HP Z6 G4 Workstation

A future-proof powerhouse

No matter what the future holds, you'll have all the performance you need. Ideal for VFX and rendering, this workhorse offers a wide range of processing power and the flexibility to upgrade components over time.

HP recommends Windows 10 Pro.

Designed to grow with you

- Invest only in the technology you need today, and easily upgrade in the future. Scale up with a broad range of configurations from single or dual processors to multiple graphics cards.

Relentless power

- Take on demanding workloads with high-powered processors, professional graphics and 384 GB of memory. Experience seamless performance during graphics-intensive work, such as visual effects and design visualization.

HP's most secure workstations

- Advanced security features come standard on every Z6. Rest assured your device, identity and data are safe with security software like HP Client Security Suite[2] and HP Sure Start, the industry's first self-healing BIOS with intrusion detection.

Featuring

- Support your unique user needs with a choice of Windows 10 Pro or Linux® operating systems.
- Achieve the performance you need with the ability to support two next generation Intel® Xeon® processors for up to 56 total processor cores in one system.
- Get serious about graphics and reach peak productivity with access to a breadth of NVIDIA® and AMD professional graphics from entry to ultra 3D.
- Install the fastest professional grade storage hardware around, unlocking performance for storage-bound applications without sacrificing standard PCIe slots.
- The Z6 workstation's sleek, iconic design doesn't compromise on quiet, reliable performance.
- HP SureStart automatically detects intrusions in real-time, notifies you, and restores the BIOS you use, so you can breathe easier.
- Create two network connections without the added cost of a PCIe NIC with dual embedded 1GbE LAN ports which come standard.
- The optional dual front I/O USB 3.1 G2 Type C™ module lets you transfer data to devices using modern connection technology at higher data rates.
- The optional dual 10 GbE module allows you to share big data files with 10x the bandwidth of standard office networking and with Thunderbolt™ 3 technology for fast data transfers.
- Optional self-encryption drives thwart outside access so your valuable IP won't fall into the wrong hands.
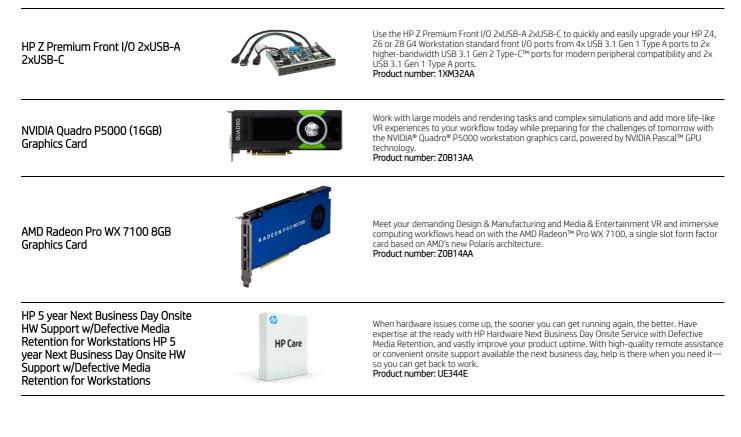
HP Z6 G4 Workstation Specifications Table

