

How to perform a clean boot in Windows

Applies to: Windows 8.1, Windows 8.1 Enterprise, Windows 8.1 Pro, [More](#)

Note

If your issue prevents you from booting into Windows, you won't be able to follow the steps in this article. After the device tries to restart a few times, you should get Windows Recovery Options, which you can use to try to resolve the issue. Click a link below that corresponds to your version of Windows:

- Windows 10: [Recovery options in Windows 10](#)
- Windows 8.1: [How to refresh, reset, or restore your PC](#)
- Windows 7: [What are the system recovery options in Windows?](#)

Summary

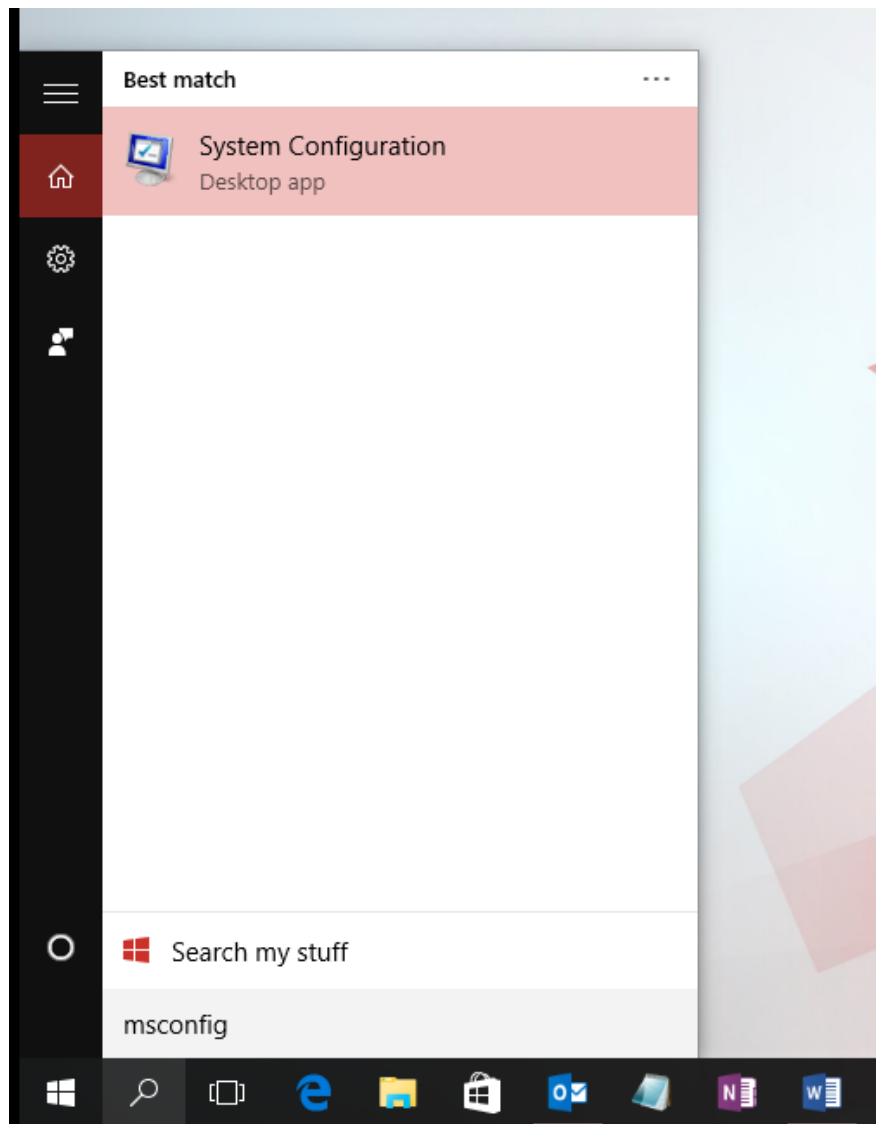
A “clean boot” starts Windows with a minimal set of drivers and startup programs, so that you can determine whether a background program is interfering with your game or program. This is similar to [starting Windows in Safe Mode](#), but provides you more control over which services and programs run at startup to help you isolate the cause of a problem.

How to perform a clean boot

These steps might look complicated at first glance, but following them in order, step-by-step, will help you get you back on track.

