portability with a 17.3" diagonal screen, massive scalability and configurability, and all the latest power-packed features.

• Push the boundaries of performance without pushing the boundaries of portability. HP's biggest and most powerful mobile workstation just got 25% thinner and 11% lighter than the previous generation, with a stunning magnesium aluminum facelift.

• Enjoy Intel® Xeon® processor[2] options, up to 64 GB ECC memory,[9] dual 1 TB HP Z Turbo Drive G2[4] for up to 4 TB[10] of total storage, dual Thunderbolt™ 3, and optional HP DreamColor UHD or FHD touch displays.[4,8]

HP ZBook Dock with Thunderbolt™ 3: Portable, clutter-free docking for your HP ZBook.
• Create a remarkably powerful and streamlined mobile workstation workspace without the clutter with the HP ZBook Dock with Thunderbolt™ 3.[3] Get expansive device, display, and network connectivity plus simultaneous power & charging of your system through one simple cable from the dock to your HP ZBook.

• Have a lot to connect? No problem! Link up to 10 devices at once through ports that include Thunderbolt™ 3[3] (which also supports DisplayPort 1.2 and USB 3.1 Gen 2), four USB 3.0, RJ-45, VGA, combo audio, and two additional DisplayPorts.

• Rapidly replenish your HP ZBook's power after a demanding day with an impressive charging station that passes power directly through a Thunderbolt™ 3 power cable to your HP ZBook.

Will HP ZBook Mobile Workstations continue to have similar support (i.e. HP Elite Premium support)?
Yes, HP ZBooks will have the same support as the HP EliteBooks. This includes our 3-year (3-3-3) limited warranty and service offering which includes 3 years of parts, labor and on-site repair. Terms and conditions vary by country. Certain restrictions and exclusions apply.

When is HP announcing the new HP ZBook Mobile Workstations and when will they be available?
The new HP ZBook G3 Mobile Workstations family was publicly announced on November 11, 2015. The HP ZBook Studio G3 and HP ZBook Dock with Thunderbolt™ 3 will begin shipping globally in December 2015. The HP ZBook 15u G3, HP ZBook 15 G3, HP ZBook 17 G3 will begin shipping January 2016.

What products are being replaced by the new HP ZBook Mobile Workstations and ZBook Dock with Thunderbolt™ 3?
• The HP ZBook 15u G3 replaces both the HP ZBook 14 G2 and HP ZBook 15u G2.

• The HP ZBook 15 G3 and HP ZBook 17 G3 replace the HP ZBook 15 G2 and HP ZBook 17 G2, respectively.

• The HP ZBook Studio G3 creates an exciting new category for the HP ZBook family—providing extreme thin & light & full performance capabilities.

• Finally, the new HP ZBook Dock with Thunderbolt™ 3 replaces both the HP Standard and Advanced Docking Stations for the HP ZBook Studio G3, 15 G3, and 17 G3.

Note: the HP ZBook 15u G3 will continue to use the HP Ultraslim Side Dock previously used on the HP ZBook 15u G2.

When will the HP ZBook G2 Mobile Workstations be discontinued?
The HP ZBook G2 family of products will be discontinued at the end of June 2016. The extended discontinuation dates allow our customers a 5-6 month period to transition and deploy the new HP Mobile Workstation platforms.

Will these new HP ZBook Mobile Workstations be available worldwide?
Yes. All of the new models will be available worldwide. This generation, we are working to include all of the mobile workstation products as part of the Global Series offerings.

What is the starting price of the new HP ZBook Mobile Workstations?
Pricing will vary by region/country and configurations.

What are the key requirements for a typical HP ZBook Mobile Workstation customer?
Key requirements are:
• Highest-performing mobile CPU for best possible workstation application performance

• Highest-performing workstation-class graphics with hardware accelerated OpenGL graphics support

• ISV certifications for reliable application performance

• Optimized mobile workstation form factor

• True 64-bit computing environment

• High-quality display panel technology

• Reliability and durability

• Appealing industrial design

• Common commercial accessories & docks

What type of users are the HP ZBook Mobile Workstations designed for?
Creative or design specialists, travelers, mobile financial professionals, and knowledge workers that need high-performance mobile workstations designed for reliable performance with demanding applications.

Where do HP ZBook Mobile Workstations fit in the overall HP family of Business Notebook PCs?
The HP ZBook Mobile Workstations are HP's best combination of high-performance features and ISV-certified graphics in a business-rugged design. They uniquely provide full performance quad-core CPUs[2], professional 3D graphics solutions from NVIDIA® and AMD, Thunderbolt™ 3[3] ports for high-speed connectivity, tremendous expandability for large memory and/or large storage configurations, HP DreamColor[4] panel choices for color-critical workflows, HP Remote Graphics Software[5], HP Performance Advisor[6], and ISV certifications from a broad selection of workstation-class applications.

What are the key differences between the HP ZBook Mobile Workstations and the HP EliteBook Business Notebooks?
Differences between the HP EliteBook Business Notebooks and the HP ZBook Mobile Workstations can be seen in areas of industrial design, memory and storage, reliability, graphics, and warranty. See the detailed table below.

	HP EliteBook 800 series Notebook	**HP ZBook G3 Mobile Workstations***
Form factors	14.0-inch diagonal 15.6-inch diagonal	15.6-inch diagonal 17.3-inch diagonal
Expandability	Up to 16 GB memory[9] Up to 2 storage bays	Up to 64 GB memory[9] Up to 4 storage bays Thunderbolt™ 3 ports for faster data transfers Dual HP Z Turbo Drive G2 (PCIe SSD) for accelerated storage performance Quad-core Intel® Core™ i5, i7 and Xeon® processors[2] Support for up to FHD Touch UWVA, UHD DreamColor screen options
Reliability	Business-rugged, MIL-STD-810G testing[7] HP DuraCase HP DuraKeys HP Premium Keyboard Audio by Bang & Olufsen Magnesium and aluminum chassis Chemically strengthened glass touchpad Cast titanium alloy display latch	All the reliability features in the HP EliteBook 800 series notebook plus: • Rigorous ISV testing and certifications, Expanded Mil-STD 810G testing[7] • Support for RAID (0, 1,)[15] • Productivity-boosting software tools such as HP Performance Advisor[6], HP Velocity, and HP Remote Graphics Software[5] preloaded
Graphics	UMA, or AMD Radeon™ graphics	ISV-certified, workstation-caliber AMD FirePro™ or NVIDIA® Quadro® professional graphics plus support for Intel UMA graphics
Warranty	1/1/0 or 3/3/0 support, on-site service is extra	3/3/3 or 3/3/0 support**

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

Brand and industrial design

What are the key industrial design elements of the new HP ZBook Mobile Workstations?
• Precision engineering

• Premium materials/finishes

• Business-rugged/designed to pass 15 MIL-STD tests[7]

• Thinner/lighter completely redesigned chassis

• High-end processing (Intel® Core™ i5/i7, Xeon® and next generation graphics options)

• Choice of workstation Ultrabook™ with the HP ZBook 15u G3, quad core full performance workstation Ultrabook™ HP ZBook Studio G3 or fully featured mobile performance on the HP ZBook 15 G3 and 17 G3

• Superior display panel technology with outstanding resolution and color accuracy

• Precise dual fan cooling and acoustics

What is the logic behind the HP ZBook Mobile Workstation industrial design for the HP ZBook 15u G3, ZBook 15 G3, and ZBook 17 G3?
The HP Mobile Workstation team chose a Space Silver and Gravity Black color combination that represents power, performance, and high-end aesthetics. These colors scored very well in human factors studies and in early customer evaluations. This color combination will be unique to the HP ZBook family.

