

1. problem steps recorder

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1. Problem Steps Recorder As the local PC guru you're probably very used to friends and family asking for help with their computer problems, yet having no idea how to clearly describe what's going on. It's frustrating, but Microsoft feels your pain, and Windows 7 will include an excellent new solution in the Problem Steps Recorder. When any app starts misbehaving under Windows 7 then all your friends need do is click Start, type PSR and press Enter, then click Start Record. If they then work through whatever they're doing then the Problem Steps Recorder will record every click and keypress, take screen grabs, and package everything up into a single zipped MHTML file when they're finished, ready for emailing to you. It's quick, easy and effective, and will save you hours of troubleshooting time.

2. Burn images Windows 7 finally introduces a feature that other operating systems have had for years - the ability to burn ISO images to CDs or DVDs. And it couldn't be much easier to use. Just double-click the ISO image, choose the drive with the blank disc, click Burn and watch as your disc is created.

3. Create and mount VHD files Microsoft's Virtual PC creates its virtual machine hard drives in VHD files, and Windows 7 can now mount these directly so you can access them in the host system. Click Start, type diskmgmt. msc and press Enter, then click Action > Attach VHD and choose the file you'd like to mount. It will then appear as a virtual drive in Explorer and can be accessed, copied or written just like any other drive. Click Action > Create VHD and you can now create a new virtual drive of your own (right-click it, select Initialise Disk, and after it's set up right-click the unallocated space and select New Simple Volume to set this up). Again, you'll be left with a virtual drive that behaves just like any other, where you can drag and drop files, install programs, test partitioning

software or do whatever you like. But it's actually just this VHD file on your real hard drive which you can easily back up or share with others. Right-click the disk (that's the left-hand label that says " Disk 2" or whatever) and select Detach VHD to remove it. The command line DISKPART utility has also been upgraded with tools to detach a VHD file, and an EXPAND command to increase a virtual disk's maximum size. Don't play around with this unless you know what you're doing, though - it's all too easy to trash your system.

4. Troubleshoot problems If some part of Windows 7 is behaving strangely, and you don't know why, then click Control Panel > Find and fix problems (or 'Troubleshooting') to access the new troubleshooting packs. These are simple wizards that will resolve common problems, check your settings, clean up your system and more.

5. Startup repair If you've downloaded Windows 7 (and even if you haven't) it's a good idea to create a system repair disc straight away in case you run into problems booting the OS later on. Click Start > Maintenance > Create a System Repair Disc, and let Windows 7 build a bootable emergency disc. If the worst does happen then it could be the only way to get your PC running again.

6. Take control Tired of the kids installing dubious software or running applications you'd rather they left alone? AppLocker is a new Windows 7 feature that ensures users can only run the programs you specify. Don't worry, that's easier to set up than it sounds: you can create a rule to allow everything signed by a particular publisher, so choose Microsoft, say, and that one rule will let you run all signed Microsoft applications. Launch GPEDIT.MSC and go to Computer Configuration > Windows Settings > Security Settings > Application Control Policies > AppLocker to get a feel for how this works.

7. Calculate more At

first glance the Windows 7 calculator looks just like Vista's version, but explore the Mode menu and you'll see powerful new Statistics and Programmer views. And if you're clueless about bitwise manipulation, then try the Options menu instead. This offers many different unit conversions (length, weight, volume and more), date calculations (how many days between two dates?), and spreadsheet-type templates to help you calculate vehicle mileage, mortgage rates and more. Don't take any Windows 7 applet at face value, then - there are some very powerful new features hidden in the background. Be sure to explore every option in all Windows applets to ensure you don't miss anything important. CALCULATE MORE: The new Calculator is packed with useful features and functionality 8. Switch to a projector Windows 7 now provides a standard way to switch your display from one monitor to another, or a projector - just press Win+P or run DisplaySwitch.exe and choose your preferred display. (This will have no effect if you've only one display connected.) 9. Get a power efficiency report If you have a laptop, you can use the efficiency calculator to get Windows 7 to generate loads of useful information about its power consumption. Used in the right way, this can help you make huge gains in terms of battery life and performance. To do this you must open a command prompt as an administrator by typing 'cmd' in Start Search, and when the cmd icon appears, right-click it and choose Run as administrator. Then at the command line, just type in 'powercfg -energy' (without quotes) and hit Return, and Windows 7 will scan your system looking for ways to improve power efficiency. It will then publish the results in an HTML file, usually in the System32 folder. Just follow the path it gives you to find your report. 10.

Understanding System Restore Using System Restore in previous versions of Windows has been something of a gamble. There's no way of telling which applications or drivers it might affect - you just have to try it and see.

Windows 7 is different. Right-click Computer, select Properties > System Protection > System Restore > Next, and choose the restore point you'd like to use. Click the new button to 'Scan for affected programs' and Windows will tell you which (if any) programs and drivers will be deleted or recovered by selecting this restore point. (Read our full Windows 7 System Restore tutorial.)

11. Set the time zone System administrators will appreciate the new command line tzutil. exe utility, which lets you set a PC's time zone from scripts. If you wanted to set a PC to Greenwich Mean Time, for instance, you'd use the command tzutil /s " gmt standard time" The command " tzutil /g" displays the current time zone, " tzutil /l" lists all possible time zones, and " tzutil /?" displays details on how the command works.