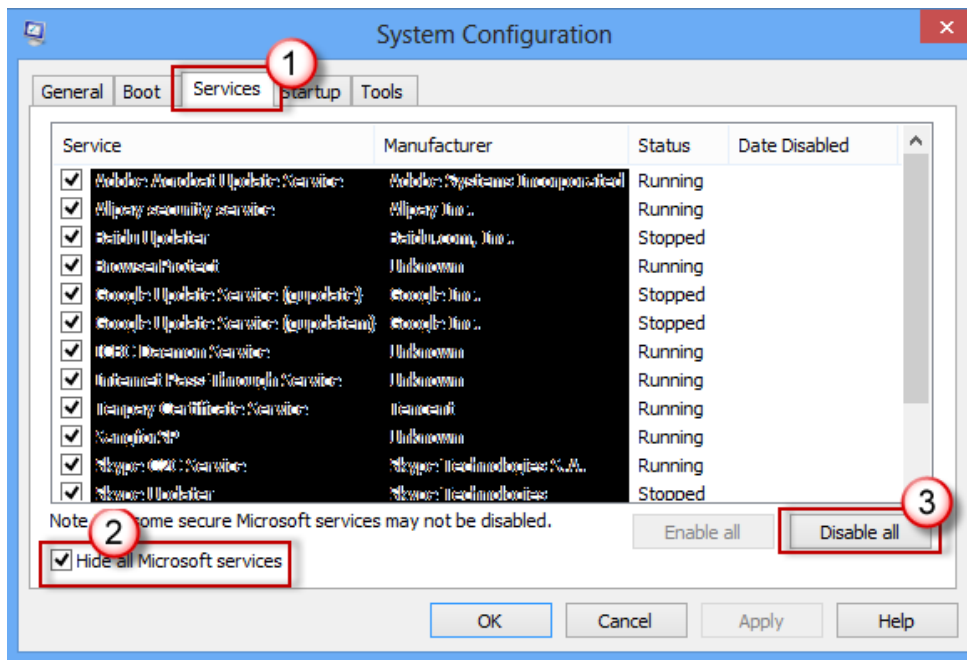
Use the following steps to perform a clean boot in Windows 10. [Perform a clean boot for Windows 7, Windows 8 and Windows 8.1](#)

1. Sign in to the computer as an administrator. If you don't have an administrator account, you can create one. [Create a local user or administrator account in Windows 10](#).
2. In the search box on the taskbar, type **msconfig** and select **System Configuration** from the results.

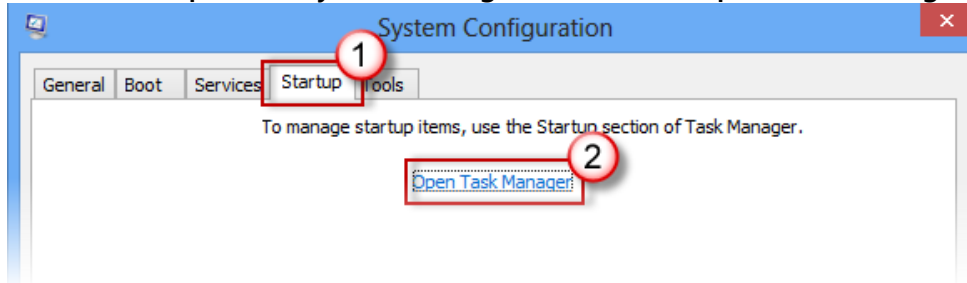


Important If the computer is connected to a network, network policy settings might prevent you from following these steps. Only use the System Configuration utility to change the advanced boot options on the computer with guidance from a Microsoft support engineer. Using the System Configuration utility might make the computer unusable.