One example of HP ZBook uniqueness is the soft-touch paint border around the top cover of the unit. This soft-touch paint provides added aesthetics and is applied to "high traffic" areas that might otherwise be exposed to excessive fingerprint smudging.

Other innovations include a high quality aluminum insert on the center of the top cover with chemically etched patterns. The keyboard deck has also been redesigned using anodized stamped aluminum for added durability. An HP Spill Resistant Keyboard with Durakeys and touchpad buttons featuring a Duracoat finish ensure an overall business rugged experience. Finally, a diamond cut process has been applied around the keyboard deck providing an enhanced visual appeal.

In addition to visual changes, the HP ZBook 15 G3 and 17 G3 have moved from an overall wedge to a flat, thinner design to reduce height and provide a streamlined overall look.

What is the logic behind the HP ZBook Mobile Workstation industrial design for the HP ZBook Studio G3?
For the HP ZBook Studio, the HP Mobile Workstation team chose a uniform Space Silver throughout the industrial design with Black Licorice color for the bottom cover—representing premium design, performance, and high-end beautiful aesthetics.

The ZBook Studio uses a manufacturing process called CNC machining which stands for computer numeric controlled machining for the top cover and keyboard deck. This technique allows us to create a very fine detailed design out of a single sheet of premium lightweight aluminum—providing overall added durability, an overall thinner and lighter design, and an anodized finish throughout.

The bottom cover is constructed of magnesium for solid rigidity and durability with a 2 piece aluminum bottom which serves as an air intake that dramatically improves air flow for an overall optimized system thermal profile.

Finally, a meticulous diamond cut process is applied around the keyboard deck and around the clickpad which showcases the overall style.

What materials are used in the new HP ZBook Mobile Workstation platforms?
The HP ZBook Mobile Workstations are constructed from aluminum and magnesium with other metal alloys and rubber elements. These materials create the best possible combination of durability, light weight, and low flexibility.

How were the thinner & lighter designs achieved over the previous generation?
The new HP Mobile Workstations are dramatically thinner and lighter over previous generation.

• The HP ZBook 15 G3 is 25% thinner and 7% lighter than previous generation.

• The HP ZBook 17 G3 is now 27% thinner and 11% lighter than its predecessor.

• The HP ZBook 15u G3 moves towards a thinner and lighter profile as the portfolio's entry-level workstation Ultrabook™.

• Finally, the HP ZBook Studio provides industry leadership in design being just 18 mm thin and 4.4 lbs, and is the portfolio's, and the world's, first quad-core workstation Ultrabook™.

In order to optimize thinness, strategic decisions were made to remove the optical drive and express card (consistent with the overall mobile workstation market moving away from these commodities).

The tool-less entry door was also removed allowing for a thinner unibody design. This feature has become less critical as battery life becomes longer. In fact, in the HP ZBook G3 Mobile workstations, prismatic battery technology and Intel's more energy efficient 6th generation processor architecture are used to achieve outstanding battery results.

HP ZBook 15u G3 Mobile Workstation

What is special about the HP ZBook 15u G3 Mobile Workstation?
The HP ZBook 15u G3 is HP's next generation workstation Ultrabook™ sporting a new thinner industrial design. If it's value in a lightweight design you want, look no further. This customizable workstation contains the latest Intel® Core™ processors, professional AMD FirePro™ 3D graphics (2 GB VRAM) with AMD Enduro™ Technology, up to 32 GB memory,[9] and is designed to pass various MIL-STD tests.[7] It can handle up to 2 internal storage devices (up to 1.5 TB[10]), including the HP Z Turbo Drive (NVMe PCIe SSD), and has an optional FHD resolution touch display, numeric keypad, and Ultrabook-class
long battery life.

How does the HP ZBook 15u G3 compare to the HP ZBook 15u G2?

		HP ZBook 15u G2	HP ZBook 15u G3
Dimensions	**Depth** **Width** **Height (front)**	253.6 mm/9.9" 375.5 mm/14.8" 21.4 mm/.84"	257.7 mm/10.1" 383.3 mm/15.1" 20.1 mm/.83"
Weight w/o ODD		1.92 kg/4.23 lb	1.95 kg/4.31 lb
Display[8]		FHD SVA, FHD (UWVA)	FHD SVA, FHD UWVA, FHD SVA Touch, UHD UWVA
Chipset		N/A	N/A
Processor[2]		5th generation dual-core ULT Intel® Core™ i7 and i5 CPUs	6th generation dual-core ULT Intel® Core™ i7 and i5 CPUs
Graphics		AMD FirePro™ M4170 (1 GB GDDR5)	AMD FirePro™ W4190M (2 GB GDDR5)
Memory[9]		DDR3L 1600MHz up to 16 GB	DDR3L 1600MHz up to 32 GB
Internal storage[10]		Up to 1 TB 2.5" HDD Up to 512 GB SATA SSD Up to 512 GB PCIe SSD	Up to 1 TB 2.5" HDD Up to 512 GB SATA SSD Up to 512 GB PCIe SSD
ODD		**N/A**	**N/A**
Battery		3-cell long life 50 WHr	3-cell long life 46 WHr

Battery life[12]	Awaiting battery life benchmarks	Awaiting battery life benchmarks
Adapter	Smart AC Adapter (65 W)	Smart AC Adapter (65 W)
Ports	(1) USB 3.0 charging (3) USB 3.0 DisplayPort 1.2 RJ-45 (Ethernet) VGA Combo headphone/microphone Side docking connector Power connector	(1) USB 3.0 charging (1) USB 3.0 (1) USB-C (USB 3.1 Gen 1) RJ-45 (Ethernet) VGA Combo headphone/microphone Side docking connector Power connector Secondary battery connector

What processors does the HP ZBook 15u G3 offer?

The HP ZBook 15u G3 will offer future 6th generation Intel® Core™ dual core processors.[2] These ULT (low power) 15 W processors will only be available on the HP ZBook 15u G3.

• Intel® Core™ i7-6600U with Intel HD Graphics 520 (2.6 GHz, up to 3.4 GHz with Intel Turbo Boost technology, 4 MB cache, 2 cores)

• Intel® Core™ i7-6500U with Intel HD Graphics 520 (2.5 GHz, up to 3.1 GHz with Intel Turbo Boost technology, 4 MB cache, 2 cores)

• Intel® Core™ i5-6300U with Intel HD Graphics 520 (2.4 GHz, up to 3.0 GHz with Intel Turbo Boost technology, 3 MB cache, 2 cores)

• Intel® Core™ i5-6200U with Intel HD Graphics 520 (2.3 GHz, up to 2.7 GHz with Intel Turbo Boost technology, 3 MB cache, 2 cores)

How will the Intel® Ultrabook™ (UTL) processors perform on real-world, workstation-class applications?

