



A Quick Guide To: Windows MSCONFIG A FREE Guide by: www.MarcLironPublishing.com



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A Quick Guide To: Windows MSCONFIG

By Marc Liron - Microsoft MVP (2004-2010)

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ABOUT THE AUTHOR



Marc enjoys writing about Microsoft technologies and software. He has several websites and a blog that you can discover more about by visiting:

<http://www.marcliron.com/websites.html>

Microsoft MVP Award - In January 2004 Microsoft awarded Marc their Most Valuable Professional (MVP) award for his technical knowledge and willingness to share it with the online community. He was then re-awarded the internationally recognised MVP award in 2005, 2006, 2007, 2008, 2009 and 2010. (He has now retired from the MVP program.)

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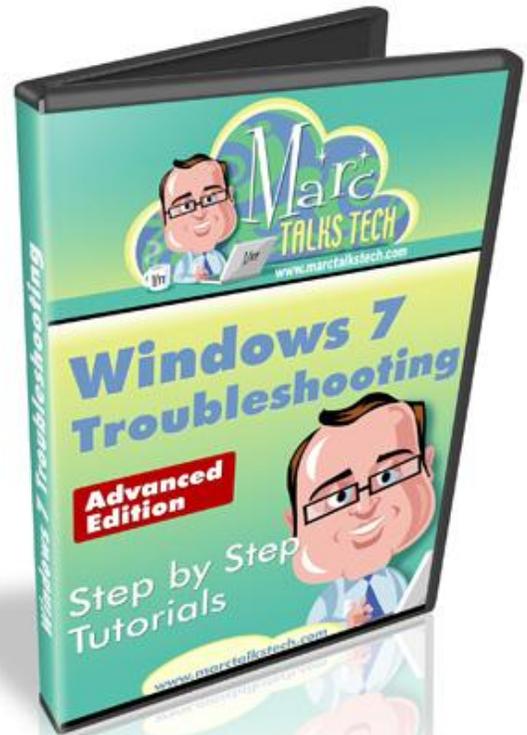
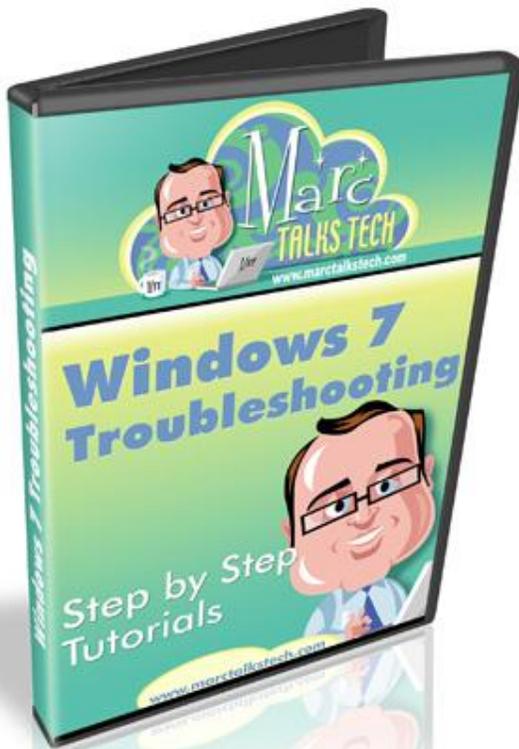




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MSCONFIG

(System Configuration Utility)

Introduction:

MSCONFIG, or **M**icrosoft **S**ystem **C**onfiguration Utility, or simply System Configuration in Windows Vista and Windows 7, is a Windows utility to troubleshoot the Microsoft Windows start-up process.

It has been included with all Microsoft Windows operating systems since Windows 98 - except Windows 2000. (However, Windows 95 and Windows 2000 users can download the utility as well, although it was not designed for them.)

MSCONFIG modifies which programs run at start-up, edits certain configuration files, and simplifies controls over Windows services.

By default, MSCONFIG is not linked to/from the Start Menu or Control Panel. However it is accessible by using the Run dialog to launch 'msconfig' on any system on which the user has administrator access.

In this guide we will be taking a basic look at what this handy utility can do for you, the PC user.

That said, as an IT professional I don't use this tool as it does not show all the information I need to troubleshoot Windows start-up problems.... **But more of that at the end of this guide!**



MSCONFIG Functionality Varies by Windows Versions:

In Windows Me and Windows XP versions, it can restore an individual file from the original Windows installation set.