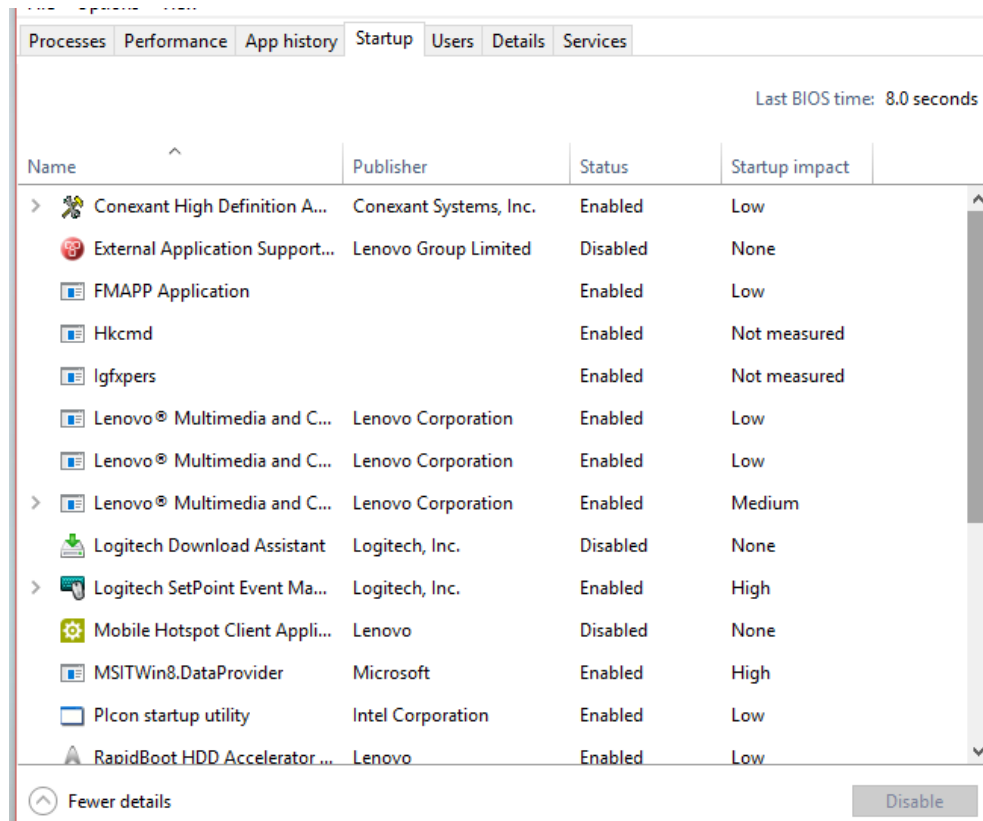
3. On the **Services** tab of **System Configuration**, select **Hide all Microsoft services**, and then select **Disable all**.



4. On the **Startup** tab of **System Configuration**, select **Open Task Manager**.



- Under **Startup** in **Task Manager**, for each startup item, select the item and then select **Disable**.



6. Close Task Manager.

7. On the **Startup** tab of **System Configuration**, select **OK**. When you restart the computer, it's in a clean boot environment. Follow [troubleshooting steps to install, uninstall, or run your application](#). Your computer might temporarily lose some functionality while in a clean boot environment. [Reset the computer to start normally after clean boot troubleshooting](#) and resume functionality.

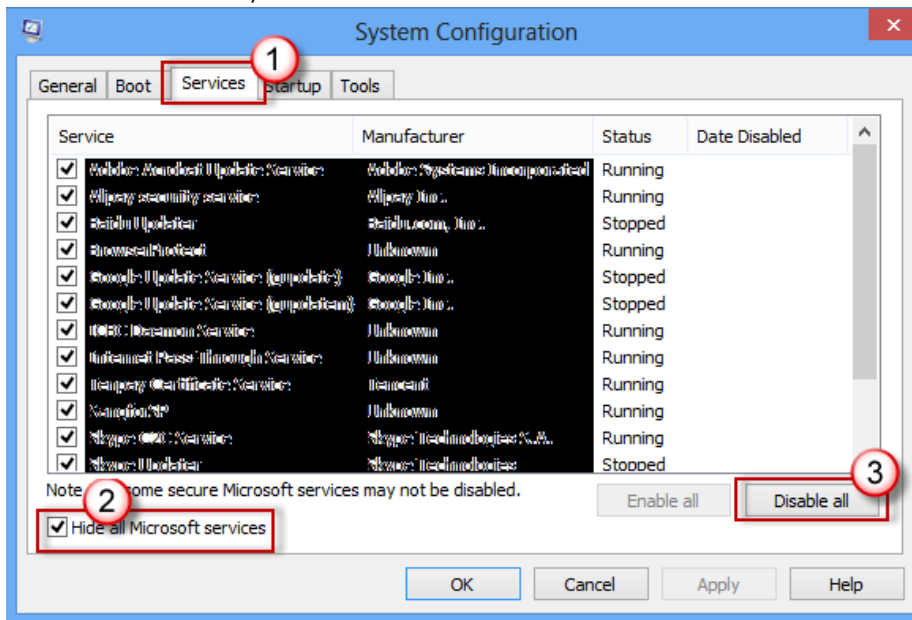
[Hide all](#)

^ Windows 8.1 and Windows 8

1. Swipe in from the right edge of the screen, and then select **Search**. Or, if you're using a mouse, point to the lower-right corner of the screen, and then select **Search**.
2. Type **msconfig** in the search box, and then select **msconfig**.