The ULT processors on the HP ZBook 15u G3 will work with the discrete AMD FirePro™ graphics to provide up to mid- level workstation-class performance. However, for heavily threaded applications or users requiring the greatest CPU performance, the HP ZBook Studio G3, HP ZBook 15 G3 and 17 G3 should be considered.

What is the docking solution for the HP ZBook 15u G3?

The HP ZBook 15u G3 will continue to use a side docking solution (same as HP ZBook 15u G2) due to its thin design. The HP ZBook Studio G3, ZBook 15 G3 and HP ZBook 17 G3 will transition to the new HP ZBook Dock with Thunderbolt™ 3 due to support of Intel's next generation of Thunderbolt™. This side docking solution will continue to be shared by several other HP Commercial Notebook systems, including the EliteBook 840 G3 and 850 G3.

How does the HP ZBook 15u G3 compare to the HP Elitebook 850 G3?

• The HP ZBook 15u G3 will have the same chassis and I/O ports arrangement. The ZBook 15u G3 will feature a unique magnesium with aluminum insert top cover—sharing the same space silver color as the rest of the ZBook family.

• HP ZBook 15u G3 will have FHD SVA, FHD UWVA IPS, FHD SVA Touch, and UHD UWVA IPS display options. HP Elitebook 850 G3 will not offer the FHD UWVA IPS display.

• HP ZBook 15u G3 will have z-height at 19.9 mm while EliteBook 850 G3 will have z-height of 19.3 mm.

• HP ZBook 15u G3 will be expandable to 32 GB max memory[9] while EliteBook 850 G3 will offer up to 16 GB memory.[9]

• HP ZBook 15u G3 will contain a ISV-certified, workstation-caliber AMD FirePro™ 3D graphics card while HP EliteBook 850 G2 will offer Intel UMA Graphics and AMD Radeon™ Graphics.

• Both platforms will offer the same primary hard disk drive assortment.

• HP ZBook 15u G3 will assort M.2 SATA SSDs and two HP Z Turbo Drive G2 (NVMe PCIe SSD) for M.2 storage offerings (256 GB and 512 GB capacities) while the HP Elitebook 850 G3 will offer only a 256 GB NVMe PCIe SSD along with other M2 SATA SSDs.

• HP ZBook 15u G3 will feature productivity-boosting software tools such as HP Performance Advisor, HP Velocity, and HP Remote Graphics Software[5] preloaded.

HP ZBook Studio G3 Mobile Workstation

What is special about the HP ZBook Studio G3 Mobile Workstation?

HP ZBook Studio is an exciting new category for the HP ZBook family. It is the industry's first true grounds-up mobile device designed for commercial-class customers and delivers a thin & light user experience with full performance workstation-class capabilities. The HP ZBook Studio G3 contains Intel 6th generation quad-core processors, next generation professional NVIDIA® Quadro® graphics with Optimus® technology, Intel Iris™ Graphics and Intel® HD Graphics options, up to 32 GB memory[9], dual Thunderbolt™ 3[3], and is designed to pass an expanded set of MIL-STD tests[7]. It can handle up to 2 internal storage devices (up to 2 TB)[10] including up to 2 simultaneous next generation 1 TB HP Z Turbo Drive G2 (NVMe PCIe SSD) devices. It has a new UHD UWVA and features UHD DreamColor or FHD Touch optional displays.

How does the HP ZBook Studio G3 compare to the HP ZBook 15 G2?

		HP ZBook 15 G2	HP ZBook Studio G3
Dimensions	**Depth** **Width** **Height (front)**	257 mm/10.1" 381.5 mm/15.0" 30.5 mm/1.52"	255 mm/10.0" 375 mm/14.7" 18.0 mm/0.7"
Weight		2.82 kg/6.20 lbs (w/o ODD)	2.04 kg /4.49 lbs
Display[8]		FHD (1920 x 1080, SVA) FHD (1920 x 1080 UWVA) FHD DreamColor (1920 x 1080, AG/WVA) QHD+ (3200 x 1800, AG/UWVA)	FHD (1920 x 1080, UWVA) UHD (3840 x 2160, UWVA) UHD DreamColor (3840 x 2160, UWVA)
Chipset		Mobile Intel® QM87	Mobile Intel® CM236
Processor[2]		4th generation quad-core Intel® Core™ i7 processors 4th generation dual-core Intel® Core™ i7 and i5 CPUs (refresh)	6th generation quad-core Intel® Xeon® processors 6th generation quad-core Intel® Core™ i7 processors
Graphics		NVIDIA® Quadro® K2100M(2 GB GDDR5) NVIDIA® Quadro® K1100M (2 GB GDDR5) AMD FirePro™ M5100 (2 GB GDDR5) NVIDIA® Quadro® K610M (1 GB GDDR5)	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).
Memory[9]		DDR3L 1600 MHz up to 32 GB	DDR4 2133 MHz up to 32 GB (non-ECC, ECC)
Internal storage[10]		Up to 1 TB Up to 500 GB Up to 512 GB SATA SSD 512 GB (AHCI) PCIe SSD	Up to 1 TB Up to 512 GB SATA SSD 1 TB (NVMe) PCIe SSD
ODD[11]		DVD R/W Blu-ray ROM + DVD R/W Blu-ray R/W + DVD R/W	No optical bay
Battery		8-cell 83 WHr 8-cell long life 75 WHr Secondary batteries: HP ST09 Extended Life HP BB09 Ultra Extended Life	4-cell long life 64 WHr
Battery life[12]		TBD	Testing not final
Adapter		Smart AC Adapter (150w/200w)	SLIM Smart AC Adapter (150w)

Ports[3]	(1) Thunderbolt™ 2 (mini-DP 1.2) (2) USB 3.0 (1) USB 3.0 w/ USB powered/charging) (1) USB 2.0 DisplayPort 1.2 RJ-45 (Ethernet) VGA Combo headphone/microphone Docking connector Secondary battery connector Power connector	(2) Thunderbolt™ 3 (USB-C) (3) USB 3.0 (1) USB 3.0 w/ USB powered/charging) (1) HDMI RJ-45 (Ethernet) Combo headphone/microphone Power connector

What processors does the HP ZBook Studio G3 offer?

The following 6th generation Intel® Core™ i5 and i7 processors[2] will be offered:

- Intel® Xeon® E3-1545M v5 with Intel® Iris Pro Graphics P580 (x.x GHz, up to x.x GHz with Intel Turbo Boost Technology, 8 MB cache, 4 cores) (Available in 1H16)

- Intel® Xeon® E3-1505M v5 with Intel HD graphics P530 (2.80 GHz, up to 3.70 GHz with Intel Turbo Boost Technology, 8 MB L3 cache, 4 cores)

- Intel® Core™ i7-6820HQ with Intel HD graphics 530 (2.70 GHz, up to 3.60 GHz with Intel Turbo Boost Technology, 8 MB L3 cache, 4 cores)

- Intel® Core™ i7-6700HQ with Intel HD graphics 530 (2.60 GHz, up to 3.50 GHz with Intel Turbo Boost Technology, 6 MB L3 cache, 4 cores)

What is the UHD display panel and UHD DreamColor display panel choice on the HP ZBook Studio G3?