On Windows NT-based operating systems prior to Windows Vista, it can set various BOOT.INI switches.

In Windows XP and Windows Vista, it can hide all operating system services for troubleshooting.

All versions allow you to view/enable/disable Start-up items.

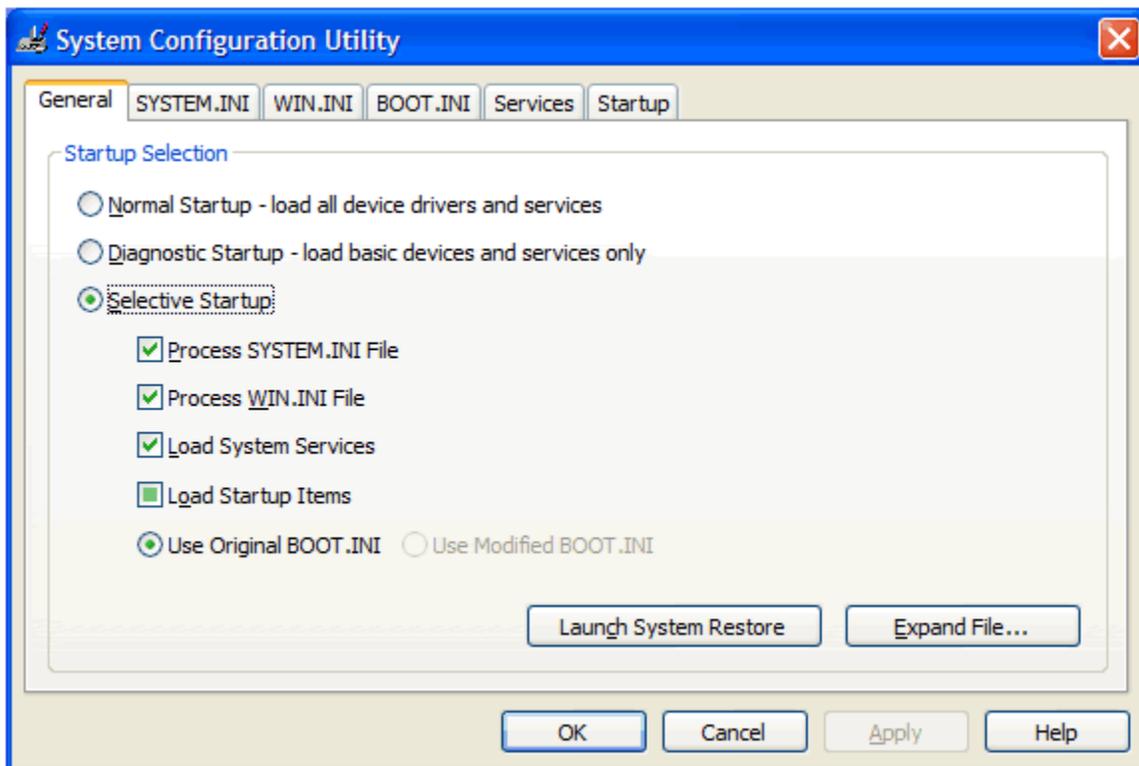
In Windows Vista and Windows 7, the utility can launch a variety of tools, such as system information, other configuration areas, such as Internet options, and the ability to enable/disable UAC. (An update is available for Windows XP and Windows Server 2003 that adds the Tools tab.) It also allows configuring various switches for Windows Boot Manager and Boot Configuration Data.