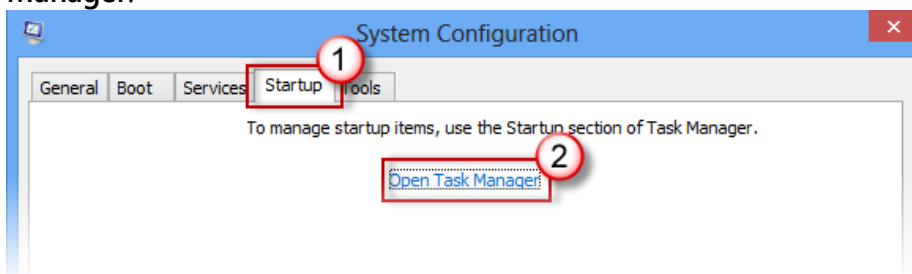


3. On the **Services** tab of **System Configuration**, select **Hide all Microsoft services**, and then select **Disable all**.

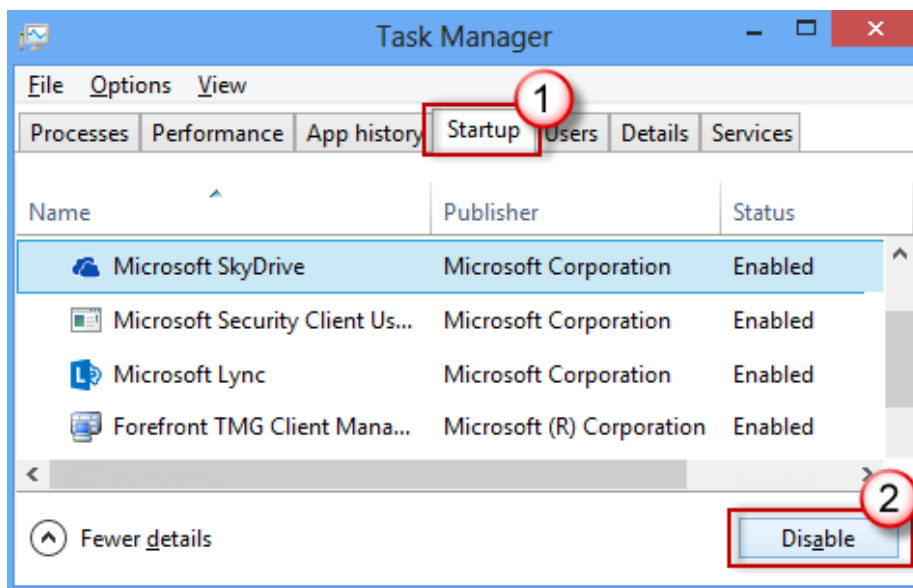


Important If the computer is connected to a network, network policy settings might prevent you from following these steps. Only use the System Configuration utility to change the advanced boot options on the computer with guidance from a Microsoft support engineer. Using the System Configuration utility might make the computer unusable.