UHD panels offer extremely high resolution (3840 x 2160) for maximum screen real estate and vibrant, clear pictures. Two versions of the UHD panel will be offered on ZBook Studio: UHD UWVA display and UHD UWVA with DreamColor technology. We've decided to bring the DreamColor technology to this screen resolution of a display for our key customers who desire color accuracy for their workflows. The panel will be color calibrated out of the factory and come outfitted with the HP DreamColor assistant software application that allows color management and display calibration capabilities.

HP ZBook 15 G3 Mobile Workstation

What is special about the new HP ZBook 15 G3 Mobile Workstation?

HP's most popular mobile workstation has been redesigned, inside and out. Now 27% thinner and 7% lighter than the previous generation—it offers 100% more wow. The HP ZBook 15 G3 contains Intel® 6th generation quad core processors, next generation professional NVIDIA® Quadro® graphics with Optimus® technology or the choice of AMD FirePro™ graphics with AMD Enduro™ Technology, Intel Iris™ Graphics and Intel® HD Graphics options, up to 64 GB memory[9], dual Thunderbolt™ 3[3], and is designed to pass an expanded set of MIL-STD tests[7]. It can handle up to 3 internal storage devices (up to 3.0 TB)[10] including up to 2 simultaneous next generation HP Z Turbo Drive G2 (NVMe PCIe SSD) and has a new UHD DreamColor display option.

How does the HP ZBook 15 G3 compare to the HP ZBook 15 G2?

		HP ZBook 15 G2	**HP ZBook 15 G3**
Dimensions	**Depth**	257 mm/10.1"	264 mm/10.4"
	Width	381.5 mm/15.0"	386 mm/15.2"
	Height (front)	30.5 mm/1.52"	26.0 mm/1.0"
	Height (rear)	35.5 mm/1.40"	26.0 mm/1.0"
Weight		2.82 kg/6.20 lbs (w/o ODD)	2.63 kg/5.80 lbs
Display[8]		FHD (1920 x 1080, SVA) FHD (1920 x 1080 UWVA) FHD DreamColor (1920 x 1080, AG/WVA) QHD+ (3200 x 1800, AG/UWVA)	FHD (1920 x 1080, SVA) FHD (1920 x 1080, AG/UWVA) UHD DreamColor (3840 x 2160, UWVA)

Chipset	Mobile Intel® QM87	Mobile Intel® CM236
Processor[2]	4th generation quad-core Intel® Core™ i7 4th generation dual-core Intel® Core™ i5 and i7 CPUs (refresh)	6th generation quad-core Intel® Xeon® processors 6th generation quad-core Intel® Core™ i5 and i7 processors
Graphics	NVIDIA® Quadro® K2100M (2 GB DDR5) NVIDIA® Quadro® K1100M (2 GB DDR5) AMD FirePro™ M5100 (2 GB DDR5) NVIDIA® Quadro® K610M (1 GB GDDR5)	NVIDIA® Quadro® M2000M (4 GB DDR5) NVIDIA® Quadro® K1000M (2 GB GDDR5) AMD FirePro™ W5170M (2 GB DDR5) Intel integrated graphics (GT2 and GT4e)
Memory[9]	DDR3L 1600MHz up to 32 GB	DDR4 2133MHz up to 64 GB (non-ECC, ECC)
Internal storage[10]	Up to 1 TB 7200 rpm Up to 500 GB 5400 rpm Up to 512 GB SATA SSD 512 GB (AHCI) PCIe SSD	Up to 500 GB 7200 rpm Up to 1 TB 5400 rpm Up to 256 GB SATA SSD 1 TB (NVMe) PCIe SSD
ODD[11]	DVD R/W Blu-ray ROM + DVD R/W Blu-ray R/W + DVD R/W	No optical bay
Battery	8-cell 83 WHr 8-cell long life 75 WHr Secondary Batteries: HP ST09 Extended Life HP BB09 Ultra Extended Life	9-cell long life 90 WHr
Battery life[12]	TBD	Testing not final
Adapter	Smart AC Adapter (150 W/200 W)	SLIM Smart AC Adapter (150 W)
Ports[3]	(1) Thunderbolt™ 2 (mini-DP 1.2) (2) USB 3.0 (1) USB 3.0 w/ USB powered/charging) (3) USB 2.0 DisplayPort 1.2 RJ-45 (Ethernet) VGA Combo headphone/microphone Docking connector Secondary battery connector Power connector	(2) Thunderbolt™ 3 (USB-C) (3) USB 3.0 (1) USB 3.0 w/ USB powered/charging) (1) HDMI RJ-45 (Ethernet) VGA Combo headphone/microphone Power connector

What processors does the HP ZBook 15 G3 offer?
The following 6th generation Intel® Core™ i5 and i7 processors[2] will be offered:

- Intel® Xeon® E3-1545M v5 with Intel® Iris Pro Graphics P580 (x.x GHz, up to x.x GHz with Intel Turbo Boost Technology, 8 MB cache, 4 cores) (Available in 1H16)

- Intel® Xeon® E3-1505M v5 with Intel HD graphics P530 (2.80 GHz, up to 3.70 GHz with Intel Turbo Boost Technology, 8 MB cache, 4 cores)

- Intel® Core™ i7-6820HQ with Intel HD graphics 530 (2.70 GHz, up to 3.60 GHz with Intel Turbo Boost Technology, 8 MB cache, 4 cores)

- Intel® Core™ i7-6700HQ with Intel HD graphics 530 (2.60 GHz, up to 3.50 GHz with Intel Turbo Boost Technology, 6 MB cache, 4 cores)

- Intel® Core™ i5-6440HQ with Intel HD graphics 530 (2.60 GHz, up to 3.50 GHz with Intel Turbo Boost Technology, 6 MB cache, 4 cores)

What is the UHD DreamColor display panel choice on the HP ZBook 15 G3?
UHD panels offer extremely high resolution (3840 x 2160) for maximum screen real estate and vibrant, clear pictures. We've decided to bring the DreamColor technology to this screen resolution of a display for our key customers who desire color accuracy for their workflows. The panel will be color calibrated out of the factory and comes outfitted with the HP DreamColor Assistant software application that allows color management and display calibration capabilities.

Are the batteries and other accessories from the HP ZBook 15 G2 compatible with the HP ZBook 15 G3?
Although the internal batteries are similar, they are not forward or backward compatible between HP ZBook 15 G2 and HP ZBook 15 G3. The ZBook 15 G2's battery is accessible from the outside rear of the unit. In order to achieve significant thinness reduction and with the improvements in battery technology, the HP ZBook 15 G3's 9-cell Long Life Polymer battery is enclosed within the chassis. The 9-cell Long Life Polymer battery comes standard with a 3 year warranty.

