Keeping your System/Computer healthy and Operating

Here is a list of tasks and programs that can be performed to keep your system running healthily

OK here are the first two and the most important:

1. **Windows Updates**

   Make sure Windows updates itself automatically. In Windows 7 or 8 search for Windows Update. Click Change settings in the left pane. Install updates automatically (if recommended isn't selected, select it.)

2. **Windows Firewall**

   Like an antivirus, this type of program runs in the background at all times. But this one controls the traffic between your PC and the rest of the network (and internet).

   Windows comes with a perfectly good firewall, but you should make sure it's on.

Windows Updates

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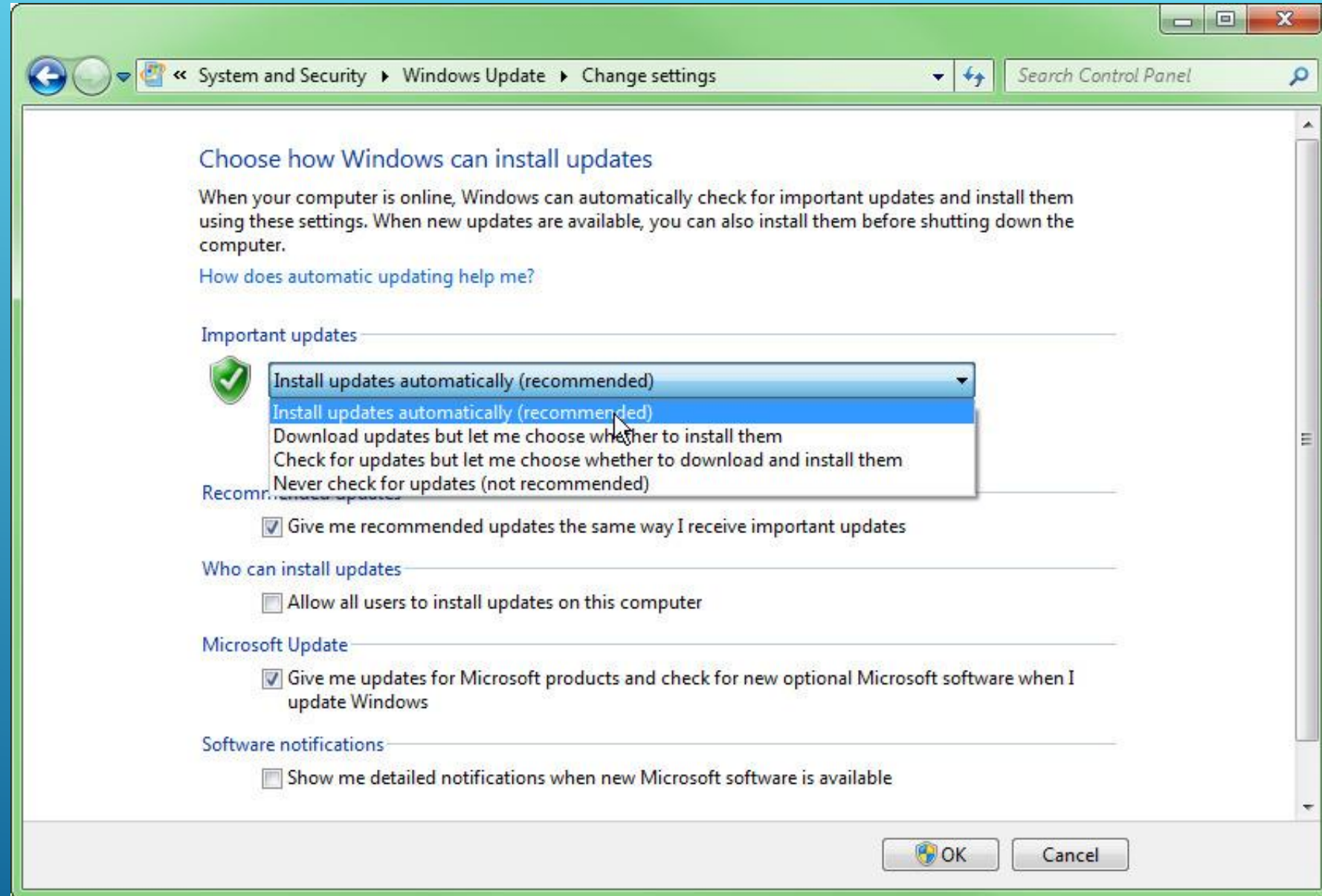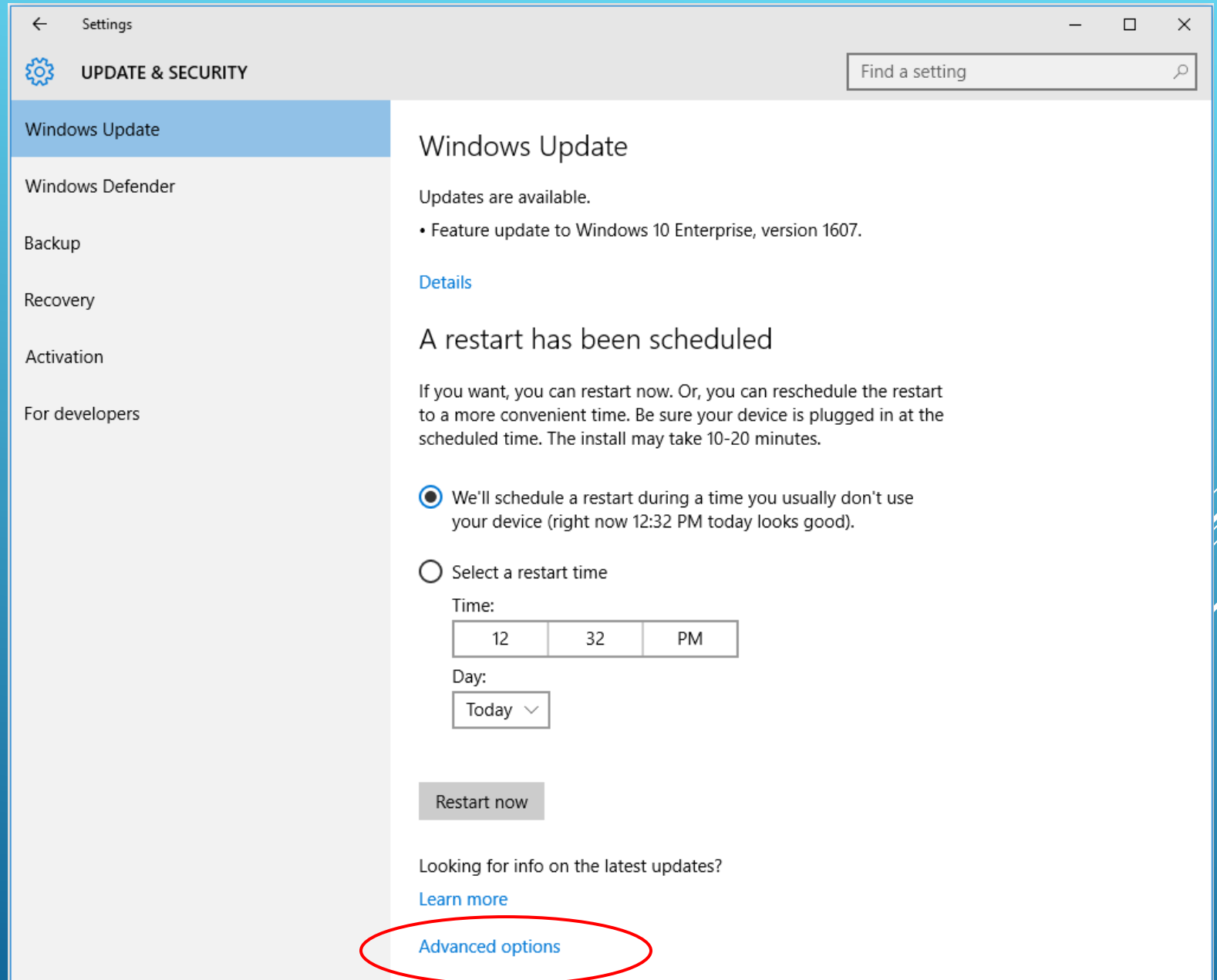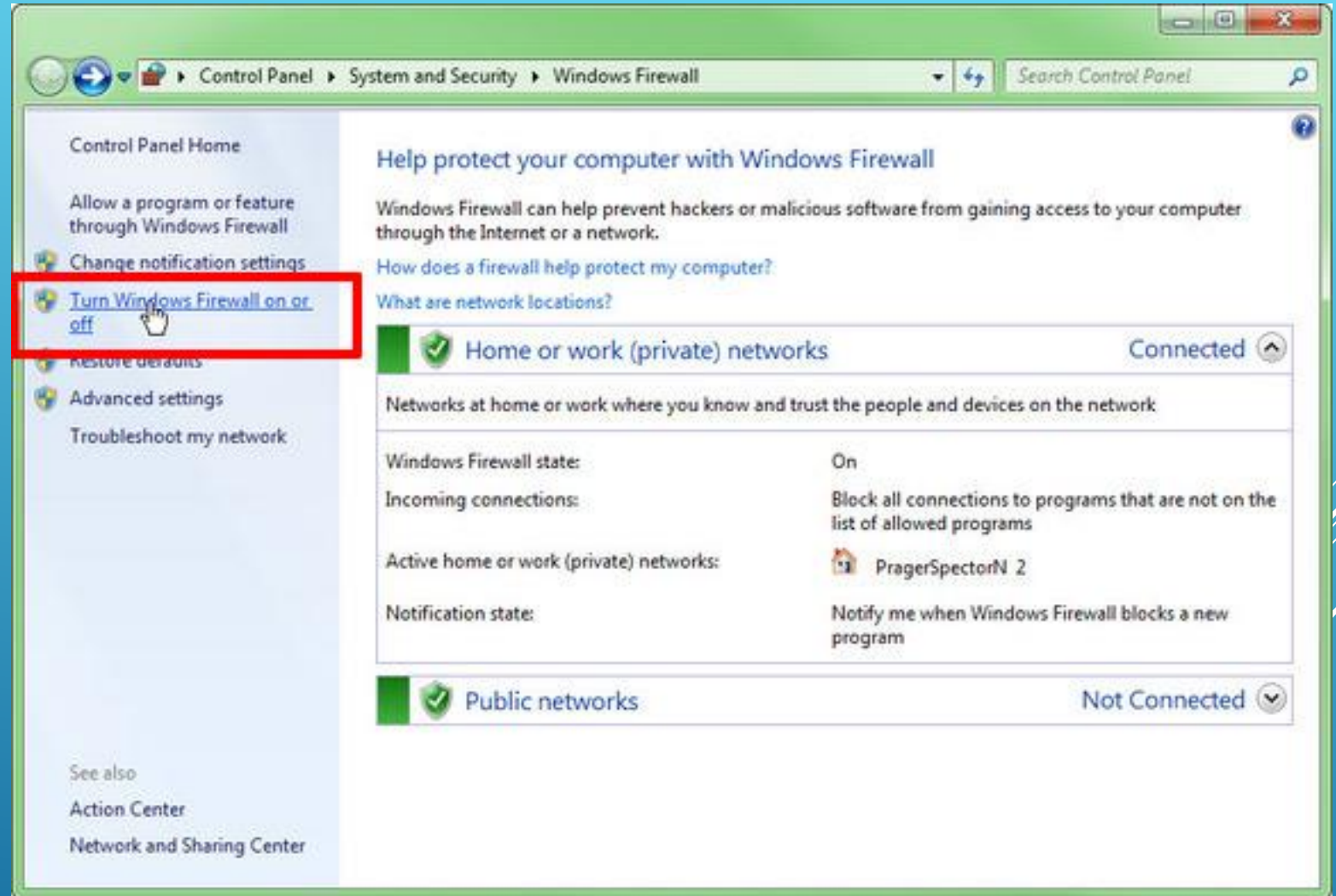
Windows Updates