4. On the **Startup** tab of **System Configuration**, select **Open Task Manager**.

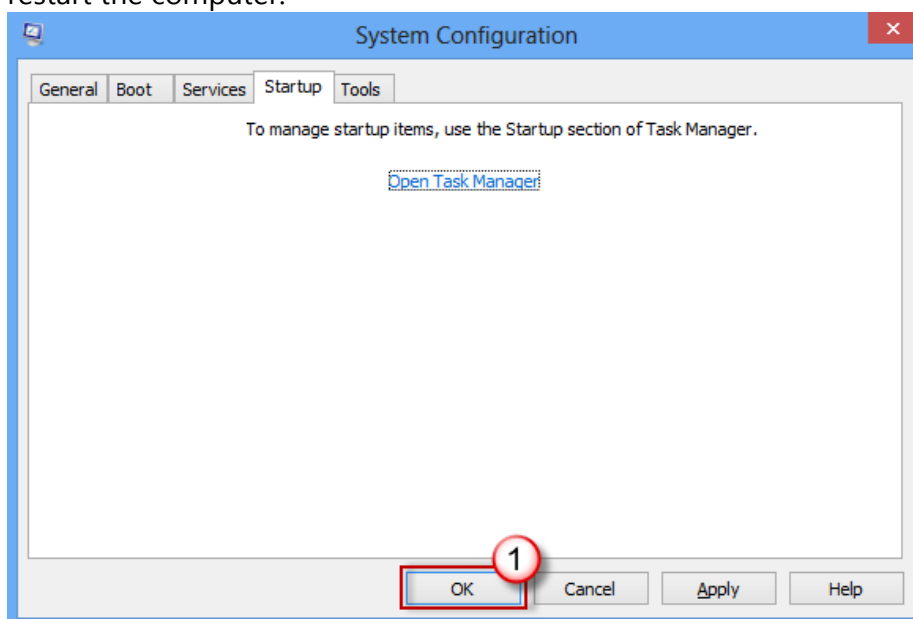


5. Select **Startup** in Task Manager, then for each startup item, select the item and then select **Disable**.



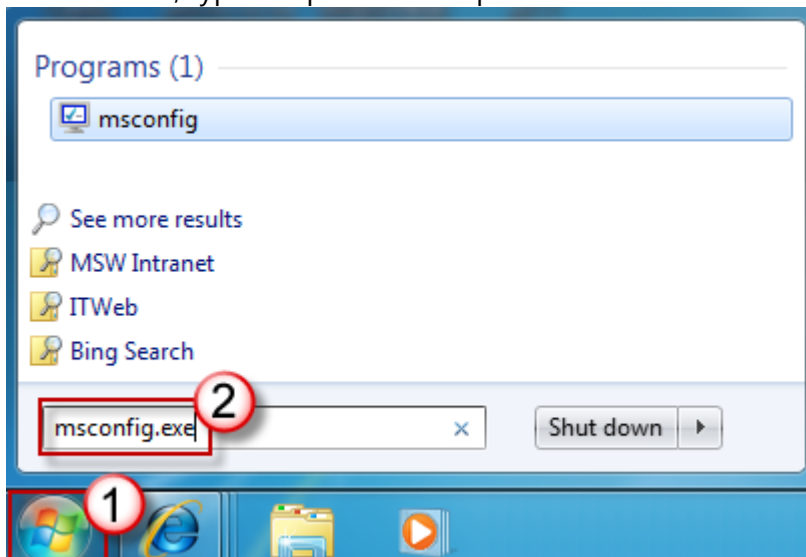
6. Close Task Manager.

7. On the **Startup** tab of **System Configuration**, select **OK**, and then restart the computer.

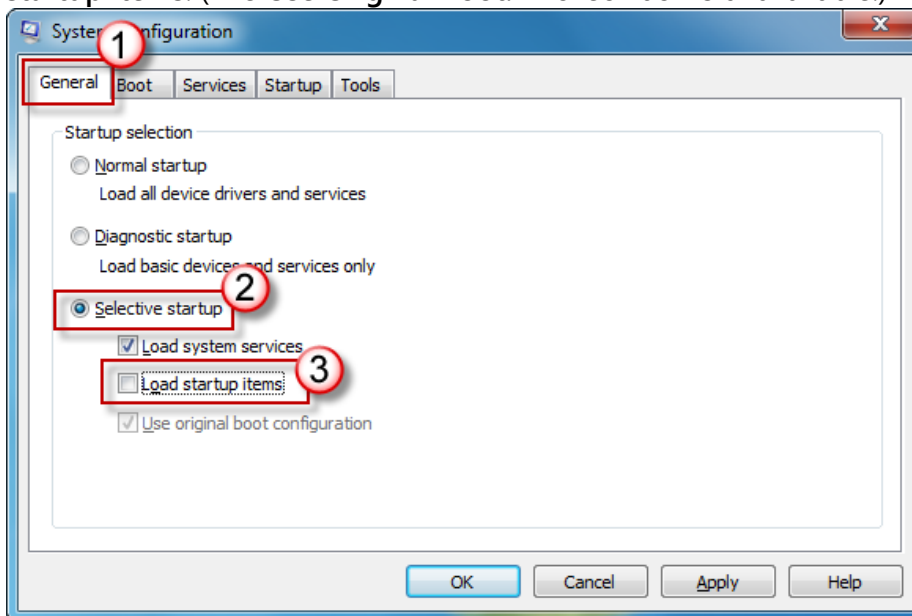


The computer restarts in a clean boot environment. Follow [troubleshooting steps to install, uninstall, or run your application](#). Your computer might temporarily lose some functionality while in a clean boot environment, however that functionality will return. Finish troubleshooting and [reset the computer to start normally](#).