The common docking stations used on the HP ZBook 15 G2 will not work with the HP ZBook 15 G3. HP is driving the industry forward with the new exciting docking solution: HP ZBook Dock with Thunderbolt™ 3.

HP ZBook 17 G3 Mobile Workstation

What is special about the HP ZBook 17 G3 Mobile Workstation?
HP's biggest and most powerful mobile workstation just got 25% thinner and 11% lighter with a stunning industrial redesign.

The HP ZBook 17 G3 contains Intel® 6th generation quad core processors,[2] next generation professional NVIDIA® Quadro® graphics with Optimus® technology or the choice of AMD FirePro™ graphics with AMD Enduro™ Technology, Intel Iris™ Graphics and Intel® HD Graphics options, up to 64 GB memory[9], dual Thunderbolt™ 3[3], and is designed to pass an expanded set of MIL-STD tests[7]. It can handle up to 4 internal storage devices (up to 4.0 TB)[10] including up to 2 simultaneous next generation HP Z Turbo Drive G2 (NVMe PCIe SSD) and has a UHD DreamColor display option.

How does the HP ZBook 17 G3 compare to the HP ZBook 17 G2?

		HP ZBook 17 G2	HP ZBook 17 G3
Dimensions	**Depth** **Width** **Height (front)** **Height (rear)**	272 mm/10.7 416 mm/16.37" 34.0 mm/1.33" 40.0 mm/1.57"	280mm/11.0" 420mm/16.50" 30.0mm/1.2" 30.0mm/1.2"
Weight (w/o ODD)		3.36 kg/7.4 lbs	3.52kg/7.75lb
Display[16]		HD+ (1600 x 900, SVA) FHD (1920 x 1080, WVA) FHD DreamColor[2] (1920 x 1080, UWVA)	HD+ (1600x900, SVA) FHD (1920x1080, UWVA) UHD DreamColor[2] (3840x2160, UWVA)
Chipset		Mobile Intel® QM87	Mobile Intel® CM236
Processor[2]		4th generation quad-core Intel® Core™ i7 processors 4th generation dual-core Intel® Core™ i5 and i7 processors (refresh)	6th generation quad-core Intel® Xeon® processors 6th generation quad-core Intel® Core™ i5 and i7 processors
Graphics		NVIDIA® Quadro® K5100M (8 GB GDDR5) NVIDIA® Quadro® K4100M (4 GB GDDR5) NVIDIA® Quadro® K3100M (4 GB GDDR5) NVIDIA® Quadro® K2200M (2 GB GDDR5) NVIDIA® Quadro® K1100M (2 GB GDDR5) AMD FirePro™ M6100 (2 GB GDDR5) NVIDIA Quadro® K610M (1 GB GDDR5)	NVIDIA® Quadro® M5000M (8 GB GDDR5 NVIDIA® Quadro® M4000M (4 GB GDDR5) NVIDIA® Quadro® M3000M (4 GB GDDR5) NVIDIA® Quadro® M2000M (4 GB GDDR5) NVIDIA® Quadro® M1000M (2 GB GDDR5) AMD FirePro™ W6150M (4 GB GDDR5) Intel Integrated Graphics (GT2 and GT4e)

Memory[9]	DDR3L 1600 MHz up to 32 GB	DDR4 2133 MHz up to 64 GB (non-ECC, ECC)
Internal storage[10]	Up to 1 TB 7200 rpm Up to 500 GB 5400 rpm Up to 512 GB SATA SSD 512 GB (AHCI) PCIe SSD	Up to 1 TB 7200 rpm Up to 500 GB 7200 rpm Up to 256 GB SATA SSD Up to 1 TB (NVMe PCIe SSD)
ODD[11]	DVD-ROM DVD R/W Blu-ray ROM + DVD R/W Blu-ray R/W + DVD R/W	No optical bay
Battery	8-cell 83 WHr 8-cell long life 75 WHr Secondary Batteries: HP ST09 Extended Life HP BB09 Ultra Extended Life	6-cell long life 96 WHr
Battery life[12]	TBD	Testing not final
Adapter	Smart AC Adapter (200w/230w)	Slim Smart AC Adapter (200w)
Ports[3]	(1) Thunderbolt™ 2 (mini-DP 1.2) (2) USB 3.0 (1) USB 3.0 w/ USB powered/charging) (1) USB 2.0 DisplayPort 1.2 RJ-45 (Ethernet) VGA Combo headphone/microphone Docking connector Secondary battery connector Power connector	(2) Thunderbolt™ 3 (USB-C) (3) USB 3.0 (1) USB 3.0 w/ USB powered/charging) (1) HDMI, RJ-45 (Ethernet) VGA Combo headphone/microphone Power connector

What processors does the HP ZBook 17 G3 offer?

The following 6th generation Intel® Core™ i5 and i7 processors[2] will be offered:

- Intel® Xeon® E3-1575M v5 with Intel® Iris Pro Graphics P580 (x.x GHz, up to x.x GHz with Intel Turbo Boost Technology, 8 MB cache, 4 cores) (Available in 1H16)

- Intel® Xeon® E3-1535M v5 with Intel® HD graphics P530 (2.90 GHz, up to 3.80 GHz with Intel Turbo Boost Technology, 2133 MHz, 8 MB L3 Cache, 4 cores)

- Intel® Core™ i7-6820HQ with Intel® HD graphics 530 (2.70 GHz, up to 3.60 GHz with Intel Turbo Boost Technology, 2133 MHz, 8 MB L3 Cache, 4 cores)

- Intel® Core™ i7-6700HQ with Intel® HD graphics 530 (2.60 GHz, up to 3.50 GHz with Intel Turbo Boost Technology, 2133 MHz, 6 MB L3 Cache, 4 cores)

- Intel® Core™ i5-6440HQ with Intel® HD graphics 530 (2.60 GHz, up to 3.50 GHz with Intel Turbo Boost Technology, 2133 MHz, 6 MB L3 Cache, 4 cores)

What is the UHD DreamColor display panel choice on the HP ZBook 17 G3?

UHD panels offer extremely high resolution (3840 x 2160) for maximum screen real estate and vibrant, clear pictures. We've decided to bring the DreamColor technology to this screen resolution of a display for our key customers who desire color accuracy for their workflows. The panel will be color calibrated out of the factory and come outfitted with the HP DreamColor assistant software application that allows color management and display calibration capabilities.

Are the batteries and other accessories from the HP ZBook 17 G2 compatible with the HP ZBook 17 G3?

Although the internal batteries are similar, they are not forward or backward compatible between HP ZBook 17 G2 and HP ZBook 17 G3. The ZBook 17 G2's battery is accessible from the outside rear of the unit. In order to achieve significant thinness reduction and with the improvements in battery technology, the HP ZBook 17 G3's 9-cell Long Life Polymer battery is enclosed within the chassis. The 9-cell Long Life Polymer battery comes standard with a 3 year warranty. The common docking stations used on the HP ZBook 17 G2 will not work with the HP ZBook 17 G3. HP is driving the industry forward with the new exciting docking solution: HP ZBook Dock with Thunderbolt™ 3.

