

2 ways to check RAM and check RAM errors on the computer with the highest accuracy rate

As you know, RAM is a very important piece of hardware in the computer, serving as a memory to handle data and is a determinant of fast or slow speed of laptop, PC. In the article below, TipsMake.com will introduce to you some ways to check RAM errors by software on Windows.

As you know, RAM is a very important piece of hardware in the computer, serving as a memory to handle data and is a determinant of fast or slow speed of laptop, PC. In the article below, TipsMake.com will introduce to you some ways to check RAM errors by software on Windows.

Why check RAM if the computer is still operating normally? Yes, your laptop is still running smoothly does not mean that it has no errors, just that it has not yet had an error or not until the time the error occurred. Periodic testing of computer components is very important, like checking the temperature, cleaning simple parts of a computer, they will help stabilize the "health" of the machine, increase life expectancy. use. Some expressions of the computer if the RAM memory fails include:

1. Blue screen error - BSOD.
2. Computer running slow, or hanging, freezing.
3. Error not responding when running the software, game .
4. The computer restarts automatically.

See some more articles about RAM you might be interested in:

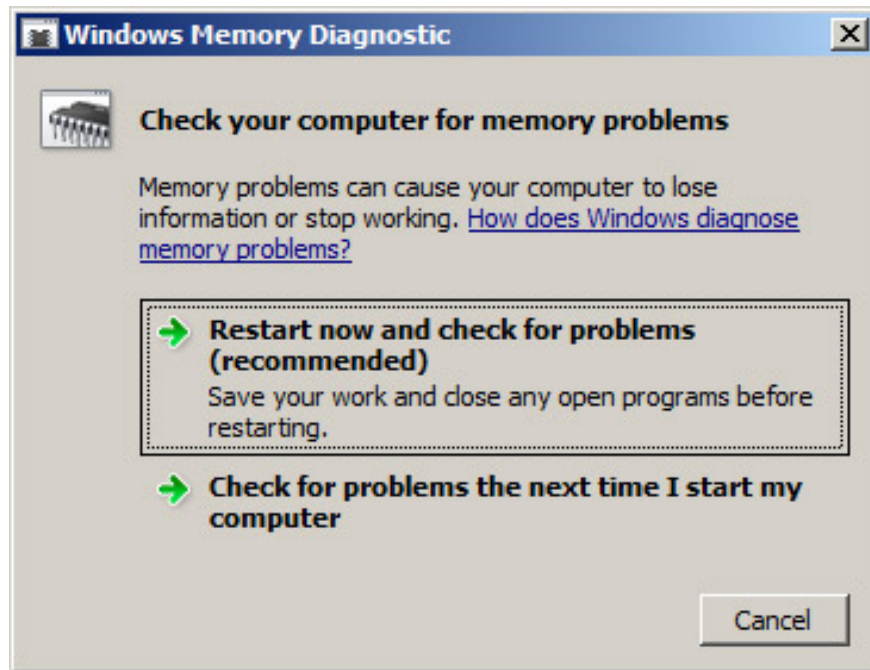
1. Installation steps, more RAM upgrades.
2. How to release RAM, help your computer run faster?
3. All you need to know about RAM.

Method 1: Use Windows Memory Diagnostic to check RAM errors

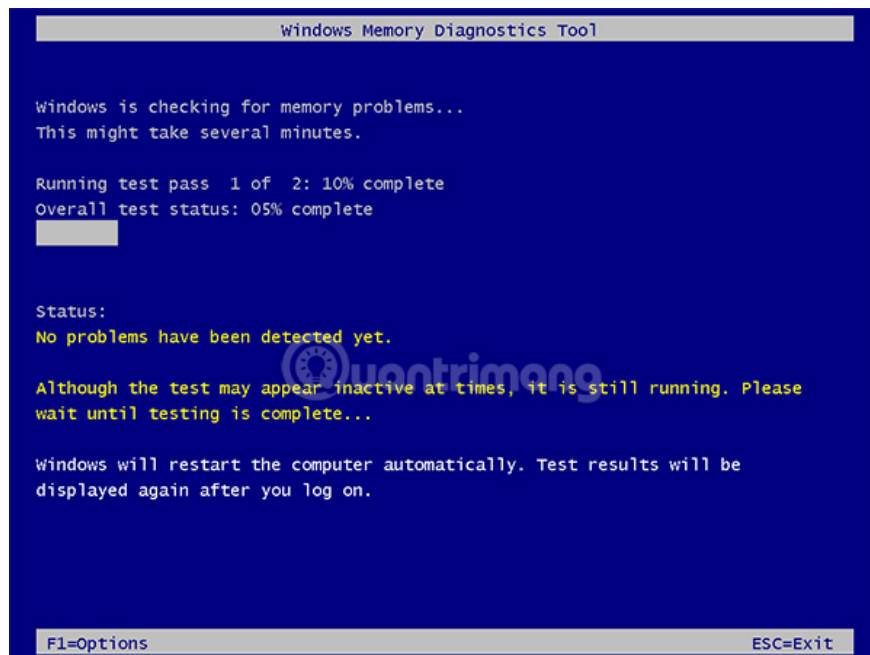
To do this, ask your computer to still boot into Windows normally. To run Windows Memory Diagnostic, you can apply 1 of 2 ways below:

1. Go to **Run** then type **mdsched.exe > Enter** .
2. Go to **Control Panel > All Control Panel Items > Administrative Tools** . Run **Windows Memory Diagnostic** utility here.