1. Sign in to the computer by using an account that has administrator rights.
2. Select **Start**, type **msconfig.exe** in the **Start Search** box, and then press Enter to start the System Configuration utility.
Note If you're prompted for an administrator password or for confirmation, type the password or provide confirmation.

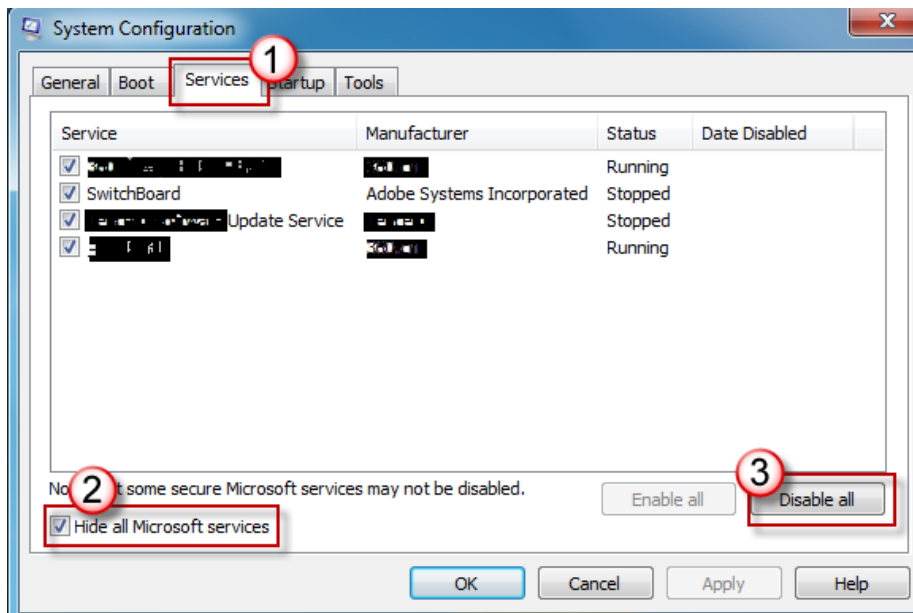


3. On the **General** tab, select **Selective startup**, and then deselect **Load startup items**. (The **Use Original Boot.ini** check box is unavailable.)



Important If the computer is connected to a network, network policy settings might prevent you from following these steps. Only use the System Configuration utility to change the advanced boot options on the computer with guidance from a Microsoft support engineer. Using the System Configuration utility might make the computer unusable.

4. On the **Services** tab, select **Hide all Microsoft services**, and then select **Disable all**.



Note This step lets Microsoft services continue to run. These services include Networking, Plug and Play, Event Logging, Error Reporting, and other services. If you disable these services, you might permanently delete all restore points. Do not do this if you want to use the System Restore utility together with existing restore points.

5. Select **OK**, and then select **Restart**. The computer restarts in a clean boot environment. Follow [troubleshooting steps to install, uninstall, or run your application](#). Your computer might temporarily lose some functionality while in a clean boot environment, however that functionality will return. Finish troubleshooting and [reset the computer to start normally](#).

Install, uninstall, or run an application

After you restart the computer, you'll have a clean boot environment. Then, do one of the following, as appropriate for your situation:

- ^ If you couldn't install or uninstall a program or an update before you performed the clean boot, try to install or uninstall the program or update again

Note If you receive the "The Windows Installer service could not be accessed" error during the installation or uninstallation, you'll need more information. [How to start the Windows Installer service when system](#)

[services are not loaded](#). Then install or uninstall the program or update again.

If the installation or uninstallation is successful, your issue is resolved and you can start as you usually do. [How to reset the computer to start as usual](#)

If the installation or uninstallation still fails, that means this issue is not caused by application or service interference. You might need to contact the program manufacturer for more specific support.

^ [If you couldn't run a program before you performed the clean boot, try to run the program again](#)

If the program runs correctly, this issue is caused by application or service interferences. You can find out which application or service is causing the issue. [How to determine what is causing the issue by performing a clean boot](#)

If the program still doesn't run as expected, this issue is not caused by application or service interference. You might need to contact the program manufacturer for more specific support.