HP ZBook G3 graphics

What graphics solutions are available on each HP ZBook model?

		HP ZBook 15u G3	HP ZBook Studio G3	HP ZBook 15 G3	HP ZBook 17 G3
Professional 2D	Intel Integrated Graphics (Intel HD or Iris Pro) (now a standalone configurable option)		•	•	•
Professional 3D					
	AMD FirePro™ W4190M (2 GB GDDR5)	•			
	NVIDIA® Quadro®M1000M (2 GB GDDR5)		•	•	•
	AMD FirePro™ W5170M (2 GB GDDR5)			•	
	NVIDIA® Quadro® M2000M (2 GB GDDR5)			•	•
	AMD FirePro™ W6150M (4 GB GDDR5)				•
	NVIDIA® Quadro® M2000M (4 GB GDDR5)				•
	NVIDIA® Quadro® M3000M (4 GB GDDR5)				•
	NVIDIA® Quadro® M4000M (4 GB GDDR5)				•
	NVIDIA® Quadro® M5000M (8 GB GDDR5)				•

What are the recommended maximum display configurations by platform?
All resolutions @60 Hz refresh rate. VGA/DVI displays up to 24 bpp and DP displays up to 30 bpp color depth.

HP ZBook 15 G3 and 17 G3:
• **Without dock:**
 HP ZBook 15 and 17 with hybrid graphics and without the use of the ZBook dock supports up to a maximum of four independent displays. These four displays are the internal panel plus three external displays connected to the VGA and two of the three following ports: HDMI, Thunderbolt™ 3, Thunderbolt™ 3.

• **With HP ZBook Dock with Thunderbolt™ 3:**
 The ZBook Dock with Thunderbolt™ 3 dock has Thunderbolt™ 3 port, VGA, and two DisplayPort 1.2. When used together with the HP ZBook 15 and 17 configuration with hybrid graphics, a maximum of 6 independent displays are supported. These six displays are internal panel, one external display connected to the system's VGA port and four external displays connected to the ZBook dock's Thunderbolt™ 3, VGA, and two DisplayPort ports.

HP ZBook Studio G3:
• **Without dock:**
 HP ZBook Studio with hybrid graphics and without the use of the ZBook dock supports up to a maximum of three independent displays. These three displays are the internal panel plus two external displays connected to two of the three following ports: HDMI, Thunderbolt™ 3, Thunderbolt™ 3.

• **With HP ZBook Dock with Thunderbolt™ 3:**
 The ZBook Dock with Thunderbolt™ 3 has a Thunderbolt™ 3 port, VGA port, and two DisplayPort 1.2 ports. When used together with the HP ZBook Studio configuration with hybrid graphics, a maximum of 5 independent displays are supported. These five displays are internal panel plus four external displays connected to the ZBook dock's Thunderbolt™ 3, VGA, and two DisplayPort ports.

HP ZBook 15u G3:
• **With and without HP Ultraslim Docking Station:**
 Supports up to 3 independent displays via internal LCD Panel, system DisplayPort, system VGA, or using the HP UltraSlim Docking Station DisplayPort and VGA ports (sold separately).

How is a 4K monitor supported on the system and via docking?
• **HP ZBook Studio G3, HP ZBook 15 G3, HP ZBook 17 G3**

– 4096 x 2160 @ 60 Hz supported on both system Thunderbolt™ 3 ports

– 4096 x 2160 @ 60 Hz supported on ZBook Dock w/Thunderbolt™ 3 via the Thunderbolt™ 3 port and one DisplayPort 1.2 port

• **HP ZBook 15u G3**

– 4096 x 2160 @ 60 Hz supported on system DisplayPort

– 4096 x 2160 @ 60 Hz supported on HP Ultraslim Docking station's DisplayPort

For more information, please see the Multi-Display Whitepaper and the appropriate HP ZBook G3 QuickSpecs for your system.   13

HP ZBook G3 drives and storage

What is the HP Z Turbo Drive G2 and how does it compare to previous generation offerings?
HP Z Turbo Drive G2 is the next generation of PCIe SSD storage based on the lower latency NVMe protocol. The HP Z Turbo Drive G2 is dramatically faster than the previously offered SATA connection. It reduces boot up, calculation, and graphics response times (even with 4K video) and revolutionizes how your HP ZBook Mobile Workstation handles large files. It is a remarkably affordable and innovative storage solution for fast data access.

The entire HP ZBook G3 family will take advantage of this blazing fast storage technology. This is the same storage solution offered on our latest HP Z Desktop Workstations. Up to two simultaneously running HP Z Turbo Drives will be configurable on the ZBook Studio, 15, 17 for a total of 2 TB of NVMe PCIe storage. This technology is a significant leap forward from the HP Z Turbo Drive offered in G1 which was based on the AHCI protocol. The new HP Z Turbo Drive G2 allows for over 2 Gb/s sequential write speeds while HP Z Turbo Drive offered in the ZBook G2 family allows for approximately 750 MB/s sequential write speeds. RAID 0,1[15] will be supported on the HP ZBook Studio G3, HP ZBook 15 G3, and HP ZBook 17 G3.

How many storage devices do each of the new HP ZBook Mobile Workstations support and what is the maximum capacity supported?
Storage devices vary by HP ZBook model according to the chart below:

	Max 2.5 drives/bays	Max HP Z Turbo Drives	Max total capacity
HP ZBook 15u G3	1	1	1.5 TB
HP ZBook Studio G3	0	2	2 TB
HP ZBook 15 G3	1	2	3 TB
HP ZBook 17 G3	2	2	4 TB

Do the new HP ZBook Mobile Workstations offer and support solid-state drives?
Yes. See below for supported configurations.

	SSD drive support
HP ZBook 15u G3	128 GB SATA SSD (Available in 1H16) 256 GB SATA SED SSD HP Z Turbo Drive 256 GB (PCIe NVMe SSD) HP Z Turbo Drive 512 GB (PCIe NVMe SSD)
HP ZBook Studio G3	128 GB SATA SSD (Available in 1H16) 256 GB SATA SED SSD 512 GB SATA SED SSD (Available in 1H16) HP Z Turbo Drive 256 GB (PCIe NVMe SSD) HP Z Turbo Drive 512 GB (PCIe NVMe SSD) HP Z Turbo Drive 1 TB (PCIe NVMe SSD) (Available in 1H16)
HP ZBook 15 G3	256 GB SATA SED SSD 512 GB SATA SED SSD (Available in 1H16) HP Z Turbo Drive 256 GB (PCIe NVMe SSD) HP Z Turbo Drive 512 GB (PCIe NVMe SSD) HP Z Turbo Drive 1 TB (PCIe NVMe SSD) (Available in 1H16)
HP ZBook 17 G3	256 GB SATA SED SSD 512 GB SATA SED SSD (Available in 1H16) HP Z Turbo Drive 256 GB (PCIe NVMe SSD) HP Z Turbo Drive 512 GB (PCIe NVMe SSD) HP Z Turbo Drive 1 TB (PCIe NVMe SSD) (Available in 1H16)

Thunderbolt™ 3

Why did HP decide to include Thunderbolt™ 3[3] port on the new HP ZBook Studio/15/17 Mobile Workstations?
Intel announced earlier this year Thunderbolt™ 3 becoming the industry's fastest and most versatile connection over the new USB-C connector. Thunderbolt™ 3[3] provides the highest speed I/O and is required by the most demanding users to maximize the overall performance of the workstation. The HP Mobile Workstation team decided to outfit the HP ZBook Studio/15/17 Mobile Workstations with dual Thunderbolt™ 3 capabilities. This would allow unique differentiation in the market but also allow for added capabilities by connecting to the new ZBook Dock w Thunderbolt™ and still having a native Thunderbolt™ 3 available for use on the system.

