

## 12.15.6 Windows Boot Options

If your system will not start, or if it is having significant problems, then you can boot your system in a variety of modes that may help you get your system up and running. There are two main ways you can select an alternate boot mode:

Access the Settings app and complete the following steps:

- 1. Select **Start**
- 2. Select **Settings**
- 3. Select **Update and Security**
- 4. Select **Recovery**
- 5. Select **Restart Now**

Alternately you can run the **msconfig.exe** utility to specify which boot mode you would like to use, then reboot the system.

Only a subset of advanced boot options are available in Msconfig.

The following table describes the different startup modes:

Mode	Description
Enable Debugging	This option starts Windows in an advanced troubleshooting mode. This option is typically used by programmers, not system administrators.
Enable Boot Logging	This option creates a log file named Ntbtlog.txt in C:\Windows during startup. This file contains an entry for each driver loaded during the boot process. If the system does not complete a regular boot, you can look at this file to see the last driver to load before the failure occurred.
Enable Low-Resolution Video	This option loads Windows using your current video driver, but configures it to use low resolution settings and a slow refresh rate. This option is useful when the wrong video configuration settings have been used, causing the screen to be unreadable. Selecting this option gives you the ability to restore the correct video settings.
Enable Safe Mode	When a computer boots in Safe Mode, only essential drivers and services are loaded (e.g., generic mouse, monitor, base storage device, keyboard, video drivers, and the Event Log service). This allows you to troubleshoot misbehaving applications, services, and drivers.
Enable Safe Mode with Networking	Safe Mode with Networking is a variation of Safe Mode that also loads a network driver and protocol so the system can communicate on the network. This option is useful in situations where an updated driver needs to be downloaded from the internet and installed on the system to correct a problem.
Enable Safe Mode with Command Prompt	Safe Mode with Command Prompt starts the computer in Safe Mode and displays a command prompt.
Disable Driver Signature Enforcement	Selecting this option causes Windows to not require a digital signature when loading a driver.
Disable Early Launch Anti-Malware Protection	This prevents the early launch anti-malware driver from loading when the system is booted. This could increase the system's exposure to rootkit malware packages.
Disable Automatic Restart on System Failure	By default, Windows is configured to reboot whenever a critical system error occurs (Blue Screen of Death).

	<ul style="list-style-type: none"><li>▪ When the error occurs, you will have only a short time before the system reboots. This might not be sufficient time to read and record the error information.</li><li>▪ If the error occurs while you are away from your computer, you will see a message that the system has restarted, but won't have seen the error.</li><li>▪ If the error occurs during startup, the system might continually reboot.</li></ul> <p>Use the <b>Disable automatic restart on system failure</b> option on the advanced boot menu to stop the automatic reboots.</p>
Launch Recovery Environment	<p>Use this option to access system recovery tools, such as:</p> <ul style="list-style-type: none"><li>▪ System Restore</li><li>▪ System Image Recovery</li><li>▪ Startup Repair</li><li>▪ Command Prompt</li><li>▪ Go Back to the Previous Build</li></ul> <p>Options may differ depending on your device.</p>

Use the following recommendations to troubleshoot startup errors with the advanced boot options:

- Boot into Safe Mode and then use the appropriate tool to undo any recent changes. For example, you can:
  - Use Device Manager to roll back drivers or disable devices that might be causing the problem.
  - Use Add or Remove Programs to uninstall software that has just been added.
  - Restore any settings that may have changed.
  - Disable unneeded services or applications that load at startup.
  - Use System Restore to restore the system to a known good restore point.
- After booting into Safe Mode, begin by undoing the most recent change to the system. For example, if the problem started after you installed a new device driver, roll back the driver and reboot.
- If undoing recent changes does not fix the problem, you could disable all unnecessary devices and services. If you can boot normally, you can identify which component was causing the problem by enabling devices and services one-by-one until the system becomes unstable.

---

---

TestOut Corporation All rights reserved.