In Windows 10, Search for windows updates and select "Windows Updates Setting" Scroll down to the bottom of the window and click Advanced options. Make sure Automatic (recommended) is selected.

Windows Firewall

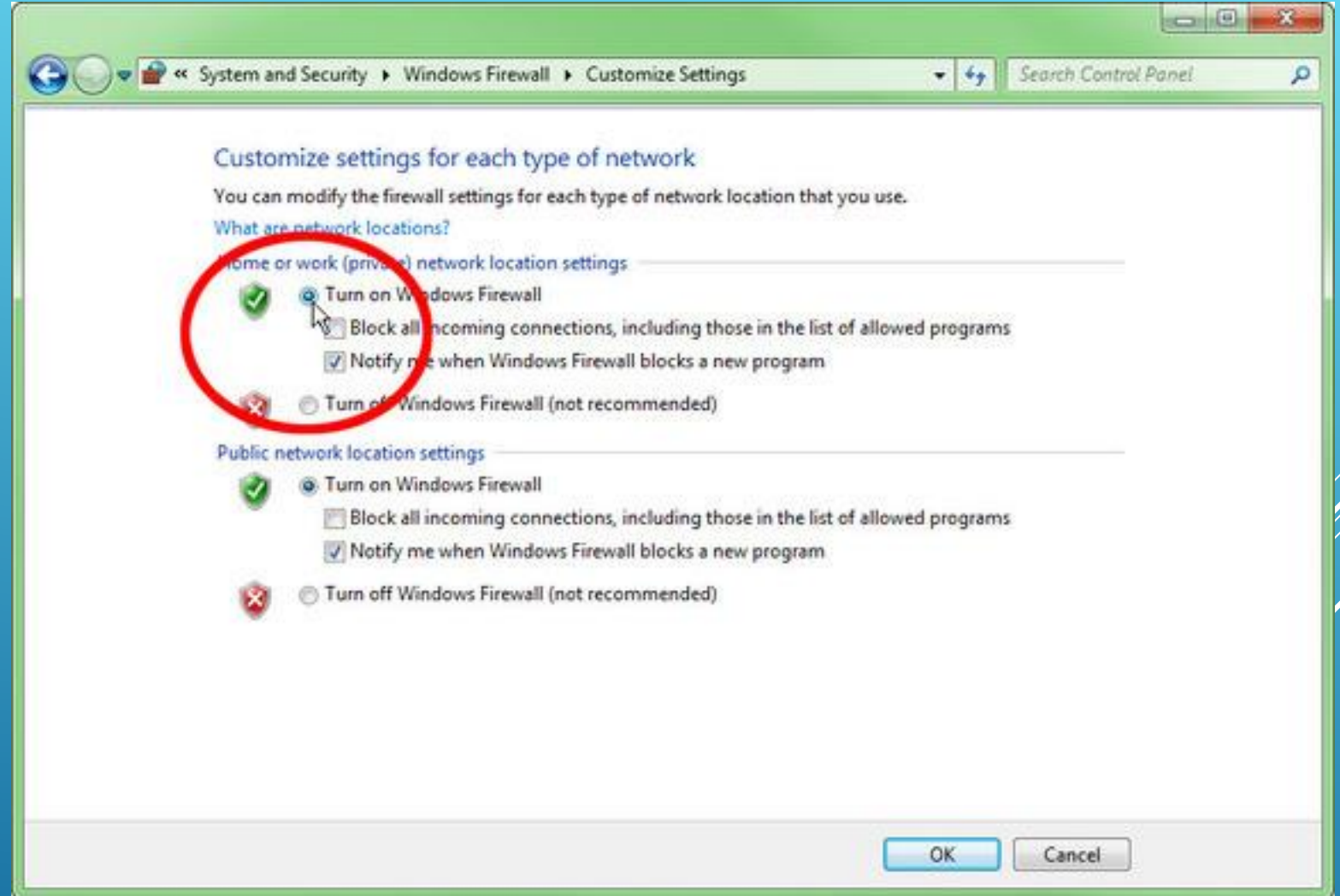Search for firewall and select "Windows Firewall" in the control Panel.

In the left pane, click Turn Windows Firewall on or off

Windows Firewall

Select the obvious option from selection.

Clean the junk

There are many utilities available for ridding a PC of junk data, applications, and malware, but Windows has it's own built-in Disk Cleanup utility, but its more of a quick-and-dirty tool for wiping temporary data rather than a full-blown utility. Still, running Disk Cleanup is a good way to reclaim disk space, which can be helpful on low-capacity hard-drives
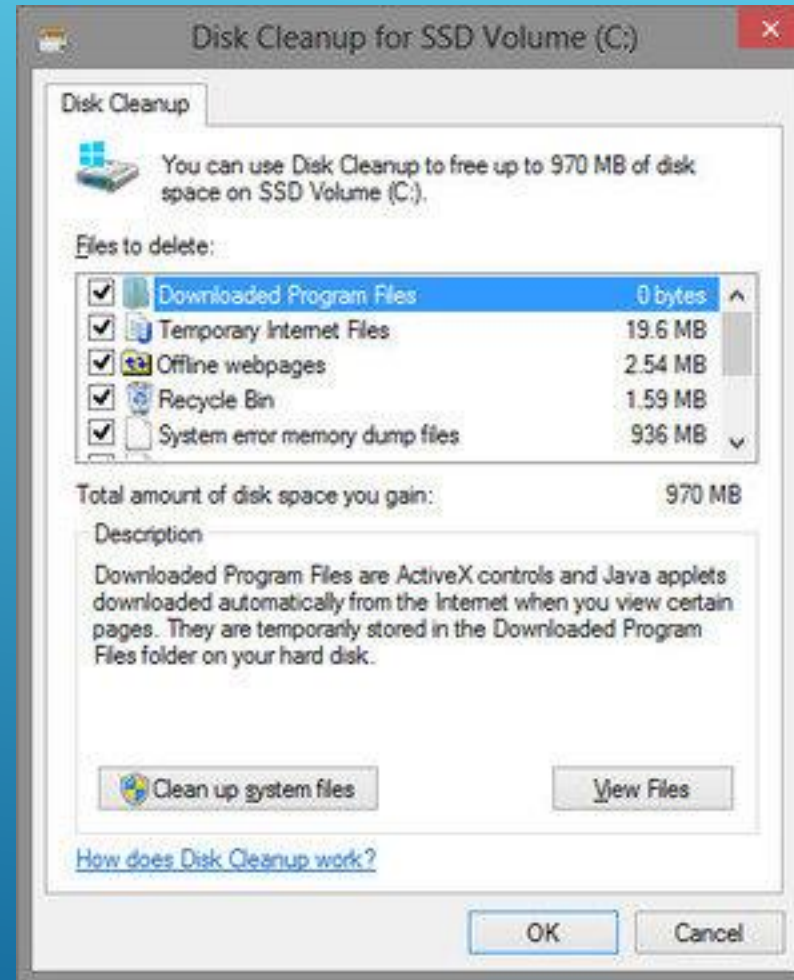
Antivirus and anti-malware Protection

Most common list of Antivirus and Anti-Malware

Antivirus

1. Symantec
2. MacAfee
3. AVG
4. Avast
5. Webroot

Anti-Malware

1. Malwarebytes
2. AVG
3. Kaspersky
4. Webroot
5. Symantec

Windows Registry Cleaning

The Windows Registry is a set of files that contains settings for your Windows PC – Such as what Program to use to open HTML files, when your antivirus program should run, or what desktop Background you use. You can read more about the Windows Registry at Wikipedia.