What is the difference between Thunderbolt™ 3 and USB-C?
Thunderbolt™ 2 was previously the fastest I/O port available and standardized on the mini-DisplayPort 1.2 (mDP). Thunderbolt™ 3 is the next generation I/O port and Intel has chosen to standardize this technology on the new USB-C connector. The HP ZBook Studio/15/17 G3 feature (2) Thunderbolt™ 3 ports. The ZBook 15u and other Elitebook products feature a standard USB-C port – not supporting Thunderbolt™ 3. Specifically, the difference is a standard USB-C port is based on the USB 3.1 gen 1 interface with data transfer speeds equivalent to that of a USB 3.0 port at 5 Gb/s. Thunderbolt™ 3 allows for transfer speeds of 40 Gb/s. See below for comparison matrix.

Port	USB 3.0	USB 3.1 (Gen 1)	USB 3.1 (Gen 2)	Thunderbolt™ 2	Thunderbolt™ 3
Port connector	USB Type A	USB-C	USB-C	Mini DisplayPort	**USB-C**
Transfer speeds	5 Gb/s	5 Gb/s	10 Gb/s	20 Gb/s	**40 Gb/s**
Protocols supported	USB 3.0	USB 3.1 Gen 1	USB 3.1 Gen 2 (SuperSpeed USB)	PCIe, DisplayPort	**PCIe, DisplayPort, USB 3.1 Gen 2**
Platforms supported	All ZBooks	ZBooks G3: • ZBook 15u	ZBook G3: • ZBook Studio • ZBook 15 • ZBook 17	ZBook G2: • ZBook 15 • ZBook 17	**ZBook G3:** **• ZBook Studio** **• ZBook 15** **• ZBook 17**
Note		USB-port on 15u G3 and EliteBook G3 series is spec'ed as USB 3.1 Gen 1	Thunderbolt™ 3 port integrates a USB 3.1 host controller	(1) Thunderbolt™ 2 port supported on ZBooks G2	**(2) Thunderbolt™ 3 ports supported on ZBooks G3**

What specifically are the unique features of Thunderbolt™ 3 available on the HP ZBook G3 Mobile Workstations?
• Thunderbolt™ 3 is a super-set port supporting multiple protocols over a single connection simultaneously: DisplayPort 1.2, SuperSpeed USB (USB 3.1 Gen 2), and PCI Express

• Industry leading I/O speeds at 40 Gb/s

• Support for 2 x 4K Displays @ 60 Hz through a single port

• Power—15 W to bus-powered devices

• Daisy chain up to 6 Thunderbolt™ devices

• Connectivity with the HP ZBook Dock with Thunderbolt™ 3

Why didn't HP include Thunderbolt™ support on the HP ZBook 15u G3?
The HP ZBook 15u G3 are highly mobile workstation platforms that do not have the same throughput requirements as the HP ZBook 15 and 17 products. With a highly portable chassis, the HP ZBook 15u G3 meets the needs of the target customers' demanding performance and portability at a value. Even though Thunderbolt™ was not added, USB 3.0 ports, full size DisplayPort 1.2, and standard USB-C (USB 3.1 Gen 1) are available.

How does Thunderbolt™ 3[3] compare to USB 3.0?
Thunderbolt™ 3[3] provides 8x the throughput of USB 3.0.

What is the difference between Thunderbolt™ 2 and Thunderbolt™ 3[3]?
Bandwidth, connector, and protocols. Thunderbolt™ 2 enables 20 Gb/s, Thunderbolt™ 3[3] is 40 Gb/s. Thunderbolt™ 2 supports DisplayPort 1.2 and PCIe devices over a single port. Thunderbolt™ 3 supports DisplayPort 1.2, Superspeed USB (USB 3.1 Gen 2), and PCIe devices over a single port. Finally, Thunderbolt™ 2 was standardized over a mini-DisplayPort (mDP) and Thunderbolt™ 3 has now standardized over the new USB-C connector.

What are the type of customers that require Thunderbolt™ 3[3]?

Workstation customers from all segments have been asking for Thunderbolt™ 3[3], with Media & Entertainment segment having the most momentum. We expect expansion into Oil & Gas, Control, and Healthcare segments. As data files get larger and the adoption of 4K resolutions displays and video continues to expand—having high storage capacity and blazing fast I/O speeds will become more mainstream.

Operating systems

What operating systems (OSs) are available on the HP ZBook G3 Mobile Workstations?

A variety of OSs are available, including the following: (Please note that the exact OSs carried by each workstation vary by product. For more information, see individual product data sheets and QuickSpecs.)

• Windows 7 Professional 64-bit[13]

• Windows 10 Professional 64[13]

• Win 10 Professional 64 Downgrade Windows 7 64

• FreeDOS

Is dual OS preload an option?

Dual OS preload will not be offered due to restrictions of licensing agreements.

What type of Windows 7 32-bit support will be available?

Windows 7 32-bit will not be available as a pre-installed operating system; therefore, there will be no recovery media available. Additionally, this is no longer a supported OS so no web drivers will be posted online.

Will the HP ZBook Mobile Workstations support Linux®?

Yes. Red Hat® Enterprise Linux® will be supported on HP ZBook Studio, 15, 17. For a complete list of Linux® supported hardware, go to hp.com/support/linux_hardware_matrix.

What Linux solutions are available as a preinstalled option?

HP Mobile Workstations offers FreeDOS. FreeDOS is a bare-bones OS, intended for those who want to load their own Linux® version.

What value does HP bring to Linux® on Personal Workstations?

HP brings the following value:

• Dedicated Linux® R&D team with 25+ years of experience in OS and driver development

• Close relationship with multiple third-parties to enable the complete Linux® workstation solution

• Extensive pre-sales technical support provided by HP engineering

• Detailed documents, drivers, and white papers published by HP on the support website regarding Linux® on HP Workstations

Software

What is HP RGS and what value does it bring to the new HP ZBook G3 Mobile Workstations?

HP Remote Graphics Software (RGS)[5] is a leading remote access and collaboration tool for workstation professionals. Allow colleagues to remote in to your high powered workstation so you can collaborate, in real time, with just like local performance for everyone while running your high performance, graphic intensive applications. Or multiply the mobility of your ZBook by leaving it at your desk and remoting in from conference rooms or even lighter weight tablets.

What is HP Performance Advisor and what value does it bring to the new HP ZBook G3 Mobile Workstations?

