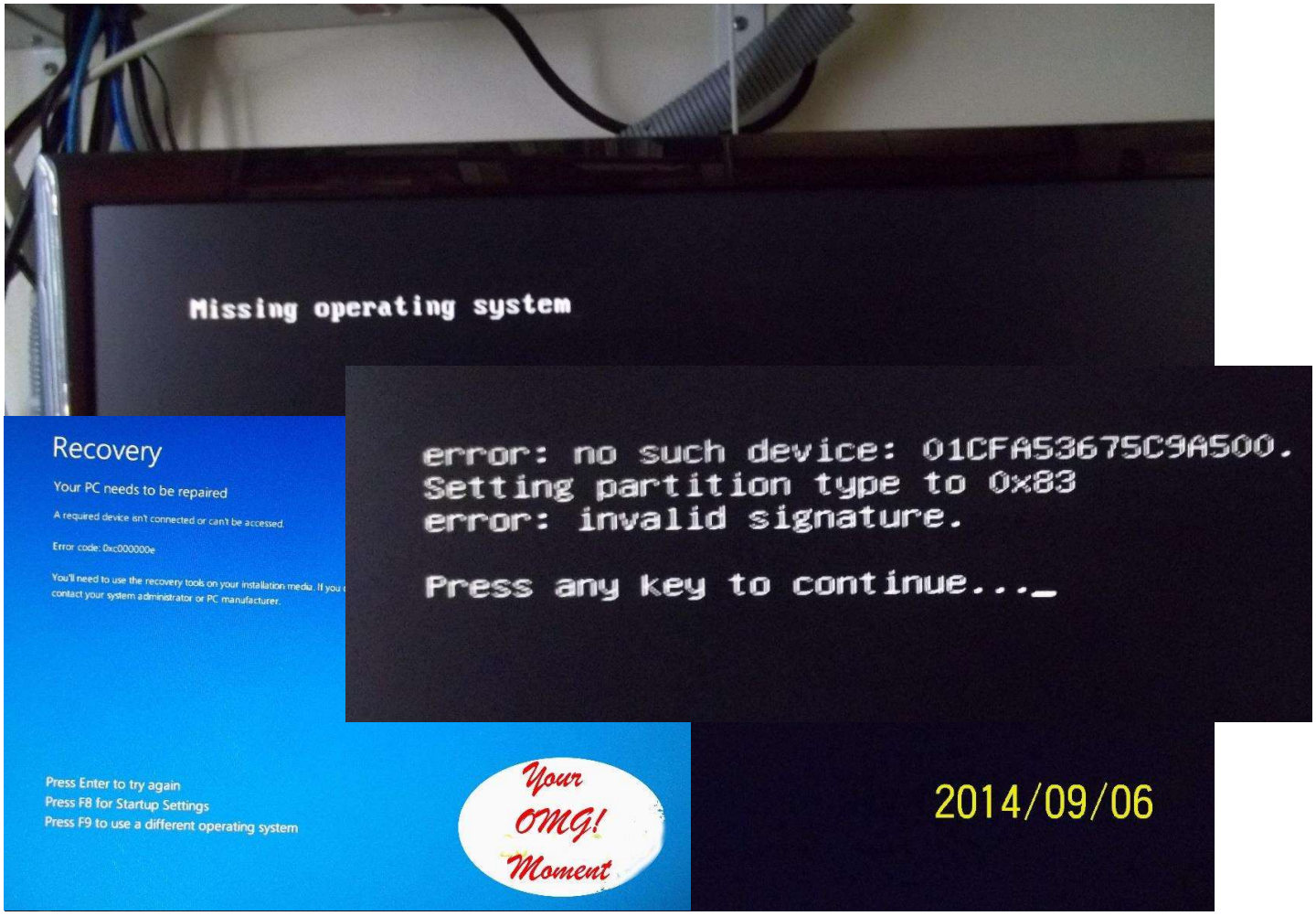
The Broken Boot

by Fred Wassermann

What to Do When Your PC Won't Start



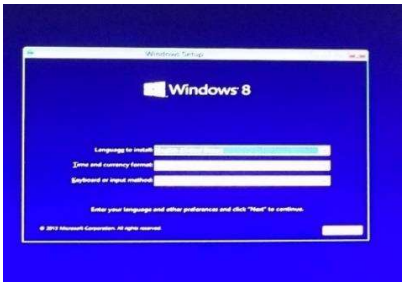
Has this happened to you? Have you been presented with either of these desktop messages or a similar one on powering up your computer?

If So……Read on:

The black screen can have a message similar to the one on the left indicating that you may have a corrupt boot sector file on your hard drive, the blue screen top right indicates a probable corrupted Windows installation. Following the instructions at the bottom left of that particular window may occasionally get you out of your dilemma, but this writer's experience has not shown much success. The black screen message similar to the one at bottom right indicates your computer cannot see a primary bootable device, likely due to a hard drive failure or (*you can hope*), a connector that worked its way loose.