A good program to use to clean Windows Registry would be "Ccleaner"

Ccleaner

Ccleaner has consistenly been one of the best systems cleaners for windows

To download ccleaner go to: www.piriform.com/CCleaner

Run installer and follow steps to install.

Here is an example of a scan

Windows Disk Cleanup

Windows also has a built-in for those who don't want to install third party programs.

Search for "Disk Cleanup"

Here is an example.
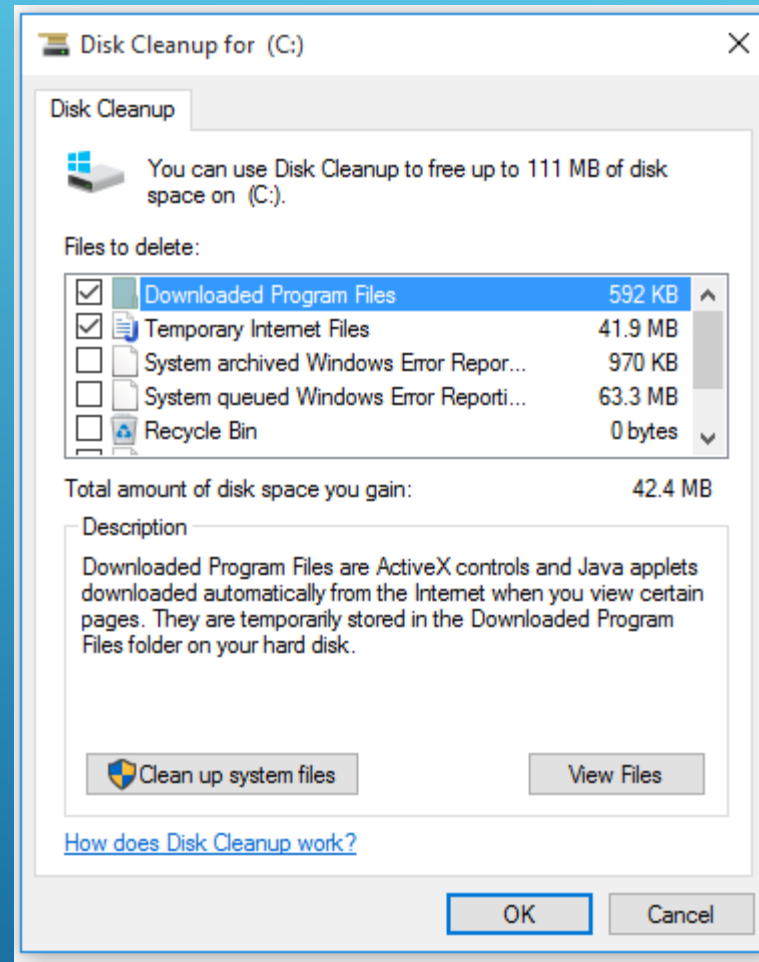
Disk Check
(Advanced item)

Every once in a while (once a month maybe) it is a good to run "chkdsk X: /f /r

(Where x is the drive letter you want to check) the f switch tells the command to automatically fix errors and the r switch locates bad sectors and recovers readable data.

