CHOOSING THE RIGHT HP WORKSTATION

Overview

- Find the workstation that fits your needs
- Get the most out of your add-on budget
- Compare workstation features to plan ahead

HP's family of personal workstations

Workstations have a variety of characteristics that can give an organization a competitive advantage, increase business productivity, and allow users to work with confidence and peace of mind. HP offers a full range of workstations (including workstation blades, not discussed here) that are exclusively designed and engineered to give customers an edge up on their competitors. HP personal workstations feature:

System reliability—Features such as error checking and correcting (ECC) memory and more sophisticated cooling mechanisms help ensure expandability while maintaining high reliability.

ISV application certification—ISV certification means application and workstation combinations have been thoroughly tested together, giving predictable and reliable results from one application run to the next.

Superior return on investment—Features that increase ROI include a large number of I/O slots, toolless chassis design, and the additional performance possibilities from single or dual multi-core processors[1].

Professional graphics—Workstations are designed to support the most powerful graphics cards, a requirement for high-end applications where multiple 2D or 3D monitors are required.

Choosing the right workstation

Given the wide range of price and performance covered by the HP family of personal workstations, choosing the right workstation can be a challenge.

The enclosed tables help a prospective buyer determine the optimal workstation solution. The table on the following page has the following columns:

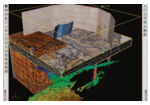
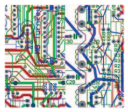
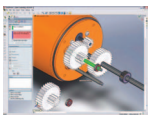
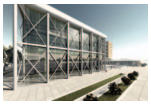
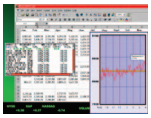
"Application segment"—A general description of the kind of application into which the workstation will be deployed. It is generally sorted by decreasing need of performance and other features, and contains a brief description of the market.

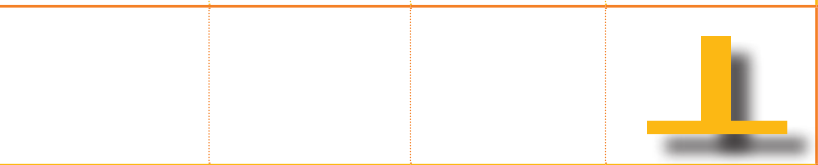
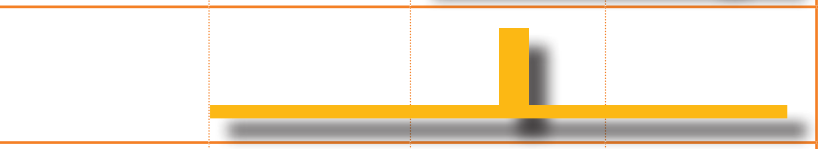
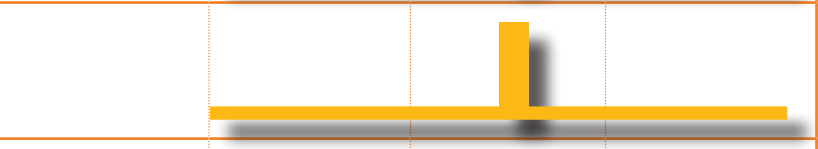
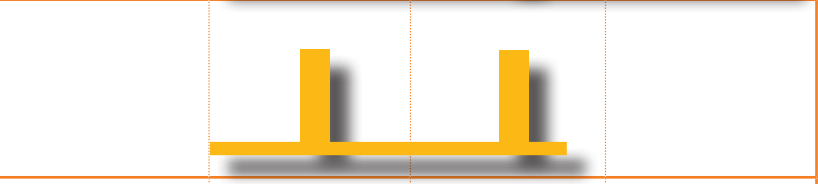
"You generally need..."—A generalization of the top two or three most important requirements for this market segment (in priority order). This list assumes that a purchaser has to make some priority decisions based on budget.

"Choose the right workstation"—A visual indication of the first choice of workstation model to choose.

"...Choose your add-ons"—Answers the question "If I have a small amount (5-10% of the purchase price) of budget left, how is it best spent?" These items are in priority order, and generally describe the most effective add-ons to purchase given the primary workstation model and application segment.

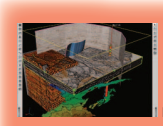
Windows®. Life without Walls™. HP recommends Windows 7.