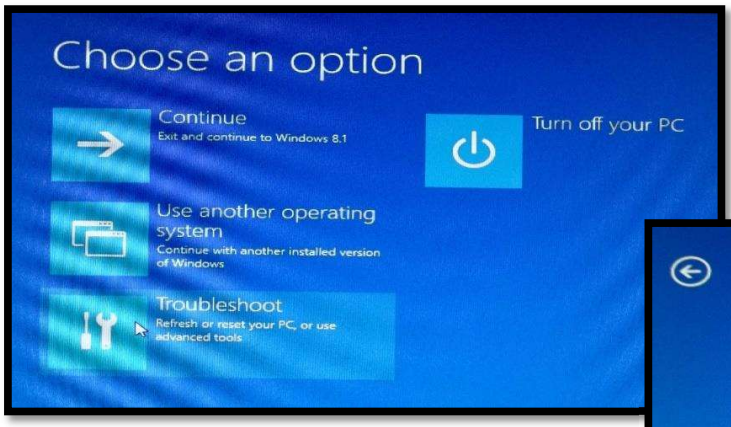
If previous to the failure you have created a current image of your computer you may be able to restore your system to a bootable state with it. This will obviously not restore any data files created after the image was made. Those will be lost upon image restoration of your system. There are better, easier, approaches to try first and one of these may restore your current computer state, the preferred of them allowing you to keep your currently installed programs and your data. Microsoft has provided every Windows 7 and Windows 8 installation disk with the recovery options capability and these are covered in these program notes.

Place your Windows install disk in your CD/DVD reader. If your computer BIOS is properly set to boot to the CD/DVD drive as the first choice you will be presented with the setup options as are shown below. If not, you will have to set your BIOS boot order to

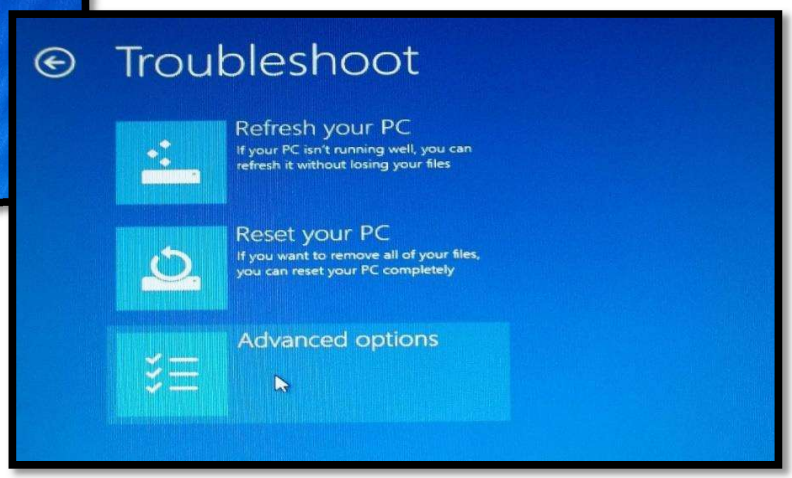


CD/DVD as first boot device. Note that all screen shots shown are as presented with the Windows 8.1 install disk but the Windows 7 install disk provides similar choices. After the first window appears as above, press enter and you are presented with the Install window as shown above right. **Do not** click on **"Install Now".**

Mouse **click on "Repair your computer".** That takes you to the next **"Choose an option"** screen. There you will choose the **"Troubleshoot"** option in order to get you to the troubleshoot window where you now must choose your options for repair.



In the troubleshoot window the **"Refresh your PC"** option may sometimes be enough to clean up certain Windows files that may have been corrupted and restore normal operation. If this option is used it will not remove any of your data or the software programs you have installed. Unfortunately it has limited capability to fix all possible causes of boot failure.



"Reset your PC" will completely overwrite your system, leaving you with a fresh, installation and wiping out all data, programs, or program references stored on your drive's operating system partition. This is a clean start, but far from ideal.

"Advanced options" gets you to the most important choices. Here you can choose all the recovery possibilities available. Explanations follow:

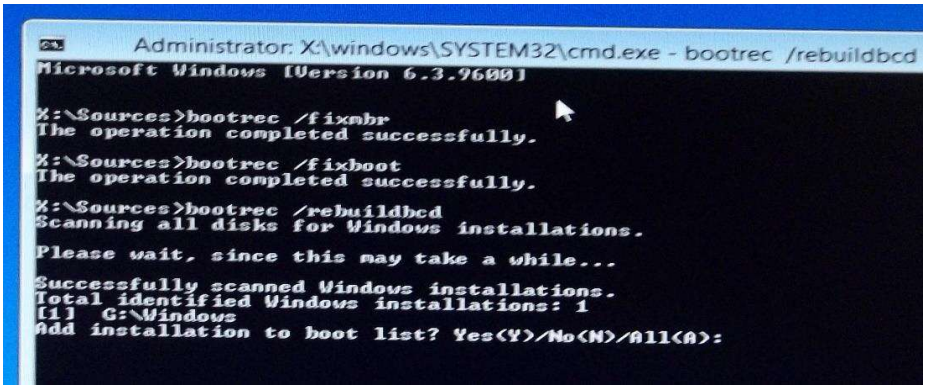
"System Restore" will work only if you have previously created restore points in your Windows system. It may not restore boot file related problems.

