

Workstation Innovation News

Understanding your desktop technology

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HP Smart Buys



HP's Performance Advisor

Get the most from your workstation investment.

By Robert Green, Cadalyst Contributing Expert



You know that wonderful feeling: you open the box, excited to fire up that brand-new computer and enjoy the fast performance that comes with having all the right drivers and system settings to make your machine purr. No driver problems and no memory hassles, just optimal performance. Chances are that you've also experienced the disappointment of working with a machine that's a couple of years old

and that has problematic drivers or improper system settings that rob it of the performance it once provided.

It is exactly that latter scenario that HP's Performance Advisor aims to eliminate. In fact, HP's goal is to keep your new HP Workstation running as if it were new throughout the entire service lifetime, so you can achieve every last bit of performance from your workstation investment. Are you interested?



HP Workstations come with HP Performance Advisor preinstalled.

The Workstation Guru

HP's Performance Advisor acts as your own personal guru to assist you in getting the maximum level of performance from your HP Workstation. Grouped into three main categories, Performance Advisor provides an easy interface for launching into subapplications that enable detailed management of your workstation, including:

The New Z200 Small Form Factor Workstation

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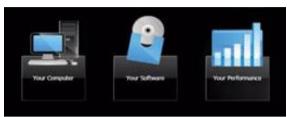
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Your Computer. It controls hardware configuration management by driver selection and installation.

Your Software. It allows you to keep software up to date easily through service pack updates and certified driver notifications for your installed applications.

Your Performance. It collects data about memory resource use so you can install the optimal amount of RAM for your needs.

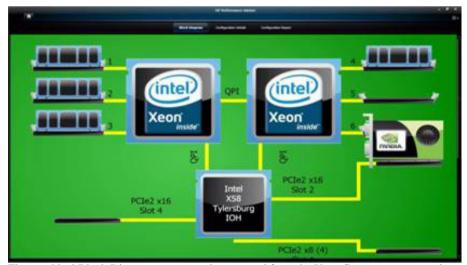


HP Performance Advisor addresses three areas of functionality: Your Computer, Your Software, and Your Performance. Learn more at the HP Performance Advisor web page.

Let's explore how Performance Advisor works by stepping through its three major areas of functionality.

Hardware Management

To see Performance Advisor's functionality, simply click the Your Computer menu option, which opens the graphical Block Diagram screen, as shown below.

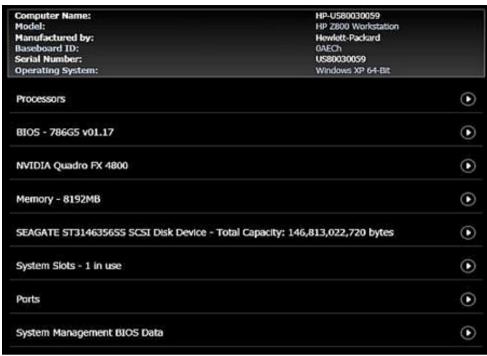


The graphical Block Diagram screen can be accessed from the Your Computer menu option.

The block diagram displays an overview of your workstation's hardware devices, including its processing cores, RAM, motherboard, graphics card, and available PCI slots, thus making it easier to understand what is actually inside the workstation without having to open the housing. Simply click the block diagram component, and you'll be given a summary of every system resource relating to that component, including Windows operating system information. No need to trudge through Windows' Device Manager or utility programs to learn what's in your system; Performance Advisor has it covered.

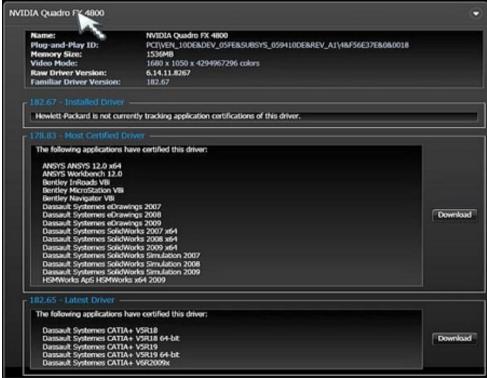
To obtain more information about the workstation's devices, use the Configure Details

tab to expose a summary listing of all devices, as shown below.



Clicking on the Configure Details tab creates a summary listing of all devices.

To work with a given device, simply click that item within the list and then the detailed configuration panel for that device will open. The example below shows the graphics card panel, which displays some very impressive functionality.



The graphics card panel.

The graphics card configuration includes panels along the bottom of the screen for downloading the latest driver for the card (for operating system purposes) and the latest CAD graphics driver that has been certified by your software application vendors. Note that the certified driver also lists other tested applications so you'll know whether the

new driver will also work with other installed CAD tools.

The final tab of the interface -- the Configuration Report -- collects all known configuration data in the workstation into a unified report that tells you everything you need to know about hardware use, as shown below.



The Configuration Report collects all workstation configuration data into a unified report and tells you everything you need to know about hardware use.

An additional hardware management bonus is the ability to save the configuration screen to a file that you can send to your IT support personnel so they can see everything going on in your machine without having to stop by or log in remotely, thus saving support time.

Driver Management

Let me ask a simple question: How hard is it to keep all the correct system drivers on a normal desktop computer during a three-year life span as operating system service packs and CAD updates are applied?