	If your application segment is...	You generally need...
	**Oil & Gas:** Oil and Gas applications range from commercial to highly technical. HP concentrates applications that deal with the discovery and production of oil and gas resources. Applications require large memory, high-end visualization, and high-end storage and professional 3D graphics. Image courtesy of Landmark Graphics.	• Large memory • Multiple large monitors • Multiple cores • Large storage capacity • High end 3D graphics
	**High-end CAD and CAE:** (UGS NX, Pro/ENGINEER, and CATIA). These applications often require large memory capacity, high-end and extreme 3D graphics, and elaborate RAID solutions. Image courtesy of Autodesk.	• High end 3D graphics • Large memory • Large storage capacity • RAID
	**Electronic Design Automation (EDA):** Electronic Design Automation describes of a wide variety (and large number) of applications. About anything to do with designing electronic components, from structural analysis to electromagnetic radiation interference to chip design is considered "EDA."	• Large memory • Low price • Performance • Multi-OS support
	**High-end DCC Video/Audio:** (Autodesk Maya, 3ds Max, Avid DS, Symphony, Media Composer, Digidesign Pro Tools HD). These customers often require high-end or extreme 3D graphics cards, multiple dual- or quad-core processors, and very large memory capacities, although in some cases the entry-level systems fit well.	• 3D graphics • Performance • Large memory • High storage capacity
	**Financial Services:** Needs include a low-cost system, typically used in front office environments where power users, bankers and financial planners are using many applications and require multiple 2D displays. Select the Z400 for power users, Select the Z600 for traders and Select the Z800 for simulation and modeling.	• Multiple monitors • Low price • Performance
	**Mid DCC Animation/Imaging:** (Autodesk Maya, Autodesk MotionBuilder, Adobe After Effects, ToonBoom). Users that are doing advanced image manipulation and 3D animation require good performance at a moderate price. Image courtesy of CraneDigital, LLC.	• Multiple monitors • 3D graphics • Performance
	**Mid DCC Video/Audio:** (Avid Media Composer, Adobe CS4 Production Premium, Sony Vegas Pro, Digidesign Pro Tools LE). Users whose primary work is HD and SD video editing including 2D and 3D visual effects creation as well as audio editing and audio effects creation. For some of these users the high-end systems will be a better fit. Image courtesy of Colin Levy, Peerless Productions.	• Low price • 2D graphics • Performance • Large storage
	**Mid CAD:** (UGS SolidEdge, SolidWorks, Autodesk Inventor, and Bentley MicroStation). In general, the entry workstation will be a great fit for those users that require mid-market CAD solutions but are price sensitive. Image courtesy of SolidWorks.	• Low price • 2D/3D graphics • Medium memory
	**Entry DCC:** (Adobe CS4 Design Premium, Photoshop, Illustrator, Flash, Pinnacle Studio, Sony Vegas, Cakewalk). An entry workstation is an excellent fit for users whose primary work is 2D graphics creation, photography, illustration, and basic video/audio editing. For a select number of these users, the high-end systems will be a better fit. Image courtesy of Cakewalk (a division of Roland Corporation)	• Low price • 2D graphics • Performance
	**CAD—Entry:** (Autodesk AutoCAD, AutoCAD LT, Architecture, and Mechanical Desktop; Educators, Students and Others). This is a "sweet spot" for entry-level workstations in the CAD space. It combines price sensitivity with the performance needed to run 2D and 3D entry level CAD. Image courtesy of Autodesk.	• Low price • 2D/3D graphics • Performance
	**Power Office:** Day-to-day users that perform complicated and data-intensive office functions. This includes graphics, video and web design, complex linked worksheet calculations, database storage/access and spreadsheet manipulations.	• Low price • Performance • 2D/3D graphics
	**Software Development:** High-end software development involves the manipulation of many files. Data accuracy and integrity for this type of work needs to be extremely high, and for this reason software developers need ECC memory.	• ECC memory • Low price • Performance • Multi-OS support
	**Public Sector:** Users in the Public Sector (government organizations including the military, educational institutions, and some healthcare and other not-for-profit organizations) have an extremely diverse set of application needs. Needs include a stable lifecycle and pricing.	• Low price • Stable lifecycle • ENERGY STAR® qualified • Reliability & security

Choose the right workstation Z200 SFF/Z200 Z400 Z600 Z800	...Then choose your add-ons
	1) Add graphics/monitors 2) Add processor/cores 3) Add memory 4) More disk space
	1) Add graphics/monitors 2) Add processor/cores 3) Add memory 4) Additional hard drives 5) Add an HP Space Pilot
	1) Add memory 2) Select Z600/Z800 3) Add processor/cores 4) Add memory
	1) Higher performance graphics 2) Add processor/cores 3) Add memory 4) Increase disk space 5) Add an HP Space Pilot
	1) Use Z600 for traders 2) Add graphics/monitors 3) Add processor/cores 4) Select Z800
	1) Select Z400 2) Add processor cores (on Z600) 3) Add memory
	1) Select Z400 2) Additional hard drives 3) Add processor/cores 4) Add memory
	1) Select Z600 2) Add processor/cores 3) Add/upgrade graphics 4) Add memory 5) Add an HP Space Pilot
	1) Select Z400 2) Add memory
	1) Select Z400 2) Add memory
	1) Select Z400 2) Add memory 3) Additional displays
	1) Select Z400 2) Add memory
	Add-ons depend upon the application; refer to the particular application segment for additional information. (Note: also choose application segment on following page).