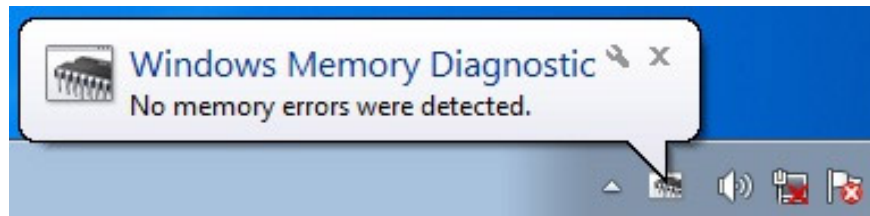
The main interface of **Windows Memory Diagnostic** will look like this:



Whether you want it or not, you need to restart your computer to enter the RAM check phase. The screen of the RAM test using the **Windows Memory Diagnostics Tool** will look like this:



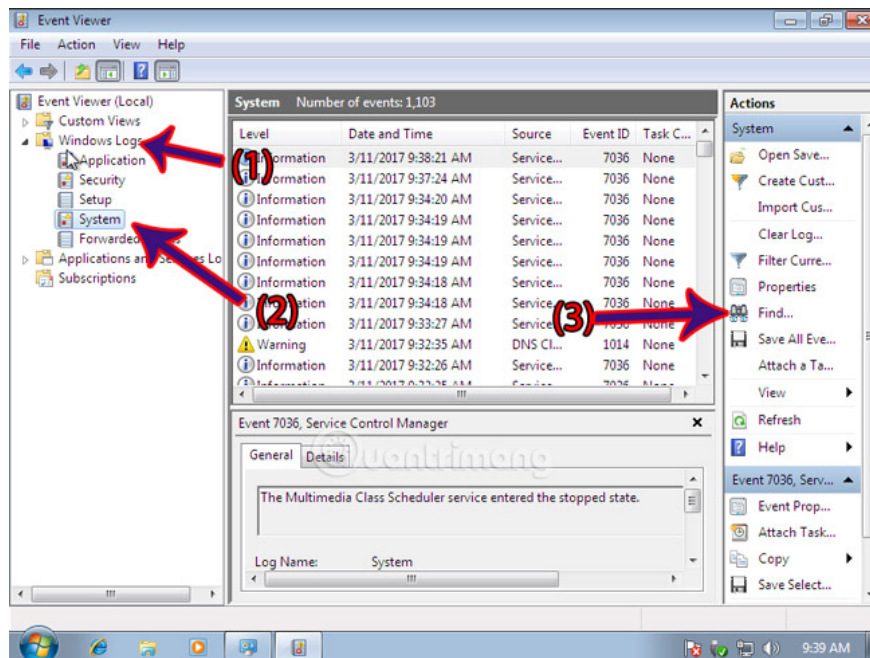
This process will take about 30 minutes to complete, then the computer will boot straight into the old Windows screen. If the process of checking RAM does not detect the error, the program will display a small notice at the bottom right corner of the screen like this:



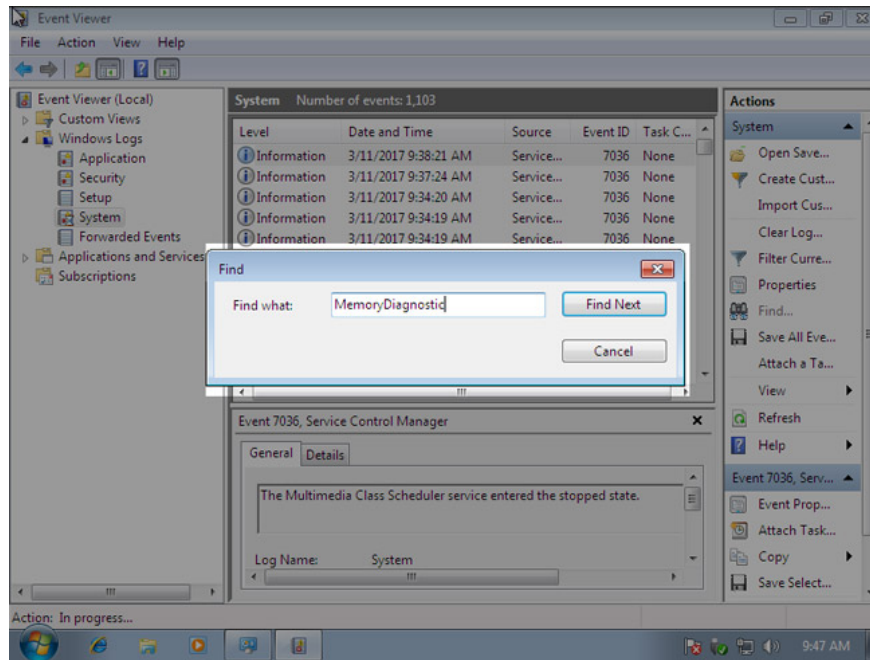
In case you want to take a closer look at the process, use the **Event Viewer** tool to view all **Windows Logs** . You can open **Event Viewer** in 2 ways:

1. Go to Run and type **eventvwr.msc** > Enter.
2. Go to **Control Panel** > **All Control Panel Items** > **Administrative Tools** > **Event Viewer** .

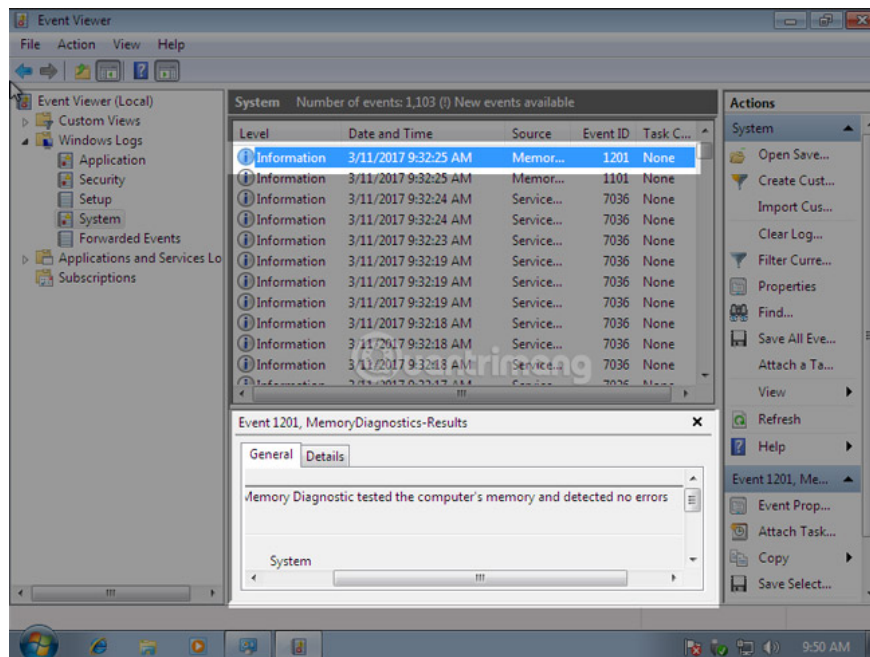
The **Event Viewer** window opens, select **Windows Logs**> **System** and select **Find** as shown:



Then find the name **MemoryDiagnostic** as follows:



This command will search for all **MemoryDiagnostic** events that have been logged by Windows Logs. You just need to read carefully the log to record the result.



Method 2: Use Memtest86 to check RAM

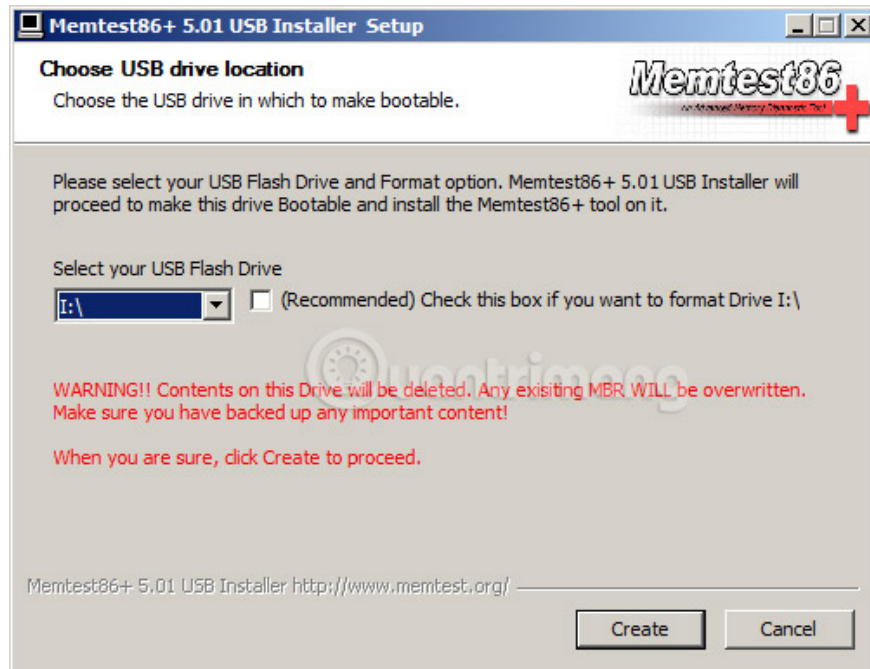
This is a tool created by an external developer for RAM error checking. With Memtest86, we have 2 options, that is to use the installer to extract **Memtest86** to an external mobile device such as a USB Flash drive and then run it, or use a combination tool like HirenBoot which contains **Memtest86** .