12. Calibrate your screen The colours you see on your screen will vary depending on your monitor, graphics cards settings, lighting and more, yet most people use the same default Windows colour profile. And that means a digital photo you think looks perfect might appear very poor to everybody else. Fortunately Windows 7 now provides a Display Colour Calibration Wizard that helps you properly set up your brightness, contrast and colour settings, and a ClearType tuner to ensure text is crisp and sharp. Click Start, type DCCW and press Enter to give it a try.

13. Clean up Live Essentials Installing Windows Live Essentials will get you the new versions of Mail, Movie Maker, Photo Gallery and others - great. Unfortunately it also includes other components that may be unnecessary, but if you like to keep a clean

system then these can be quickly removed. If you left the default "Set your search provider" option selected during installation, for instance, Windows Live will install Choice Guard, a tool to set your browser home page and search engine, and prevent other programs from changing them. If this causes problems later, or you just decide you don't need it, then Choice Guard may be removed by clicking Start, typing `msiexec /x {F0E12BBA-AD66-4022-A453-A1C8A0C4D570}` and pressing [Enter]. Windows Live Essentials also adds an ActiveX Control to help upload your files to Windows Live SkyDrive, as well as the Windows Live Sign-in Assistant, which makes it easier to manage and switch between multiple Windows Live accounts. If you're sure you'll never need either then remove them with the Control Panel "Uninstall a Program" applet.

14. Add network support By default Windows Live MovieMaker won't let you import files over a network, but a quick Registry tweak will change this. Run REGEDIT, browse to `HKEY_CURRENT_USER\Software\Microsoft\Windows Live\Movie Maker`, add a DWORD value called `AllowNetworkFiles` and set it to 1 to add network support.

15. Activate XP mode If you've old but important software that no longer runs under Windows 7, then you could try using XP Mode, a virtual copy of XP that runs in a window on your Windows 7 desktop. But there's a big potential problem, as XP Mode only works with systems that have hardware virtualisation (AMD-V or Intel VT) built-in and turned on. If you've a compatible CPU then this may just be a matter of enabling the option in your BIOS set-up program, however some high profile brands, including Sony Vaio, disable the setting for "security reasons". And that blocks XP Mode from working, too. One solution has emerged, but it's a little risky, as

essentially you'll have to alter a byte in your laptop firmware and hope this doesn't have any unexpected side-effects. Gulp. If you're feeling brave then take a look at the Feature Enable Blog for the details, but don't blame us if it goes wrong. A safer approach might be to use VirtualBox, a virtualisation tool that doesn't insist on hardware support, but then you will need to find a licensed copy of XP (or whatever other Windows version your software requires) for its virtual machine.

16. Enable virtual Wi-Fi Windows 7 includes a little-known new feature called Virtual Wi-Fi, which effectively turns your PC or laptop into a software-based router. Any other Wi-Fi-enabled devices within range - a desktop, laptop, an iPod perhaps - will "see" you as a new network and, once logged on, immediately be able to share your internet connection. This will only work if your wireless adapter driver supports it, though, and not all do. Check with your adapter manufacturer and make sure you've installed the very latest drivers to give you the best chance. Once you have driver support then the easiest approach is to get a network tool that can set up virtual Wi-Fi for you. Virtual Router (below) is free, easy to use and should have you sharing your internet connection very quickly. If you don't mind working with the command line, though, maybe setting up some batch files or scripts, then it's not that difficult to set this up manually. See Turn your Windows 7 laptop into a wireless hotspot for more.

17. Recover locked-up apps If an application locks up under a previous version of Windows then there was nothing you could do about it. A new Windows 7 option, however, can not only explain the problem, but may get your program working again without any loss of data. When the lockup occurs, click Start, type RESMON and click the RESMON. EXE link to launch the

Resource Monitor. Find your frozen process in the CPU pane (it should be highlighted in red), right-click it and select Analyze Wait Chain. If you see at least two processes in the list, then the lowest, at the end of the tree, is the one holding up your program. If it's not a vital Windows component, or anything else critical, then save any work in other open applications, check the box next to this process, click End Process, and your locked-up program will often spring back to life.

18. Fault-Tolerant Help Windows 7 includes a new feature called the Fault Tolerant Help (FTH), a clever technology that looks out for unstable processes, detects those that may be crashing due to memory issues, and applies several real-time fixes to try and help. If these work, that's fine - if not, the fixes will be undone and they won't be applied to that process again. While this is very good in theory, it can leave you confused as some applications crash, then start working (sometimes) for no apparent reason. So if you'd like to check if the FTH is running on your PC, launch REGEDIT, and go to HKEY_LOCAL_MACHINE\Software\Microsoft\FTH - any program currently being protected by the FTH will be listed in the State key. Experienced users may also try tweaking the FTH settings to catch more problems, and perhaps improve system stability. A post on Microsoft's Ask The Performance Team blog (bit.ly/d1JStu) explains what the various FTH Registry keys mean.

19. Automatically switch your default printer Windows 7's location-aware printing allows the operating system to automatically switch your default printer as you move from one network to another. To set this up, first click Start, type Devices, and click the Devices and Printers link. Select a printer and click Manage Default Printers (this is only visible on a mobile device, like a laptop - you won't see it on a PC). Choose the " Change

my default printer when I change networks" option, select a network, the default printer you'd like to use, and click Add. Repeat the process for other networks available, and pick a default printer for each one. And now, as you connect to a new network, Windows 7 will check this list and set the default printer to the one that you've defined.