Run this by searching for "CMD" (Command line)

```
Select Command Prompt                                         ─  □  ✕

The drive, the path, or the file name is not valid.

G:\>chkdsk /?
Checks a disk and displays a status report.

CHKDSK [volume[[path]filename]]] [/F] [/V] [/R] [/X] [/I] [/C] [/L[:size]] [/B] [/scan] [/spotfix]

  volume              Specifies the drive letter (followed by a colon),
                      mount point, or volume name.
  filename            FAT/FAT32 only: Specifies the files to check for
                      fragmentation.
  /F                  Fixes errors on the disk.
  /V                  On FAT/FAT32: Displays the full path and name of every
                      file on the disk.
                      On NTFS: Displays cleanup messages if any.
  /R                  Locates bad sectors and recovers readable information
                      (implies /F, when /scan not specified).
  /L:size             NTFS only:  Changes the log file size to the specified
                      number of kilobytes.  If size is not specified, displays
                      current size.
  /X                  Forces the volume to dismount first if necessary.
                      All opened handles to the volume would then be invalid
                      (implies /F).
  /I                  NTFS only: Performs a less vigorous check of index
                      entries.
  /C                  NTFS only: Skips checking of cycles within the folder
                      structure.
  /B                  NTFS only: Re-evaluates bad clusters on the volume