1. How to create an installation USB containing Memtest86:

To do this, download the **Memtest86** installation file for USB at the link below:

1. <http://www.memtest.org/download/5.01/memtest86+-5.01.usb.installer.zip>

Connect the USB to the computer, run the **Memtest86** installation file version 5.01 as shown below:



Then click **Create**> **Next**> **Finish** . So the USB creation process containing Memtest86 is complete.

2. How to use USB HirenBoot contains Memtest86

This way is too simple and common, invite you to review HirenBoot USB tutorial here.

3. How to run Memtest 86

After creating the USB successfully, you plug the USB into the computer and select the boot mode - boot from the USB drive:

```

Hiren's BootCD 15.2      GRUB4DOS0.4.5c20121002 637K/1777M      7
Boot From Hard Drive (Windows Vista/7/2008 or Xp)

Mini Windows Xp
Dos Programs
Linux based rescue environment (Parted Magic 2012-10-10)

Windows Memory Diagnostic
MemTest86+
Offline NT/2K/XP/ Vista/7 Password Changer
Kon-Boot
Seagate DiscWizard (Powered by Acronis TrueImage)
PloP Boot Manager
Smart Boot Manager 3.7.1
Fix "NTLDR is Missing"
Darik's Boot and Nuke (Hard Disk Eraser)
Custom Menu... (Use HBCDCustomizer to add your files)
More...

```

Memtest86 is running, the program will run and divided into many different stages, respectively **Pass 1, then Pass 2, 3** . You just let the machine run for a while, about 20 minutes, then stop for the most accurate results:

```

Memtest86+ 04.20      : Pass 1%
Intel Core Gen2 2194 MHz : Test 73% #####
L1 Cache: 32K 73131 MB/s : Test #2 [Moving inversions, ones & zeros]
L2 Cache: 256K 33241 MB/s : Testing: 184K - 1780M 1778M
L3 Cache: 3072K 365655 MB/s : Pattern: ffffffff
Memory : 1778M 17983 MB/s :
IMC : Intel(R) Core(TM) i3-2320M CPU @ 2.20GHz / BCLK : 0 MHz
Settings: RAM : 0 MHz (DDR3- 0) / CAS : 12-4-12-91 / Dual Channel

WallTime  Cached  RsvdMem  MemMap  Cache  ECC  Test  Pass  Errors  ECC  Errs
-----
0:00:02  1778M      4K      e820      on  off  Std    0    0

(ESC)Reboot (c)configuration (SP)scroll_lock (CR)scroll_unlock

```

If you want to change the options during the test, you can press the C - Configuration shortcut to display the options numbered from 1 to 9 as shown, and to continue testing, you press 0:

```

Memtest86+ 04.20      : Pass 57% #####
Intel Core Gen2 2194 MHz : Test 11% ####
L1 Cache: 32K 73131 MB/s : Test #8 [Modulo 20, Random pattern]
L2 Cache: 256K 33241 MB/s : Testing: 184K - 1780M 1778M
L3 Cache: 3072K 365655 MB/s : Pattern: ab8dde77-6
Memory : 1778M 17983 MB/s :
IMC : Intel(R) Core(TM) i3-2320M CPU @ 2.20GHz / BCLK : 0 MHz
Settings: RAM : 0 MHz (DDR3- 0) / CAS : 12-4-12-91 / Dual Channel

WallTime  Cach  Settings:  ECC  Test  Pass  Errors  ECC  Errs
-----
0:10:55  177

(1) Test Selection
(2) Address Range
(3) Memory Sizing
(4) Error Report Mode
(5) Show DIMM Memory Info
(6) ECC Mode
(7) Restart
(8) Refresh Screen
(9) Display SPD Data
(0) Continue

(ESC)Reboot (c)configuration (SP)scroll_lock (CR)scroll_unlock

```

During this error checking process, if Memtest86 finds any errors, it will display in the Errors column.

You finished reading the article "**2 ways to check RAM and check RAM errors on the computer with the highest accuracy rate**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.