To Start MSCONFIG in Windows XP, Vista and 7

Windows XP

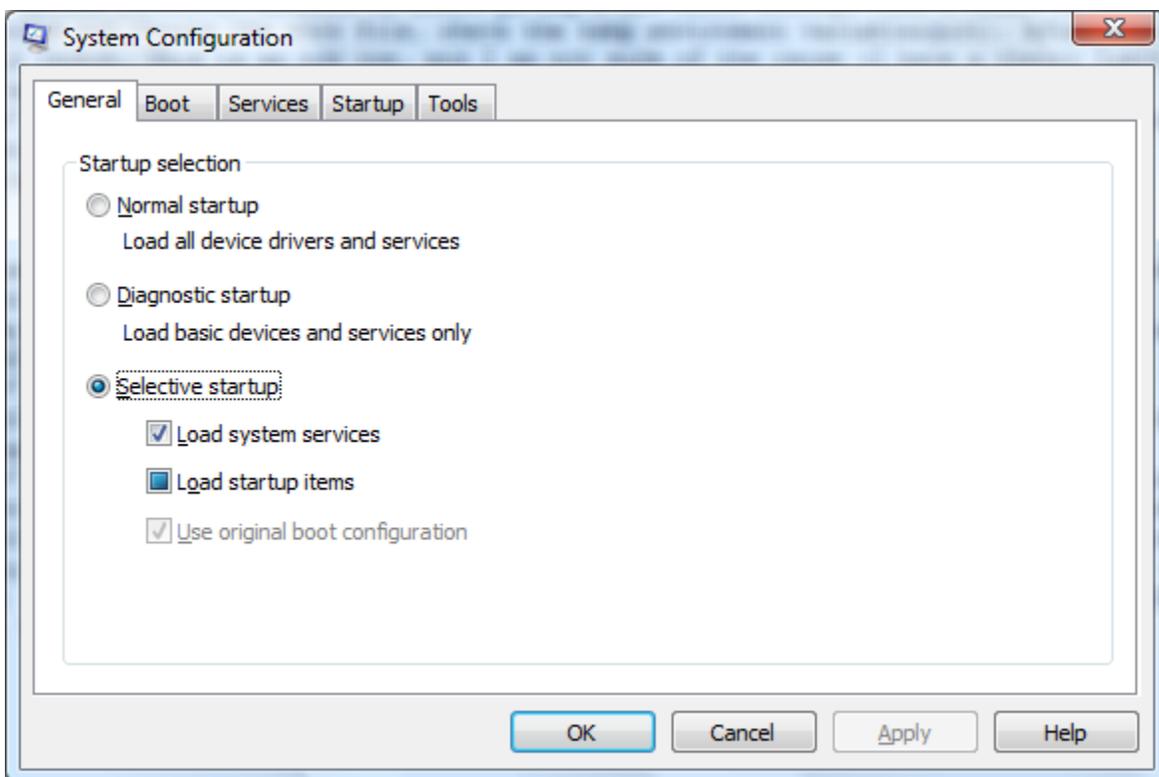
1. On the Start menu, click Run. A Run window (command prompt) appears.
2. Type msconfig in the Open field and click OK. The System Configuration Utility opens:





Windows Vista

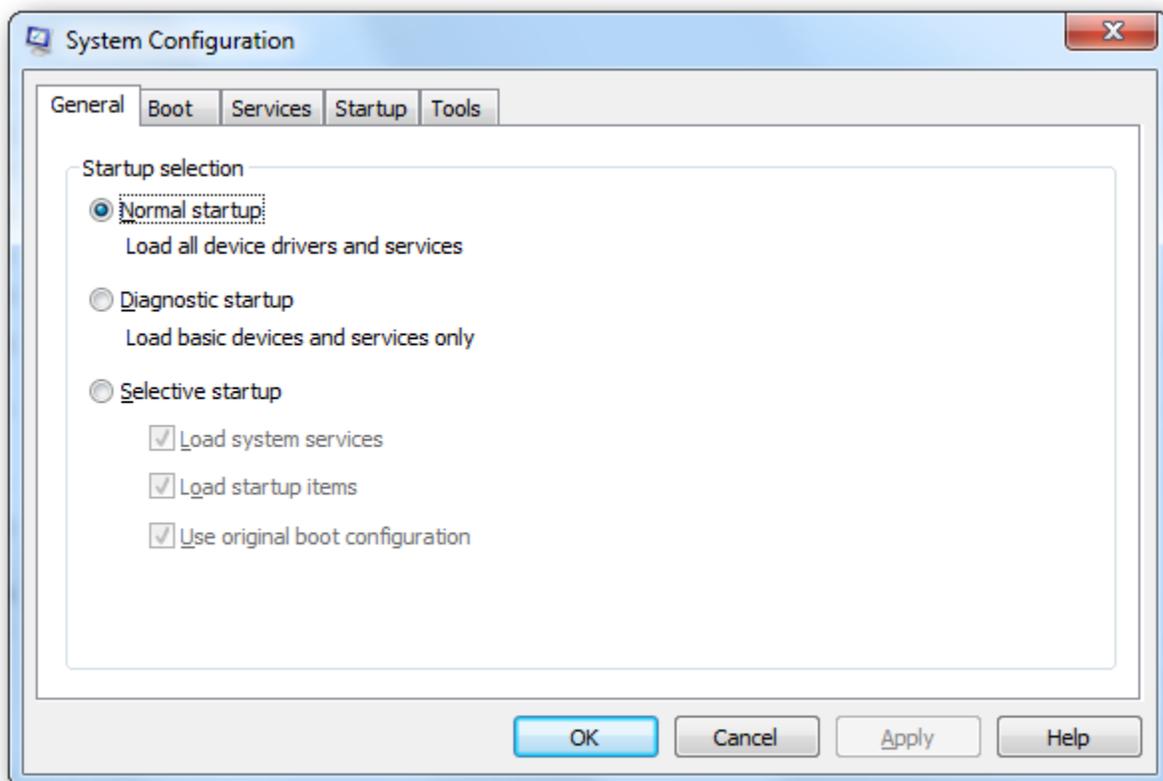
1. Click on the Vista start icon in the bottom left corner of your screen.
2. Type MSCONFIG in the search box and then either press enter on your keyboard or double-click on the MSCONFIG program that appears in the search results.
3. To prevent you from accidentally making changes that could destabilize your computer, Vista asks you for permission to continue. You may see a box asking you to key in your computer's administrator user name and password. Or, if you're already logged into Vista as an administrator, you may see a box asking you if you would like to continue.
4. Once you have passed through Microsoft's User Account Control prompts, Vista will launch Microsoft's System Configuration Utility:





Windows 7

1. Click on the Windows 7 start icon in the bottom left corner of your screen.
2. Type MSCONFIG in the search box and then either press enter on your keyboard or double-click on the MSCONFIG program that appears in the search results.
3. To prevent you from accidentally making changes that could destabilize your computer, Windows 7 will ask you for permission to continue. You may see a box asking you to key in your computer's administrator user name and password. Or, if you're already logged into Windows 7 as an administrator, you may see a box asking you if you would like to continue.
4. Once you have passed through Microsoft's User Account Control prompts, Windows 7 will launch Microsoft's System Configuration Utility:





Windows XP – MSCONFIG Tour

The MSCONFIG utility in Windows XP has 6 or 7 tabs:

General – This tab has different start-up types for troubleshooting.

Normal Start-up is as the name suggests as it loads all drivers and services at start-up.

Diagnostic Start-up loads only basic drivers and services for troubleshooting.

Selective Start-up allows you to troubleshoot in greater detail.

SYSTEM.INI / WIN.INI / BOOT.INI – These three tabs are for controlling system files that are primarily used by Windows XP in compatibility with previous versions of Windows. In earlier versions of windows these files were used instead of a centralised registry. (These tabs are intended for advanced computer users. If you are not comfortable with advanced troubleshooting don't attempt to use them.)

Services - This tab lists all the Microsoft and 3rd party services that are available when Windows XP starts. They can be either services that are currently running or that have stopped. If you tick the "Hide all Microsoft Services" box you will see all 3rd party services which can be useful, however a far better way to manage Windows services is to use Services Management Console. Type **services.msc** into the run box then click OK to load. Available in both Pro and Home editions of Windows XP.

You can get a list of common Microsoft Services here:

<http://www.marclironpublishing.com/windows-services-in-xp-and-vista.html>

Start Up - This tab is probably the most used feature of the MSCONFIG utility. It shows any applications that are configured to start when Windows boots and so provides useful information when trying to troubleshoot a slow starting PC. If you do use this tab to disable any services you will receive a message the next time Windows starts informing you that you have changed the way Windows starts.

Caution – If you select the "Disable All" button you may end up turning off your Antivirus/Antispyware protection at the next Windows start-up, so be aware of this!

Tools – This newer tab is a central location for launching many of the built-in Windows XP tools like: Event Viewer, Registry Editor, Security Center etc... (The KB906569



update adds the Tools tab to the System Configuration utility in Windows XP Service Pack 2)

Important: Disabling third-party System Services and Start-up Items can prevent some software or OEM hardware on your computer from working correctly. For example, this can affect the CD/DVD control buttons on portable computers or prevent wireless keyboards and mice from functioning. If you are already using the Selective Start-up option in Windows, you will need to keep track of which items you disable and re-enable so after performing this troubleshooting, you can get your computer back to the way it was. Selecting Normal Start-up may enable items that you were not using, and could cause issues.