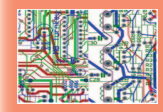
Windows®. Life without Walls™. HP recommends Windows 7.

Segment requirements at-a-glance



Oil & Gas
>128 GB memory
Dual Extreme Professional 3D Graphics
Image Courtesy of Landmark Graphics

High-end CAD and CAE
Dual 3D graphics
64-bit OS
Image Courtesy of Autodesk



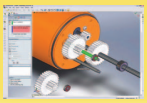
EDA
32+ GB memory

High-end DCC Video/Audio
Lots of high-speed storage,
Maximum I/O

DCC Animation
4 I/O Slots,
Performance I/O, high-end graphics
Image courtesy of CraneDigital, LLC

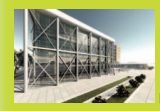
Financial Services
16 GB memory,
2D graphics, multiple (>4) monitors

Mid DCC Video/Audio
4-8 GB memory,
3D graphics, large monitor(s)
Image courtesy of Colin Levy, Peerless Productions



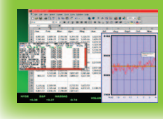
Mid CAD
Midrange I/O, 3D graphics,
Large monitor(s)
Image courtesy of SolidWorks

Entry DCC
2-3 HDD, 2D/3D graphics,
3 I/O Slots, large monitor(s)
Image courtesy of Cakewalk (a division of Twelve Tone Systems, Inc.)



Entry CAD
2 GB memory,
Entry 3D graphics, medium monitor(s)
Image courtesy of Autodesk

Power Office
Single CPU socket,
2 I/O Slots,
Single 2D graphics



Software Development
Single CPU socket,
2 GB memory,
Single 2D graphics

HP Z800 Workstation
- 1-2 Intel® Xeon® processors[2]
- Genuine Windows® 7 Professional†
- Genuine Windows Vista® Business†
- 192 GB ECC memory[3]
- 7.5 TB[4] Internal storage
- NVIDIA® SLI capable

Screen image courtesy of SolidWorks

HP Z600 Workstation
- 1-2 Intel® Xeon® processors[2]
- Genuine Windows® 7 Professional†
- Genuine Windows Vista® Business†
- 24 GB ECC memory[3]
- 4.5 TB[4] Internal storage

Screen image courtesy of Autodesk

HP Z400 Workstation
- 1 Intel® Xeon® processor[2]
- Genuine Windows® 7 Professional†
- Genuine Windows Vista® Business†
- 16 GB ECC memory[3]
- 6 TB[4] Internal storage

HP Z200 SFF/Z200 Workstation
- 1 Intel® Celeron®, Core®, Pentium®, or Xeon® Processor[2]
- Genuine Windows® 7 Professional†
- 16 GB ECC memory[3]
- 4.5 TB[4] Internal storage

Increasing Features/Performance

To learn more, visit www.hp.com/go/workstations, www.hp.com/accessories/workstations

† Windows 7 systems may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See http://www.microsoft.com/windows/windows-7/ for details. Certain Windows Vista product features require advanced or additional hardware. See www.microsoft.com/windowsvista/getready/hardwarereqs.mspx and www.microsoft.com/windowsvista/getready/capable.mspx for details. Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit www.windowsvista.com/upgradeadvisor.

1. Dual-Core and Quad-Core technologies are designed to improve performance of multithreaded software products and hardware-aware multitasking operating systems and may require appropriate operating system software for full benefits; check with software provider to determine suitability. Not all customers or software applications will necessarily benefit from use of these technologies. Dual processor sockets available on certain models.
2. 64-bit computing on Intel architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. See www.intel.com/info/em64t for more information.
3. 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.
4. 1 TB = 1 trillion bytes. 1 GB = 1 billion bytes. Actual formatted capacity is less. Up to 8 GB (for Windows XP and XP Pro), up to 12 GB (for Windows Vista), and up to 16 GB (for Windows 7) of system disk space is reserved for system recovery software.

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