                      (implies /R)
  /scan               NTFS only: Runs a online scan on the volume
  /forceofflinefix    NTFS only: (Must be used with "/scan")
                      Bypass all online repair; all defects found
                      are queued for offline repair (i.e. "chkdsk /spotfix").
  /perf               NTFS only: (Must be used with "/scan")
                      Uses more system resources to complete a scan as fast as
                      possible. This may have a negative performance impact on
                      other tasks running on the system.
  /spotfix            NTFS only: Runs spot fixing on the volume
  /sdcleanup          NTFS only: Garbage collect unneeded security descriptor
                      data (implies /F).
  /offlinescanandfix  Runs an offline scan and fix on the volume.
  /freeorphanedchains FAT/FAT32/exFAT only: Frees any orphaned cluster chains
                      instead of recovering their contents.
  /markclean          FAT/FAT32/exFAT only: Marks the volume clean if no
                      corruption was detected, even if /F was not specified.
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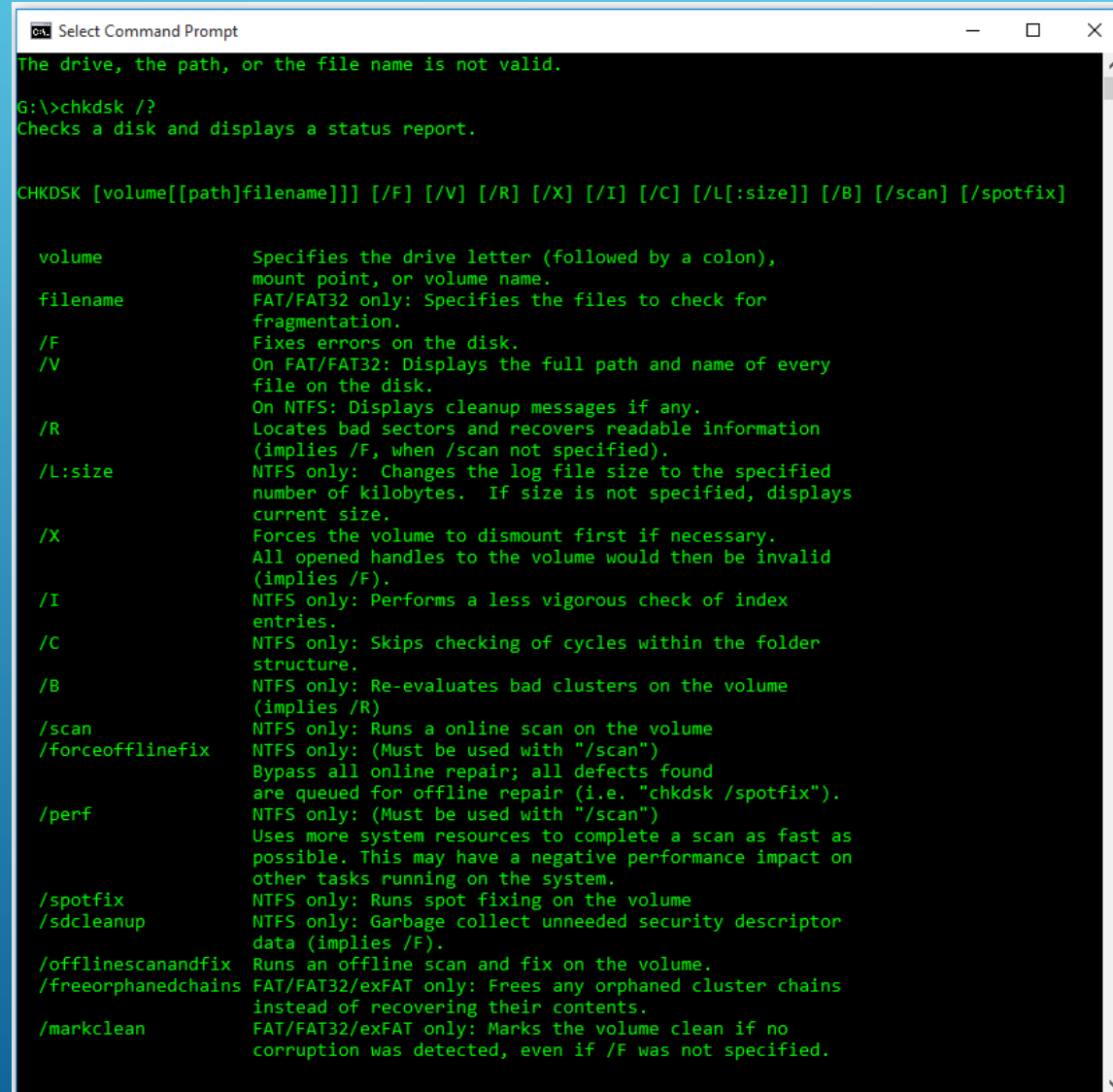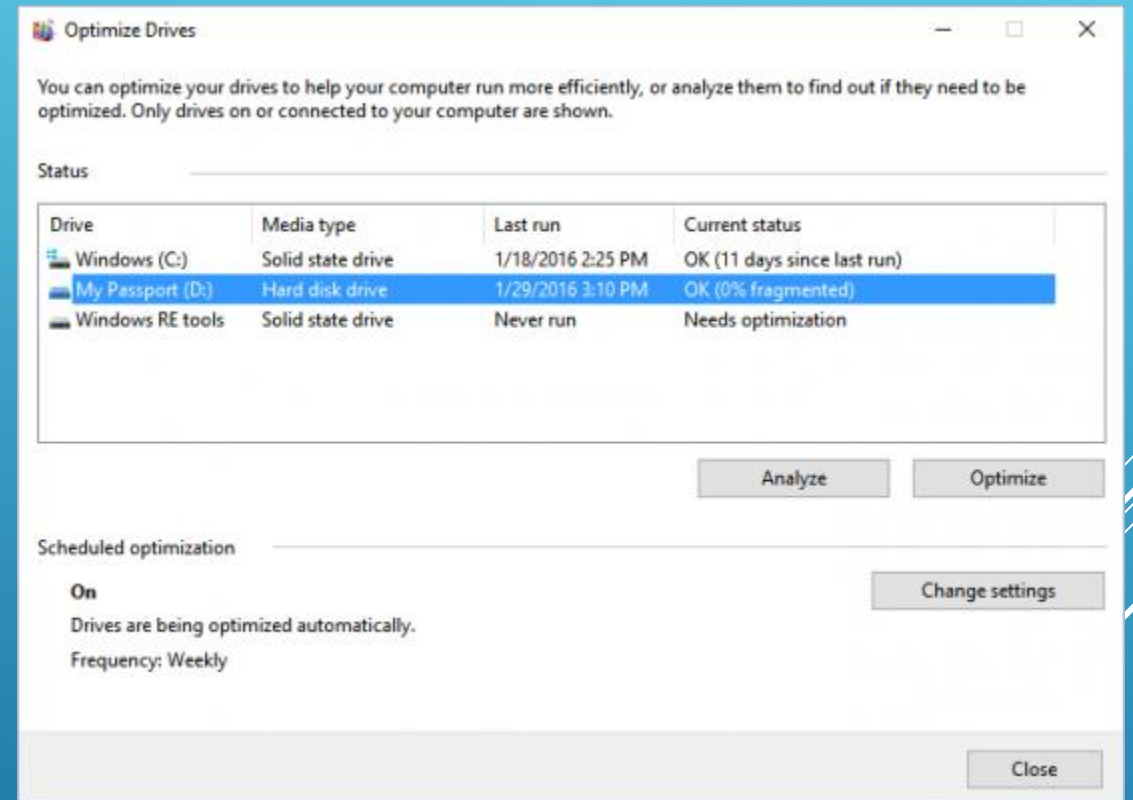
Defragment your Hard Drive

Over time, files on your hard drive get fragmented, and your computer slows down because it has to check multiple places on your drive for those pieces. To have your computer run more efficiently, use the built-in tool in Windows to defragment those files. Here's how and when you should do it.