The surprising answer is that as your application software changes, the drivers required change as well and it isn't always easy to know which drivers are the ones you really need.



HP Performance Advisor tracks installed graphics cards and CAD applications and builds a database of vendor-certified device drivers.

As the figure above shows, Performance Advisor keeps track of what graphics cards and CAD applications are installed so it can build a database of vendor-certified device drivers, so you don't have to spend your time worrying about drivers. The same can be said of system-level drivers as operating systems are updated as well as audio drivers and any other system components that must be updated over time.

Application Management

Of course, making your workstation efficient isn't just about hardware and driver management. Most CAD users must run a small selection of CAD applications every day, and for these users, software performance is the ultimate measure of productivity. HP Performance Advisor helps to realize a workstation's full potential by allowing you to manage all your programs using the Your Software tab.



HP Performance Advisor manages all applications using the Your Software menu.

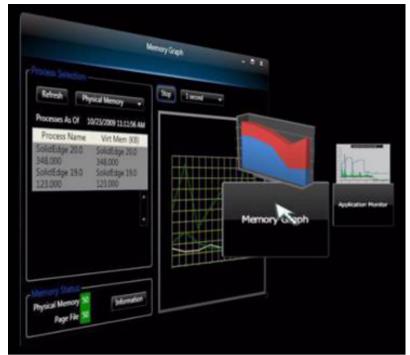
From this screen, you can check on any installed application to make sure it is using the latest service pack releases or to check on the latest driver certifications availability from vendors. So rather than having to check several software vendor's web sites to figure out if your applications are up to date, Performance Advisor will do the work for you.

In addition to service packs and drivers, you can also access performance tips, white papers, hardware tips (for peripherals such as plotters, printers, and pointing devices), and other applicable information from HP. Think of it as a preconfigured smart search for anything that might be helpful for running your installed CAD applications.

Performance Tuning

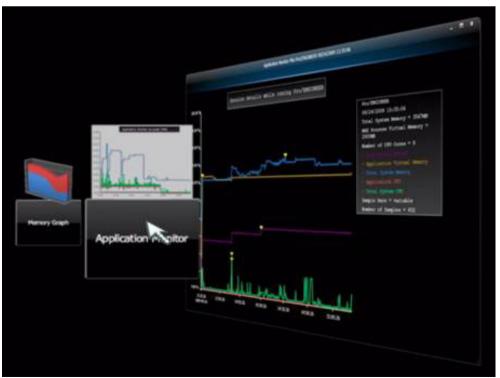
The final element of the Performance Advisor interface is the Your Performance tab, which provides two useful functions for analyzing your workstation's performance.

The first useful tool (shown below) is the Memory Graph function, which allows you to see RAM and disk virtual memory allocations for all processes running on your workstation. The Memory Graph allows you to understand which applications require the most memory so you can determine which applications to run concurrently -- or which to unload -- to squeeze maximum performance from your workstation.



The Memory Graph function lets you see RAM and disk virtual memory allocations for all processes running on your workstation.

The second useful tool (shown below) is the Application Monitor, which shows RAM and disk virtual memory use for the entire machine in a resource-monitor-like timeline. In fact, Application Monitor stores data so you can share your workstation-performance parameters with your IT department. Because you can configure these tools to store time-lapse performance data during a user-defined period, you'll be able to collect real-world information about how your CAD applications actually are performing. Note that the ability to store system-performance data can be very compelling when requesting performance-enhancing upgrades such as more RAM or solid state disks, because your workstation is documenting your case for you.



The Application Monitor shows RAM and disk virtual memory use for the entire workstation.

Killer Savings

Now that you know how HP's Performance Advisor can make it easier to maintain your machine, let me put on my accountant's green visor for a moment and illustrate the cost savings that your company can achieve. The savings delivered by Performance Advisor come in three principal categories.

IT savings. IT savings are realized because traditional IT-based tasks such as updating operating system, hardware, and application software drivers can be performed in an automated way with far less IT oversight.

Troubleshooting savings. Troubleshooting savings can be obtained using the machine logging reports that are compiled automatically by Performance Advisor to assist IT personnel if any repairs are required.

Labor savings. Operator labor savings simply are the rewards that come from running a faster, better-configured workstation that performs tasks in less time and frees an operator to perform other tasks.

When you tally the savings generated by using Performance Advisor, it becomes apparent that the cost of owning an HP Workstation during its three-year lifetime can actually be lower than that of budget machines that require more maintenance and offer lower performance. After all, why would you spend money on a new workstation if you can't attain optimal performance?

In Conclusion

The key value of HP's Performance Advisor is its ability to illustrate how much time is lost keeping our computers properly configured and how little we actually understand about how to make our application software run better. It then helps us take care of those problems. Just think of how much time and money you'll save by letting Performance Advisor take care of your workstation instead of having to do it yourself or asking your IT department to take care of it.

It's rare when a piece of software makes your life easier and saves you money at the same time, but HP's Performance Advisor does just that. This quick analysis demonstrates how much extra value Performance Advisor adds to your HP Workstation investment.

About the Author

Robert Green

Robert provides CAD implementation, consulting, and programming services for a variety of companies throughout the United States and Canada. He holds a degree in mechanical engineering from the Georgia Institute of Technology and is the author of *Expert CAD Management: The Complete Guide*. Reach him via his web site at www.cad-manager.com.

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