How to determine what is causing the problem after you do a clean boot

If your problem does not occur while the computer is in a clean boot environment, then you can determine which startup application or service is causing the problem by systematically turning them on or off and restarting the computer. While turning on a single service or startup item and rebooting each time will eventually find the problematic service or application, the most efficient way to do this is to test half of them at a time, thus eliminating half of the items as the potential cause with each reboot of the computer. You can then repeat this process until you've isolated the problem. Here's how:

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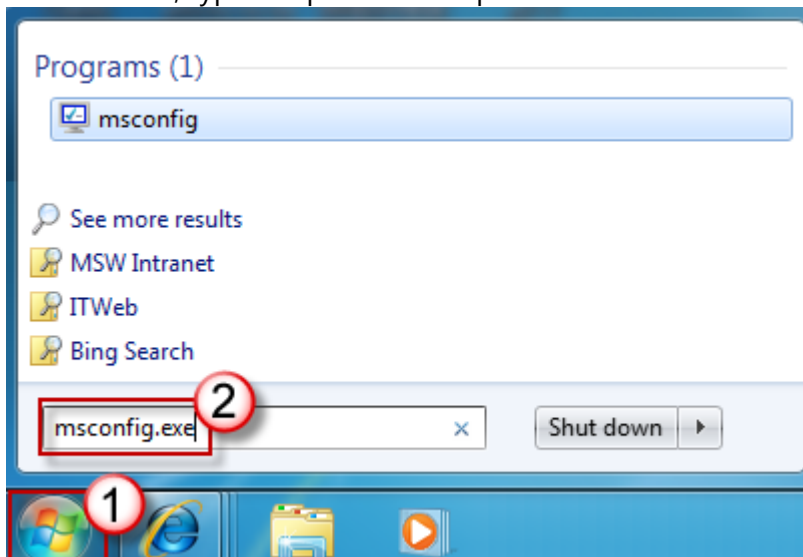
^ [Windows 10, Windows 8.1, and Windows 8](#)

1. Sign in to the computer by using an account that has administrator rights. If you don't have an administrator account, you can create one. [Create a local user or administrator account in Windows 10](#)
2. For Windows 10, in the search box on the taskbar, type **msconfig**. (In Windows 8 or 8.1, swipe in from the right edge of the screen, and then select **Search**. Or, if you're using a mouse, point to the lower-right corner of the screen, and then select **Search**. In the search box, type **msconfig**.)
3. Select **msconfig** or **System Configuration** from the search results.
4. Select **Services**, and then select **Hide all Microsoft services**.
5. Select each of the check boxes in the upper half of the **Service** list.
6. Select **OK**, and then select **Restart**.
7. After the computer restarts, determine whether the problem still occurs.
 - If the problem still occurs, one of the checked items is the problematic service. Repeat steps 1 through 6, but in Step 5, clear the lower half of the boxes in the **Service** list that you selected in your last test.
 - If the problem doesn't occur, the checked items are not the cause of the problem. Repeat steps 1 through 6, but in Step 5, turn on the upper half of the boxes that you cleared in the **Service** list in the last test.
 - Repeat these steps until you've either isolated the problem to a single service, or until you've determined that none of the services are the cause of the problem. If you experience the problem when only one service is selected in the **Service** list, go to step 10. If none of the services cause the problem, go to step 8.
8. Select **Startup**, and then select the upper half of the check boxes in the **Startup Item** list.
9. Select **OK**, and then select **Restart**.
 - If the problem still occurs, repeat step 8, but this time clear the lower half of the boxes in the **Startup Item** list that you selected in your last test.
 - If the problem does not occur, repeat step 8, and turn on the upper half of the boxes that you cleared in the **Startup Item** list in the last test.
 - If you still experience the problem after only one Startup Item is selected in the **Startup Item** list, this means that the selected Startup Item causes the problem, and you should go to step 10. If no Startup Item causes this problem, there might be a problem with a Microsoft service. [Repair the service, reset, or reinstall Windows](#)

10. After you determine the startup item or the service that causes the problem, contact the program manufacturer to determine whether the problem can be resolved. Or, run Windows with the problem item disabled. To do this, run the System Configuration utility and enable your Services and Startup Items, but clear the check box for the problem item.

^ Windows 7

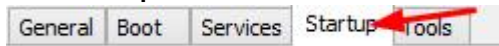
1. Sign in to the computer by using an account that has administrator rights.
2. Select **Start**, type **msconfig.exe** in the **Start Search** box, and then press Enter to start the System Configuration utility.
Note If you're prompted for an administrator password or for confirmation, type the password or provide confirmation.