Windows 10, like Windows 8 and 7 before it, automatically defragments files for you on a schedule (by default, once a week). However, it doesn't always run consistently, so if you notice files are taking longer to load or you just want to double check, you can see how fragmented the drive is in Windows.

Defragment your Hard Drive

Open the disk optimization tool by searching for "optimize" or "defrag" in the taskbar.

Select your hard drive and click Analyze. Note that if you have a SSD, this option is grayed out and not available
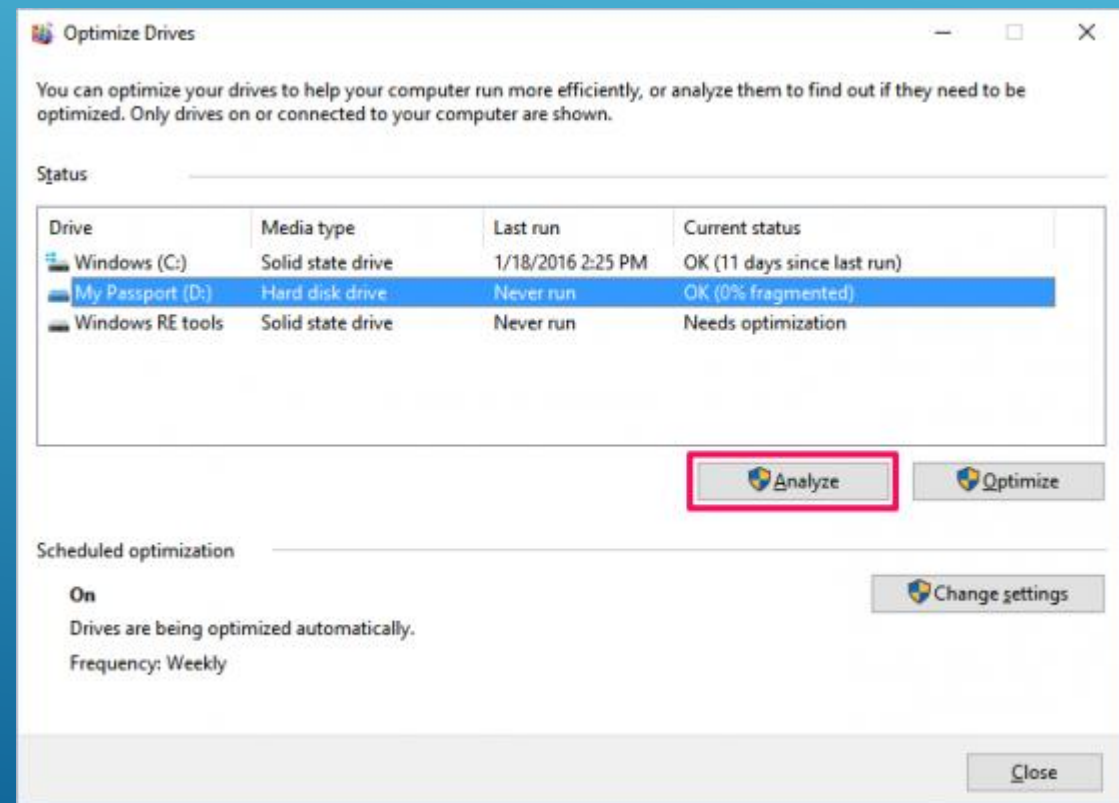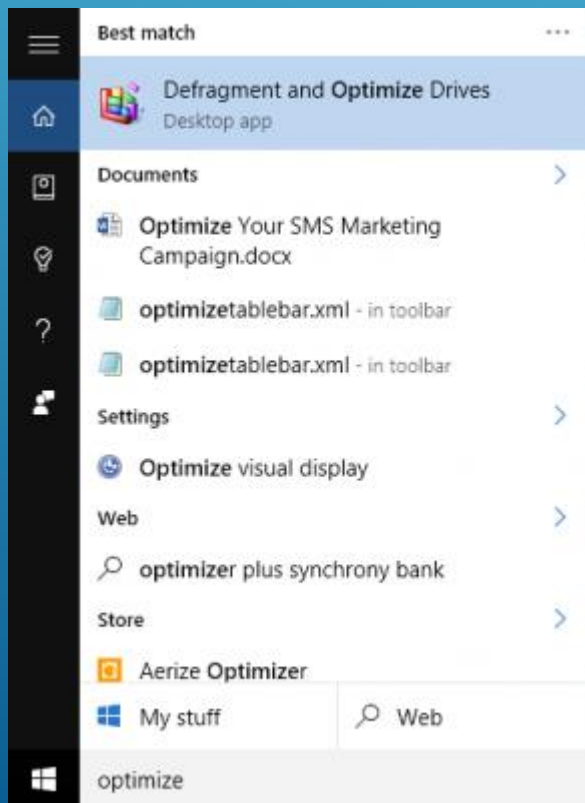
Defragment your Hard Drive

WinDirStat is a disk usage statistics viewer is a must-have application as far as I'm concerned. I've used it regularly for many years now and it has never disappointed me. It stands for Windows Directory Statistics and it does exactly what it says.

Here is an example:
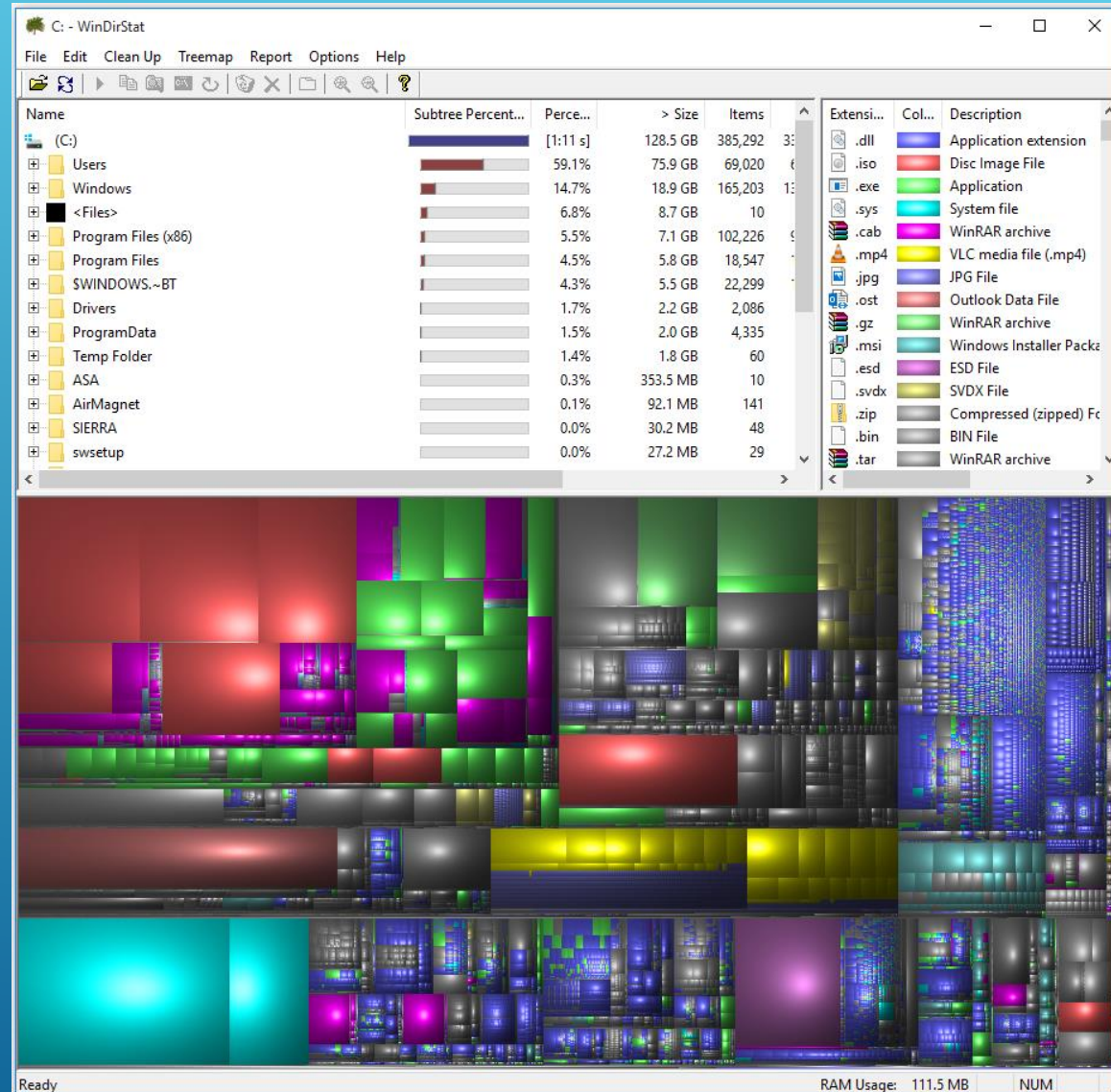
Windows Memory Diagnostic

Is your computer unstable? There may be a problem with its RAM. To check, you can either use a hidden system tool included with Windows called "Windows Memory Diagnostic"

To launch the Windows Memory Diagnostic tool, open the Start menu, type "Windows Memory Diagnostic", and press Enter.

You can also press Windows Key + R, type "mdsched.exe" into the Run dialog that appears, and press Enter.
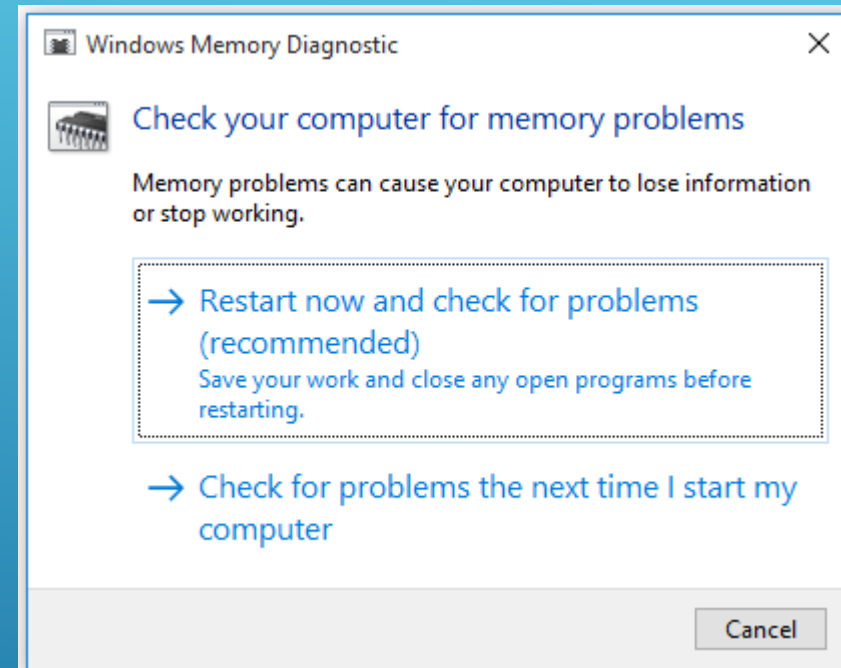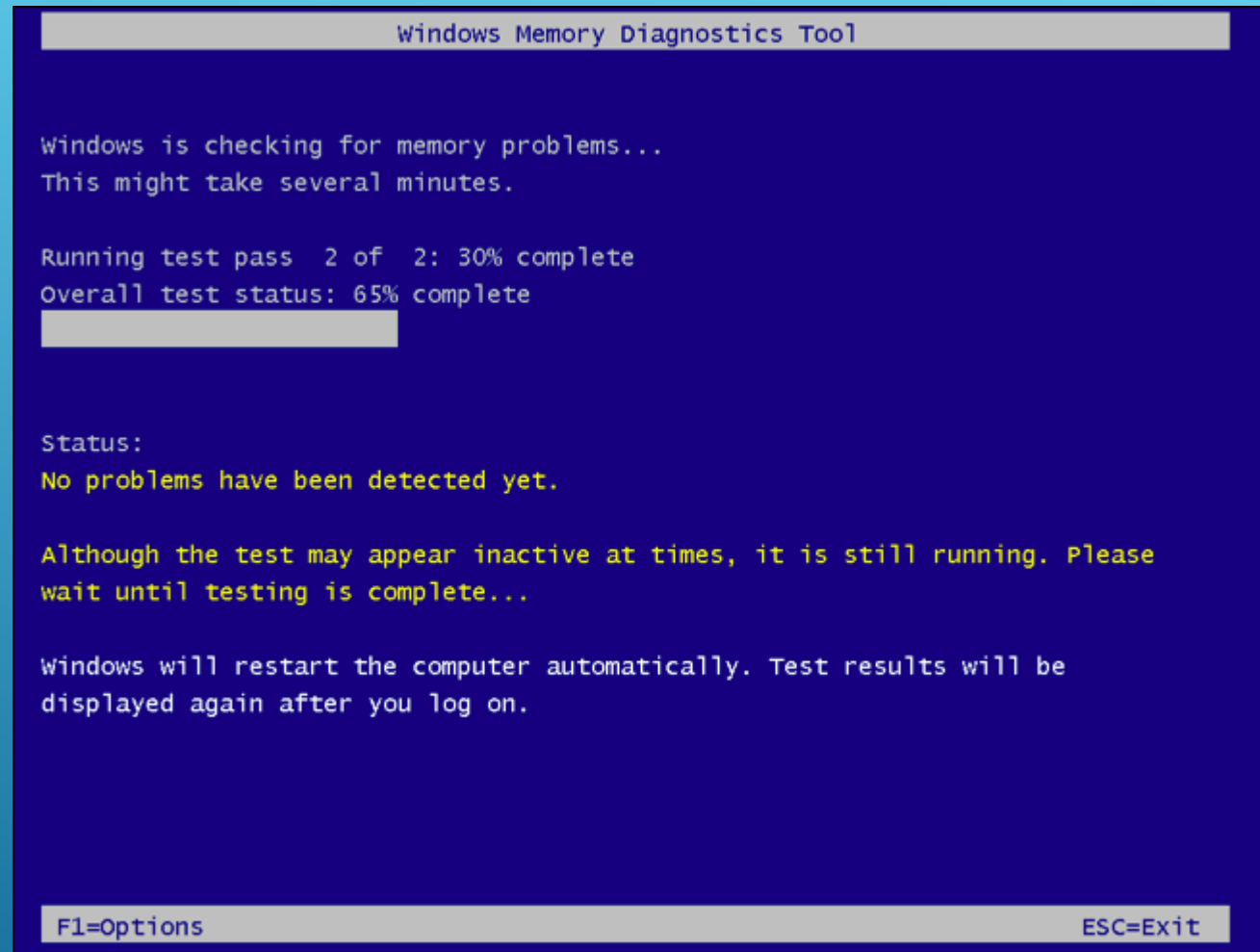
Windows Memory Diagnostic