Designed for non-techies, this ultra-savvy software wizard is the simplest and most effective way to make sure your computer is always operating at its optimum potential. HP Performance Advisor[6] comes pre-installed with every HP Workstation.

When Performance Advisor is run on a mobile workstation, it takes a thorough inventory of the hardware and software components in the system. Details of the configuration are revealed through an interactive block diagram that shows how the individual devices are interconnected, and allows access to certain system-level settings that can affect performance and reliability. HP Performance Advisor utilizes an extensive database to report the certified driver versions of over one hundred recognized applications that may be installed on the system, and it simplifies the download and installation of those drivers to prepare the workstation to begin crunching your workflow. The Workstation Monitor

feature of HP Performance Advisor can be employed to examine the long-term resource usage of the machine to report how the system is able to handle your dataset, possibly suggesting configuration changes to enable even more performance out of the system.

What is HP Velocity and what value does it bring to the HP ZBook G3 Mobile Workstations?
HP Velocity is a software solution that improves the user experience for cloud, mobile, and network-based applications by addressing common network bottlenecks, such as packet loss, network latency and Wi-Fi congestion. HP Velocity provides the greatest performance improvement for remote and branch offices, teleworkers, Wi-Fi, and 3G/4G. HP Velocity works by first sensing the network conditions and network technologies used on the network edge, and then intelligently applying optimizers to improve traffic quality by reducing packet loss, reducing latency, and generally improving the networking user experience. HP Velocity is also adaptive—when network conditions change, so do the optimizations that are applied to ensure the best QoS possible for your situation.

HP ZBook Dock with Thunderbolt™ 3

Will the legacy standard and advanced docking solutions used for the HP ZBook 15/17 G2 work with the new HP ZBook G3 Mobile Workstations?
The HP Standard and Advanced Docking Stations used for the HP ZBook 15/17 will not work on any of the new ZBook Mobile Workstations. The previous docking connector was located on the bottom of the chassis. The new ZBook Studio/15/17 Mobile Workstations no longer have this bottom connector and will leverage the Thunderbolt™ port to transition to the HP ZBook Dock with Thunderbolt™ 3. The HP ZBook 15u G3 will continue to utilize the existing HP Ultraslim side-docking station that is available on EliteBooks and the current HP ZBook 15u G2.

Why the HP make the decision to transition to a new ZBook Dock with Thunderbolt™ 3?
Thunderbolt™ 3 significant leap forward in transfer speeds (40 Gb/s) presented an opportunity to leverage connectivity over an existing port rather than having to design a docking connector into the mobile workstation. This allowed for a thinner, lighter, and overall optimized chassis to allow for other expandability features that our key workstation customers would value. Additionally, with the continued shift towards mobility—a traditional bottom docking solution adds thickness, weight, and overall clutter to the workspace—while the extremely compact and travel friendly ZBook Dock streamlines and frees up the workspace.

What are the key features of the HP ZBook Dock with Thunderbolt™ 3?
• Link up to 10 devices at once through ports that include Thunderbolt™ 3[3] (which also supports DisplayPort 1.2 and USB 3.1 Gen 2), four USB 3.0, RJ-45, VGA, combo audio, and two additional DisplayPorts.

• Simple, single cable connection delivering both power/charging and connectivity.

• Small, lightweight portable ID—allowing for optimized cable management.

Will the HP ZBook Dock with Thunderbolt™ 3 be able to power a mobile workstation?
Absolutely. Only a single combo cable will connect the ZBook Dock with the ZBook Mobile Workstation delivering both power and connectivity. The AC adapter will plug into the Dock and not be required on the mobile workstation. There will be two versions of the ZBook Dock: ZBook Dock with Thunderbolt™ 3 (150 W version for the HP ZBook 15 and 200 W version for the HP ZBook 17).

What is the difference between the HP ZBook Dock with Thunderbolt™ 3 and a port replicator?
The ZBook Dock has a custom designed Thunderbolt™ 3 power cable that allows you to power and charge your unit without having to connect an AC adapter onto your mobile workstation. A traditional port replicator requires you to have an AC Adapter plugged into your mobile workstation. Overall, the ZBook Dock allows you to expansive device, display, and network connectivity while simultaneous charging of your system.

Warranty and support

Will the HP ZBook G3 Mobile Workstations utilize the same HP Elite Support that the HP EliteBook notebooks use today?
Yes. Our HP Elite Premium Support offers support to our customers that reside in the US or English-speaking regions of Canada.

• Simply call us at 1.866.625.1175. There are no phone trees, and no time-consuming menus to wade through

• Connect to an exclusively U.S.-based team of Elite accredited specialists available 24/7/365

- Schedule appointments to suit you—we'll make our schedule match yours

- Work with your agent of choice when calling—just ask for them by name

- Receive priority repair status at any HP repair center

What is the warranty and support for HP Workstations with Windows?

The standard limited warranty for HP Workstations is 3-3-3 or 3-3-0 limited warranty depending on the country (three years parts, three years labor, and optional three years next business day on-site).[14]

Resources, contacts, or additional links for HP ZBooks

- HP ZBook 15u G3: hp.com/go/zbook15u

- HP ZBook Studio G3: hp.com/go/zbookstudio

- HP ZBook 15 G3: hp.com/go/zbook15

- HP ZBook 17 G3: hp.com/go/zbook17

- HP ZBook Dock with Thunderbolt™ 3: hp.com/go/zbookdock

Learn more about the HP Z family of products at
hp.com/zworkstations

[1] Not all configurations qualify as an Ultrabook™.

[2] Multicore 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.

[3] Thunderbolt™ cable and Thunderbolt™ device (sold separately) must be compatible with Windows. To determine whether your device is Thunderbolt™ Certified for Windows, see thunderbolttechnology.net/products. Internet access required.

[4] Sold as an optional feature.

[5] HP Remote Graphics Software requires Windows or Linux and an internet connection.

[6] HP Performance Advisor requires Windows and an internet connection.

[7] All HP ZBooks are designed to MIL-STD 810G testing. Testing was not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions.

[8] HD content required to view HD images.

[9] Maximum memory capacities assume Windows 64-bit operating systems or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

[10] For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB of system disk is reserved for system recovery software.

[11] With Blu-Ray, certain disc, digital connection, compatibility and/or performance issues may arise, and do not constitute defects in the product. Flawless playback on all systems is not guaranteed. In order for some Blu-ray titles to play, they may require a DVI or HDMI digital connection and your display may require HDCP support. HD-DVD movies cannot be played.

[12] Windows 7 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See bapco.com for additional details.

[13] 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. See microsoft.com.

[14] NBD as part of the standard limited warranty may vary by country. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at hp.com/go/cpc. Service levels and response times for HP Care Packs may vary depending on your geographic location.

[15] SATA hardware RAID is not supported on Linux systems. The Linux kernel, with built-in software RAID, provides excellent functionality and performance. It is a good alternative to hardware-based RAID. Please visit h20000.www2.hp.com/bc/docs/support/SupportManual/c00060684/c00060684.pdf for RAID capabilities with Linux.

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