More Information:

How to troubleshoot configuration errors by using the System Configuration utility in Windows XP <http://support.microsoft.com/kb/310560>



Windows Vista and Windows 7 – MSCONFIG Tour

Introduction:

Since MSCONFIG in Windows Vista and Windows 7 are the same except for one minor option, I will cover them both together in this section.

(The minor setting? On the Windows 7 Boot tab under the Advanced Boot Setting button – there is NO “Detect Hal” option available.)

With the introduction of Windows Vista, Microsoft made some changes to the way Windows starts up. If you are used to using MSCONFIG in Windows XP, the first thing you will notice is that SYSTEM.INI / WIN.INI / BOOT.INI tabs are now gone.

MSCONFIG

The MSCONFIG utility in Windows Vista and Windows 7 has 4 tabs:

General – This tab has different start-up types for troubleshooting.

Normal Start-up is as the name suggests as it loads all drivers and services at start-up.

Diagnostic Start-up loads only basic drivers and services for troubleshooting.

Selective Start-up allows you to troubleshoot in greater detail.

Services - This tab lists all the Microsoft and 3rd party services that are available when Windows starts. They can be either services that are currently running or that have stopped. If you tick the “Hide all Microsoft Services” box you will see all 3rd party services which can be useful, however a far better way to manage Windows services is to use Services Management Console. Type services.msc into the run box then click OK to load.

Start Up - This tab is probably the most used feature of the MSCONFIG utility. It shows any applications that are configured to start when Windows boots and so provides useful information when trying to troubleshoot a slow starting PC. If you do use this tab to disable any services you will receive a message the next time Windows starts informing you that you have changed the way Windows starts.

Caution – If you select the “Disable All” button you may end up turning off your Antivirus/Antispyware protection at the next Windows start-up, so be aware of this!



Tools – This tab is a central location for launching many of the built-in Windows tools like: Event Viewer, Registry Editor and Security Center etc... If you forget the individual locations of all these tools this can prove a handy shortcut!

Important: Disabling third-party System Services and Start-up Items can prevent some software or OEM hardware on your computer from working correctly. For example, this can affect the CD/DVD control buttons on portable computers or prevent wireless keyboards and mice from functioning. If you are already using the Selective Start-up option in Windows, you will need to keep track of which items you disable and re-enable so after performing this troubleshooting, you can get your computer back to the way it was. Selecting Normal Start-up may enable items that you were not using, and could cause issues.

More Information:

How to troubleshoot configuration errors by using the System Configuration utility in Windows Vista <http://support.microsoft.com/kb/950093> (Works for Windows 7 too)

The Popular Reason for Using this Utility:

Whilst this utility can be used for more advanced troubleshooting such as the ability to configure the BCD registry file in Windows Vista/7. (The BCD registry file controls which operating system installation starts and how long the boot manager waits before starting Windows. It's like the Boot.ini file in earlier versions of Windows).

The most popular reason folk's use this tool is to examine the *Services* and *Start-up* items listed and then disable as many as possible to get a Windows to load faster!

Here is a YouTube video of changing Services and Start-up settings in MSCONFIG. (Whilst this video was recorded using Windows Vista the content applies to XP/Vista/7.)

http://www.youtube.com/watch?v=iku_aPUsVQ4



Windows Processes:

If you have a new Windows PC the chances are you will only have a few programs listed in the Start-up tab. However as time goes on you may find new software/utilities appearing in this list as you install new applications onto your computer.

If you are ever unsure of a particular entry listed in the Start-up tab you can research it online using one of the following resources:

Paul Collins maintains a database listing over 22,000 windows processes:

<http://www.sysinfo.org/startupinfo.html>

The process directory by Uniblue contains over 140,000 processes in its database:

<http://www.processlibrary.com/directory/a/1/>

MSCONFIG Alternative:

At the beginning of this guide I mentioned an alternative to the built-in MSCONFIG utility.

The utility, that I and many other IT professionals use, is called **Autoruns** and it goes "way beyond" what MSCONFIG can report.

That said it is not really a tool for the beginner, but I do cover its use in the advanced section of my new Windows 7 Troubleshooting step-by-step video training course. (See next page).

Windows SysInternals

<http://technet.microsoft.com/en-us/sysinternals/bb963902>



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