Your computer will restart and the Windows Memory Diagnostics Tool screen will appear. Just leave it be and let it perform the test. This may take several minutes. During this process, you'll see a progress bar and a "Status" message will inform you if any problems have been detected during the process.

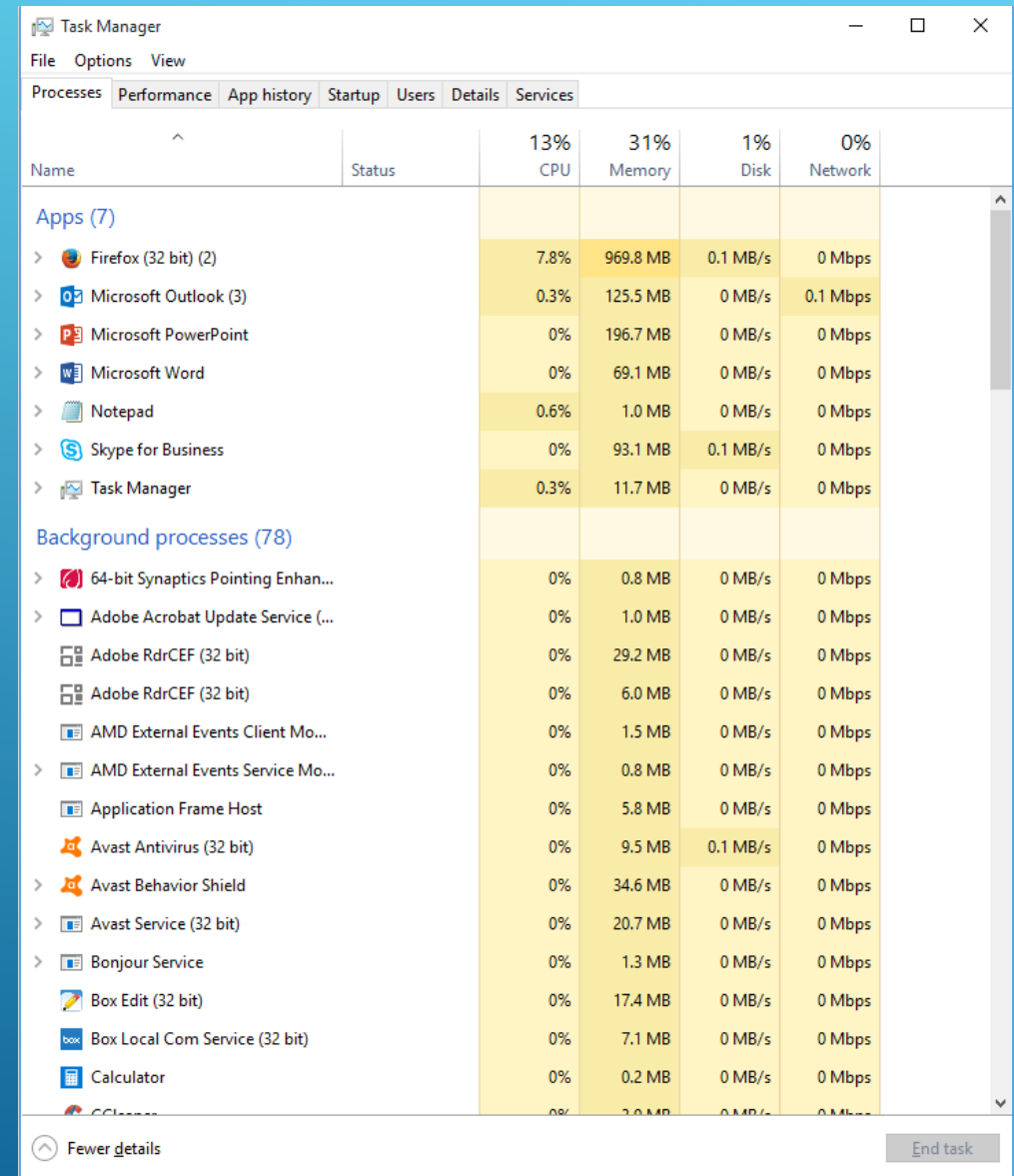However, you don't need to watch the test–you can leave your computer alone and come back to see the results later.

```
                        Windows Memory Diagnostics Tool

Windows is checking for memory problems...
This might take several minutes.

Running test pass  2 of  2: 30% complete
Overall test status: 65% complete
[                    ]


Status:
No problems have been detected yet.

Although the test may appear inactive at times, it is still running. Please
wait until testing is complete...

Windows will restart the computer automatically. Test results will be
displayed again after you log on.




F1=Options                                                          ESC=Exit
```

Task Manager

Task manager is a system monitor, and startup manager included with Microsoft Windows systems. It provides limited information about computer performance and running applications, processes and CPU usage, and memory information, network activity and statistics, logged-in users, and system services. The Task Manager can also be used to set process priorities, processor affinity, forcibly terminate processes, and shut down, restart, hibernate, or log off from Windows.

Launch by tool bar or Ctrl + Shift + Esc

QUESTIONS ?