Available Operating Systems	Windows 10 Pro for Workstations 64 - HP recommends Windows 10 Pro[1,21,22] HP Installer Kit for Linux®[23] Red Hat® Enterprise Linux®[23] HP Linux® Installer Kit includes drivers for 64-bit versions of Red Hat® Enterprise Linux® 7.4, SUSE Linux® Enterprise Desktop 12 and Ubuntu 16.04. Red Hat® Enterprise Linux® (1-year paper license only) is available as a second operating system.
Processor family	Intel® Xeon® Scalable processor
Available Processors[2,3]	Intel® Xeon® Platinum 8180 (2.5 GHz base frequency, up to 3.8 GHz with Intel® Turbo Boost Technology, 38.5 MB cache, 28 cores) Intel® Xeon® Platinum 8160 (2.1 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 33 MB cache, 24 cores) Intel® Xeon® Gold 6154 (3 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 18 cores) Intel® Xeon® Gold 6152 (2.1 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 30.25 MB cache, 22 cores) Intel® Xeon® Gold 6148 (2.4 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 27.5 MB cache, 20 cores) Intel® Xeon® Gold 6142 (2.6 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 22 MB cache, 16 cores) Intel® Xeon® Gold 6140 (2.3 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 18 cores) Intel® Xeon® Gold 6136 (3 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 12 cores) Intel® Xeon® Gold 6134 (3.2 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 8 cores) Intel® Xeon® Gold 6132 (2.6 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 19.25 MB cache, 14 cores) Intel® Xeon® Gold 6130 (2.1 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 22 MB cache, 16 cores) Intel® Xeon® Gold 6128 (3.4 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 19.25 MB cache, 6 cores) Intel® Xeon® Gold 6126 (2.6 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 19.25 MB cache, 12 cores) Intel® Xeon® Gold 5120 (2.2 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 19.25 MB cache, 14 cores) Intel® Xeon® Gold 5118 (2.3 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 12 cores) Intel® Xeon® Gold 5215 (2.5 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 13.75 MB cache, 10 cores) Intel® Xeon® Gold 5218 (2.3 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 22 MB cache, 16 cores) Intel® Xeon® Gold 5220 (2.2 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 18 cores) Intel® Xeon® Gold 5222 (3.8 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 4 cores) Intel® Xeon® Gold 6230 (2.1 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 27.5 MB cache, 20 cores) Intel® Xeon® Gold 6240 (2.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 18 cores) Intel® Xeon® Gold 6240Y (2.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 18 cores) Intel® Xeon® Gold 6242 (2.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 22 MB cache, 16 cores) Intel® Xeon® Gold 6244 (3.6 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 8 cores) Intel® Xeon® Gold 6248 (2.5 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 27.5 MB cache, 20 cores) Intel® Xeon® Gold 6252 (2.1 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 35.75 MB cache, 24 cores) Intel® Xeon® Gold 6254 (3.1 GHz base frequency, up to 4.0 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 18 cores) Intel® Xeon® Platinum 8260 (2.4 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 35.75 MB cache, 24 cores) Intel® Xeon® Platinum 8280 (2.7 GHz base frequency, up to 4.0 GHz with Intel® Turbo Boost Technology, 38.5 MB cache, 28 cores) Intel® Xeon® Gold 5115 (2.4 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 13.75 MB cache, 10 cores) Intel® Xeon® Gold 6138 (2.0 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 27.5 MB cache, 20 cores) Intel® Xeon® Gold 6144 (3.5 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 8 cores) Intel® Xeon® Gold 6146 (3.2 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 12 cores) Intel® Xeon® Bronze 3104 (1.7 GHz, 8.25 MB cache, 6 cores) Intel® Xeon® Bronze 3106 (1.7 GHz, 11 MB cache, 8 cores) Intel® Xeon® Bronze 3204 (1.9 GHz base frequency, 8.25 MB cache, 6 cores) Intel® Xeon® Gold 5122 (3.6 GHz base frequency, up to 3.7 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 4 cores) Intel® Xeon® Silver 4108 (1.8 GHz base frequency, up to 3 GHz with Intel® Turbo Boost Technology, 11 MB cache, 8 cores) Intel® Xeon® Silver 4110 (2.1 GHz base frequency, up to 3.0 GHz with Intel® Turbo Boost Technology, 11 MB cache, 8 cores) Intel® Xeon® Silver 4112 (2.6 GHz base frequency, up to 3 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 4 cores) Intel® Xeon® Silver 4114 (2.2 GHz base frequency, up to 3 GHz with Intel® Turbo Boost Technology, 13.75 MB cache, 10 cores) Intel® Xeon® Silver 4116 (2.1 GHz base frequency, up to 3 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 12 cores) Intel® Xeon® Silver 4208 (2.1 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 11 MB cache, 8 cores) Intel® Xeon® Silver 4210 (2.2 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 