3. Select the **Services** tab, and then select **Hide all Microsoft services**.
4. Select the upper half of the check boxes in the **Service** list.
5. Select **OK**, and then select **Restart**.
6. After the computer finishes restarting, determine whether the problem still occurs.
 - If the problem still occurs, repeat steps 1 through 5, but in Step 4, clear the lower half of the boxes in the **Service** list that you selected in your last test.
 - If the problem does not occur, the checked items are not the cause of the problem. Repeat steps 1 through 5, but in Step 4, turn on the upper half of the boxes that you cleared in the **Service** list in the last test.
 - If you still experience the problem after only one service is selected in the **Service** list, this means that the selected

service causes the problem. Go to step 9. If no service causes this problem, go to step 7.

7. Select **Startup**, and then select the upper half of the check boxes in the **Startup Item** list.



8. Select **OK**, and then select **Restart**.

- If the problem still occurs, repeat step 7, but this time clear the lower half of the boxes in the **Startup Item** list that you selected in your last test.
- If the problem does not occur, repeat step 7, and select only the upper half of the remaining check boxes that are cleared in the **Startup Item** list. Repeat these steps until you have selected all the check boxes.
- If you still experience the problem after only one Startup Item is selected in the **Startup Item** list, this means that the selected Startup Item causes the problem. Go to Step 10. If no Startup Item causes this problem, a Microsoft service probably causes the problem. To repair the service, Microsoft recommends that you reset or reinstall Windows.

9. After you determine the startup item or the service that causes the problem, contact the program manufacturer to determine whether the problem can be resolved. Or, run Windows with the problem item disabled. (Run the System Configuration utility and enable your Services and Startup Items, but clear the check box for the problem item.)

Reset the computer to start normally after clean boot troubleshooting

After you finish troubleshooting, follow these steps to reset the computer to start normally.

[Hide all](#)

^ [Windows 10, Windows 8.1, and Windows 8](#)

1. In Windows 10, in the search box on the taskbar, type **msconfig**. (In Windows 8 or 8.1, swipe in from the right edge of the screen, and then select **Search**. Or, if you're using a mouse, point to the lower-right corner of the screen. and then select **Search**. Type **msconfig**.)

2. Select **msconfig** or **System Configuration** from the search results.
3. On the **General** tab, select **Normal Startup**.
4. Select **Services**, clear the check box beside **Hide all Microsoft services**, and then select **Enable all**.
5. Select **Startup**, and then select **Open Task Manager**.
6. In Task Manager, enable all of your startup programs, and then select **OK**.
7. When you're prompted to restart the computer, select **Restart**.

^ Windows 7

1. Click **Start**, type **msconfig.exe** in the **Start Search** box, and then press Enter.
Note If you're prompted for an administrator password or for confirmation, type the password or select **Continue**.
2. On the **General** tab, select **Normal Startup**, and then select **OK**.
3. When you're prompted to restart the computer, select **Restart**.

How to start the Windows Installer service when system services are not loaded

If you run a Setup program without starting the Windows Installer service, you might receive the following error message:

The Windows Installer service could not be accessed. Contact your support personnel to verify that the Windows Installer service is properly registered.

The Windows Installer service doesn't start if you clear the **Load system services** check box in the System Configuration utility. To use the Windows Installer service when system services are not loaded, start the service manually. Here's how:

[Hide all](#)

^ Windows 10, Windows 8.1, and Windows 8

1. In Windows 10, in the search box on the taskbar, type **computer management**. (In Windows 8 or 8.1, swipe in from the right edge of the screen, and then select **Search**. Or, if you're using a mouse, point to the lower-right corner of the screen, and then click **Search**. Type **computer management**.)
2. Right-click or swipe down on **Computer Management** in the search results, and then select **Manage**.
3. In the console tree, select **Services and Applications**, and then select **Services**.
4. In the details pane, right-click or swipe down on **Windows Installer**, and then select **Start**.

^ Windows 7

1. Click **Start**, right-click **Computer**, and then select **Manage**.
Note If you're prompted for an administrator password or for confirmation, type the password or provide confirmation.
2. In the console tree, select **Services and Applications**, and then select **Services**.
3. In the details pane, right-click **Windows Installer**, and then select **Start**.

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