"System Image Recovery" will work if you have created a Microsoft Windows image and saved to an external drive, using the Windows Imaging application included in Windows 7 and 8.

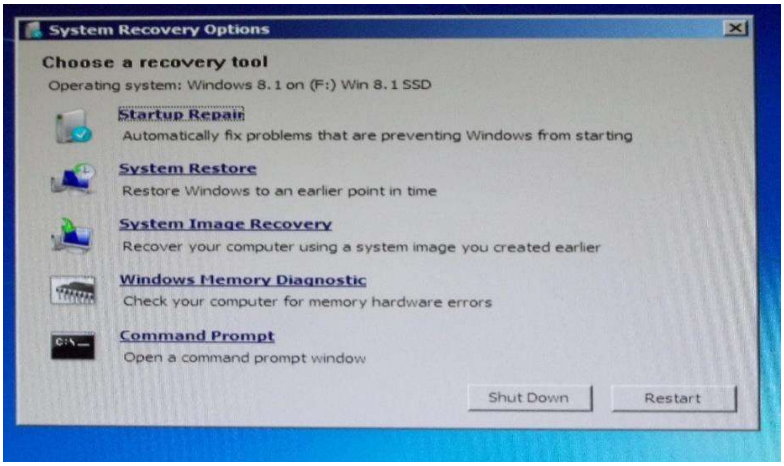
"Startup Repair" may address some boot related problems but may not always be a successful resolution.

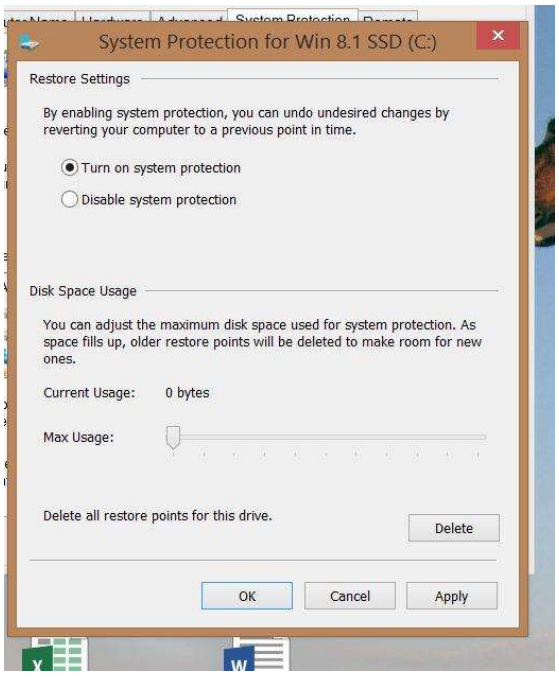
"Command Prompt" is a screen where you type commands at the lowest level of the computer operation in similar language to what used to be Basic language. It gives a reliable way to perform some limited commands and may be used here to fix a corrupted or missing Boot file, Master boot record, or Boot Configuration Data files. Once in the Command Prompt black screen, you type and enter each of three commands, **BOOTREC /FIXMBR** and <enter>, **BOOTREC /FIXBOOT** and <enter>, followed by **BOOTREC /REBUILDBCD** and <enter>.

After each command is entered you will see your monitor screen showing your entry and successful completion of each entry as shown below. No data files or installed software on your hard drive will have been lost or compromised by this procedure. All the above options are functionally the same in Windows 7 but the appearance will be different. The main "System Recovery Options" window for Windows 7 looks as below giving all choices on one page. The approach is very similar but the appearance of each window is different.



If none of the aforementioned options work for you, you may have to restore from a previously saved image, provided that you have created one, losing only data created and saved since that image was created. If you have not created and saved an image, you will have to restore all programs and data after a complete fresh reinstall of Windows. That is a good reason for imaging your system regularly or at least turning on System Protection, which is also in Windows 7 and 8.1. System protection will create a restore point every time you install new programs. Restore points are created automatically before new device drivers, automatic updates, unsigned drivers, and applications are installed. This is often where problems occur. System restore lets you revert to a previous software, registry and driver configuration. Restore can often help in recovering from these mishaps. "System Protection" AutoSaved system restore points are another lifeline available to you.





You can hire someone to fix your problem for from $50 to $180 and be at risk for losing your data and installed programs, but you really can save heartaches and money by at least giving it a shot at repair yourself. Good luck and if you still have difficulties with these procedures, contact one of the members on the SCGSD web site that are listed as available for advice and assistance or ask for help at our meeting. You will either get advice or a reference to a member that can help.

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Seniors Computer Group, 09/30/14