13.75 MB cache, 10 cores) Intel® Xeon® Silver 4214 (2.2 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 12 cores) Intel® Xeon® Silver 4214Y (2.2 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 12 cores) Intel® Xeon® Silver 4215 (2.5 GHz base frequency, up to 3.5 GHz with Intel® Turbo Boost Technology, 11 MB cache, 8 cores) Intel® Xeon® Silver 4216 (2.1 GHz base frequency, up to 3.2 GHz with Intel® Turbo Boost Technology, 22 MB cache, 16 cores) Intel® Xeon® W-3245 (3.2 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 22 MB cache, 16 cores) Intel® Xeon® W-3235 (3.3 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 19.25 MB cache, 12 cores) Intel® Xeon® W-3225 (3.7 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 8 cores) Intel® Xeon® W-3223 (3.5 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 16.5 MB cache, 8 cores)
Chipset	Intel® C622
Maximum memory	384 GB DDR4-2666 ECC RAM; 768 GB DDR4-2933 ECC RAM [20] Transfer rates up to 2933MT/s.
Memory slots	12 DIMM with 2 processors
Internal storage	300 GB SAS (15000 rpm)[4] 500 GB up to 2 TB SATA (7200 rpm)[4] 500 GB SATA SED (7200 rpm)[4] 1 TB up to 6 TB 7200 rpm SATA Enterprise[4] 256 GB up to 2 TB SATA SSD[4] 256 GB up to 512 GB SATA SED Opal 2 SSD[4] 240 GB up to 480 GB SATA Enterprise SSD[4] 256 GB up to 1 TB HP Z Turbo Drive PCIe® NVMe™ SSD[4] 256 GB up to 1 TB HP Z Turbo Drive PCIe® NVMe™ SSD M.2[4] 256 GB up to 512 GB HP Z Turbo Drive PCIe® NVMe™ SED SSD M.2[4] 256 GB up to 8 TB HP Z Turbo Drive Quad Pro PCIe® SSD[4] 256 GB up to 4 TB HP Z Turbo Drive Dual Pro PCIe® SSD[4]
Additional storage	HP SD 4 Media Card Reader (optional)
Optical drive[5,6]	HP Slim DVD-ROM; HP Slim Blu-ray Writer; HP Slim DVD-Writer
Available Graphics	Entry 3D: NVIDIA® Quadro® P400 (2 GB GDDR5 dedicated); NVIDIA® Quadro® P620 (2 GB GDDR5 dedicated) Mid-range 3D: AMD Radeon™ Pro WX 3100 Graphics (4 GB GDDR5 dedicated); AMD Radeon™ Pro WX 4100 Graphics (4 GB GDDR5 dedicated); NVIDIA® Quadro® P1000 (4 GB GDDR5 dedicated); NVIDIA® Quadro® P2000 (5 GB GDDR5 dedicated); NVIDIA® Quadro® P2200 (5 GB GDDR5X dedicated); AMD Radeon™ Pro WX 3200 Graphics (4 GB GDDR5 dedicated) High-end 3D: NVIDIA® Quadro® P4000 (8 GB GDDR5 dedicated); AMD Radeon™ Pro WX 7100 Graphics (8 GB GDDR5 dedicated); NVIDIA® Quadro® RTX 4000 (8 GB GDDR6 dedicated) Ultra High-end 3D: AMD Radeon™ Pro WX 9100 Graphics (16 GB HBM2 dedicated); NVIDIA® Quadro® GP100 (16 GB HBM2 dedicated); NVIDIA® Quadro® P5000 (16 GB GDDR5X dedicated); NVIDIA® Quadro® P6000 (24 GB GDDR5X dedicated); NVIDIA® Quadro® SYNC II; NVIDIA® Quadro® RTX 5000 (16 GB GDDR6 dedicated); NVIDIA® Quadro® RTX 6000 (24 GB GDDR6 dedicated); NVIDIA® Quadro® RTX 8000 (48 GB GDDR6 dedicated)[7,20]
Audio	Realtek HD ALC221
Expansion slots	3 PCIe x4; 1 PCIe x8; 2 PCIe x16; 2 M.2 PCIe x4 (Slot 1: CPU with open-ended connector. Slots 3 and 6: PCH with open-ended connector. Slot 4: CPU with open-ended connector (slot converts to x4 electrical when SSD is installed in 2nd M.2 slot). M.2 Slots 1 and 2: CPU up to 80 mm storage devices.)
Ports and Connectors	Front: 1 headset connector; 4 USB 3.1 (1 charging) Rear: 6 USB 3.1 Gen 1; 2 RJ-45 (1 GbE); 1 audio-in; 1 audio-out; 1 PS/2 mouse port; 1 PS/2 keyboard port; 1 serial (Premium front includes: 1 headset, 2 USB 3.1 Gen1 (1 charging), 2 USB 3.1 Gen 2 Type-C™.)
Available Keyboards	HP Wireless Business Slim Keyboard and Mouse Combo; HP USB Business Slim Keyboard; USB Premium wired keyboard; USB Smart Card (CCID) keyboard[10]
Available Pointing Devices	3Dconnexion CADMouse; HP USB Optical Mouse; HP PS/2 Mouse; HP USB Hardened Mouse[10]
LAN[19] Network Interface[19]	HP dual-port 10GBase-T NIC Integrated Intel® I219-LM PCIe® GbE Integrated Intel® X722 PCIe® GbE Intel® 10 GbE SFP+ SR transceiver Intel® I210-T1 PCIe® GbE Intel® I350-T4 dual-port GbE NIC Intel® X550-T2 dual-port GbE NIC Intel® X710-DA2 dual-port GbE NIC Intel® I350-T2 GbE NIC
Drive Bays	Two 5.25"; Two 2.5" or 3.5" [16]
Available Software	HP Remote Graphics Software (RGS); HP Performance Advisor
Security management[14,15,18]	HP Sure Start Gen3; Secure authentication; Kensington lock slot; Full volume encryption; HP Keyed Cable Lock Kit; TPM 2.0 certified; HP Secure Erase
Power	1000 W internal power supply, up to 90% efficiency, active PFC; 700 W internal power supply, up to 90% efficiency, active PFC
Dimensions	6.65 x 18.3 x 17.5 in; 16.9 x 46.5 x 44.5 cm
Weight	Starting at 29 lb; Starting at 13.1 kg
Energy efficiency compliance[11]	ENERGY STAR® certified and EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See www.epeat.net for registration status by country.
Environmental specifications[12]	Low halogen
Compatible displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays.
Warranty	Protected by HP Services, including a 3 years parts, 3 years labor, and 3 years onsite service (3-3-3) standard limited warranty. Certain restrictions. 24/7 operation will not void the HP warranty.

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Accessories and services (not included)

HP Z Premium Front I/O 2xUSB-A 2xUSB-C

Use the HP Z Premium Front I/O 2xUSB-A 2xUSB-C to quickly and easily upgrade your HP Z4, Z6 or Z8 G4 Workstation standard front I/O ports from 4x USB 3.1 Gen 1 Type A ports to 2x higher-bandwidth USB 3.1 Gen 2 Type-C™ ports for modern peripheral compatibility and 2x USB 3.1 Gen 1 Type A ports.
Product number: 1XM32AA

NVIDIA Quadro P5000 (16GB) Graphics Card

Work with large models and rendering tasks and complex simulations and add more life-like VR experiences to your workflow today while preparing for the challenges of tomorrow with the NVIDIA® Quadro® P5000 workstation graphics card, powered by NVIDIA Pascal™ GPU technology.
Product number: Z0B13AA

AMD Radeon Pro WX 7100 8GB Graphics Card

Meet your demanding Design & Manufacturing and Media & Entertainment VR and immersive computing workflows head on with the AMD Radeon™ Pro WX 7100, a single slot form factor card based on AMD's new Polaris architecture.
Product number: Z0B14AA

HP 5 year Next Business Day Onsite HW Support w/Defective Media Retention for Workstations HP 5 year Next Business Day Onsite HW Support w/Defective Media Retention for Workstations

When hardware issues come up, the sooner you can get running again, the better. Have expertise at the ready with HP Hardware Next Business Day Onsite Service with Defective Media Retention, and vastly improve your product uptime. With high-quality remote assistance or convenient onsite support available the next business day, help is there when you need it—so you can get back to work.
Product number: UE344E

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Messaging Footnotes

[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 http://www.windows.com
[2] HP Client Security Suite features vary by platform.
[3] 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.
[4] Sold separately or as an optional feature.
[5] HP Z Premium Front I/O 2xUSB-A 2xUSB-C is sold separately or as an optional feature.
[6] HP dual-port 10GBase-T NIC is sold separately or as an optional feature.
[7] Available in the first half of 2019.
Screen image courtesy of Chris McLennan
Screen image courtesy of Renault Sport Racing

Technical Specifications Footnotes

[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 http://www.windows.com.
[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, branding and/or naming is not a measurement of higher performance.
[3] Some vPro functionality of this technology, such as Intel® Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Microsoft Windows required.
[4] For hard drives and solid state drives, 1 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.
[5] Duplication of copyrighted material is strictly prohibited. Actual speeds may vary. Double Layer media compatibility will widely vary with some home DVD players and DVD-ROM drives. Note that DVD-RAM cannot read or write to 2.6GB Single Sided/5.2 Double Sided-Version 1.0 Media. No support for DVD RAM.
[6] 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 on this Desktop PC.
[7] HP VR Ready Configurations available.
[8] For systems installed with Microsoft Windows 7 (Ultimate, Enterprise or Professional), the maximum accessible system memory is 192 GB. For systems installed with Microsoft Windows 8.x (Enterprise or Pro), the maximum accessible system memory is 512 GB.
[9] Wireless access point and Internet access required. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.
[10] Optional or add-on feature.
[11] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
[12] External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.
[13] HP Remote Graphics Software requires a Windows, Linux®, or Mac®OS X 10.10 and newer operating system and network access.
[14] HP Sure Start Gen3 is available on HP EliteBook, HP ZBook, and HP Z Workstation products equipped with Intel® 7th generation processors.
[15] HP Secure Erase: For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88. Supported on Elite platforms with BIOS version F.03 or higher.
[16] Each bay is configurable to 2.5" or 3.5".
[18] HP Keyed Cable Lock Kit is available only as an aftermarket option.
[19] HP dual-port 10GBase-T NIC is sold separately or as an optional feature.
[20] Available in the first half of 2019.
[21] Windows 10 Pro is preinstalled. Windows 7 media is only available upon request from HP Customer Support. 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.
[22] NOTE: In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 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://www.support.hp.com.
[23] Notes: For detailed Linux® OS/hardware support information, see: http://www.hp.com/support/linux_hardware_matrix
[24] Intel® I350-T4 dual/quad-port GbE NIC is sold separately or as an optional feature.

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